Welcome!

What an exciting time to be at Danville Community College! We have an array of programs and services that are designed to engage you and prepare you for the workplace or for transfer to a baccalaureate-degree-granting institution. Either way, you will receive a quality education with faculty, staff and administrators who care about your success.

If you are seeking a technical credential, you have come to the right place. Our programs have a 90-100 percent placement rate with our graduates seeking jobs in advanced manufacturing, IT, and health care. Our graduates in public service, air conditioning, electrical/electronics, automotive analysis, welding, auto body and other career-relevant fields of study are finding employment in this community and beyond. The College continues to update its facilities and undertake building projects to expand labs and purchase state-of-the-art equipment. We are also creating career pathways with area high schools to expand our dual enrollment offerings so that students can begin technical training programs or earn a certificate or associate degree while still in high school.

Students who transfer after completing studies at DCC are successful at four-year colleges and universities because of the more than 25 articulation agreements that are in place. We assist students in aligning their DCC courses closely with the transfer institution to ensure a smooth transition. DCC also has opportunities for you to demonstrate leadership through a variety of activities, including service learning, honor societies, sports, and clubs and organizations.

Finally, we are trying to ensure that higher education is affordable. Through more than $300,000 in scholarships each year and a host of financial aid options, including work study, we want you to achieve your educational goals. We have a lot to offer you at Danville Community College. This 2014-15 catalog provides a lot of answers about DCC; but we invite you to come for a campus visit and see what we are all about.

Sincerely,

Dr. Bruce R. Scism
President
Campus/Area Maps

Key to campus map

1. Taylor Building 7. Hill Building
2. Temple Building 8. Foundation Hall
3. Whittington W. Clement Learning Resources Center 9. Carrington Child Development Center
4. Student Center 10. Wyatt Building
   Technologies Building
6. John H. Zechman Facilities Support Center

Main Campus
1008 South Main Street

RCATT
121 Slayton Ave.
Locations/Office Hours

Danville Community College
Danville Community College
1008 South Main Street
Danville, VA 24541-4004
434.797.2222 • Toll Free: 800.560.4291
434.688.0136 (vp) • FAX: 434.797.8514
Email: info@dcc.vccs.edu
www.dcc.vccs.edu

Regional Center for Advanced Technology and Training (RCATT)
121 Slayton Avenue
Danville, VA 24541
434.797.6437

Administrative Office Hours
8 a.m. to 5 p.m., Monday through Friday

Whittington W. Clement Learning Resources Center
Mary M. Barksdale Library Hours
(During Full-Session Classes)
Monday - Thursday: 8 a.m. to 9 p.m.
Friday: 8:00 a.m. to 12 noon
Saturday: Closed
Sunday: 1 to 5 p.m. (Fall and Spring Semesters only)

Learning Assistance Center Hours
Monday - Thursday: 7:30 a.m. to 9 p.m.
Friday: 8:00 a.m. to 12 noon
Saturday: Closed
Sunday: 1 to 5 p.m. (Fall and Spring Semesters only)

Off-Campus Locations
Riddle Center
(located in the Gretna Public Library)
207-B Coffey Street
Gretna, VA 24557
434.656.8000

Southern Virginia Higher Education Center
P.O. Box 739
820 Bruce Street
South Boston, VA 24592
434.572.5456 or 434.572.5451
# Table of Contents

President’s Message ........................................................................................................................................................................... 1  
Campus/Area Maps ........................................................................................................................................................................... 2  
Programs Listing ........................................................................................................................................................................... 5  
Academic Calendars ......................................................................................................................................................................... 7  
General Information ........................................................................................................................................................................ 9  
Enrollment Information ................................................................................................................................................................... 11  
Student Services (including Financial Aid and Scholarships) ........................................................................................................... 24  
Programs of Study ........................................................................................................................................................................... 38  
Associate of Arts and Science Degrees (College Transfer) ........................................................................................................... 38  
Articulation / Guaranteed Transfer Agreements ............................................................................................................................... 39  
Pre-Teacher Education Program ...................................................................................................................................................... 45  
Associate of Science Degree (College Transfer) ....................................................................................................................................... 46  
Associate of Applied Science Degrees ............................................................................................................................................... 47  
Diplomas ......................................................................................................................................................................................... 74  
Certificates .................................................................................................................................................................................... 82  
Career Studies ................................................................................................................................................................................ 95  
Developmental Studies ................................................................................................................................................................... 109  
Developmental Studies Prerequisites ............................................................................................................................................... 109  
Course Descriptions ....................................................................................................................................................................... 111  
The People of DCC ........................................................................................................................................................................ 142  
Computer Ethics Guidelines ................................................................................................................................................................. 149  
Index ........................................................................................................................................................................................................... 150
Your Community College Offers the Following Programs of Study

<table>
<thead>
<tr>
<th>Curriculum</th>
<th>Page</th>
<th>Dean/VP</th>
<th>Lead Instructor(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting (AAS)</td>
<td></td>
<td>Dr. Vince Decker</td>
<td>Mr. Larry Heldreth</td>
</tr>
<tr>
<td>Administration of Justice (AAS)</td>
<td></td>
<td>Dr. Paul Fox</td>
<td>Mr. John Wilt</td>
</tr>
<tr>
<td>• Law Enforcement Specialization</td>
<td></td>
<td></td>
<td>Ms. Frances Carter, Ms. Richie Robertson</td>
</tr>
<tr>
<td>• Corrections Specialization</td>
<td></td>
<td></td>
<td>Ms. Frances Carter, Ms. Richie Robertson</td>
</tr>
<tr>
<td>• Protective Services Specialization (Private Security)</td>
<td></td>
<td></td>
<td>Mr. Mark Bryant, Mr. Derick Vicks</td>
</tr>
<tr>
<td>Administrative Support Technology (AAS)</td>
<td></td>
<td>Dr. Vince Decker</td>
<td>Ms. Frances Carter, Ms. Richie Robertson</td>
</tr>
<tr>
<td>• General Office Specialization</td>
<td></td>
<td></td>
<td>Mr. Mark Bryant, Mr. Derick Vicks</td>
</tr>
<tr>
<td>• Medical Office Specialization</td>
<td></td>
<td></td>
<td>Mr. Sammy Shelton</td>
</tr>
<tr>
<td>Air Conditioning &amp; Refrigeration (D)</td>
<td></td>
<td>Mr. Robert Huffman</td>
<td>Mr. Bill Roche</td>
</tr>
<tr>
<td>Air Conditioning &amp; Refrigeration Servicing (C)</td>
<td></td>
<td>Mr. Robert Huffman</td>
<td>Mr. Del Pool</td>
</tr>
<tr>
<td>Auto Body Mechanics (C)</td>
<td></td>
<td>Mr. Robert Huffman</td>
<td>Mr. Lester Hall, Mr. Matt Nidiffer</td>
</tr>
<tr>
<td>Automotive Analysis &amp; Repair (D)</td>
<td></td>
<td>Dr. Vincent Decker</td>
<td>Mr. David Bonebright, Ms. Linda Wilborne, Ms. Sheila Wright, Mr. Bill Roche</td>
</tr>
<tr>
<td>Building Trades Technology (C)</td>
<td></td>
<td>Mr. Robert Huffman</td>
<td>Mr. James Adkins, Mr. Robert Huffman</td>
</tr>
<tr>
<td>Business Administration (AA&amp;S)</td>
<td></td>
<td>Dr. Paul Fox</td>
<td>Mr. John Wilt</td>
</tr>
<tr>
<td>Business Management (AAS)</td>
<td></td>
<td>Dr. Paul Fox</td>
<td>Ms. Lynn Turner</td>
</tr>
<tr>
<td>• Management Specialization</td>
<td></td>
<td>Dr. Paul Fox</td>
<td>Ms. Martha Tucker</td>
</tr>
<tr>
<td>• Graphic Imaging Management Specialization</td>
<td></td>
<td>Mr. Robert Huffman</td>
<td>Mr. George Turnbull</td>
</tr>
<tr>
<td>• Automotive Management Specialization</td>
<td></td>
<td>Dr. Paul Fox</td>
<td>Ms. Cassandra Satterfield</td>
</tr>
<tr>
<td>Computer-Aided Drafting &amp; Design (D)</td>
<td></td>
<td>Mr. Robert Huffman</td>
<td>Ms. Cassandra Satterfield</td>
</tr>
<tr>
<td>Corrections (C)</td>
<td></td>
<td>Dr. Paul Fox</td>
<td>Ms. Steve Carrigan</td>
</tr>
<tr>
<td>Dental Hygiene (AAS) (Awarded by Virginia Western Community College)</td>
<td></td>
<td>Dr. Paul Fox</td>
<td>Ms. Lisa Gameau</td>
</tr>
<tr>
<td>Drafting Technology (C)</td>
<td></td>
<td>Dr. Paul Fox</td>
<td>Mr. Mike Giles, Ms. Sheila Wright</td>
</tr>
<tr>
<td>Early Childhood Education (AAS)</td>
<td></td>
<td>Dr. Paul Fox</td>
<td>Ms. Tammy McKinney</td>
</tr>
<tr>
<td>Electrical/Electronic Equipment Servicing (D)</td>
<td></td>
<td>Mr. Robert Huffman</td>
<td>Mr. George Turnbull</td>
</tr>
<tr>
<td>Electrical/Electronics Engineering Technology (D)</td>
<td></td>
<td>Mr. Robert Huffman</td>
<td>Mr. George Turnbull</td>
</tr>
<tr>
<td>Engineering (AS)</td>
<td></td>
<td>Dr. Vincent Decker</td>
<td>Ms. Cassandra Satterfield</td>
</tr>
<tr>
<td>First Year Studies (C)</td>
<td></td>
<td>Dr. Vincent Decker</td>
<td>Ms. Steve Carrigan</td>
</tr>
<tr>
<td>General Engineering Technology (AAS)</td>
<td></td>
<td>Mr. Robert Huffman</td>
<td>Ms. Lisa Gameau</td>
</tr>
<tr>
<td>General Education (C)</td>
<td></td>
<td>Mr. Robert Huffman</td>
<td>Mr. Mike Giles, Ms. Sheila Wright</td>
</tr>
<tr>
<td>Graphic Imaging Technology (D)</td>
<td></td>
<td>Dr. Paul Fox</td>
<td>Ms. Tammy McKinney</td>
</tr>
<tr>
<td>Health Science (AAS)</td>
<td></td>
<td>Dr. Paul Fox</td>
<td>Mr. John Wilt</td>
</tr>
<tr>
<td>• Practical Nursing Specialization</td>
<td></td>
<td>Dr. Paul Fox</td>
<td>Dr. Carl Amos</td>
</tr>
<tr>
<td>Industrial Electrical Principles (C)</td>
<td></td>
<td>Mr. Robert Huffman</td>
<td>Ms. Kristin von Karowsky-Nelson</td>
</tr>
<tr>
<td>Industrial Electronic Principles (C)</td>
<td></td>
<td>Mr. Robert Huffman</td>
<td>Ms. Vickie Taylor</td>
</tr>
<tr>
<td>Information Systems Technology (AAS)</td>
<td></td>
<td>Dr. Vincent Decker</td>
<td>Mr. Gerald Sexton</td>
</tr>
<tr>
<td>• Computer Programming Specialization</td>
<td></td>
<td>Mr. Robert Huffman</td>
<td>Mr. David Bonebright</td>
</tr>
<tr>
<td>• Game and Mobile Application Development Specialization</td>
<td></td>
<td>Mr. Robert Huffman</td>
<td>Mr. David Bonebright</td>
</tr>
<tr>
<td>• Networking Specialization</td>
<td></td>
<td>Dr. Vincent Decker</td>
<td>Mr. David Bonebright</td>
</tr>
<tr>
<td>• PC Technology Specialization</td>
<td></td>
<td>Mr. Robert Huffman</td>
<td>Mr. David Bonebright</td>
</tr>
<tr>
<td>Law Enforcement (C)</td>
<td></td>
<td>Dr. Paul Fox</td>
<td>Mr. John Wilt</td>
</tr>
<tr>
<td>Liberal Arts (AA&amp;S)</td>
<td></td>
<td>Dr. Paul Fox</td>
<td>Dr. Carl Amos</td>
</tr>
<tr>
<td>• Educational Interpreter Training Specialization</td>
<td></td>
<td>Mr. Jeff Arnold</td>
<td>Ms. Kristin von Karowsky-Nelson</td>
</tr>
<tr>
<td>• Humanities Specialization</td>
<td></td>
<td>Mr. Robert Huffman</td>
<td>Mr. George Turnbull</td>
</tr>
<tr>
<td>• Social Science Specialization</td>
<td></td>
<td>Dr. Vincent Decker</td>
<td>Mr. David Bonebright</td>
</tr>
<tr>
<td>Maintenance Mechanics (C)</td>
<td></td>
<td>Mr. Robert Huffman</td>
<td>Mr. David Bonebright</td>
</tr>
<tr>
<td>Marketing (AAS)</td>
<td></td>
<td>Dr. Paul Fox</td>
<td>Mr. Doug Poole, Mr. Kevin Poole, Mr. Troy Simpson, Mr. Todd Sanders</td>
</tr>
<tr>
<td>• Marketing Specialization</td>
<td></td>
<td>Dr. Vincent Decker</td>
<td>Mr. John Wilt</td>
</tr>
<tr>
<td>• Warehousing and Distribution Specialization</td>
<td></td>
<td>Mr. Robert Huffman</td>
<td>Mr. John Wilt</td>
</tr>
<tr>
<td>• Electronic Commerce Specialization</td>
<td></td>
<td>Dr. Vincent Decker</td>
<td>Mr. John Wilt</td>
</tr>
<tr>
<td>Medical Laboratory Technology (AAS)</td>
<td></td>
<td>Dr. Paul Fox</td>
<td>Mr. John Wilt</td>
</tr>
<tr>
<td>(Awarded by J. Sargeant Reynolds Community College)</td>
<td></td>
<td>Dr. Paul Fox</td>
<td>Mr. James Adkins, Mr. Robert Huffman</td>
</tr>
<tr>
<td>Nursing (AAS)</td>
<td></td>
<td>Dr. Paul Fox</td>
<td>Dr. Paul Fox</td>
</tr>
<tr>
<td>Office Information Processing (C)</td>
<td></td>
<td>Dr. Vincent Decker</td>
<td>Dr. Paul Fox</td>
</tr>
<tr>
<td>Precision Machining Technology (D)</td>
<td></td>
<td>Mr. Robert Huffman</td>
<td>Mr. James Adkins, Mr. Robert Huffman</td>
</tr>
<tr>
<td>Protective Services (Private Security) (C)</td>
<td></td>
<td>Dr. Paul Fox</td>
<td>Dr. Paul Fox</td>
</tr>
<tr>
<td>Radiologic Technology (AAS)*</td>
<td></td>
<td>Dr. Paul Fox</td>
<td>Dr. Paul Fox</td>
</tr>
<tr>
<td>Residential Design &amp; Estimation (C)</td>
<td></td>
<td>Dr. Paul Fox</td>
<td>Mr. John Wilt</td>
</tr>
<tr>
<td>Respiratory Therapy (AAS)</td>
<td></td>
<td>Dr. Paul Fox</td>
<td>Mr. John Wilt</td>
</tr>
<tr>
<td>(Awarded by J. Sargeant Reynolds Community College)</td>
<td></td>
<td>Dr. Paul Fox</td>
<td>Mr. John Wilt</td>
</tr>
</tbody>
</table>

*pending approval
<table>
<thead>
<tr>
<th>Curriculum</th>
<th>Page</th>
<th>Dean/VP</th>
<th>Lead Instructor(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Teacher Education</td>
<td>45</td>
<td>Dr. Paul Fox</td>
<td>Mr. Dee Drinkard</td>
</tr>
<tr>
<td>Technical Studies (AAS)</td>
<td>70</td>
<td>Mr. Jeff Arnold</td>
<td>Mr. Jerry Franklin</td>
</tr>
<tr>
<td>• Advanced Manufacturing Engineering Technology</td>
<td>70</td>
<td>Mr. Gerald Sexton</td>
<td></td>
</tr>
<tr>
<td>• Integrated Systems Technology</td>
<td>71</td>
<td>Mr. Jerry Franklin</td>
<td></td>
</tr>
<tr>
<td>• Nanotechnology Technician</td>
<td>72</td>
<td>Mr. Gerald Sexton</td>
<td></td>
</tr>
<tr>
<td>• Wood Science Technology</td>
<td>72</td>
<td>Mr. Jerry Franklin</td>
<td></td>
</tr>
<tr>
<td>- Wood Science Technology - Product Design &amp; Development Specialization</td>
<td>73</td>
<td>Mr. Gerald Sexton</td>
<td></td>
</tr>
<tr>
<td>Welding Technology (C)</td>
<td>94</td>
<td>Mr. Robert Huffman</td>
<td>Ms. Debra Smith</td>
</tr>
<tr>
<td>Science (AA&amp;S)</td>
<td>44</td>
<td>Dr. Paul Fox</td>
<td>Dr. David Ballou</td>
</tr>
<tr>
<td>Technical Studies (AAS)</td>
<td>70</td>
<td>Mr. Jeff Arnold</td>
<td>Mr. Jerry Franklin</td>
</tr>
<tr>
<td>• Advanced Manufacturing Engineering Technology</td>
<td>70</td>
<td>Mr. Gerald Sexton</td>
<td></td>
</tr>
<tr>
<td>• Integrated Systems Technology</td>
<td>71</td>
<td>Mr. Jerry Franklin</td>
<td></td>
</tr>
<tr>
<td>• Nanotechnology Technician</td>
<td>72</td>
<td>Mr. Gerald Sexton</td>
<td></td>
</tr>
<tr>
<td>• Wood Science Technology</td>
<td>72</td>
<td>Mr. Jerry Franklin</td>
<td></td>
</tr>
<tr>
<td>- Wood Science Technology - Product Design &amp; Development Specialization</td>
<td>73</td>
<td>Mr. Gerald Sexton</td>
<td></td>
</tr>
<tr>
<td>Career Studies (C)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advanced Nurse Aide</td>
<td>96</td>
<td>Dr. Paul Fox</td>
<td>Ms. Tammy McKinney</td>
</tr>
<tr>
<td>Advanced Product Design &amp; Development</td>
<td>96</td>
<td>Mr. Jeff Arnold</td>
<td>Mr. Gerald Sexton</td>
</tr>
<tr>
<td>Alternative Energy Technology I</td>
<td>97</td>
<td>Mr. Jeff Arnold</td>
<td>Mr. Jerry Franklin</td>
</tr>
<tr>
<td>American Sign Language</td>
<td>97</td>
<td>Mr. Jeff Arnold</td>
<td>Mr. Jerry Franklin</td>
</tr>
<tr>
<td>Basic Dental Assisting</td>
<td>97</td>
<td>Dr. Paul Fox</td>
<td>Dr. Carl Amos</td>
</tr>
<tr>
<td>Building Construction Trades</td>
<td>98</td>
<td>Dr. Paul Fox</td>
<td>Ms. Lynn Turner</td>
</tr>
<tr>
<td>Commercial Art</td>
<td>98</td>
<td>Mr. Jeff Arnold</td>
<td>Mr. Gerald Sexton</td>
</tr>
<tr>
<td>Digital Art &amp; Design</td>
<td>99</td>
<td>Mr. Robert Huffman</td>
<td>Ms. Sheila Wright</td>
</tr>
<tr>
<td>Digital Imaging &amp; Photography</td>
<td>99</td>
<td>Mr. Robert Huffman</td>
<td>Mr. Mike Giles</td>
</tr>
<tr>
<td>Early Childhood Development</td>
<td>99</td>
<td>Mr. Robert Huffman</td>
<td>Mr. John Heinrich</td>
</tr>
<tr>
<td>Educational Interpreter Training</td>
<td>100</td>
<td>Dr. Paul Fox</td>
<td>Ms. Martha Tucker</td>
</tr>
<tr>
<td>Educational Interpreter Training</td>
<td>100</td>
<td>Mr. Robert Huffman</td>
<td>Dr. Carl Amos</td>
</tr>
<tr>
<td>Electical Concepts</td>
<td></td>
<td>Mr. Robert Huffman</td>
<td>Mr. George Turnbull</td>
</tr>
<tr>
<td>Electronic Concepts</td>
<td></td>
<td>Mr. Robert Huffman</td>
<td>Mr. George Turnbull</td>
</tr>
<tr>
<td>Emergency Medical Services - Basic</td>
<td>101</td>
<td>Mr. Jeff Arnold</td>
<td>Mr. Jeff Arnold</td>
</tr>
<tr>
<td>Emergency Medical Services - Intermediate</td>
<td>101</td>
<td>Mr. Jeff Arnold</td>
<td>Mr. Jeff Arnold</td>
</tr>
<tr>
<td>Emergency Medical Technician - Intermediate</td>
<td>101</td>
<td>Mr. Jeff Arnold</td>
<td>Mr. Jeff Arnold</td>
</tr>
<tr>
<td>Factory Automation &amp; Robotics</td>
<td>102</td>
<td>Mr. Jeff Arnold</td>
<td>Mr. Jerry Franklin</td>
</tr>
<tr>
<td>Graphic Communications</td>
<td>102</td>
<td>Mr. Robert Huffman</td>
<td>Ms. Sheila Wright</td>
</tr>
<tr>
<td>Health Information Technology</td>
<td>102</td>
<td>Dr. Vince Decker</td>
<td>Ms. Frances Carter</td>
</tr>
<tr>
<td>Logistics Management</td>
<td>103</td>
<td>Dr. Vince Decker</td>
<td>Mr. David Bonebright</td>
</tr>
<tr>
<td>Manufacturing Technician</td>
<td>103</td>
<td>Mr. Jeff Arnold</td>
<td>Mr. Gerald Sexton</td>
</tr>
<tr>
<td>Medical Coding</td>
<td>104</td>
<td>Dr. Vince Decker</td>
<td>Ms. Richie Robertson</td>
</tr>
<tr>
<td>Medical Terminology</td>
<td>104</td>
<td>Mr. Jeff Arnold</td>
<td>Mr. Jeff Arnold</td>
</tr>
<tr>
<td>Metal Processing</td>
<td>104</td>
<td>Mr. Robert Huffman</td>
<td>Mr. Doug Poole</td>
</tr>
<tr>
<td>Microcomputer Software</td>
<td>104</td>
<td>Dr. Vince Decker</td>
<td>Ms. Lisa Gameau</td>
</tr>
<tr>
<td>Network Technology</td>
<td>105</td>
<td>Dr. Vince Decker</td>
<td>Mr. Steve Carrigan</td>
</tr>
<tr>
<td>Networking with CISCO/CCNA</td>
<td>105</td>
<td>Dr. Vince Decker</td>
<td>Mr. Steve Carrigan</td>
</tr>
<tr>
<td>Nurse Aide</td>
<td>105</td>
<td>Mr. Jeff Arnold</td>
<td>Ms. Rosa Wilson, Ms. Glenda Setliff</td>
</tr>
<tr>
<td>PC Upgrade and Repair</td>
<td>106</td>
<td>Mr. Robert Huffman</td>
<td>Ms. Teresa Toler</td>
</tr>
<tr>
<td>Pharmacy Technician</td>
<td>106</td>
<td>Mr. Jeff Arnold</td>
<td>Mr. Jeff Arnold</td>
</tr>
<tr>
<td>Polymer Processing Technician</td>
<td>106</td>
<td>Mr. Jeff Arnold</td>
<td>Mr. Jerry Franklin</td>
</tr>
<tr>
<td>Printing Technology</td>
<td>107</td>
<td>Mr. Robert Huffman</td>
<td>Ms. Sheila Wright</td>
</tr>
<tr>
<td>Product Design &amp; Development</td>
<td>107</td>
<td>Mr. Jeff Arnold</td>
<td>Mr. Gerald Sexton</td>
</tr>
<tr>
<td>Programming</td>
<td>107</td>
<td>Dr. Vince Decker</td>
<td>Ms. Cassandra Satterfield</td>
</tr>
<tr>
<td>Web Site Design</td>
<td>108</td>
<td>Dr. Vince Decker</td>
<td>Ms. Cassandra Satterfield</td>
</tr>
<tr>
<td>Welding</td>
<td>108</td>
<td>Mr. Robert Huffman</td>
<td>Ms. Debra Smith</td>
</tr>
<tr>
<td>Developmental Studies</td>
<td>109</td>
<td>Ms. Cheryl Terry</td>
<td>Ms. Cheryl Terry</td>
</tr>
<tr>
<td>Pre-Teacher Education</td>
<td>45</td>
<td>Dr. Paul Fox</td>
<td>Mr. Dee Drinkard</td>
</tr>
</tbody>
</table>

*pending approval
# 2014-2015 Academic Calendar

## FALL SEMESTER 2014

<table>
<thead>
<tr>
<th>Event</th>
<th>Date/Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advising by Appointment/Registration for Fall Semester</td>
<td>June 9-August 22</td>
</tr>
<tr>
<td>Payment of Tuition &amp; Add/Drops (8:00 a.m. - 4:30 p.m.)</td>
<td>June 9-August 22</td>
</tr>
<tr>
<td>Faculty Planning and Preparation Days</td>
<td>August 18-22</td>
</tr>
<tr>
<td>Classes Begin</td>
<td>August 25</td>
</tr>
<tr>
<td>Late Registration</td>
<td>August 25-29</td>
</tr>
<tr>
<td>Last Day for New Registration</td>
<td>August 29</td>
</tr>
<tr>
<td>Holiday (College Closed)</td>
<td>September 1</td>
</tr>
<tr>
<td>*Swaps/Drops Only (8:00 a.m. - 4:30 p.m.)</td>
<td>September 2-3</td>
</tr>
<tr>
<td>Last Day to Withdraw With Full Tuition Refund</td>
<td>September 10</td>
</tr>
<tr>
<td>Faculty Planning and Preparation Day</td>
<td>October 21</td>
</tr>
<tr>
<td>Mid-term Grades Posted</td>
<td>October 20-24</td>
</tr>
<tr>
<td>Last Day to Withdraw Without Mitigating Circumstances (W Grade Issued)</td>
<td>October 31</td>
</tr>
<tr>
<td>Institutional Effectiveness Day</td>
<td>November 6</td>
</tr>
<tr>
<td>Advising by Appointment/Registration for Spring Semester</td>
<td>November 4-December 12, January 2; 5-9</td>
</tr>
<tr>
<td>Faculty Research Day</td>
<td>November 26</td>
</tr>
<tr>
<td>Holidays (College Closed)</td>
<td>November 27-28</td>
</tr>
<tr>
<td>Classes End</td>
<td>December 12</td>
</tr>
<tr>
<td>Exams</td>
<td>December 15-19</td>
</tr>
<tr>
<td>Faculty Planning and Preparation Days</td>
<td>December 22-23</td>
</tr>
<tr>
<td>College Closed</td>
<td>January 1</td>
</tr>
</tbody>
</table>

## SPRING SEMESTER 2015

<table>
<thead>
<tr>
<th>Event</th>
<th>Date/Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Holiday (College Closed)</td>
<td>January 1</td>
</tr>
<tr>
<td>Advising by Appointment/Registration for Spring Semester</td>
<td>January 2; 5-9</td>
</tr>
<tr>
<td>Registration/Payment of Tuition &amp; Add/Drops (8:00 a.m. - 4:30 p.m.)</td>
<td>January 2; 5-9</td>
</tr>
<tr>
<td>(Day &amp; Evening Classes)</td>
<td>January 12</td>
</tr>
<tr>
<td>Faculty Planning and Preparation Days</td>
<td>January 2; 5-9</td>
</tr>
<tr>
<td>Classes Begin</td>
<td>January 12</td>
</tr>
<tr>
<td>Late Registration</td>
<td>January 12-16</td>
</tr>
<tr>
<td>Last Day for New Registration</td>
<td>January 16</td>
</tr>
<tr>
<td>Holiday (College Closed)</td>
<td>January 19</td>
</tr>
<tr>
<td>*Swaps/Drops Only</td>
<td>January 20-21</td>
</tr>
<tr>
<td>Last Day to Withdraw With Full Tuition Refund</td>
<td>January 28</td>
</tr>
<tr>
<td>Mid-term Grades Posted</td>
<td>March 2-6</td>
</tr>
<tr>
<td>Spring Break</td>
<td>March 9-13</td>
</tr>
<tr>
<td>Last Day to Withdraw Without Mitigating Circumstances (W Grade Issued)</td>
<td>March 20</td>
</tr>
<tr>
<td>Advising by Appointment/Registration for Summer Session</td>
<td>April 1-May 4</td>
</tr>
<tr>
<td>Institutional Effectiveness Day</td>
<td>April 8</td>
</tr>
<tr>
<td>Classes End</td>
<td>May 4</td>
</tr>
<tr>
<td>Exams</td>
<td>May 5-8; 11</td>
</tr>
<tr>
<td>Faculty Planning and Preparation Days</td>
<td>May 12-15</td>
</tr>
<tr>
<td>Graduation</td>
<td>May 15</td>
</tr>
</tbody>
</table>
2014-2015 Academic Calendar

SUMMER SESSION – 2015
Advising by Appointment/Registration for Summer Session ................................................................. April 1-May 4
Registration/Payment of Tuition (8:00 a.m. - 4:30 p.m.)
(Day & Evening Classes) ......................................................................................................................... April 1-May 22
Advising by Appointment/Registration for Fall Semester ................................................................. June 1-until Fall Semester Classes Begin

Full Session
Classes Begin ........................................................................................................................................ May 26
Late Registration .................................................................................................................................. May 26-29, June 1
*Swaps/Drops Only ............................................................................................................................... June 2

*Swaps cannot be processed without the approval of the instructor
Last Day to Withdraw With Full Tuition Refund .............................................................................. June 3
Last Day to Withdraw Without Mitigating Circumstances (W Grade Issued) ............................... July 2
Holiday (College Closed) .................................................................................................................... July 3
Classes End ........................................................................................................................................ July 27

First Session
Classes Begin ........................................................................................................................................ May 26
Late Registration .................................................................................................................................. May 26-28
Last Day to Withdraw With Full Tuition Refund .............................................................................. May 29
Last Day to Withdraw Without Mitigating Circumstances (W Grade Issued) ............................... June 12
Classes End ........................................................................................................................................ June 24

Second Session
Classes Begin ........................................................................................................................................ June 25
Late Registration .................................................................................................................................. June 25-26, June 29
Last Day to Withdraw With Full Tuition Refund .............................................................................. June 30
Holiday (College Closed) .................................................................................................................... July 3
Last Day to Withdraw Without Mitigating Circumstances (W Grade Issued) ............................... July 14
Classes End ........................................................................................................................................ July 27
General Information

The College
Danville Community College is a two-year institution of higher education under the statewide Virginia Community College System. DCC’s service area includes the City of Danville, Pittsylvania County, and Halifax County. The College, its employees, and students are governed by the policies established by the State Board for Community Colleges with the support and advice of the Danville Community College Board.

Danville Community College promotes and maintains educational and employment opportunities without regard to race, color, sex, ethnicity, religion, gender, age (except when age is a bona fide occupational qualification), disability, national origin, or other non-merit factors. Danville Community College prohibits sexual harassment including sexual violence. Inquiries related to the college’s nondiscrimination policies should be directed to: Affirmative Action Officer/Title IX Coordinator, Danville Community College, 1008 S. Main St., Danville, VA 24541, 434.797.8458; toll free: 800.560.4291, ext. 8458, or 434.688.0136 (VP).

Danville Community College values the multi-cultural diversity of its students, faculty, and staff. We are committed to creating and nurturing a campus environment that both welcomes and empowers all individuals. We recognize cultural differences of background, experience, and national origin, and we seek to promote a genuine understanding and appreciation for these differences. We also seek to recognize and promote the common bonds of humanity, which cross the boundaries of cultural differences.

The College has an open admissions policy. You can enroll if you have a high school diploma or the equivalent, or have reached the age of 18 and can benefit from a program of study. In order to help you succeed, you may, however, be required to participate in developmental studies before beginning coursework in the particular field of study you have chosen.

Location
The main campus is located in Danville, VA, at 1008 South Main Street (Route 86). The Regional Center for Advanced Technology and Training (RCATT) is located at 121 Slayton Avenue in Danville. Please refer to campus and area maps on page 2.

History
Danville Community College developed from two institutions, Danville Technical Institute and the Danville Division of Virginia Polytechnic Institute. Danville Technical Institute opened in 1936 as Danville Textile School, becoming Danville Technical Institute in 1941. The Danville Division of Virginia Polytechnic Institute first began as an engineering division in 1946, and was later expanded to include the first two years of coursework for all engineering, business administration, liberal arts, and science majors.

Beginning in the summer of 1966, all programs taught by Danville Technical Institute were brought under the Virginia Department of Community Colleges. Effective July 1, 1968, the Danville Division of Virginia Polytechnic Institute merged with the existing community college to provide more comprehensive programming.

Vision Statement
Danville Community College will be the college of choice in our region for exemplary educational programs and services.

Mission Statement
Danville Community College is committed to providing quality comprehensive higher education and workforce programs and services to promote student success and to enhance business and community development.

Programs
Danville Community College is a comprehensive institution of higher education offering programs of instruction extending two years beyond the high school level. These programs include:

Occupational-Technical Education: The occupational and technical education programs are designed to meet the increasing demand for technicians, semiprofessional workers, and skilled crafts persons for employment in industry, business, professions, and government. The programs are planned primarily to meet the needs for workers in the region being served by the College.

College Transfer Education: The college transfer program includes college freshman and sophomore courses in arts and sciences and pre-professional programs meeting standards acceptable for transfer to baccalaureate degree programs in four-year colleges and universities.

General Education: General education is that portion of the collegiate experience that addresses the knowledge, skills, attitudes, and values characteristic of educated persons. It is unbounded by disciplines and honors the connections among bodies of knowledge. The following seven elements embody the essence of general education: communication, critical thinking, cultural and social understanding, information literacy, personal development, quantitative reasoning, and scientific reasoning.

Continuing Adult Education: These programs are offered to enable the adults in the region to continue their learning experiences. This work includes both degree credit and non-degree credit work offered on- and off-campus.

Special Training Program: Special training is provided where specific job opportunities are available for new or expanding industries. This special training is coordinated with Virginia’s economic expansion efforts and with the needs of employers.

Developmental Studies Program: Foundation and developmental programs are offered to help prepare a student for admission to an occupational-technical curriculum or to a university parallel-college transfer curriculum in the community college. These programs are designed to help students develop the basic skills and understanding necessary to succeed in community college programs.

Specialized Regional and Community Services: The facilities and personnel of the College are available to provide specialized services to help meet the cultural and educational needs of the region served by the community college. This service includes the non-classroom and non-credit programs, cultural events, workshops, meetings, lectures, conferences, seminars and special community projects that are designed to provide needed cultural and educational opportunities for the citizens of the region.

College Goals
The seven goals of the College are:
1. Educational Programs: The College will provide quality credit and non-credit educational programs and instruction.
2. Faculty and Staff: The College will have an excellent faculty and staff.
3. Academic and Student Services: The College will provide quality services to assist students in achieving their academic and personal goals.
4. Educational Environment: The College will have facilities, equipment, and technology that enhance an effective learning environment.
5. Outreach Programs: The College will have a comprehensive outreach program.
6. Community Relations: The College will foster effective partnerships.
7. Resources: The College will obtain and use resources to achieve its mission and goals.
DCC General Education Goals and Student Learning Outcomes

Danville Community College graduates will demonstrate competency in the following general education areas:

1. Communication
   A competent communicator can interact with others using all forms of communication, resulting in understanding and being understood. DCC graduates will demonstrate the ability to:
   1.1 understand and interpret complex materials;
   1.2 assimilate, organize, develop, and present an idea formally and informally;
   1.3 use standard English;
   1.4 use appropriate verbal and non-verbal response in interpersonal relations and group discussions;
   1.5 use listening skills; and
   1.6 recognize the role of culture in communication.

2. Critical Thinking
   A competent critical thinker evaluates evidence carefully and applies reasoning to decide what to believe and how to act. DCC graduates will demonstrate the ability to:
   2.1 discriminate among degrees of creditability, accuracy, and reliability of inferences drawn from given data;
   2.2 recognize assumptions, or presuppositions in any given source of information;
   2.3 evaluate the strengths and relevance of arguments on a particular question or issue;
   2.4 weigh evidence and decide if generalizations or conclusions based on the given data are warranted;
   2.5 determine whether certain conclusions or consequences are supported by the information provided; and
   2.6 use problem solving skills.

3. Cultural and Social Understanding
   A culturally and socially competent person possesses an awareness, understanding, and appreciation of the interconnectedness of the social and cultural dimensions within and across local, regional, state, national, and global communities. DCC graduates will demonstrate the ability to:
   3.1 assess the impact that social institutions have on individuals and culture—past, present, and future;
   3.2 describe their own as well as others’ personal ethical systems and values within social institutions;
   3.3 recognize the impact that arts and humanities have upon individuals and cultures;
   3.4 recognize the role of language in social and cultural contexts; and
   3.5 recognize the interdependence of distinctive world-wide social, economic, geo-political, and cultural systems.

4. Information Literacy
   A person who is competent in information literacy recognizes when information is needed and has the ability to locate, evaluate, and use it effectively. DCC graduates will demonstrate the ability to:
   4.1 determine the nature and extent of the information needed;
   4.2 access needed information effectively and efficiently;
   4.3 evaluate information and its sources critically and incorporate selected information into his or her knowledge base;
   4.4 use information effectively, individually, or as a member of a group, to accomplish a specific purpose; and
   4.5 understand many of the economic, legal, and social issues surrounding the use of information and access and use information ethically and legally.

5. Personal Development
   An individual engaged in personal development strives for physical well-being and emotional maturity. DCC graduates will demonstrate the ability to:
   5.1 develop and/or refine personal wellness goals; and
   5.2 develop and/or enhance the knowledge, skills, and understanding to make informed academic, social, personal, career, and interpersonal decisions.

6. Quantitative Reasoning
   A person who is competent in quantitative reasoning possesses the skills and knowledge necessary to apply the use of logic, numbers, and mathematics to deal effectively with common problems and issues. A person who is quantitatively literate can use numerical, geometric, and measurement data and concepts, mathematical skills, and principles of mathematical reasoning to draw logical conclusions and to make well-reasoned decisions. DCC graduates will demonstrate the ability to:
   6.1 use logical and mathematical reasoning within the context of various disciplines;
   6.2 interpret and use mathematical formulas;
   6.3 interpret mathematical models such as graphs, tables, and schematics and draw inferences from them;
   6.4 use graphical, symbolic, and numerical methods to analyze, organize, and interpret data;
   6.5 estimate and consider answers to mathematical problems in order to determine reasonableness; and
   6.6 represent mathematical information numerically, symbolically, and visually, using graphs and charts.

7. Scientific Reasoning
   A person is competent in scientific reasoning adheres to a self-correcting system of inquiry (the scientific method) and relies on empirical evidence to describe, understand, predict, and control natural phenomena. DCC graduates will demonstrate the ability to:
   7.1 generate consistent arguments based on empirical evidence;
   7.2 distinguish a scientific argument from a non-scientific argument;
   7.3 reason by deduction, induction, and analogy;
   7.4 distinguish between causal and correlational relationships; and
   7.5 recognize methods of inquiry that lead to scientific knowledge.

*Complements Virginia Community College System General Education Goals and Student Learning Outcomes (www.vccs.edu)
Note: Reaffirmed by DCC Curriculum Committee, March 27, 2014.

Educational Foundation
The Danville Community College Educational Foundation is a tax-exempt, non-profit organization governed by a Board of Directors composed of concerned citizens, donors and alumni. The Foundation was established to enhance the academic excellence of Danville Community College and to improve the College’s ability to serve the citizens of our area in accordance with the College’s mission. Objectives of the Foundation include: awarding student scholarships, providing professional development for faculty and staff, ensuring that instructional equipment keeps pace with technological changes, strengthening the academic programs, and encouraging cultural activities.

Accreditation
Danville Community College is one of 23 colleges in the Virginia Community College System. The associate degree curricula of the College have been approved by the State Council of Higher Education for Virginia. Danville 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, GA 30033, telephone 404.679.4500 for questions about the accreditation of Danville 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.)
Enrollment Information

Admission Information
All matters pertaining to admission to DCC should be addressed to the Office of Admissions and Records, located on the first floor of the Wyatt Building, Room 108.

General Admission To Danville Community College
Individuals are eligible for admission to Danville Community College if they are high school graduates or the equivalent, or if they are 18 years of age or older and able to benefit academically from study at the community college, as demonstrated by assessment in reading, writing and mathematics.

Minimum scores are noted in the chart below:

<table>
<thead>
<tr>
<th></th>
<th>Virginia Placement Test (VPT)</th>
<th>Compass</th>
<th>Asset</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>ENF 1</td>
<td>62</td>
<td>35</td>
</tr>
<tr>
<td>Writing</td>
<td>ENF 1</td>
<td>32</td>
<td>35</td>
</tr>
<tr>
<td>Mathematics</td>
<td>MTE 1</td>
<td>25</td>
<td>33</td>
</tr>
</tbody>
</table>

Exceptions to this policy may be made by the college president only for documented reasons.

The College reserves the right to evaluate and document special cases and to refuse or revoke admission if the College determines that the applicant or student poses a threat, is a potential danger, is significantly disruptive to the college community, or if such refusal or revocation is considered to be in the best interest of the College. DCC also reserves the right to refuse admission for applicants who have been expelled or suspended from, or determined to be a threat, potential danger or significantly disruptive by another college. The decision to refuse or deny admission is final and not subject to appeal. Students whose admission is revoked after enrollment will be given due process. Please see Appeal Process for Revoked Admissions in this catalog.

Individuals may be admitted to DCC as curricular or non-curricular students.

Admission For High School Students
Although high school and home school students are not normally qualified for general admission, DCC offers admission to those students who meet additional criteria. All students admitted under this section must demonstrate readiness for college by meeting the criteria below. Students enrolling in a dual enrollment course must meet all course pre-requisites.

Admission Criteria for Transfer Courses

<table>
<thead>
<tr>
<th></th>
<th>Virginia Placement Test (VPT)</th>
<th>Compass</th>
<th>Asset</th>
<th>PSAT</th>
<th>SAT</th>
<th>ACT</th>
<th>SOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>English/Writing</td>
<td>ENF 1</td>
<td>76</td>
<td>43</td>
<td>50</td>
<td>500</td>
<td>21</td>
<td>N/A</td>
</tr>
<tr>
<td>Reading</td>
<td>ENF 1</td>
<td>81</td>
<td>42</td>
<td>50</td>
<td>500</td>
<td>21</td>
<td>N/A</td>
</tr>
<tr>
<td>Mathematics</td>
<td>MTE 1</td>
<td>25</td>
<td>33</td>
<td>52</td>
<td>520</td>
<td>22</td>
<td>Algebra 1 - Pass</td>
</tr>
</tbody>
</table>

Admission Criteria for CTE (Career and Technical Education) Courses

<table>
<thead>
<tr>
<th></th>
<th>Virginia Placement Test (VPT)</th>
<th>Compass</th>
<th>Asset</th>
<th>PSAT</th>
<th>SAT</th>
<th>ACT</th>
<th>SOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>English/Writing</td>
<td>ENF 1</td>
<td>32</td>
<td>35</td>
<td>50</td>
<td>500</td>
<td>21</td>
<td>N/A</td>
</tr>
<tr>
<td>Reading</td>
<td>ENF 1</td>
<td>62</td>
<td>35</td>
<td>50</td>
<td>500</td>
<td>21</td>
<td>N/A</td>
</tr>
<tr>
<td>Mathematics</td>
<td>MTE 1</td>
<td>25</td>
<td>33</td>
<td>52</td>
<td>520</td>
<td>22</td>
<td>Algebra 1 - Pass</td>
</tr>
</tbody>
</table>

Dual Enrollment: Danville Community College may enter a contractual agreement with high schools in the service region and offer college-level courses through the high school. In accordance with the Virginia Community College System statewide agreement on dual enrollment, students enrolled in these courses may earn both high school and college credit. Dual enrollment is restricted to high school juniors and seniors. Because admitting freshman or sophomore students is considered exceptional, the college ready status of each prospective freshman and sophomore student will be treated on a case-by-case basis. Formal approval by the College President is required for admitting freshmen and sophomores. Documentation of parental permission is required for all dual enrollment students.

Students interested in dual enrollment should contact the high school guidance department or the DCC Admissions Office.

Concurrent Enrollment: High school juniors and seniors may be admitted to the College and enroll for courses prior to graduating from high school. Prior to admission, the College must receive a completed Concurrent Enrollment Form approved and signed by the student, the student’s parents and his/her high school principal, and be approved by the Danville Community College Admissions Committee. Because admitting freshman or sophomore students is considered exceptional, the college ready status of each prospective freshman and sophomore student will be treated on a case-by-case basis. Formal approval by the College President is required for admitting freshmen and sophomores. Students requesting to take courses at the freshman and sophomore level will be restricted to enrolling in a maximum of one credit course per session. Students interested in concurrent enrollment should contact the DCC Admissions Office.

Homeschooled Student: Homeschooled students studying at the high school junior or senior levels may be admitted to the College and enroll in courses prior to the completion of high school. Prior to admission, the College must receive a completed Homeschooled Student Enrollment Form approved and signed by the student, the student’s parents, and his/her high school principal/overseer for homeschooled course work, and be approved by the Danville Community College Admissions Committee. Homeschooled students must provide a copy of a home school agreement approved by the school district or a letter from the local school board or a copy of the letter filed by the parent/legal guardian declaring home school for religious exemption. Because admitting freshman or sophomore students is considered exceptional, the college ready status of each prospective freshman and sophomore student will be treated on a case-by-case basis. Formal approval by the College President is required for admitting freshmen or sophomores.

Contract/Memorandum of Agreement
Under certain circumstances, Danville Community College may enter into an agreement with business, industrial, and governmental groups to provide educational services. Students admitted under this arrangement will receive full benefit of College services; however, they may need to meet additional requirements in order to enroll in a specific program.
Senior Citizens
Students are classified as senior citizens if they are 60 years of age or older and enrolled in credit or non-credit courses without tuition charge under provisions of the Senior Citizen Higher Education Act of 1974, as amended.

To enroll tuition free in credit or non-credit courses on a space-available basis students should meet the following criteria. (not to exceed three courses per semester)

• be 60 years of age or older prior to the semester of enrollment;
• be a legal resident of Virginia;
• have had a taxable income not exceeding $15,000 for income tax purposes for the year preceding enrollment; and
• must be admitted to the college as a student.

To be eligible for free tuition for audit of credit courses, or for taking non-credit courses (not to exceed three courses per semester), a person must be:

• 60 years of age or older prior to the semester of enrollment;
• a legal resident of Virginia; and
• admitted to the college as a student.

Interested senior citizens should contact the admissions office for information and required application materials. Any person meeting the above criteria will be admitted to a course only after all tuition paying students have been accommodated.

International Students
Danville Community College is a two-year, nonresidential, commuter college. The College welcomes applications from qualified international students who meet the College’s academic, financial, and language requirements. Before processing a request for admission to the College and issuing a form I-20 for the F-1 Visa, the following documents must be submitted 60 days prior to the beginning of the semester in which enrollment is sought: completed DCC application, proof of the equivalent of an American high school diploma, official TOEFL scores, verification of financial support sufficient to enroll as a full-time student without the need to work off campus, a doctor’s statement certifying good health, a brief statement of desire to attend DCC, and a photocopy of the applicant’s passport. After the student’s I-20 is issued, the student must complete the college assessment test (VPT), enroll in a minimum of 12 credit hours in a transfer program and file a copy of the passport and I-94 card with the Admissions Office. Students seeking I-20 must be enrolled in a two-year program. International students are not able to sustain employment at the school or in the community. International students are not allowed to receive financial aid.

Other Immigrant Status
It is the policy of Danville Community College to admit to the College those applicants who are immigrants residing in Virginia who have graduated from a Virginia high school with a high school diploma or equivalent, even if they are not able to document their legal presence. Those who are undocumented will pay tuition at the out-of-state rate. DCC will follow State Council for Higher Education for Virginia Domicile Guidelines for establishing domicile.

Readmission
Former students who have not been enrolled for a period of three (3) years or more and wish to enroll must submit a new application for admission available from the Admissions Office or online at http://www.dcc.vccs.edu/StudentServices/BecomeaStudent.htm

Possession of Weapons Prohibited
Possession or carrying of any weapon by any person, except a police officer, is prohibited on college property in academic buildings, administrative office buildings, student centers, child care centers, dining facilities and places of like kind where people congregate, or while attending any sporting, entertainment or educational events. Entry upon the aforementioned college property in violation of this prohibition is expressly forbidden.

Any individual in violation of this prohibition will be asked to remove the weapon immediately. Failure to comply may result in a student conduct referral, an employee disciplinary action, or arrest.

DCC Policy Related to Legislation Regarding Admissions: Section 23-2.2:1 of the Code of Virginia requires that the Virginia Community College System (VCCS) send enrollment information to the Virginia State Police concerning applicants to institutions of higher education. This information is transmitted electronically and compared against the Virginia Criminal Information Network and National Crime Information Center Convicted Sexual Offender Registry. Language on the web application informs applicants that their information is being transferred to the State Police.

In the event that the Virginia State Police determine that an applicant to Danville Community College is listed on the Sex Offender Registry, the State Police will notify DCC. When the College receives such notification, the following procedures apply:

1. The applicant will be denied admission to DCC in accordance with its admission policy as published in this catalog. (see Admission Denied/Revoked in this section). The decision is final and not subject to appeal.
2. If the applicant registers for classes and becomes a student before the College receives notification from the State Police that he/she is listed on the Sex Offender Registry, the student will immediately be informed that he/she is being administratively withdrawn from classes and will receive a tuition refund. An applicant, in this instance, may invoke his/her right to an appeal process.

Appeal Process for Revoked Admission
When a student’s admission is revoked, he/she may invoke the appeal process. Students who have registered for class but not yet started classes will be administratively withdrawn, and an appropriate service indicator will be placed on the student’s record which will prevent the student from registering for classes. If the student is already attending classes, the College will reserve the class enrollment until the appeal process is complete, but the individual will not be allowed to attend class during the appeal process. The College will make every effort to expedite the appeals timeline.

1. The student will receive a certified letter/return receipt requested from the Dean of Student Success and Academic Advancement or designee notifying the student of the revoked admission and outlining the appeal process.
2. The student may write a letter of appeal to the Dean of Student Success and Academic Advancement in which he/she (1) provides justification for consideration of admission/reinstatement and (2) discloses the nature of the offense and/or conviction serving as the basis for DCC’s action to revoke admission. If the student is a convicted sex offender, the letter should include a statement acknowledging his/her understanding that his/her identity and status as a convicted sex offender will be publicized on the college campus in accordance with federal and state law if he/she is admitted or reinstated.

The letter of appeal must be submitted to the Dean of Student Success and Academic Advancement within seven (7) business days of notification by the College

3. A panel of five (5) full-time faculty or administrators will review the information submitted and make a decision by a simple majority vote within fourteen (14) business days of receiving the letter of appeal.
The Dean of Student Success and Academic Advancement will serve as the convener of the panel and will be a member of the panel. Panel discussions will be confidential.

4. If the panel determines that the withdrawn student represents a threat or potential danger to the College and/or the revoked admission/withdrawn enrollment is considered to be in the best interest of the College, the following apply:
   a. the student’s admission to the College will remain revoked
   b. the student will be administratively withdrawn from classes if classes have been held
   c. an enrolled student will receive a tuition refund. Tuition refunds will not be granted for students removed from the College for disciplinary reasons

5. The Dean of Student Success and Academic Advancement will inform the student by certified letter/return receipt requested of the decision of the appeals panel. The decision of the appeals panel shall be final.

Admission Procedures

Curricular Admission (Applies to program-placed students):
1. A completed application for admission including the Domicile Determination Form, available online at www.dcc.vccs.edu/BecomeaStudent.
2. Official transcripts from all high schools, colleges, and universities attended. If the student has been out of high school five years or more, high school transcripts are not required for admission to the College; however, certain programs may require high school transcripts for admission. Graduates who complete secondary in a home school setting must provide a graduation date and will be required to provide documentation of coursework.
3. All program placed students are required to take a placement assessment. Students should contact the Counseling Office at 434.797.8460 or email dcc.placement@dcc.vccs.edu to make an appointment. All students are strongly encouraged to complete the practice test which is available online at www.dcc.vccs.edu/studentServices/Admissions/PlacementTesting.
4. Meet with a DCC counselor to discuss placement test scores and program selection.

Placement Testing Policy:
Math Placement: Test scores are valid for two (2) years after the date of the test. Students who take the placement test and who do not enroll in developmental math are allowed to take one (1) retest within twelve (12) months. Students who attempt a developmental mathematics course will be ineligible for a retest. Exceptions to this retest policy may be made on a case-by-case basis. A student who provides official evidence of a minimum score of 520 on the mathematics section of the SAT or a minimum score of 22 on the mathematics section of the ACT, taken within the last two (2) years, may be exempt from taking the VCCS mathematics placement test based on the mathematics requirements in the student’s academic plan.

English Placement: Test scores are valid for two (2) years after the date of the test. Students who take the English placement test and who do not enroll in developmental English are allowed to take one (1) retest within twelve (12) months. Students who attempt a developmental English course will be ineligible for a retest. Exceptions to this retest policy may be made on a case-by-case basis. A student who provides official evidence of a minimum score of 500 on both the critical reading and writing sections of the SAT or a minimum score of 21 on the English Test and Reading Test of the ACT, taken within the last two (2) years, is exempt from taking the VCCS English placement test.

Non-Curricula Admission (Applies to non-program-placed students)
1. A completed application for admission including the Domicile Determination Form which is available online at www.dcc.vccs.edu/BecomeaStudent.
2. Acceptance by the College does not ensure admission to a specific curriculum or course. Non-curricular students must satisfy all required course prerequisites or placement testing requirements before enrolling in specific college-level courses.
3. Non-curricular students may request to meet with a DCC counselor to review course options.

Admissions to Specific Curricula
In addition to the general admission requirements explained above, specific requirements are listed for each program of the College. Among the items generally considered in determining students’ eligibility for admission to a curriculum are their educational and occupational experiences and other reasonable standards to ensure that they can successfully complete the program requirements. Specific requirements for each program of the College are listed in the Programs of Study section of this Catalog. If a student does not meet the requirements for a specific program or course, the student may improve his or her chances of eligibility by completing Developmental Studies courses.

Residence Requirements
Each student applying for admission must complete a Domicile Determination Form in order to be declared legally domiciled in Virginia. Students must verify that one year before the date of entering the term for which they are requesting in-state tuition status they had given up any previous domicile and were living in Virginia with the unqualified intention of remaining in Virginia. Please contact the Admissions Office for more information regarding residency requirements. It is the student’s responsibility to submit documentation and provide clear and convincing evidence regarding their domicile.

Domicile Appeals Process
A student who disagrees with an initial tuition classification may submit a Domicile Reclassification Form to the Domicile Appeals Committee within 10 calendar days of the initial notification. The committee will respond to the appeal within 15 calendar days. The Domicile Appeals Committee shall consist of two members of the Student Services Office. No person who serves at one level of this appeals process shall be eligible to serve at any other level of this review.

If the student still disagrees with the tuition classification, the student may file a final written appeal with the Vice President of Academic and Student Services. This written appeal must be made within five calendar days of the student’s notification of the first appeal. The Vice President of Academic and Student Services will notify the student in writing of the final administrative decision within 30 calendar days of receipt of the appeal.

A student who is not satisfied with the outcome of the review by the Vice President of Academic and Student Services may appeal to the appropriate circuit court. The student must file a petition for review with the court within 30 calendar days of receipt of the decision by the Vice President of Academic and Student Services.
Auditing a Course
Students desiring to attend a course without taking the examination or receiving credit for the course may do so by registering to audit through the usual registration process and paying the normal tuition. Permission of the division dean or another appropriate academic administrator is required to audit a course. Audited courses carry no credit and do not count as part of the student’s course load. Students desiring to change status in a course from audit to credit or from credit to audit must do so within the add/drop period for the course. Students who desire to earn credit for a previously audited course must re-enroll in the course for credit and pay normal tuition to earn a grade other than “X.” Advanced standing credit should not be awarded for a previously audited course.

Advanced Standing Credit
Advanced standing is the administrative placement of a student that awards credit for subject matter competency based upon previous academic study or occupational experience. This may include, but is not limited to, college credit and advancement based upon individual college participation in the Advanced Placement Program (AP) or testing through the College Level Examination Program (CLEP); training provided by non-collegiate institutions, such as the armed forces; professional certification, or experiential learning/work experience.

Advanced standing policies at Danville Community College are consistent with the Commission on Colleges of the Southern Association of Colleges and Schools (SACS) principles and with Virginia Community College System (VCCS) policy.

To be eligible to apply for advanced standing credit, a student must be admitted to Danville Community College and officially placed in a program of study.

Credit awarded for CLEP, AP, departmental challenge exams, and credit for work experience may satisfy DCC program of study requirements, but will not necessarily transfer to another institution. Students desiring to transfer credit awarded via these methods should contact the four-year college of interest to determine its policy. However, appropriate credit, when awarded, will be listed on the student’s official DCC transcript.

Students desiring to earn college credit through one of the above advanced standing methods or who wish to take a locally developed departmental exam should contact the appropriate division office in which the course is taught.

Danville Community College may award credit for the following competencies:

AP (Advanced Placement)
Many area high schools offer Advanced Placement (AP) or honors courses to their students giving them the opportunity to complete college level work while attending high school. A minimum Advanced Placement score of 3 is required for credit at DCC. An official copy of the AP transcript must be submitted to the DCC Admissions Office in order to obtain credit. Unofficial, student copies, or high school transcripts noting the AP credit will not be accepted for credit at the college.

CLEP (College Level Examination Program)
CLEP is a national program of credit-by-examination that offers students the opportunity to obtain college credit for prior academic achievement. DCC accepts most of the CLEP offered exams, and uses the American Council on Education recommended minimum score of 50 for awarding CLEP credit. An official copy of the CLEP transcript must be submitted to the DCC Admissions Office in order to obtain credit. Unofficial or student copies of transcripts will not be accepted for credit.

CLEP examinations are not offered through DCC.

IBO (International Baccalaureate Organization)
Students who have completed the Standard Level certificate with a score of 4 to 7 in the International Baccalaureate program may be granted advanced standing credit for a variety of courses.

Students requesting IBO credit must have an official transcript sent from the International Baccalaureate Organization to the DCC Admissions Office in order to be considered for credit.

Credit for Military Training
A student’s military training, courses, and occupational specialty can all be considered for college credit. As a participating member of Service members Opportunity Colleges (SOC), Danville Community College follows the American Council on Education’s (ACE) Guide to the Evaluation of Educational Experiences in the Armed Services in determining the value of learning acquired in military service when applicable to the service member’s program of study. Military service credit in the occupational/technical areas (i.e., Engineering, Health Technology) may require approval by the appropriate division dean prior to award.

In order to receive credit for your military training, the student must submit a military transcript which includes the ACE recommended credit, and initiate a request for evaluation to the DCC Admissions Office. Note: If the student submits only the DD214 and no military transcript, only credit for HLT/PED will be awarded. Students who have completed basic training, regardless of the date of military experience, may receive credit for HLT/PED. Each branch of the service has its own transcript request service.

Police Academy Certificates
Per the Articulation Agreement between the Virginia Community College System and the Virginia Department of Criminal Justice Services, students who have satisfactorily documented successful completion of the VA State Police Academy or a Regional and Independent Certified Training Academy shall be awarded the following credit. Appropriate documentation is required and must be submitted to the Administration of Justice program advisor or to the Dean of Arts and Science.

Previous Completion Credit (Experiential Learning/Work Experience Credit)
The purpose of the Danville Community College policy on non-traditional credits is to award credit or advanced standing to students with documented experience related to specific course work offered at DCC.

Students may be awarded college credit if they can demonstrate previous educational study or training/work experience that entitles them to credit for specific courses applicable to their program of study. Documentation for special training or experience must be submitted with the request for credit and will be retained in the student’s file. The supporting documentation must include samples of work or projects completed to assist the division in credit determination.

Students wishing to be awarded previous completion credit for a specific course should contact the appropriate division office in which the course is taught (i.e., a request for credit for Keyboarding must be submitted to the Business division.)

Danville Community College reserves the right to place a time limit on prior learning experiences for which advanced standing may be granted. The college has a time limit for accepting credit for technical courses taken previously at DCC or other institutions. The division dean, in consultation with the registrar, will determine if courses taken more than five years previously can be used in your current program of study.
Advanced Standing / Graduation Requirements

There is no limit to the number of credits that may be awarded through advanced standing credit, with the exception of previous experiential learning credit. Credit for previous experiential learning may be awarded for no more than 25% of the credit requirements for a degree. In addition, credit achieved through advanced standing may not be used to fulfill the graduation residency requirement. A minimum of 25% of the credit required in the graduation curriculum must be earned at DCC.

All accepted advanced standing credits will be acknowledged and recorded on the student’s permanent record with the transferring agency or other source of credit identified. No unsuccessfully attempted advanced standing applications or examination results will be recorded on the student’s permanent record.

The following shall apply to the Advanced Standing Credit requirements:

1. To earn credit for prior learning, an individual must be admitted to the curriculum in which advanced standing is requested.
2. As much as 25 percent of the required curriculum credits may be earned through the advanced standing process.
3. Advanced standing credits awarded through the advanced standing evaluation process will be posted to the student’s transcript after the student has successfully completed 15 credits of coursework in the curriculum with a cumulative grade point average of at least 2.25 in the curriculum.
4. Advanced standing will be awarded only for courses in which a student is not currently and has not been previously enrolled.

Course Acceptance Policy

1. The administrator responsible for the program for which the evaluation of a student’s previous coursework is requested shall:
   a. Determine the acceptability of each course the student wishes to transfer or apply toward the program requirements based upon his/her knowledge of changes, which have occurred since the course(s) was completed;
   b. Give particular attention to courses in areas which have had significant technological changes in recent years (i.e., electronics, automotive, graphic imaging, information systems, accounting, administrative support technology, etc.);
   c. As deemed appropriate, seek the input of faculty or other administrators regarding the proper course of action.
2. Courses which are determined to have outdated information and whose acceptance would not assure the student of having current skills may be used to meet elective credit requirements.
3. Students who have kept their educational training current through their job activities may have their coursework given special consideration for acceptance.
4. A student who wishes to challenge the decision regarding the non-acceptance of his/her coursework may do so by demonstrating his/her competencies in an appropriate manner to the administrator or appropriate faculty member.
5. Because of the diversity of courses offered and the differences in changes which occur over a given time, no specific time frame can be established for courses whose content may have become obsolete. However, it is recommended that all technical courses taken under the quarter system or more than five years ago be carefully reviewed for their current relevance.
6. The decision to accept or not accept a course(s) should be made with the idea that a student’s graduation indicates current and relevant competencies in the program of studies.

Registration Information

Registration is held prior to the beginning of each semester or term. Specific registration dates are listed in the College’s Academic Calendar in this Catalog. The dates also are posted in each building on campus and on the College’s website (www.dcc.vccs.edu).

All students are encouraged to register online at http://www.dcc.my.vccs.edu. Directions for Course Registration

1. Go to https://dcc.my.vccs.edu
2. Enter USERNAME & PASSWORD
3. Click LOGIN
4. Click VCCS SIS: Student Information System
5. Click Self Service
6. Click Enrollment
7. Click Enrollment: Add Classes
8. Select the term to register & click Continue
9. Click Search For Classes or Add Class Number
10. Click Proceed to Step 2 or 3
11. Click Finish Enrolling
12. Click View My Schedule

Note: Curricular (program-placed) students should contact their assigned academic advisor to register for classes. For more information, contact the Admissions Office at 434.797.8467 or email admissions@dcc.vccs.edu.

Offerings

The College reserves the rights to cancel, withdraw, or combine classes when necessary. Classes with insufficient enrollment normally are cancelled the first week of class (see Tuition Refund Policy in this Catalog).

Expenses

Tuition

Tuition rates are established annually by the State Board for Community Colleges. Current rates can be verified by contacting the Admissions Office. The College has an extensive financial assistance program. We encourage you to review that section of this Catalog, and to contact our Financial Aid Office for additional information. Fees are subject to change by the State Board for Community Colleges.

Payment of Tuition and Fees

Fall Semester: Students wishing to enroll for Fall Semester classes may do so on the published dates during the months of June, July and August. Students are expected to pay tuition and related fees on the same date that they register; otherwise they risk losing their enrollment in classes.

Spring Semester, Summer Session, and Special Session Classes: Students enrolling for classes must pay all tuition and related fees on the same date that they register. Failure to do so will result in the cancellation of their registration.

Students who have not paid tuition and fees are not authorized to attend class(es).

Student Activity Fee

The Student Activity Fee is currently $1.50 per credit hour. Monies are used for social, cultural and student activities. Please note that fees are subject to change. Contact the Admissions Office at 434.797.8467 for the current cost.
Maintenance Fee
All students enrolled for classes on the main DCC campus pay a Maintenance Fee. The Maintenance Fee is $1.00 per credit hour for classes taken on campus. Monies are used to maintain College parking lots. Please note that fees are subject to change. Contact the Admissions Office at 434.797.8467 for the current cost.

VCCS Technology Fee
All students on and off campus will be charged a technology fee for each credit hour for which they enroll. This fee will be shown separately on the payment receipt. All monies support the acquisition of high technology equipment for academic purposes. Currently, the Technology Fee is $7.50 per credit. Please note that fees are subject to change by the State Board for Community Colleges.

Capital Fee
Currently, students with out-of-state residences are charged a $18.00 per credit Capital Fee. Please note that fees are subject to change by the State Board for Community Colleges.

E-rate
The e-rate is applicable to designated distance learning courses delivered entirely over the internet. Contact the Admissions Office for the current cost.

Other Fees
There are NO special laboratory or library fees. Students are responsible for any College property which they damage or lose (such as laboratory or shop equipment, supplies, library books, and materials).

Nonpayment of Tuition and Fees, or Other College Debts
A student’s continued attendance at the College is dependent upon proper settlement of all debts owed to the institution. Transcripts, certificates, diplomas, or degrees will not be issued, nor will students be permitted to complete registration until accounts are cleared satisfactorily with the Business Office, Bookstore, or Library. Should the student fail to satisfy all due and payable amounts for tuition and fees, College loans, fines, or other debts owed the College, the College may initiate disciplinary action in accordance with the Code of Student Conduct and Discipline Policy.

Bad Check/Dishonored Payment Fees: The College assesses a $35 service charge for handling returned checks or dishonored credit card or debit card payments for accounts not in past due collection status. The College assesses a $50 service charge for handling returned checks or dishonored credit card or debit card payments when the account is in past due collection status.

Waived Tuition
Section 23-7.1 of the Code of Virginia provides that free tuition for State-supported institutions be granted to children of: (1) deceased or permanently disabled veterans of the armed forces, or (2) prisoners of war or persons missing in action; or (3) persons who have been killed in the line of duty while employed or serving as a law enforcement officer, a fire fighter, or a member of a rescue squad. To be eligible for such aid, the student must be between the ages of 16 and 25, and the parent must have met certain State residency requirements.

If you are eligible for the waiver of tuition and required fees under items (1) or (2) above, you must present a letter of certification from the State Division of War Veterans’ Claims to the DCC Business Office before tuition can be waived. Requests for applications should be directed to the Director, Division of War Veterans’ Claims, Commonwealth of Virginia, 210 Franklin Road, S.W., Roanoke, VA, 24011. If possible, applications should be submitted at least four months before the expected date of matriculation.

If you are eligible for the tuition waiver under item (3) above, you must provide certification from the chief administrative officer of the law enforcement agency or the State Fire Marshall that the deceased parent was employed or serving as a law enforcement officer or fire fighter or a member of a rescue squad and was killed in the line of duty. This certification must be submitted to the Business Office/Cashier so that a determination can be made on the request for free tuition and required fees.

Children, Step-Children, or Spouse of Deceased Law Enforcement/ Fire Fighter/Rescue Squad Personnel: As stated in Section 23-7.4:1 of the Code of Virginia, any child between the ages of sixteen and twenty five whose parent or any person whose spouse has been killed in the line of duty while employed or serving as a law enforcement officer, firefighter, member of a rescue squad, sworn law-enforcement officer, special agent of the Department of Alcoholic Beverage Control, state correctional, regional or local jail officer, regional jail or jail farm superintendent, sheriff, deputy sheriff, or member of the Virginia National Guard while such member is serving in the Virginia National Guard or as a member of the United States Armed Forces, shall be entitled to free undergraduate tuition and required fees at any public institution of higher education in Virginia, if the deceased parent was domiciled in Virginia at the time of death and certification of employment is provided.

Children of Deceased or Permanently Disabled Veterans: Section 23-7.1 of the Code of Virginia states that free tuition and college fees shall be given to children of qualified permanently 100 percent disabled or deceased veterans of the armed forces of the United States who attend state supported schools of secondary grade or college level. Eligibility for such children shall be proven by the Division of War Veterans’ Claims, who shall state in writing to the admitting school that tuition should be waived according to the provisions of Section 23-7.1. For further information, contact the DCC Office of Veterans’ Affairs (434.797.8429). All recipients of Veterans benefits must be in an approved curriculum as recognized by the Veterans Administration and must maintain a grade point average of no less than 1.5 after 12 credit hours have been completed, excluding developmental classes.

Transcripts
In order to release a transcript the student must submit a request including his/her name (including any former names), Social Security Number (SSN) or EMPLID #, address where the transcript should be mailed, and their signature. Transcripts may be obtained by submitting a Transcript Request Form to the Admissions and Records Office, by signed letter via fax or email, or by visiting the Office to sign a release form. Official and unofficial transcripts are available for students who attended in the past 10 years, on-line at dcc.my.vccs.edu. For students who attended more than 10 years ago, request a transcript by signed letter via fax or mail by visiting the Admissions Office to sign a release form. Students and alumni may obtain transcripts free of charge.

Grading System
The quality of performance in any academic course is reported by a letter grade, the assignment of which is the responsibility of the instructor. These grades denote the character of study and are assigned quality points as follows:

- **A** Excellent
- **B** Good
- **C** Average
- **D** Poor
- **F** Failure
- **P** Pass

G 0 grade point per credit

1 grade point per credit

2 grade points per credit

3 grade points per credit

4 grade points per credit

0 grade point per credit

No grade point credit (applies to special courses. P/U Option: No more than 7 credits can count toward graduation.)
R Re-enroll
No grade point credit (used only for Developmental Studies courses. See below).

S Satisfactory
No grade point credit (used only for satisfactory completion of a Developmental Studies course).

U Unsatisfactory
No grade point credit (applies to specialized courses and seminars).

W Withdrawal
No credit. (A grade of withdrawal implies that the student was making satisfactory progress in the course at the time of withdrawal or that the withdrawal was officially made before the “deadline” date published in the college calendar.) See Withdrawal Policy in the next section.

I Incomplete
No grade point credit. The “I” grade is to be used only for verifiable unavoidable reasons that a student is unable to complete a course within the normal course time. To be eligible to receive an “I” grade, the student must (1) have satisfactorily completed more than 50% of the course requirements and (2) must request the faculty member to assign the “I” grade and indicate why it is warranted. The faculty member has the discretion to decide whether the “I” grade will be awarded. Since the “incomplete” extends enrollment in the course, requirements for satisfactory completion shall be established through consultation between the faculty member and the student. In assigning the “I” grade, the faculty member must complete documentation that (1) states the reason for assigning the grade; (2) specifies the work to be completed and indicates its percentage in relation to the total work of the course; (3) specifies the date by which the work must be completed; and (4) identifies the default grade (B, C, D, F, P, R, or U) based upon course work already completed. Completion dates may not be set beyond the subsequent semester (to include summer term) without written approval of the chief academic officer of the campus. The student will be provided a copy of the documentation. Colleges will establish procedures to ensure that all “I” grades that have not been changed by the faculty member through the normal grade change processes are subsequently changed to the default grade assigned by the faculty member. An “I” grade will be changed to a “W” only under documented mitigating circumstances which must be approved by the Vice President for Academic and Student Services.

X Audit
No credit. (Permission of the Division Dean is required to audit a class.) The grade point average (GPA) is determined by dividing the total number of grade points earned in courses by the total number of credits attempted.

Grading – Developmental Studies Course
A grade of “S” (Satisfactory) shall be assigned for satisfactory completion of the developmental studies course.

A grade of “R” (Re-enroll) shall be assigned to a student who makes satisfactory progress during the term but has not completed the course objectives. This grade, which is to be used only for developmental studies, is to permit re-enrollment for the completion of the course objectives.

A grade of “U” (Unsatisfactory) shall be assigned to a student not making satisfactory progress. The Developmental Studies academic advisors, with the concurrence of the Dean of Student Success and Academic Advancement, will determine the subsequent sequence of courses for the student who receives a grade of “U.”

A student may enroll no more than twice in any single developmental course. Appeal for a third and final enrollment must be addressed to the Admissions Committee. For additional information, refer to “Repeating A Course” section of this Catalog.

Course Credit
The credit for each course must be indicated after the title in the course description. One credit is equivalent to one collegiate semester-hour credit.

Each semester hour of credit given for a course is based on the “academic hour,” which is 50 minutes of formalized, structured instructional time in a particular course weekly for fifteen weeks. This is a total of 750 minutes of instruction. In addition to this instructional time, appropriate evaluation will be required. If this evaluation is a final examination, a minimum of one hour will be scheduled for each semester hour of credit generated by the course, not to exceed three academic hours (150 minutes). Credits may be assigned to the activities as follows:

1. Lecture — One academic hour of lecture (including lecture, seminar, discussion, or other similar activities) per week, generally for 15 weeks, plus the evaluation or examination period, equals one collegiate semester-hour credit.

2. Laboratory — Two to five academic hours, depending on the discipline, of laboratory, clinical training, supervised work experience, coordinated internship, or other similar activities per week, generally for 15 weeks, plus the evaluation or examination period, equals one collegiate semester-hour credit.

3. Asynchronous Distance Learning Courses — In the case of asynchronous distance learning course offerings or hybrid courses that employ a mix of traditional contact hours and learning activities with students and faculty separated by time and place, colleges must demonstrate through faculty peer review that content and competency coverage and student outcomes are equivalent to those of traditional sections of the same class. In the event the only section of the course being taught in the VCCS is an asynchronous or hybrid course, faculty peer review will be employed to confirm that content and competency coverage and student outcomes are appropriate for the course credits awarded.

4. General Usage Courses — Variable academic hours from one to five credits for general usage courses.

5. Variable Credits — A college may request that a course vary from the existing credit value, but by no more than one credit. Existing variable credit ranges may not be extended. Credit variability will not be approved for purposes of deleting laboratory hours or of making laboratory hours optional. General usage courses and courses numbered 1-99 are exempt from this policy.

Withdrawal Policy
Students should be aware that withdrawal from a course might negatively affect their financial aid award. Students are encouraged to check with the Financial Aid Office to determine the impact of a course withdrawal on financial aid eligibility.

Withdrawals can be completed by telephone, online or in person. If a student withdraws from a class prior to the refund date of the term, the student is removed from the class roll and no grade is awarded. After the add/drop period, but prior to the completion of 60 percent of a session (nine weeks for regular session), a student who withdraws or is withdrawn from a course will be assigned a grade of “W.”

After the 60% point, if a student withdraws or is withdrawn from a course(s) or the College, a grade of “F” will be assigned. Exceptions to this policy may be made under mitigating circumstances. Such circumstances must be documented and a copy of the documentation placed in the student’s academic file. If mitigating circumstances cause the withdrawal, and if the student is making satisfactory progress at the time of withdrawal, the grade of “W” will be given.

Division Deans will decide whether the reason for withdrawal is mitigating,
Each community college shall have a policy statement providing for tuition relief, refund, and reinstatement of military students in the event that military service requires their sudden withdrawal or prolonged absence from their enrollment. For purposes of this section, military service is defined as service on active duty in the Armed Forces, including such service by a member of the National Guard or Reserve, when mobilized or deployed for a period of more than 30 days. Dependents of military members may also be given consideration under this policy. Dependents are defined as any civilian qualifying as a military dependent under 37 USC 401 currently or as a Result of Military Service.

Policy on Refunds, Credits and Reinstatement as a Result of Military Service

Each community college shall have a policy statement providing for the tuition relief, refund, and reinstatement of military students in the event that military service requires their sudden withdrawal or prolonged absence from their enrollment. For purposes of this section, military service is defined as service on active duty in the Armed Forces, including such service by a member of the National Guard or Reserve, when mobilized or deployed for a period of more than 30 days. Dependents of military members may also be given consideration under this policy. Dependents are defined as any civilian qualifying as a military dependent under 37 USC 401 currently or as otherwise amended. Each community college shall provide for the following:

A. **Tuition and Required Fees:** Should a student (as defined above) request to be withdrawn from the college after the census date, the student may elect either to be deleted from the registration file and be awarded a full refund or to be administratively withdrawn with no refund and assigned a grade of “W”. Each community college shall also have a policy statement regarding the granting of refunds of Miscellaneous Education, General program, Auxiliary Services and Student Activity fees to students. The college shall provide, at the option of the student, for such refunds to be retained and to be applicable to tuition and fees charged in the semester or term in which the student returns to study.

B. **Deposits:** Each community college shall have a policy statement regarding the granting of refunds of deposits to students.

C. **Textbooks:** Each community college shall process refunds for textbooks according to contractual arrangement with local vendors.

D. **Academic Credits and Grades:** Students as defined above should have the opportunity to receive an incomplete grade (“I”). All course requirements shall be completed within one year from the date of release from active duty or mobilization. Students may be given the option of taking their examinations prior to regularly scheduled times. Careful consideration should be given and special options are advised for students who receive student financial aid or Veterans Administration benefits.

E. **Reinstatement:** Students as defined above shall be assured a reasonable opportunity to be reinstated in the same programs of study without having to re-apply for admission if they return to the same community college after a cumulative absence of not more than five years so long as the student provides notice of intent to return to the institution not later than three years after the completion of the period of service.

F. **Dissemination of Information:** Community college officials should make every effort to ensure that the aforementioned VCCS policies relative to tuition relief, refund, academic credit and reinstatement are well disseminated and carefully explained in accordance with the requirements of the Code of Virginia, Section 23-9.6:2, and the Virginia Tuition Relief, Refund, and Reinstatement Guidelines in the appropriate college publications. The Division of Student Success and Academic Advancement ensures that these policies are properly disseminated and administered.

**Notification of Student Rights**

Each institution shall establish and publish information release policies that respect the rights of individual privacy, and the confidentiality of records, and the best interests of the student and institution. As provided by the Family Educational Rights and Privacy Act (FERPA), colleges may disclose the following Virginia Community College System directory information items without the student's prior consent:

1. **Student’s Name**
2. **Participation in officially-recognized activities and sports**
3. **Address**
4. **Telephone Listing**
5. **Weight and height of members of athletic teams**
6. **Electronic mail address**
7. **Degrees, honors and awards received**
8. **Major field of study**
9. **Dates of attendance**
10. **Grade level**
11. **The most recent educational agency or institution attended**
12. **Number of credit hours enrolled**
13. **Photos**

Students must provide official notification to the Admissions Office to prevent the disclosure of directory information. Students having questions pertaining to FERPA may contact the Dean of Student Success and Academic Advancement.

**Assessment Requirements**

The Commonwealth of Virginia requires a comprehensive plan for student outcomes assessment. The Danville Community College Plan was approved by the State Council of Higher Education for Virginia in 1987 and has been reviewed each year. The Plan includes a variety of procedures to ensure that the institution has an effective process for improving the instructional and student development programs. These include:

1. **Assessing general education competencies of degree seeking students** (Associate of Arts and Science, Associate of Science and Associate of Applied Science Degrees).
2. **Administering pre- and post-tests to Developmental Studies students.**
3. **Tracking the progress of selected groups of students during their enrollment at Danville Community College.**
4. **Using a variety of assessment techniques to measure the level of success of students in meeting the objectives of their programs of study.**

Students are required to participate in the assessment procedures which are appropriate to their curricula. For additional information, contact the Director of Planning, Effectiveness and Research at 434.797.8576.
Outcomes Assessment Requirement
Degree students will be required to take a core competency test designed to measure general education achievement prior to graduation for the purpose of evaluating general education competencies. No minimum score or level of achievement is required for graduation. Individual test results will remain confidential. Group scores will be used for accountability to the state and for improvement of academic programs.

Institutional Effectiveness Days
Two class days are designated each academic year (one per term) as Institutional Effectiveness Day.

Graduation

Degrees, Diplomas, and Certificates
Danville Community College offers the following degrees, diplomas, and certificates for students who successfully complete approved programs:

1. An Associate of Arts and Science Degree (AA&S) is awarded to students majoring in Business Administration, Liberal Arts, and Science, who plan to transfer to four-year colleges or universities after completing their Danville Community College program.

2. An Associate of Applied Science Degree (AAS) is awarded to students majoring in one of the occupational-technical programs and who plan to obtain full-time employment immediately upon graduation from the College.

3. An Associate of Science Degree (AS) is awarded to students majoring in Engineering and who plan to transfer to a baccalaureate program at a university.

4. A Diploma is awarded to students who complete one of the two-year non-degree occupational curriculums.

5. A Certificate is awarded to students who complete one of the approved non-degree curriculums that are usually less than two years in length. The College also offers Career Studies Certificates for programs that can be completed in less than one year.

See the Programs of Study section of this Catalog for more information, or contact the Admissions Office.

Catalog Year Determination
All students who are initially placed in a program (including Developmental Studies) are placed in a catalog year at the same time. The catalog year to which a student is assigned determines the catalog which describes their program requirements. Keeping in mind that the catalog goes Summer, Fall, and Spring, a student who is accepted for Summer 2013, Fall 2013, or Spring 2014 will be placed in the 2013-2014 catalog year.

Students who have been attending in a non-curricular status will be placed in the catalog year corresponding to their program placement, not the catalog year corresponding to the year they became a non-curricular student.

Students who were previously in a program and dropped out of college for at least one year or changed programs and then ask to be readmitted to the original program after one year will be placed in the program in existence at the time of their re-admittance. Students who drop out for less than one year or request re-admittance to a program within a year after dropping out of it, will be readmitted under the original catalog, unless there have been significant changes to the program requirements. The counselor, in consultation with the Division Dean, will be responsible for selecting the catalog year when there is a question about which to use when readmitting a student.

Requirements for Graduation
To be awarded an Associate Degree, Diploma, Certificate or Career Studies Certificate from Danville Community College, a student must:

1. Have fulfilled all of the course requirements of the curriculum as outlined in the College catalog (see Catalog Year Determination);

2. Have been recommended for graduation by the faculty and Division Dean for the student’s curriculum;

3. Have completed all of the course and credit-hour requirements of the degree curriculum with at least twenty-five percent (25%) of the credits applicable for the degree acquired at Danville Community College;

4. Have earned a grade point average of at least 2.0 on all courses attempted which are applicable toward graduation in the curriculum;

5. Have completed all required assessment testing, interviews, or other activities established by the College, including but not limited to general education assessment instrument(s) used to assess and improve the effectiveness of programs and services;

6. Have filed an application for graduation (which may be waived in the case of the General Education Certificate) in the Office of Admissions and Records;

7. Have resolved all financial obligations to the College and returned all library and other College materials;

8. Have attended graduation exercises except when waived by the Vice President of Academic and Student Services.

When a student pursues a degree or diploma program, but is unable to complete the degree or diploma requirements, the student, upon the recommendation of the appropriate Division Dean and the Vice President of Academic and Student Services may be issued a certificate provided the portion of study successfully completed is equivalent to an approved certificate program and the student has met the requirements for graduation enumerated.

Graduation Honors and Awards
Appropriate honors are recorded on diplomas, certificates, or degrees. The honors, based upon scholastic achievement at Danville Community College, are as follows:

- Grade Point Average or Better
  - 3.2 Cum Laude (with honors)
  - 3.5 Magna Cum Laude (with higher honors)
  - 3.8 Summa Cum Laude (with highest honors)

Academic Information

Academic Load
The normal course load during a regular semester at Danville Community College is 15-18 semester hours. A student must register for at least 12 credits to be considered a full-time student. A student planning to enroll in 19 or 20 semester hours must have a 3.0 grade point average or higher and/or the approval of his/her Division Dean. Under exceptional circumstances, a student may be allowed to enroll in more than 20 semester hours provided a request is made in writing to the Vice President of Academic and Student Services and supported by written statements from the student’s advisor and Division Dean.

During the summer session, a student is restricted to two regular courses each summer term or 12-14 semester hours for the entire summer session. Students wishing to enroll in 15 semester hours must have a 3.0 grade point average or higher and/or the approval of the appropriate Division Dean. Under exceptional circumstances, a student may be allowed to enroll in more than 15 semester hours provided a request is made in writing to the Vice President of Academic and Student Services and supported by written statements from the student’s advisor and Division Dean.
Academic Standing
Students are considered to be “in good academic standing” if they maintain a semester minimum grade point average (GPA) of 2.00; are eligible to re-enroll at the College; and are not on academic suspension or dismissal status.

Honors Institute
In keeping with the college’s commitment to provide educational opportunities consistent with the ability and interests of the individual student, DCC invites motivated students to enroll in its Honors Institute. This program consists of individually contracted Honors projects in regularly-sectioned courses, Honors Courses, and an Honors Symposium that includes two courses related by a common theme in addition to a corresponding one credit hour weekly Honors seminar.

Students may earn “Honors Scholar” designation on their diplomas and transcripts by completing a minimum of 12 credit hours through a variety of options that include Honors Projects, Honors courses, or an Honors Symposium that includes a one credit hour Honors seminar. This designation requires that the student achieve a grade point average (GPA) of 3.0 or greater. All Honors work must be completed one week prior to the graduation ceremony. Students may earn Honors designation on transcripts only by completing less than 12 hours of Honors work.

Students are eligible for Honors work if they meet all of the following criteria:
1. Non-Developmental Studies
2. A 3.25 or higher high school Grade Point Average (GPA)
3. A 3.0 or greater overall GPA in non-Honors courses
4. Satisfy prerequisites of each Honors Community course
5. Special life experiences or aptitude for the course(s) and the endorsement of two DCC faculty members

Honors Projects are based on projects negotiated with faculty and the Honors Institute Chair. These projects can be done in any non-Honors course and typically focus on topics of special interest to the student, requiring appropriate additional or alternative assignments, which go beyond regular coursework.

Students may also earn Honors credit by participating in an Honors Symposium. An Honors Symposium consists typically of two core courses linked by a common theme. The work is challenging and is designed to enhance the student’s intellectual capacities. Students enrolling in an Honors Symposium can expect stimulating and rigorous assignments, which expand the ability to write, think critically and independently, research accurately, and make reasonable inferences. Symposium themes, such as “human nature,” or “environment in crisis” cut across discipline lines and demonstrate to the student that some issues and problems require the contributions of multiple disciplines. A limited enrollment of 15 students for Honors Symposium courses ensures the opportunity to increased student-to-student and student-to-faculty interaction.

Students wanting more information about the Honors Institute should contact the Arts and Science Division, 434.797.8462.

Academic Honors
President’s Honors List: A student who is enrolled for six or more credit hours for the semester during which the honor is extended, has compiled a cumulative grade point average of at least 3.0, a semester grade point average of 3.75 or higher, and has completed a minimum of 24 semester hours at Danville Community College will be placed on the President’s Honors List.

Vice President’s Honors List: A student who is enrolled for six or more credit hours for the semester during which the honor is extended; has compiled a cumulative grade point average of at least 3.0 and a semester grade point average of 3.0 to 3.74; and has completed a minimum of 24 semester hours at Danville Community College will be placed on the Vice President’s Honors List.

Academic Warning
Students who fail to attain a minimum GPA (grade point average) of 2.00 for any semester shall be placed on academic warning. Students should see their advisor/counselor and take advantage of academic support services provided by the College.

Academic Probation
Students who fail to maintain a cumulative GPA (grade point average) of 1.50 shall be on academic probation until such time as their cumulative average is 1.75 or better. The statement “Academic Probation” shall be placed on their permanent records. Students on probation are ineligible for appointive or elective office in student organizations unless special permission is granted by the Vice President of Academic and Student Services or another appropriate college administrator. Students may be required to carry less than a normal load for the following semester and are required to consult with their academic advisor/counselor. Students shall be placed on probation only after they have attempted 12 semester credits.

Academic Suspension
Students on academic probation who fail to attain a semester GPA (grade point average) of 1.50 or better shall be placed on suspension only after they have attempted 24 semester credits. Academic suspension shall be for one semester. The statement “Academic Suspension” shall be placed on the students’ permanent records. Students who are placed on academic suspension and wish to appeal should follow the appeal process established by the College. Suspended students may be reinstated at the conclusion of the suspension period by following the process established by the College. Students who have been reinstated from academic suspension must achieve a 2.00 GPA or better for the semester of their reinstatement and must earn at least a 1.75 GPA in each subsequent semester of attendance. The statement “Subject to Dismissal” shall be placed on the students’ permanent records. Students who have been reinstated from academic suspension will remain subject to dismissal until their cumulative GPA is raised to a minimum of 1.75. Reinstated students may be required to carry less than a normal course load following the semester and are required to consult with their advisor/counselor.

Academic Dismissal
Students who do not attain at least a 2.00 GPA (Grade Point Average) for the semester of reinstatement following academic suspension shall be academically dismissed. Students who achieve at least a 2.00 GPA for the semester of their reinstatement following academic suspension must earn at least a 1.75 GPA in each subsequent semester of enrollment. Failure to attain a 1.75 GPA in each subsequent semester until the cumulative GPA reaches 1.75 shall result in academic dismissal. The statement “Academic Dismissal” shall be placed on the students’ permanent records. Academic dismissal is normally permanent. In exceptional circumstances, students may appeal and be reinstated following processes established by the College. Students who have been reinstated after academic dismissal will remain subject to dismissal until their cumulative GPA is raised to a minimum of 1.75. Reinstated students may be required to carry less than a normal course load the following semester and are required to consult with their advisor/counselor.
Academic Renewal

Students who return to the College after a separation of five (5) years, or more, may petition for academic renewal. The request must be in writing on the Academic Renewal Selection Form available in the Admissions Office.

The purpose of this policy shall be to adjust the cumulative grade point average (GPA) of eligible students who have enrollments from 1984 and forward.

If a student is determined to be eligible for academic renewal, “D” and “F” grades earned prior to reenrollment will be deleted from the cumulative and curriculum grade point average (GPA), subject to the following conditions:

1. Prior to petitioning for academic renewal the student must demonstrate a renewed academic interest and effort by earning at least a 2.5 GPA in the first 12 semester hours completed after reenrollment.
2. All grades received at the College will be a part of the student’s official transcript.
3. Students will receive degree credit only for courses in which grades of “C” or better were earned prior to academic renewal, providing that such courses meet current curriculum requirements.
4. Total hours for graduation will be based on all course work taken at the College after readmission, as well as former course work for which a grade of “C” or better was earned, and credits transferred from other colleges or universities.
5. The academic renewal policy may be used only once and cannot be revoked once approved.

All students should be warned about the pitfalls of “Academic Renewal.” (Example: A student may have a “D” in a course that is needed for graduation, but cannot get credit for the course if it is part of Academic Renewal. The course will have to be repeated.)

A student denied “Academic Renewal” may appeal the decision to a committee of at least three people. This committee will be chaired by the Dean of Student Success and Academic Advancement, and the other two committee members will be appointed annually by the Dean of Student Success and Academic Advancement. A written appeal should be sent to the Dean of Student Success and Academic Advancement within seven (7) days of denial.

Prerequisites and Corequisites

Many courses at DCC are associated with other courses referred to as “prerequisites” and “corequisites.” The basic idea behind these associations is that in order to be successful in a particular course, the student must have acquired or be in the process of acquiring certain other skills or knowledge.

A prerequisite is a course that a student must take before enrolling in a particular course. A corequisite is a course which a student must take while they are taking another course if they have not already completed that course. For example, Biology 102 has Biology 101 as a prerequisite. Students must successfully complete Biology 101 before taking Biology 102. MTE 3, MTE 4, and MTE 5 are corequisites for Biology 101. One must take these courses while taking Biology 101 if one has not completed them. Students should register only for those courses for which they have completed the prerequisite requirements and must register for corequisite courses as needed. If a student does not know what the prerequisites or corequisites are for a course, faculty advisers will be able to provide this information.

For more information, please see the list of prerequisites for each course included in this catalog.

GPA for Repeat Courses

The GPA of a student will reflect only the last grade received for repeat courses which were initially taken in the Summer of 1994 or later. “General Usage” courses such as 099, 199, etc. are not counted as repeat courses. Repeat courses not figured in the GPA will be designated on the transcript with the words “repeated course” under the class.

Attendance

It is the philosophy of Danville Community College that student and faculty interactions are critical to the learning process. Class attendance enhances this process. Regular attendance is thus expected of students. Students missing twenty-five percent (25%) or more of the total time allocated for classes and/or labs may be administratively withdrawn from the course upon recommendation of the instructor. Students who are administratively withdrawn prior to the completion of 60% of the classes and/or labs will be issued a grade of “W.” After that point, students who are administratively withdrawn will be issued a grade of “F.” Faculty have the discretion to establish more restrictive policies which will be published in the course outline. Faculty also have the option to excuse a student when documented, mitigating circumstances prevent the student from attending a class or lab session. Students should be aware that failure to attend classes will negatively affect their financial aid award.

Examinations

Students are expected to take all examinations, including final examinations, at the regularly scheduled time. Exceptions cannot be made without permission of the instructor.

Repeating a Course

A student is normally limited to two enrollments in the same credit course. If special circumstances warrant consideration of a third enrollment, the student must submit the appropriate Third Enrollment Form to the Admissions Committee. Please note all requests for third (3rd) enrollments into classes must be “submitted and acted upon” before the first day of classes for the term of enrollment. After reviewing the request, the Committee will notify the student in writing of the decision.

Academic Honesty

Students will be expected to maintain complete honesty and integrity in their experiences in the classroom. Any student found guilty of dishonesty in academic work is subject to disciplinary action

1. The College may initiate disciplinary proceedings against a student accused of any form of academic dishonesty including, but not limited to, the following:
   a. Copying from another student’s test paper or other academic work.
   b. Using materials not authorized by the person giving the test.
   c. Collaborating, without authority, with another student during an examination or in preparing academic work.
   d. Knowingly using, buying, selling, stealing, transporting, or soliciting, in whole or part, the contents of an un-administered test.
   e. Substitution for another student, or permitting another student to substitute for oneself, to take a test or prepare other academic work.
   f. Bribery another person to obtain an un-administered test or information about an un-administered test.
   g. The appropriation of another’s work without acknowledging the incorporation of another’s work in one’s own written work (plagiarism).

2. A student who receives a failing grade (“F”) in a course as a result of academic dishonesty (such as plagiarism) may not withdraw from that course with a “W” or receive a refund. This policy applies to any student in a particular course deemed to have committed an act of academic dishonesty during any part of a semester, and regardless of whether he/she has turned in any graded work. Mitigating circumstances do not apply in such cases. However, a student may follow the appeal process outlined in the DCC Student Handbook to appeal the failing grade.

3. Procedures for discipline due to academic dishonesty are found in the DCC Student Handbook, available in the Admissions/Counseling Offices and on the DCC website.
Workforce Services
Workforce Services includes credit and non-credit courses and activities designed to meet occupational, professional, and personal interests and needs. These activities begin at various times throughout the year and vary in length according to need. Non-credit activities, by law, are self-supporting.

Danville Community College has a vital interest in the economic development of its service region. Through its Workforce Services organization, the College provides a wide variety of educational opportunities for companies and organizations. Services include on-campus or on-site tailored training programs; short courses, workshops, and seminars; high-tech training using state-of-the-art equipment; management and supervisory development training; basic skills training; teleconferencing; and use of College facilities for company-sponsored training. The Regional Center for Advanced Technology and Training (RCATT) houses many of the workforce services programs. For more information, contact 434.797.6437.

Apprenticeship Training
Apprenticeship training is coordinated through Danville Community College in partnership with the Virginia Department of Labor and Industry. Apprenticeship is a voluntary training system which assists businesses and their employees with obtaining training in the technologies. Apprentices learn the “how to” of their occupation on the job and learn the “why” in related technical instruction taught in the classroom. For more information, contact 434.797.8494.

Continuing Education
Continuing Education includes special courses for college credit and non-credit activities for which the Continuing Education Unit (CEU) is awarded. These courses and activities are intended primarily for adults who want to upgrade their technical skills, improve their employability, increase their earnings, acquire new skills, or meet educational requirements for job certification. For more information, call 434.797.8430.

Community Services
Community Services includes non-credit activities for which Continuing Education Units (CEU’s) are not awarded. They consist of courses in crafts, leisure-time activities, as well as exhibits and special community projects. For more information, call 434.797.8430.

Middle College
The Middle College offers individuals aged 18-24 years old without a high school diploma or GED an opportunity to obtain a GED certificate and provides academic and career readiness training. The program includes several components, the main two being GED Preparation, and Workforce Preparation, which incorporates earning a Career Readiness Certificate (CRC). Middle College also helps students with completion of the financial aid process; participation in career counseling; selecting a desired program of study at DCC; and receiving a certificate, diploma or associate degree. For additional information, call 434.797.6433.

Southern Piedmont Educational Opportunity Center
The Southern Piedmont Educational Opportunity Center is a federally funded grant program that provides free educational assistance to low-income adults and first generation college students. The EOC offers: assistance in completing admission and financial aid applications, information on G.E.D. programs and postsecondary institutions, career counseling and assessments, and academic advising. For more information about the SPEOC, call 434.797.8577 or stop by the office located on the first floor of the Wyatt Building.

Other Programs
Career Pathways
Career Pathways offers a secondary/postsecondary educational career path that is seamless and has integrated options for work-based learning in high school and continuing through college. If students choose the Career Pathways path, they have the option to enter the workforce after completing a technical degree/certificate/diploma program at DCC or further their education to pursue a four-year degree.

Career Pathways links academic and technical studies and uses input from business, industry, government, and the community in order to build a curriculum that leads to successful employment. Career Pathways students may be eligible to earn credit for work completed in high school under existing articulation agreements. Students interested in Career Pathways options should consult their high school counselors and/or the Career Pathways Coordinator at 434.797.8520. There is also a website that students may access that will provide additional information.

TRiO Upward Bound
The TRiO Upward Bound Program at DCC is a federal pre-college program designed to assist economically disadvantaged and/or first generation students complete high school and to enter and succeed in postsecondary education immediately after high school graduation. TRiO Upward Bound offers extensive academic instruction as well as counseling, mentoring, tutoring, a summer bridge program, summer residential program, and other support services. Students interested in the TRiO Upward Bound program should consult their high school counselor and/or DCC’s TRiO Upward Bound Program Office at 434.797.8562.
The Whittington W. Clement Learning Resources Center (LRC) provides information and instructional support services for the college community. Centrally located on the DCC campus, the LRC opened to students, faculty, and the community in October 1994. Housing the Library, Learning Assistance Center (LAC), Audio-Visual Services, Tutoring Center, and the Teaching, Learning and Technology Center, the LRC incorporates the latest in educational technology to offer a unique mix of traditional and nontraditional resources for learning and teaching. For more information, please call 434.797.8453.

Library Services
The Mary M. Barksdale Library houses a collection of more than 58,000 items including books, non-print media, periodicals, government documents, and other materials to support the instructional programs of the College. As a member of VIVA, students and faculty have online access to databases that include thousands of digital and print journals, books, and reference sources as well as access to the Internet. Audio-visual equipment is available for previewing audio and video programs. The Robert V. Shaver Film Collection is the newest addition to the permanent collections. The Library offers strong reference support and the staff is committed to instruction in the use of resources, both on an individual and group basis. For more information on library services and information skills instruction, please call 434.797.8555.

Learning Assistance Center
The Learning Assistance Center (LAC) is located on the upper level of the Learning Resources Center. The mission of this large multipurpose area is to provide support and resources for teaching and learning. An open computer lab is available for students, staff, and public users. The LAC also provides make-up testing and testing for distance learning courses. Students are encouraged to use the LAC for group study. For more information, please call 434.797.8404.

Audio-Visual Services
Located on the lower level of the LRC, this department provides installation and maintenance of audio-visual equipment as well as faculty and staff training for the College. For more information, call 434.797.8454.

Distance Learning
Coordinated through the Learning Resources Center, the College’s distance learning program gives students the opportunity to attend accredited college classes in a flexible way. The college employs sound and acceptable practices for determining the amount and level of credit awarded for courses, regardless of format or mode of delivery. Distance learning students use a variety of learning resources including videos, textbooks, study guides, Interactive Television, and the Internet to complete their coursework and earn college credits at home or at convenient off-campus locations. Distance learning courses are designed to be comparable to traditional on-campus courses. The primary difference between traditional courses and distance learning courses centers on the degree of freedom and responsibility the student accepts when taking a distance learning course. For some, this aspect makes distance learning courses an ideal way of continuing their education because it alleviates many time constraints and scheduling conflicts.

All distance learning courses have an assigned instructor. In addition, distance learning students have access to appropriate learning resources and student-support services.

Teaching, Learning and Technology Center
The Teaching, Learning and Technology Center (TLTC) provides assistance to faculty who are developing curriculum materials and want to utilize instructional technologies in their teaching. Located in the lower level of the Learning Resources Center (LRC), the College’s instructional design specialist works directly with those instructors who are interested in developing applications to support both traditional and distributed learning courses. The instructional designer also provides training for faculty and staff in the use of information technology. For more information, call 434.797.8557.

Tutoring Center
The Tutoring Center provides free tutoring to currently enrolled DCC students who seek assistance with their DCC coursework. Tutoring is provided by trained professional and peer tutors. Both one-on-one peer tutoring and small group tutoring are available. DCC’s Tutoring Center is nationally certified by the College Reading and Learning Association. The Tutoring Center is located on the upper level of the Learning Resources Center. For more information on tutoring services, call 434.797.6432.


**Student Services**

**Counseling**
As a service to current and prospective students, the College has counselors and faculty advisors who are committed to helping students with their academic, personal, career, and vocational plans. As part of this assistance, students are provided appropriate tests, inventories, college transfer information, and occupational/technical information regarding financial assistance or employment.

**Disability Services**
Danville Community College believes in promoting an atmosphere free of inequity and partiality in which all students have access to educational opportunity. DCC believes in creating an inclusive and welcoming community for all students. Danville Community College is committed to ensuring that all qualified students with disabilities have the opportunity to take part in educational programs and services on an equal basis. The College is committed to removing architectural barriers, but also strives to ensure that students with disabilities receive access to education and opportunities in this academic community. DCC facilitates access to reasonable accommodations for students with disabilities in accordance with their documented disabilities.

In order that the College may assess each student’s needs and plan most effectively for his or her academic experience, the student should contact the Counseling Office at 434.797.8572.

**Freshman Preview**
New students at Danville Community College are required to attend Freshman Preview, which includes opportunities for students and their parents/spouses to meet college administrators, faculty and staff, and learn more about campus resources. Included are campus tours, meetings with college officials, information about departments/divisions, campus policies, student registration and scheduling procedures.

The students will also have the opportunity to interact with other new and current students as they participate in Freshman Preview activities. In addition, information about academic and student organizations will be available. Parents/spouses are invited to attend the Parent Preview, a special information session to assist with a student’s transition to college.

**Academic Support (SAILS)**
Danville Community College has implemented an Early Alert System used by each of Virginia’s community colleges. This system enables the colleges to communicate electronically with students regarding their academic performance.

**Consumer Information**
Literature is available in the Admissions/Counseling Office on the following areas: post-graduate employment and college transfer success; curriculum retention and completion; related educational expenses; student rights and responsibilities; financial aid policies, procedures, and the award process.

**Alliance for Excellence**
The Alliance for Excellence is a program that supports the academic endeavors of African-American students. The Alliance is a partnership between the African-American churches and Danville, Central Virginia, Patrick Henry, and Virginia Western Community Colleges. This collaborative effort promotes an awareness of higher education opportunities and stresses the importance of academic excellence.

**Financial Aid**
Danville Community College is committed in its belief that qualified students should have an opportunity to pursue educational objectives, regardless of financial resources. Full-time and part-time students may qualify for financial aid. Classes may be taken in the day or in the evening.

To be considered for financial assistance, students must apply by completing the Free Application for Federal Student Aid (FAFSA) and have the results submitted to the Financial Aid Office. In addition, the student must enroll in an eligible curriculum and make satisfactory academic progress in the program of study. Contact the Financial Aid Office at 434.797.8567 for more information and application form.

Note: Students without a high school diploma or its equivalent may become eligible to receive Title IV funding upon satisfactory completion of six credit hours or the equivalent coursework that are applicable toward a degree or certificate offered by the institution. Students are ineligible to receive Title IV aid while earning the six credit hours.

**Federal Work-Study Program**
This program provides an opportunity for a student who shows sufficient financial need to work while attending college. Numerous jobs are available each year on campus. Students who are enrolled at least half time and not working outside of campus may work an average of 12-15 hours per week. Students are paid bi-weekly according to the number of hours worked.

**Return to Title IV Funds Policy For Financial Aid Recipients**
Federal regulations require Danville Community College to have a written policy for the return of federal (Title IV) financial aid by students who withdraw during a term for which federal financial aid was awarded. This policy applies to all financial aid recipients who withdraw from the College, are dismissed from the College, or who stop attending before completing 60% of the enrollment period. Title IV programs subject to this policy are Federal Pell, Federal SEOG, CSAP, ACG, and Direct Federal Student Loan and PLUS Loans.

Financial aid recipients are required to attend all classes in which they enroll. Students who fail to begin attendance are not eligible to receive any portion of the financial aid awarded and may be required to repay all financial aid funds used for tuition, fees, or bookstore charges as well as any cash received for the non-attended course(s).

A student’s enrollment status at the end of the drop/add period determines the student’s financial aid for the term. Students who stop attending should withdraw from the College following official withdrawal procedures as outlined in this College Catalog. Financial aid students must notify the Financial Aid Office before withdrawing.

**Federal Pell Grant Program**
Full-time and part-time students who are enrolled in eligible curricula may receive non-repayable aid under this program, provided they demonstrate financial need.

**Federal Supplemental Educational Opportunity Grant Program**
Students who show financial need may qualify for this program. This is a non-repayable grant.

**Federal Family Education Loan Program**
Students who do not receive sufficient grant aid to attend Danville Community College may request a student loan under this program. Request forms are available in the Financial Aid Office. Students who wish to apply for a Federal Student Loan must also apply for federal assistance by completing the Free Application for Federal Student Aid.
Other State Grants

Commonwealth Grant (COMA)
The Commonwealth Award (COMA) Grant is a campus-based state grant program. Preference is given to students with exceptional need. To be eligible, recipient must be domiciled in Virginia and enroll for at least six (6) credits.

Virginia Guaranteed Assistance Program (VGAP)
The VGAP Grant is a campus-based state-funded program. In order to be considered a student must be: a first-time freshman, a dependent, a high school graduate with a high school grade point average of at least 2.50, a Virginia resident, and demonstrate financial need. Recipients must be enrolled as a full-time student to qualify. Recipients must maintain a minimum of a 2.0 grade point average to remain eligible for their VGAP award each semester and must complete a minimum of 24 semester hours each academic year to remain eligible for consideration during the next academic year.

Part-time Tuition Assistance Program (PTAP)
The Part-time Tuition Assistance Program Grant is a campus-based Virginia Community College System state grant program. These grants are based on need and are awarded to eligible students who are enrolled for 1 to 6 credits a semester. These grant awards are for tuition and fees only.

Scholarships

DCC Scholarships are awarded through the College and the DCC Educational Foundation Office. Generally, only one application form is needed to apply for these scholarships. The applications are available in the Educational Foundation Office located in Foundation Hall, the DCC Financial Aid Office, located in the Wyatt Building, the high school guidance counselors’ offices and on the DCC Educational Foundation’s website. The DCC Educational Foundation reserves the right to limit the amount of each award to the Foundation’s discretion. Scholarship listings are based on information available February 1, 2014. For more information, contact the Educational Foundation Office at 434.797.8495 or 434.797.8437. Information is available also on the DCC Educational Foundation’s website: http://www.dcc.vccs.edu/Foundation/foundation.htm.

Michael Abbott Memorial Scholarship
This scholarship was established by Michael’s sister, Kate-Lynn Parker to honor and remember her late brother. To be eligible a student must be a first-time freshman, a dependent, a high school graduate, and have a high school grade point average of at least 2.50, a Virginia resident, and demonstrate financial need. Recipients must be enrolled as a full-time student to qualify. Recipients must maintain a minimum of a 2.0 grade point average to remain eligible for their grant award each semester and must complete a minimum of 24 semester hours each academic year to remain eligible for consideration during the next academic year.

Ahmed Children Scholarship
This scholarship is awarded to a full-time or part-time student who has enrolled for self-improvement with intention of completing a program or has plans for a degree. The recipient must maintain a 2.5 or better GPA and have financial need.

Alliance One International Endowed Scholarship
Funded by Alliance One International in 2000, the endowed scholarship is given to a full-time student who is in good academic and social standing with the college. Preference is given to students who are dependents of employees of Alliance One International or its predecessor companies. Second preference is given to students who are dependents of other local tobacco industry employees. Third preference is given to students who have lived for at least one year in Danville, Pittsylvania County or the surrounding area. In instances where multiple candidates meet the eligibility requirements, determination shall be based on a combination of the student’s financial need and past academic achievement.

American National Bank and Trust Company Scholarship
This scholarship was made possible by American National Bank and Trust Company. The award is presented to an entering freshman who is enrolling full time in a two-year program of study at DCC. There is a preference for the award during his/her second year. The student must demonstrate a clear commitment to completing the academic program in a timely manner and cannot be eligible for other types of financial assistance.

Wayne Andrews Scholarship
This scholarship was created by Wayne Andrews at the conclusion of the 2012 DCC Educational Foundation Golf Tournament. Mr. Andrews is a Greensboro, NC resident. This scholarship will be awarded to a part-time or full-time DCC student who demonstrates scholaractic ability and good citizenship.

Ashby-Pryor Endowed Scholarship
This scholarship was established in memory of Fred James and Pernie Sizer Ashby and Claude Edison and Mary Early Pryor. It is awarded to a DCC student each fall who is enrolled in at least nine credit hours and who demonstrates scholastic ability and good citizenship.

Baggerly Administration of Justice Scholarship
The Baggerly Administration of Justice Scholarship was established by William T. and Christine S. Baggerly to support and add educational assistance to our community’s active duty law enforcement officer. The scholarship will be awarded annually to a student who demonstrates the following criteria:
1. First year or second year student enrolling in Administration of Justice (AAS) with a specialization in Law Enforcement, Corrections, Protective Services and/or Cybercrime Investigation
2. Scholastic achievement of at least a 2.0 GPA
3. Preference will be given based on the following criteria:
   a. Active Duty, Pittsylvania County Sheriff’s Office
   b. Active Duty, Danville Police Department
   c. Student currently enrolled in the Administration of Justice program
4. Scholarship will pay for tuition, books and fees only

Barkhouser Endowed Scholarship
Richard and Kit Barkhouser established the Barkhouser Endowed Scholarship in 1998 to support a full-time student at DCC. The first-year student must reside within the DCC service region or in Caswell County, NC, and must demonstrate scholastic achievement, have at least a 2.50 high school GPA, and exhibit leadership potential.

Barksdale Honors Scholarship (Graduation Scholarship)
The estate of Ms. Mary M. Barksdale endowed the Barksdale Honors Scholarship in 2000. DCC graduates who are transferring to accredited four-year colleges or universities must be considered by the College as “most likely to succeed.” The recipients must have compiled exceptional records, both in academics and in extracurricular activities. Recipients also must have displayed leadership qualities on campus or in the community which influence positively the actions of others.
Barksdale - Rorrer Study Abroad Endowed Scholarship
The Barksdale-Rorrer Study Abroad Endowed Scholarship was established by Ms. Mary M. Barksdale, a DCC librarian until her retirement. The purpose is to enable DCC students to experience the culture and history of other countries thus broadening and promoting international understanding. The scholarship also honors former DCC history professor, Kinney Rorrer. Consideration for the scholarship includes financial need and academic achievement. Students must take the study tour as a credit course. Applications are available from Dr. Mark Wallace in the History Department at 434.797.8471.

Amy Jo Murray Bell Memorial Scholarship
The Amy Jo Murray Bell scholarship was established by family and friends in memory of Bell who attended DCC and later transferred to the Danville School of Radiology. The scholarship will be awarded annually to a student who is enrolled in the First Year Studies program with plans to complete training in radiology. The recipient must also have maintained a minimum of a 3.0 grade point average in high school or college. Preference will be given to an individual who is a single parent and has participated in community service activities.

Carrington and Happy Bigdood Scholarship for Business and Marketing
The Carrington and Happy Bigdood Scholarship for Business and Marketing was established in memory to honor and recognize the late Mr. Carrington Bigdood and Mrs. Happy Bigdood. In order to be eligible, the student must be enrolled in one of the following programs: Business Management or Marketing (both AAS degrees). The student must also meet the following criteria:
- Must have academic promise with a commitment to complete college
- Maintained high moral character
- Demonstrated a concern for others
- High ideals
- Good citizenship
- Possesses leadership qualities
- Participated in community outreach
- Demonstrated a financial need

O. T. Bonner Memorial Scholarship
The O. T. Bonner Memorial Scholarship was established in 1996 by Dr. John Bonner in memory of his father, O. T. Bonner, an educator who served as the first chair of the Danville Community College Board. The award is presented to a fulltime student at DCC.

Bucknam Scholarship
The Bucknam Scholarship, created in 1999 by Gregory and Tracy Bucknam and given in memory of Ms. Mary Barkdale, is an annual award. The recipient must be a resident of the Patrick Henry Boys Home, have graduated from high school during the same year in which the first scholarship award is received (current graduate), have maintained at least a 2.50 GPA during high school, and be enrolled full-time in any program of study at DCC. If the recipient maintains at least a 2.50 GPA at DCC during the first year, the student will be eligible to receive the Bucknam Scholarship for the second year.

Elizabeth B. Bustard Endowed Scholarship
The Elizabeth B. Bustard Endowed Scholarship is awarded to a full-time freshman who is committed to high ideals and demonstrates leadership and good citizenship. Scholastic achievement of at least a 3.00 GPA is the final criterion for this award.

James Bustard Endowed Scholarships (Graduation Scholarship)
These scholarships, established in memory of James Bustard, a friend of the College, are presented annually to graduating DCC students who plan to transfer to an accredited four-year college or university. Other award criteria include commitment to high ideals, leadership, good citizenship and scholastic achievement.

Alexander Berkeley Carrington, Jr. and Ruth Simpson Carrington Charitable Trust Scholarships
The Carrington Charitable Trust Scholarships are awarded to two full-time students who demonstrate a commitment to completing the academic program in a timely manner and who have financial need.

James T. Catlin, Jr. - Kiwanis Scholarship (Graduation Scholarship)
The James T. Catlin, Jr.-Kiwanis Scholarship is presented to a student who has completed two years of study at DCC: is a legal resident of Virginia Community College Region Number 12; and is transferring as a full-time student to a senior institution in pursuit of a baccalaureate degree. The purpose of the award is to recognize scholarship, to further the educational development toward leadership and citizenship of DCC students and to honor the memory of James T. Catlin, Jr. The scholarship recipient is selected by a Danville Community College Scholarship Committee with the approval of the Board of Directors of the Kiwanis Club of Danville, Virginia. The basis of selecting the recipient shall be: (1) financial need, (2) scholastic achievement, (3) leadership, and (4) citizenship.

Chatham Rotary Club Scholarship
The Chatham Rotary Club Scholarship is available to a student who is a resident of Pittsylvania County and enrolled full-time at DCC. The selection is based on academic merit and financial need.

CIT Group/Factoring Scholarship
The CIT Group/Factoring Scholarship was created by the CIT Group, Inc., located in Danville, VA. The scholarship will be given to a Danville area resident, a full-time sophomore student that demonstrates a financial need. The student must also demonstrate academic promise, leadership potential with ongoing commitment to community service. Individuals receiving other assistance from the CIT Group will not be considered for award.

Climate Control, Inc. Endowed Scholarship
The Climate Control, Inc. Endowed Scholarship was established by the company’s Board of Directors and Mr. John Cannon. Preference is given to children of employees of Climate Control, Inc. and then to Halifax County residents. To be eligible, a student must be enrolled full-time in a degree, diploma, or certificate program. The award is renewable for a second year, provided the recipient maintains a 2.50 GPA and reapplies.

College Board Academic Excellence Scholarships
The Danville Community College Board has established two-year, full tuition scholarships to be awarded annually at each of the area’s six public high schools. Eligibility will be based solely upon the class rank: the top five students at George Washington High School and Halifax County High School; and the top two graduates at Chatham, Dan River, Gretna, and Tunstall High Schools. Information about these scholarships can be obtained from the respective high school Counseling Offices.

College Board Recognition of Achievement Scholarships
The Danville Community College Board has established scholarships to be awarded to a graduate of each of the six public high schools in the College’s service region. The recipient of each award is recommended by the high school on the basis of academic potential and not financial need. These scholarships are awarded annually.
Commonwealth Legacy Scholarship Program
The Commonwealth Legacy Scholarship program was established in 2006 by the Virginia Foundation for Community Colleges to increase access to higher education and to develop student leadership potential. Subsequent scholarships and awards may be given to a student attending DCC for the first time. The recipient must demonstrate academic excellence during high school; be a full-time, associate degree seeking student with plans to graduate from a Virginia Community College; demonstrate a willingness to promote community college education and the Commonwealth Legacy Scholarship Program; demonstrate a willingness to mentor future scholars; and demonstrate a commitment to developing leadership potential.

Roger Cook Memorial Scholarship
This scholarship is awarded to an incoming female student enrolled in Business and/or Marketing. The student must be a Tunstall High School graduate who has maintained a minimum 2.0 grade point average.
- Maintained high moral character
- Demonstrated a concern for others
- High ideals
- Good citizenship
- Possesses leadership qualities
- Participated in community outreach
- Demonstrated a financial need
- Corning Incorporated Endowed Scholarship

The Corning Incorporated Endowed Scholarship is presented each year to a rising sophomore who has demonstrated academic excellence. The recipient must be a full-time student (12 credit hours) enrolled in Electronics, Information Systems Technology, or Accounting.

Philip & Frances Daly Annual Scholarships
This scholarship was established for a first or second-year student enrolled full-time, with a minimum high school grade point average (GPA) of 3.0 and/or DCC GPA of 2.5. The recipient must have maintained a high moral character, demonstrated concern for others, high ideals, good citizenship, and possesses leadership qualities; participated in community service, and demonstrated financial need.

Philip and Frances Daly Memorial Scholarship
The Philip and Frances Daly Memorial Scholarship was created to honor the Daly's legacy. Mr. and Mrs. Daly will be remembered for their commitment to the betterment of lives in the Danville/Pittsylvania County community. The annual award is to be used for tuition and/or books using the following criteria:
- First year or second-year student enrolled full-time
- Student must have maintained in high school a GPA of 3.0 and/or at DCC maintained a GPA of 2.5.
- Student must demonstrate a financial need and is not eligible for Federal Aid.
- The preference for this award will be given to Daly Seven Hotel employees and children of Daly Seven employees.
- Additional preferences will be given to a student that has performed at least one year of community service either in a school sponsored or community based activity and/or that has athletic promise.
- Preference will be given to a resident of Danville and Halifax or Pittsylvania County communities.

P. Niles and Carol Daly Scholarships
The P. Niles and Carol Daly Scholarships are presented to entering freshmen who are enrolled full-time and need financial assistance. Preference is given to Daly Seven Hotel employees and children of Daly Seven employees. The recipients must reside within the local area, must maintain a minimum 2.5 GPA, and exhibit leadership potential and good citizenship.

Dan River Inc. Endowed Scholarship
The recipient of the Dan River Inc. Endowed Scholarship must be a full-time student who demonstrates a clear commitment to completing a degree program or transfer program at Danville Community College.

Danville Regional Medical Center Retiree Scholarship for Nursing
The Danville Regional Medical Center (DRMC) Retiree Scholarship was established to honor and remember the retired staff of DRMC. The many years of commitment, tradition and excellence given to DRMC over their tenure will now be highlighted with the creation of this scholarship. The DRMC Scholarship is intended to provide financial assistance for an incoming nursing student. In order to be eligible, the recipient must meet the following criteria:
- Be enrolled as a full-time nursing student
- Must have academic promise with a commitment to complete college, either at DCC or a four-year institution
- Demonstrates high moral character and concern for others
- High ideals and leadership qualities
- Good citizenship and participation in community outreach
- Demonstrates a financial need

The Danville Community College Delius - Rorrer History Medallion Scholarship
The Delius Rorrer History Medallion Scholarship was established in 1999 was established by the Delius in Danville Festival Organizers under the sponsorship of the Danville Historical Society in 1986 and the Lady Astor Preservation Trust in 1997, in commemoration of Frederick Delius, late 19th and early 20th century British composer, and in honor of C. Kinney Rorrer, DCC Assistant Professor of History. In efforts to honor Delius-Rorrer, the scholarship will be awarded annually to a student who demonstrates the following criteria:
- Outstanding History Student
- First or Second Year Student

Danville Kiwanis Club Scholarship
The Danville Kiwanis Club Scholarship will provide awards for each of the two years a student is enrolled. The award covers tuition and books to a full-time or part-time DCC student who demonstrates financial need, scholastic ability, and good citizenship.

Danville Lions Foundation Endowed Scholarship
The Danville Lions Foundation Endowed Scholarship was established for full-time or part-time students who demonstrate visual or hearing impairments or other disabilities. The award(s) may be made for tuition, books, and fees. Tuition assistance is also available through the Danville Lions Foundation Endowment to train local teachers in sign language and other communications skills for the hearing impaired.

DRMC Scholar Award
The Danville Regional Medical Center (DRMC) Scholar Award was established in 2011 by Danville Regional Medical Center and LifePoint Hospitals. The intent of this scholarship is to award the best nursing students an opportunity to learn at Danville Community College without the stress of the financial burden of college costs. This scholarship will be awarded to nursing students who showcase the highest potential in their field of study. Between 12 and 16 students can be eligible for this annual award that is renewable for their second year of nursing program study. There are other specific requirements that each student must adhere to before accepting this scholarship, which will be outlined upon selection. A separate application process must be completed and submitted to the DCC Nursing Faculty for approval as well as the standard DCC Educational Foundation Scholarship Application. The criteria below will be used for the selection process:
- 3.2 Entrance GPA
- Community Service involvement with letter of verification of service
- Scholarship dependent on acceptance into the RN program
• Preference will be given to residents from the College’s service area (i.e. City of Danville, Pittsylvania County and Halifax County)
• Preference will be given to students with proven leadership roles
• Three reference letters required should be from an instructor, employer and facilitator of community service organization (no letter should be written by a family member). Letters of reference should be sealed with a signature and date on the seal
• Student must submit an essay discussing his/her reasons for entering a healthcare profession which will include present and future goals
• Any student unable to complete the program for any reason will repay the scholarship as defined by the donor
• Upon graduation, the student must return a minimum of two years of service to DRMC as a RN (obligation is contingent upon available employment at DRMC or an approved LifePoint Hospital)
• Should a student decide not to accept a position offered by DRMC upon graduation the student must repay all scholarship costs incurred during program attendance to the DCC Educational Foundation.
• Student should submit any honors or previous awards received
• Student must submit complete official transcripts with application from any institution attended
• Everything must be submitted together in the application packet or application will be considered incomplete. Any incomplete application will not be considered for scholarship

Danville Virginia Tech Alumni Scholarship
(Graduation Scholarship)
The Danville Virginia Tech Alumni Scholarship is presented annually to a graduating DCC student who plans to transfer to Virginia Tech as a full-time student. The award is based on commitment to high ideals, leadership, good citizenship, and a GPA of 3.00 or better in the graduate’s curriculum.

Davenport Scholarship
The Davenport Scholarship was established by Mr. and Mrs. Ben Davenport, Jr., to benefit the child of an employee of Banister Bend Farms, Chatham Communications, Chatham Security Inc., Davenport Energy, First Piedmont Corporation, or Piedmont Transport. The student must be enrolled in a degree, diploma, or certificate program; and the basis of selection will be: scholastic achievement, financial need, and good citizenship. In order to receive the scholarship for a second semester, the student must maintain a 2.50 GPA for the first semester. The amount of the award will not exceed tuition for 16 hours per semester.

D. Randolph “Randy” Davis Memorial Scholarship
This scholarship is for a male playing a college-sponsored sport or a full-time student enrolled in the Accounting curriculum. The recipient must demonstrate scholastic ability, good citizenship and financial need.

Dewberry Endowed Scholarship
The Dewberry Endowed Scholarship was established by Mr. Sidney O. Dewberry, Chairman of the Board of Directors and Founder of Dewberry, and his respected employees to provide financial assistance to a student enrolled in a Transfer Associate Degree Program at DCC. The recipient must meet the following criteria:
• Four Year Degree seeking student with academic promise and a commitment to complete his/her Engineering degree at a four year institution in the State of Virginia
  A. George Mason or Virginia Tech Engineering transfer student (first choice)
  B. University of Virginia, Old Dominion University, Virginia Commonwealth University and/or Virginia Military Institute Engineering transfer student (second choice)
• An Engineering student enrolled in the Associate in Applied Science (A.A.S) two year degree program that would enter the engineering field directly after graduation from Danville Community College (third choice)

All applicants will be considered on the following criteria after the before mentioned are met:
• Demonstrates a financial need
• Maintains high moral character and high ideals
• Possess leadership qualities
• Good citizenship and participates in community outreach

Robert and Jim Dunaway Scholarship
The award is made in memory of Robert and Jim Dunaway. Robert graduated from Danville Community College, Virginia Tech, and the University of North Carolina and pursued a career as an accountant. He received the McGovern General Excellency Scholarship when he graduated from DCC in 1988. Jim worked 12 years for the Pittsylvania County Sheriff’s Office as a deputy.

Two scholarships will be awarded to recipients based upon the following criteria:
1. Recipient must be a second-year student enrolled in a business transfer program (focusing on accounting), who has maintained at least a 3.0 GPA and plans to transfer to a four-year institution with preference given to a student planning to attend Virginia Tech. Preference will also be given to a student who graduated from Tunstall High School.
2. Recipient must be a second-year student enrolled in the Administration of Justice program who has maintained a minimum 3.0 GPA. Preference will be given to a student or an immediate family member who is employed by the Pittsylvania County Sheriff Department.

Other requirements include: community involvement and demonstrated leadership potential and financial need even though the recipient may not qualify for financial aid. This award may be used for tuition, books, and fees.

Excelsis Research Scholarship
John Primiano, CEO of Excelsis Research, Inc., established this award in 1994 as the Danville Community College Science Scholarship. Two full-time students majoring in Science who demonstrate scholastic ability, financial need, and good citizenship will receive a scholarship.

Stephanie Ferguson Memorial Scholarship
Created in memory of Stephanie Ferguson by her parents and friends in 1991, the scholarship was first awarded in 2000. The recipient must be a current graduate of Dan River High School, maintain at least a 2.50 GPA, enrolled as a first-year student in the Child Development, Liberal Arts, or Science program, participated in extracurricular activities during high school exemplifying leadership, and exhibited a great determination to succeed.

Thelma E. Forney Endowed Scholarship
The Thelma E. Forney Endowed Scholarship has been established as a memorial to a deeply respected individual who was employed at Danville Technical Institute and Danville Community College for 27 years. The scholarship is awarded to a full-time student in the Administrative Support Technology Program, or in any other diploma-certificate program at DCC. Selection is based upon potential ability and financial need.
Henrietta G. Geyer Dental Hygiene Scholarship
Created in memory of Henrietta G. Geyer by her grandson, this award is presented to a recent graduate from George Washington High School who intends to pursue a career in dental hygiene. The recipient must also have achieved a 2.5 grade point average or higher in high school and have financial need.

Mickey D. Geyer Nursing Scholarship
Created in memory of Mickey D. Geyer by her son, this award will be presented to a recent graduate from George Washington High School who intends to pursue a career in nursing. The recipient must also have achieved a 2.5 grade point average or higher in high school and have financial need.

Roy and Joan Gignac Endowed Scholarship
This scholarship is provided for a second-year student enrolled in electronics. If no candidate meeting this criterion is available, then the scholarship may be awarded to a student enrolled in Marketing or Business Administration. The student must also be a resident of Danville or Pittsylvania County, and preferably have a brother or sister who is attending an accredited institution of higher education as a full-time student. A 2.80 GPA in the curriculum is required for each of the two semesters that the scholarship is utilized. The scholarship must be used within 12 months of the date it is awarded and can only be used for tuition and fees. The student must demonstrate a clear commitment to completing the academic program in a timely manner and have a record of good citizenship.

Walter L. and E. Stuart James Grant Memorial Endowed Scholarships
The scholarships are awarded to children and immediate family members (defined as living in the same household) of Danville Register and Bee employees. In the event that there are no applicants from immediate family members of employees, then consideration will be given to a current Danville Register and Bee carrier in good standing or the spouse, son, or daughter of a current carrier (good standing to be determined by the Danville Register and Bee) or former carrier who gave up a route in good standing. To receive the award, the recipient must agree to assist for three hours per week with the Estelle H. Womack Collection housed at the Danville Science Center. The full-time student must show evidence of financial need and the ability to successfully complete college-level academic requirements. Recipients are eligible to reapply for successive years.

Graphic Imaging Excellence Scholarship
In 2001, an anonymous donor established a scholarship which will be awarded each semester to a second-year student enrolled in the Graphic Imaging Technology program. The recipient must have financial need, maintained a 2.50 or better GPA, and exhibited academic promise in the printing field.

Robert Wayne Grasty Memorial/High Street Baptist Church Scholarship
The Robert Wayne Grasty Memorial/High Street Baptist Church Scholarship was established to provide financial assistance to a student, enrolled in the Administration of Justice or Business Management curricula seeking an Associate of Applied Science Degree. The recipient must meet the following criteria:
- Preference given to a High Street Baptist Church member
- Demonstrates a financial need
- Must have academic promise with a commitment to complete college
- Maintains high moral character and high ideals
- Possess leadership qualities
- Good citizenship and participates in community outreach

Norman D. Haar Endowed Scholarship
The Dr. Norman D. Haar Endowed Scholarship has been established in memory of an exceptional DCC Professor of Psychology. In order to be eligible, a student must have successfully completed Developmental Studies requirements and entered his/her chosen curriculum.

Hancock-Dees-Murray-Sacred Heart Church-School Scholarship
The Hancock-Dees-Murray-Sacred Heart Church-School Scholarship was established in 1996 by Pat and Cathy Daly in honor of Marguerite “Eddie” Hancock, former principal of Sacred Heart School. The scholarship is awarded to a Sacred Heart School Alumnus, a member of Sacred Heart Church, or a resident of the City of Danville, Virginia who demonstrates financial need or is no longer receiving parental support.

Rebekah L. Heldreth Memorial Scholarship
The Rebekah L. Heldreth Memorial Scholarship has been established in memory of an exceptional young lady. In order to be eligible, the recipient must be a female senior graduating from Chatham High School who has achieved a 3.0 GPA for her senior year in high school and has academic promise with a commitment to complete college, maintained high moral character, demonstrated concern for others, high ideals, good citizenship and possess leadership qualities, participated in community service, demonstrated financial need and enrolled full-time in the transfer Science program of study.

Dr. Harold Henry – Educational Foundation Scholarship
The Dr. Harold Henry – Educational Foundation Scholarship was created in 2012 to honor one of the great professors and administrators from DCC. Dr. Henry has committed his life to the betterment of the Danville/Pittsylvania County community. The annual award is to be used for tuition and/or books using the following criteria:

First year or Second year student enrolled full-time.
- Student must have maintained in high school a GPA of 3.0 and/or at DCC maintained a GPA of 2.5.
- Student must demonstrate a financial need and is not eligible for Federal Aid.
- Preference will be given to a student that has performed at least one year of community service either in a school sponsored or community based activity.
- Preference will be given to a resident of Danville and Halifax or Pittsylvania County communities.

Bobbie R. Ingram Educational Fund for Women
The Bobbie R. Ingram Educational Fund for Women was established to recognize the late Mrs. Bobbie Reid Ingram. This scholarship will provide a lasting memory of the impact she made in the lives of students here at Danville Community College until her retirement in 2001. In 1981, she began her 20-year affiliation with DCC as a part-time “Mom” and as a student development office assistant. Mrs. Ingram provided invaluable support for student activities and was always there to offer a sympathetic and empathetic ear. A full-time female student possessing the same qualities as Mrs. Ingram will be awarded this scholarship annually.

Intertape Polymer Group Scholarships
The Intertape Polymer Group Scholarships provide awards to children of employees of Intertape Polymer who are enrolled in a degree, diploma, or certificate program. The recipients must demonstrate scholastic achievement, financial need, and good citizenship.
The following criteria will be used in awarding the annual scholarship:

1. First year or Second year student enrolled full-time.
2. Preference will be given to students in Fire Science program
3. Demonstrated concern for others, high ideals, good citizenship
4. Preference will be given to a student of Danville and Pittsylvania County communities.
5. Preference will be given to a student who has performed at least one year of community service either in a school-sponsored or community-based activity
6. Demonstrated a financial need
7. Preference will be given to students in Education curriculums. Student must:
   1. Maintained high moral character
   2. Demonstrated a concern for others
   3. High ideals
   4. Good citizenship
   5. Possesses leadership qualities
   6. Participated in community outreach
   7. Demonstrated a financial need

The Dr. Harry T. Kolendrianos Endowed Scholarship was endowed in 2012 by Dr. and Mrs. Francis H. McGovern of Danville, Virginia. The recipient of this award will be a student who has completed two years at Danville Community College; has fulfilled the requirements of an Associate of Arts and Science Degree; is a legal resident of Virginia Community College Region Number 12; and is transferring to a senior institution in pursuit of a baccalaureate degree. The award is made. The award is based on financial need.

The Nathan Lester Excellence Endowed Scholarship has been established by The Lester Family. The award will be made to a goal-directed, motivated young person who has displayed a positive sense of excellence in art, music, or another academic arena. The recipient should be someone who might be unable to attend college without some financial assistance.

The James R. Meissner II Memorial Scholarship was established by Mrs. Judith Meissner in January 1998 in memory of her husband who was a long-time faculty member in the Precision Machining Technology program. The scholarship will be awarded to a full-time freshman or sophomore who is enrolled in the Precision Machining Technology program and who has maintained at least a 3.00 GPA.

Established in August 2002 by Robert McCall in memory of his wife, this scholarship will be awarded to a first or second-year student who has maintained at least a 2.50 GPA while in high school and during the first year at DCC. The recipient is enrolled in either full-time or part-time as a program-placed student in a transfer program.

The Nathan Lester Excellence Endowed Scholarship

The family and friends of long-time DCC History professor, Fred Lloyd, III, established a scholarship in his memory in 2002. The scholarship is awarded to a rising sophomore enrolled full-time in a transfer program (Liberal Arts, Science, or Business Administration). The recipient must have maintained at least a 2.5 GPA and exhibited good citizenship, character, and sound values that have been demonstrated through leadership and civic involvement.

Thelma Swann Johnson Memorial Endowed Scholarship

The Thelma Swann Johnson Memorial Endowed Scholarship was established in 2001 by Harry Johnson in memory of his wife, Thelma Swann Johnson. The scholarship is awarded to a sophomore who has maintained a 3.00 or better GPA and has enrolled full-time in a two-year program. The recipient must have participated in multiple activities during the first year at DCC, exemplified leadership within the community and at the College, and exhibited great determination and will to succeed.

Vincent P. Kania Scholarship

This scholarship is awarded to a part-time or full-time student who demonstrates scholastic ability, good citizenship and financial need.

Kolton Brim Karnes Memorial Scholarship

The Kolton Brim Karnes Memorial Scholarship was established by Kolton’s family, friends, and community as a living tribute to a young life that was dramatically taken from this earth without reason. In efforts to honor Kolton, the scholarship will be awarded annually to a student who demonstrates the following criteria:

1. Incoming freshman or second year student enrolling or enrolled in Fire Science or Administration of Justice programs
2. Preference will be given to students in Fire Science program
3. Scholastic achievement of at least a 3.0 GPA
4. Demonstrated concern for others, high ideals, good citizenship
5. Participated in community service

E. Budge and Carolyn Kent Scholarship

This scholarship is awarded to part-time or full-time student who demonstrates scholastic ability, good citizenship and financial need.

Harry T. Kolendrianos Endowed Scholarship

The Dr. Harry T. Kolendrianos Endowed Scholarship was endowed in 2012 by the proceeds made from the annual DCC Half Marathon/8K Race sponsored by Virginia Bank and Trust Company. Virginia Bank and Trust Company, the leading sponsor, wanted to recognize their fellow board member and retired DCC professor for his great work at DCC, with the bank, and in the community.

The following criteria will be used in awarding the annual scholarship:

1. First year or Second year student enrolled full-time.
2. Student must have maintained in high school a GPA of 3.0 and/or at DCC maintained a GPA of 2.5.
3. Student must demonstrate a financial need and is not eligible for Federal Aid.
4. Preference will be given to a student who has performed at least one year of community service either in a school-sponsored or community-based activity
5. Preference will be given to a resident of Danville and Pittsylvania County communities.

McGovern Endowed General Excellency Award (Graduation Scholarship)

The McGovern Endowed General Excellency Award is presented each year at graduation. This scholarship is the result of a gift by Dr. and Mrs. Francis H. McGovern of Danville, Virginia. The recipient of this award will be a student who has completed two years at Danville Community College; has fulfilled the requirements of an Associate of Arts and Science Degree; is a resident of Virginia Community College Region Number 12; and is transferring to a senior institution in pursuit of a baccalaureate degree. The purpose of this award is to recognize scholarship and to further the educational development toward leadership and citizenship of Danville Community College students. The basis of selecting the recipient shall be: (1) scholastic achievement; (2) leadership; (3) citizenship.

James R. Meissner II Memorial Scholarship

The James R. Meissner II Memorial Scholarship was established by Mrs. Judith Meissner in January 1998 in memory of her husband who was a long-time faculty member in the Precision Machining Technology program. The scholarship will be awarded to a full-time freshman or sophomore who is enrolled in the Precision Machining Technology program and who has maintained at least a 3.00 GPA.

Clyde and Joyce Midkiff Endowed Scholarship

The Clyde and Joyce Midkiff Endowed Scholarship is awarded to a graduate of Gretna Senior High School, enrolling full-time at Danville Community College. The award is applicable to tuition and books in the academic year in which the award is made. The award is based on financial need.

Ethel C. and Henry A. Mitchell Memorial Foundation Scholarship

The Ethel C. and Henry A. Mitchell Memorial Foundation Scholarship was established at DCC in 2002. The scholarship will be awarded to three first-year African-American students at DCC who have maintained a high school GPA of at least 2.50; have enrolled in Public Service, Child Development, or a Liberal Arts program; have demonstrated financial need; and have performed at least one year of community service, either school-sponsored or community-based. Preference will be given to residents of the Almagro and surrounding communities within the City of Danville limits.
Ann and Frank Mobley Endowed Scholarship
The Ann and Frank Mobley Endowed Scholarship is presented to an incoming full-time student from Pittsylvania County, with preference being given to a Tunstall High School student. Need, scholastic achievement of at least a 3.00 GPA for the last year in school, academic promise, and good citizenship are among the criteria for selection.

Robert E. Morgan Memorial Endowed Scholarship
The Robert E. Morgan Memorial Endowed Scholarship was established in memory of Robert E. “Bob” Morgan, a long-time professor of Electrical/ Electronics at Danville Technical Institute and DCC. The award will be made to a student in the Electrical/Electronics curriculum who shows potential for successfully completing the program and does not qualify for other financial assistance.

Lyle Carter Motley, Sr. Endowed Scholarship
The Lyle Carter Motley, Sr. Endowed Scholarship was established in memory of Lyle C. Motley, a broadcaster of WMNA in Gretna, VA. The award will be made to a student who has graduated from any Pittsylvania County High School. The recipient must be enrolled in the Electronics program and have maintained at least a 3.0 GPA during high school or during the first year at DCC. Preference will be given to a student who is interested in working in the communications field such as radio or television.

Vera B. Murphy Memorial / John M. Langston High School Reunion Committee Scholarship
This scholarship was established in memory of a former Danville principal and educator, Vera B. Murphy. The award will be made to a graduating high school senior who will enroll full-time at DCC, has maintained a 2.5 or better GPA, and resides in Danville, Pittsylvania County or Halifax County.

Shaun William Murray Memorial Scholarship
The Shaun William Murray Memorial Scholarship was established by family and friends to recognize the former DCC student who died October 29, 2004. The award is given to a second-year student who is enrolled in a Liberal Arts program with plans to major in fine arts, or enrolled in the Graphics Imaging Technology program. The recipient must have maintained a minimum of 3.0 GPA in high school or in college. Preference is given to a recipient who has participated in community service activities, and who has lived in North Danville and attended any one of the following three schools: Woodrow Wilson, Irvin Taylor, or O.T. Bonner schools.

Kenneth L. Neathery Memorial Endowed Scholarship
The Kenneth L. Neathery Endowed Memorial Scholarship has been established at DCC to provide students with educational opportunities. Mr. Neathery devoted many years of service to the College. His deep concern for students and his belief in the worth of each individual guided his every action. This scholarship shall be awarded to a full-time program-placed business student at DCC. The scholarship may be awarded to a student in any curriculum who demonstrates scholastic achievement and a commitment to high ideals.

Don Nodtvedt Boys and Girls Club Scholarship
The Don Nodtvedt scholarship was created in 2012 to honor Don Nodtvedt and his accomplishments in Danville/Pittsylvania County. Mr. Nodtvedt, recently retired Boys and Club Director, committed his life to the betterment of the Danville/Pittsylvania County community. The annual award is to be used for tuition and/or books using the following criteria:

1. First year or Second year student enrolled full-time.
2. Student must have maintained in high school a GPA of 3.0 and/or at DCC maintained a GPA of 2.5.

3. Student must demonstrate a financial need and is not eligible for Federal Aid.
4. Preference will be given to a student who has performed at least one year of community service either in a school-sponsored or community-based activity.
5. Preference will be given to a resident of Danville and Pittsylvania County communities.

Wayne and Nancy Oakes Scholarship
This scholarship is awarded to part-time or full-time student who demonstrates scholastic ability, good citizenship and financial need.

Lawrence Olds Memorial Endowed Scholarship
The Lawrence Olds Memorial Endowed Scholarship was established as a living tribute to an individual dedicated to the education of the community. The scholarship will be awarded annually to a student who demonstrates academic potential and good citizenship.

Rexford E. O’Neil Endowed Scholarship
The Rexford E. O’Neil Endowed Scholarship, named in memory of DCC’s long-time registrar, is awarded to an entering freshman enrolled fulltime in an associate degree or diploma program. The award is restricted to tuition and fees. The recipient should be a student who does not qualify for other types of financial assistance and shows promise of educational success.

Peoples Mutual Telephone Endowed Scholarship
The Peoples Mutual Telephone Endowed Scholarship, established in 1989 by the E. B. Fitzgerald III family, is awarded annually and may be used for tuition and fees. The recipient shall be selected in accordance with the following criteria:

1. Up to six semesters and three summer sessions provided the student maintains at least a 2.50 GPA, has entered a curriculum, remains in the program, demonstrates good citizenship, and reapplies annually.
2. If no candidate qualifies under the above, then the scholarship shall be awarded to a student who has resided in the Peoples Mutual Telephone service area for one year prior to the award.

Peoples Mutual Telephone Company, Inc. - Tech Prep Scholarship
Peoples Mutual Telephone Company, Inc. an independent telephone firm located in Gretna, Virginia, expanded its scholarship endowment in 1998 in order to provide a scholarship for a graduate of the Tech Prep program who has maintained at least a 2.50 GPA and who will continue his/her education at DCC. Preference for the scholarship will be given to a Gretna High School student or to a student from Pittsylvania County.

Nelson and Thelma Pippin Scholarship
for Vocational and Career Education
Created in honor of Nelson and Thelma Pippin by their children, this award is presented to students enrolled full-time in the following programs: precision machine technology, air conditioning and refrigeration (HVAC), advanced manufacturing, electrical concepts or welding. The recipient must have a grade point average (GPA) of 2.8 or higher. Priority selection in order goes to graduates from the following area schools: (1) Gretna High School or Faith Christian School; (2) any other Pittsylvania County School; (3) Danville City School; and (4) Halifax County School.
Edna S. Powell Family Memorial Scholarship
The Edna S. Powell Family Memorial Scholarship was established by Shannon L. Hair to honor and recognize his family. In order to be eligible, the recipient must be a senior graduating from a high school in the college’s service area and who has achieved a 3.0 GPA or better for his/her senior year. He/she must have committed a commitment to complete college, maintained high moral character, demonstrated a concern for others, high ideals, good citizenship, possessed leadership qualities, participated in community outreach, demonstrated a financial need and will be enrolled as a full-time student. In efforts to show tribute to the Powell Family, the scholarship will be awarded annually to a student who demonstrates the previous criteria.

Shirley Day Primiano Scholarship
The Shirley Day Primiano Scholarship has been established by Dr. Shirley Primiano, a local educator. The award may be used for tuition and books, and is given to a full-time or part-time student. The selection of the recipient will be based upon financial need, scholastic ability, and good citizenship.

Project Celebration Scholarship
Established in December 2008, this scholarship is awarded to a current George Washington High School graduate with financial need and entering DCC as a full or part-time student.

Robert H. Ramey, Jr. Endowed Scholarship
The Robert H. Ramey, Jr. Endowed Scholarship is available to a student in a degree, certificate or diploma program and must maintain at least a 2.5 grade point average prior to the award and during the academic year.
1. Preference will be given to a male student who attends any unit of the Boys and Girls Clubs within the city limits of Danville, VA.
2. Second preference will be given to a minority student, preferably a male who is enrolled in an industrial/technical program.
3. Third preference will be based upon financial need.

Dr. B. Carlyle Ramsey Scholar Award
The B. Carlyle Ramsey Scholar Award is presented to students who demonstrate financial need and are not eligible for Federal Aid. The recipient must perform 50 hours of community service during the semester of award at an approved non-profit agency within the College’s service area.

Sandra Lee Riddle/RACO Endowed Honor Scholarship
This scholarship shall be awarded to a graduate of Gretna Senior High School or someone who has lived within ten miles of Gretna for five years. The award may be used for tuition and books in the academic year the award is made. The recipient must be a full-time student entering a curriculum at DCC. Preference will be given in the following order:
1. A student planning to enter a registered nursing program
2. A business student
3. A student in other programs

In order to use this scholarship for a second semester, a full-time student must earn at least a 2.50 GPA for the first semester of the scholarship.

Rippe Endowed Scholarship for Women in Science and Business
Established in 1992 by Rippe’s and Ben Rippe, this scholarship is awarded to a full-time female student enrolled in a college transfer program, majoring in business or science. The selection criteria is based on the educational ability of the student.

Riverdan Benevolent Fund Endowed Scholarship
The Riverdan Benevolent Fund Endowed Scholarship has been established for Dan River Inc. employees and their dependents. The award may be used for tuition, books, and fees in the academic year in which the award is made. Length of continuous employment at Dan River Inc. is a factor in determining eligibility. This award is also available to sons, daughters, and spouses of deceased employees, who at the time of death had three or more years of continuous service.

Roberts-Hunt Endowed Scholarship
The Roberts-Hunt Endowed Scholarship is awarded to a student who is a resident of South Boston or Halifax County, and is made possible by a gift of Dr. and Mrs. Lucien W. Roberts.

Fredrick Morris Robertson Memorial Scholarship
This scholarship is awarded to an incoming or returning student enrolled full-time in the Drafting & Design program. The recipient must demonstrate scholastic ability, good citizenship and financial need.

James A. Robertson Scholarship
The James A. Robertson Scholarship was established through the generosity of James and Ann Robertson in 1992. Upon Mr. Robertson’s death in 2001, the scholarship was first awarded in 2002. Multiple scholarships are awarded annually to students who have financial need.

George Rogers – Educational Foundation Scholarship
The George Rogers – Educational Foundation Scholarship was created in 2012 to honor one of the great technical professors from DCC. Mr. Rogers has committed his life to the betterment of the Danville/Pittsylvania County community. The annual award is for tuition and/or books using the following criteria:
1. First year or second year student enrolled full-time.
2. Student must have maintained in high school a GPA of 3.0 and/or at DCC maintained a GPA of 2.5.
3. Student must demonstrate a financial need and is not eligible for Federal Aid.
4. Preference will be given to a student who has performed at least one year of community service either in a school-sponsored or community-based activity.
5. Preference will be given to a resident of Danville and Halifax or Pittsylvania County communities.

Schoolfield High School Reunion Committee Endowed Scholarship
The Schoolfield High School Reunion Committee Endowed Scholarship was established in 2001 through the generosity of members and alumni of Schoolfield High School. The scholarship will be awarded to a current high school graduate who has maintained at least a 3.00 GPA while in high school, has financial need, has been involved in community and school-related activities and demonstrated leadership potential. The student may be enrolled in any DCC program either full time or part time.

Wendell O. Scott Memorial Scholarship
The Scott family and the Wendell Scott Scholarship Foundation initiated the Wendell O. Scott Memorial Scholarship fund in 1994 with the first academic award presented in 1999. The award is given to a student enrolled in the automotive/auto body program or a related technical program. The student must maintain at least a 2.50 GPA and have athletic potential.
Peyton Sellers Champion Award
Peyton Sellers, a DCC 2004 motorsports management graduate, received the 2005 Dodge Late Model Weekly Championship. Because of his outstanding leadership, a $1,000 award has been established in his name and the first award made in 2006-2007. To be eligible, the recipient must be a current high school graduate from Danville, Halifax County or Pittsylvania County, majoring in a technical program. The recipient must have academic promise and possess and display leadership potential.

Herbert R. Silverman, M.D. and Evelyn N. Silverman Scholarship Fund
The Herbert R. Silverman, M.D. and Evelyn N. Silverman Scholarship Fund provides scholarships for full-time students enrolled in DCC’s Nursing programs. To be eligible, a student must be a permanent resident of the City of Danville or Pittsylvania County; demonstrate a financial need for the scholarship; demonstrate a commitment to obtain a nursing degree and, thereafter, pursue a career in nursing; and be a good citizen with the highest ethical and moral character.

Charles and Jennifer Snead Family Scholarship
The Snead Family scholarship was created anonymously to honor the Snead Family. Charles Snead, a local accountant and his wife Jennifer, a local educator have committed their lives to the betterment of the Danville/ Pittsylvania County community. The annual award is to be used for tuition and/or books using the following criteria:

1. First year or second year student enrolled in either the Accounting program (Associate of Applied Science) or the Associate of Arts and Science Degree Program – English Transfer Program.
2. Student must have maintained in high school a GPA of 3.5 and/or at DCC maintained a GPA of 3.5.
3. Student must demonstrate a financial need and is not eligible for Federal Aid.
4. Preference will be given to a student who has performed at least one year of community service either in a school-sponsored or community-based activity.
5. Preference will be given to a resident of Danville and Pittsylvania County communities.

Obra E. and Shirley J. Spangler Endowed Scholarship
The Obra E. and Shirley J. Spangler Endowed Scholarship Fund was established in 1996. A recipient must be enrolled in the printing program; have maintained at least a 2.50 GPA; and have demonstrated good citizenship through community involvement.

Betty Starr Scholarship
This scholarship was created by Betty Starr at the conclusion of the 2012 DCC Educational Foundation Golf Tournament. Mrs. Starr is a Danville, VA resident. This scholarship will be awarded to a part-time or full-time DCC student who demonstrates scholastic ability and good citizenship.

Stendig-Miller Family Endowed Scholarship
Stendig-Miller Family Endowed Scholarship was established by Mr. and Mrs. Joseph Stendig and the late Mrs. Minnie Miller. It is awarded annually to a student entering DCC, enrolled full time or part time in a program. The award is to be used for tuition and books. Selection is determined by financial need and the student’s strong commitment to acquiring an education.

Bobby Stinespring Jr. Memorial Scholarship (Graduation Scholarship)
The Bobby Stinespring Jr. Memorial Scholarship was established in 2007 to honor the memory of Bobby Stinespring, Jr. for a DCC student planning to attend Virginia Tech. In efforts to honor Bobby, the scholarship will be awarded annually to a student who demonstrates the following criteria:

1. Financial Need
2. High School participation in girls softball

Christopher Daniel Turner Scholarship
The Christopher Daniel Turner Scholarship was first awarded in 1997 in memory of an outstanding young man who died tragically during his military service. The award was established by his parents and provides for tuition, books, and fees. The scholarship is given to a student who has been a Law Enforcement Explorer in Post 911, Danville, VA for at least six months, resides in Danville or Pittsylvania County, and is enrolled or enrolling in the Administration of Justice program. The recipient must demonstrate financial need and have a GPA of at least 2.50.

Melvin C. Vernon, Jr. and Michael Solomon Memorial Scholarship
Established in 2012-2013 by Jean Carol Harper Vernon and sons Melvin Vernon III and R. Hutchings Vernon to honor the memory of Melvin C. Vernon, Jr., a member of the original Foundation Board, and Michael Solomon (April 3, 1945 - May 29, 2010), who possessed outstanding ability to engage his DCC students in various ways to sustain the environment especially through design and passive solar architecture. The scholarship should support a student who shows an interest in architecture, construction, engineering or related subjects.

Virginia Bank and Trust Company Endowed Scholarship
Established by the Virginia Bank and Trust Company, this tuition scholarship is presented to a rising sophomore who has completed 30 semester hours in Business Management or Marketing at DCC. The student is required to have a 2.75 GPA or above, reside in the Danville area (within 30 miles of the main office of Virginia Bank and Trust Company), and be taking at least 12 credit hours. The award will be based on need, scholastic ability, and good citizenship.

Jack I. White Endowed Scholarships
The Jack I. White Endowed Scholarships were established by a bequest from the estate of Miss Annie E. White in memory of her sisters, Miss Elizabeth H. White and Miss Juliette I. White. Recipients must be graduates of Dan River High School who demonstrate financial need and sufficient aptitude and commitment to complete a college education. One or more full tuition scholarships will be made each year. Announcement of the recipient(s) will be made at the Dan River High School Commencement.

Whittle Family Endowed Scholarship
The Whittle Family Endowed Scholarship, established by Mr. and Mrs. Henry D. Whittle, Jr., is an award for tuition and books. Selection of the recipient is based on need, scholastic ability, and good citizenship.

Wilkins and Co. Realtors Scholarship
Hampton Wilkins of Wilkins and Co. Realtors created the scholarship in 1999 to recognize a rising sophomore enrolled in the Marketing program who demonstrates academic ability and has maintained a 2.50 or better grade point average. Wilkins and Co. Realtors also provides funding for four students to take the Virginia Real Estate Licensing Exam.
Charles T. “Ted” Williams Veterans Scholarship
The Charles T. “Ted” Williams Veterans Scholarship was established to honor Mr. Ted Williams and his 23 years of military service and to recognize veterans on the DCC campus. Mr. Williams served two years in the U.S. Army (1945-1947) and 21 years in the U.S. Air Force (1951-1972) where he retired as Senior Master Sergeant. Mr. Williams also served during World War II, Korea and Vietnam. In order to be eligible, the recipient must meet the following criteria:
1. Be a veteran (part-time student or full-time student) where he or she was in active duty or a branch of the reserve.
2. Must have academic promise with a commitment to complete college
3. Demonstrates high moral character and a concern for others
4. Good citizenship and high ideals
5. Possesses leadership qualities and participates in community outreach
6. Demonstrates a financial need

Ruth Williams Cancer Survivor Scholarship
The Ruth Williams Cancer Survivor Scholarship was established to honor Mrs. Ruth Williams, a breast cancer survivor. Mrs. Williams was diagnosed with this disease in 1995. Her disease has been in remission since 1996. In order to be eligible, the recipient must meet the following criteria:
1. Be a female student (part time or full time) who has fought cancer or who has been diagnosed with cancer while a student attending DCC
2. Nursing student preferred
3. Must have academic promise with a commitment to complete college
4. Maintains a high moral character and ideals
5. Demonstrates good citizenship and a concern for others
6. Possesses leadership qualities and participates in community outreach
7. Demonstrates a financial need

Plumer Wiseman Endowed Scholarship
The Plumer Wiseman Endowed Scholarship was established in memory of Mr. Plumer Wiseman, a dedicated volunteer at the Estelle H. Womack Museum of Natural History, by the John James Westbrook Society and the DCC Educational Foundation. The purpose of the award is to provide an opportunity for a full-time student to receive tuition assistance in return for working for six hours per week with the Estelle H. Womack Collection housed at the Danville Science Center. The student must have at least a 2.50 GPA in the major field and be working towards a degree, diploma, or certificate.

Womack Foundation Scholar Award Scholarship
The Womack Foundation Scholar Award Scholarship was created in 2012 with contributions made by the Womack Foundation. For over two decades the Womack Foundation has given the DCC Educational Foundation funds for emergency situations to be used for tuition and/or book payment for eligible students. This premise still exists for fifty (50) worthy students throughout the academic year. The following criteria must be met by each student accepting this scholarship:
1. Student must demonstrate a financial need and is not eligible for Federal Aid.
2. Student must volunteer and perform community service within the semester the scholarship is granted.
3. Student must arrange his/her volunteer hours (50 hours) with an approved non-profit agency (within the college’s service area) before applying and accepting the scholarship award.
4. Student is only awarded one (1) $500.00 scholarship per semester and must re-apply after each semester to be eligible the following semester. The maximum scholarship award per student, upon eligibility will be for three (3) semesters total.

Zan and Bobbye Raye Womack Entrepreneur Scholar Award
The Zan and Bobbye Raye Womack Entrepreneur Scholar Award was established to provide financial assistance to a student who possesses an "entrepreneurial" spirit in his or her classwork, participates at his or her employment and has a personal desire to have his or her own business located within the College’s service area. This student will also be expected to understand and at times take part in activities associate with the Barkhouser Free Enterprise Center.

Woodward Scholarship
The Woodward Scholarship will be awarded to a high school senior who has overcome obstacles in order to graduate and obtain a high school diploma. The recipient must have potential for success in post-secondary education and future work; enroll in any certificate, diploma, or degree program at DCC; and maintain at least a 2.00 GPA while enrolled at DCC. Recommendations will be solicited from the Regional Alternative Schools in Halifax County and Danville/Pittsylvania County, the Southside Regional Group Home in Halifax; Patrick Henry Boys Home; and the directors of Social Services in Danville, Halifax, Pittsylvania, and Farmville.

Anita J. Wyatt Scholarship
The Anita J. Wyatt Scholarship was established by Ms. Wyatt to provide financial assistance to a student enrolled in either the Administrative Support Technology Program (AAS) or the Business Administration Program (AA&S). The recipient must meet the following criteria:
1. Demonstrates a financial need
2. Must have academic promise with a commitment to complete college
3. Maintains high moral character and high ideals
4. Possess leadership qualities
5. Good citizenship and participates in community outreach

Garland M. Wyatt Endowed Scholarship
The Garland M. Wyatt Endowed Scholarship is presented to a student enrolled in a business related curriculum at DCC who demonstrates financial need.

Harry and Edith Wyatt and Vernon Wyatt Memorial Scholarship
The Wyatt Family Scholarship was established in memory to honor and recognize the late Mr. Harry Wyatt, Mrs. Edith Wyatt (parents) and the late Mr. Vernon Wyatt (brother). This scholarship was given by their daughter and sister, Ms. Anita J. Wyatt. In order to be eligible, the recipient must be enrolled in Administrative Support Technology (AAS degree) or Business Administration (AA&S degree). The student must also meet the following criteria:
1. Must have academic promise with a commitment to complete college
2. Demonstrates high moral character and a concern for others
3. Good citizenship and high ideals
4. Possesses leadership qualities and participates in community outreach
5. Demonstrates a financial need

Wyatt-Benton Endowed Scholarship
The Wyatt-Benton Endowed Scholarship was established by Landon and Kathryn Benton Wyatt in memory of their parents. The award is made to a rising sophomore, based on need, scholarship, and good citizenship.

Wyatt-Townes Family Endowed Scholarship
Honoring F.W. “Bill” Townes, III and Catherine “Kitty” Wyatt Townes, the Wyatt-Townes Family Endowed Scholarship was established in July 2010 by their children. In order to be eligible, the recipient must be a rising sophomore, have financial need, scholarship ability and good citizenship.
L. Wilson York Endowed Memorial Scholarship
The L. Wilson York Endowed Memorial Scholarship was established as a tribute to an outstanding member of the community who placed a high value on education. York served on the DCC Educational Foundation Board as treasurer, and was a member of the Scholarship Committee. The award is presented to a student who shows academic promise regardless of financial resources.

John H. Zechman Scholarship
The John H. Zechman Scholarship was established to honor Mr. John H. Zechman and in memory of Mr. and Mrs. J. Howard Zechman and Mr. and Mrs. Clyde C. Neal. Mr. John H. Zechman was employed at DCC as the Director of Finance and was instrumental in providing direction and leadership with faculty and staff. In addition to his qualities, he feels, as does his wife, the shortage in nursing staff will continue to cause problems in the Danville/Pittsylvania County region. This scholarship has been created to provide financial assistance for an incoming nursing student. In order to be eligible, the recipient must meet the following criteria:
1. Be enrolled as a full-time nursing student
2. Must have academic promise with a commitment to complete college, either at DCC or a four-year institution
3. Maintains high moral character and high ideals
4. Demonstrates good citizenship and a concern for others
5. Possesses leadership qualities and participates in community outreach
6. Demonstrates a financial need

Other Services
Other financial aid assistance and options may be added throughout the year. Students are encouraged to regularly contact the Financial Aid Office, the Educational Foundation Office, or check the DCC webpage (www.dcc.vccs.edu) for information on such programs and/or scholarships.

Full-time Academic Status
Official enrollment for each semester must be 12 semester hours or more, not audit, to permit certification of full-time student status for Veterans Administration or Social Security benefits, and most other purposes.

Veterans
Programs and courses of study (including Career Studies Certificates) at Danville Community College are approved by the Virginia Department of Education and the Veterans Administration for payment of veteran's educational benefits. Programs include the Montgomery GI Bill, Vocational Rehabilitation, and the Educational Benefits for Dependents and Spouses and Active Duty Tuition Assistance. For information about VA educational benefits, contact the DCC Veteran's Affairs Specialist at 434.797.8489 or the Veteran's Education Office. The services are available to students who desire to secure part-time or full-time employment while attending college or after graduation. Services are also available for DCC alumni. Occupational information on job requirements is provided. Additionally, there is a career services website for students, alumni, and employers. Students and alumni may have resumes posted on the website and employers may view the resume. Also, employers may post current job openings to the website. The website can be accessed at www.dcc.vccs.edu/CareerCenter/career_center.htm.

The College maintains a Career Center located in the Admissions/Counseling Office. The services are available to students who desire to secure part-time or full-time employment while attending college or after graduation. Services are also available for DCC alumni. Occupational information on job requirements is provided. Additionally, there is a career services website for students, alumni, and employers. Students and alumni may have resumes posted on the website and employers may view the resume. Also, employers may post current job openings to the website. The website can be accessed at www.dcc.vccs.edu/CareerCenter/career_center.htm.

The Post 9/11 GI Bill (Chapter 33)
The Post-9/11 GI Bill is for individuals with at least 90 days of aggregate service on or after September 11, 2001, or individuals discharged with a service-connected disability after 30 days. Individuals must have received an honorable discharge to be eligible for the Post-9/11 GI Bill. For more information: http://www.gibill.va.gov/GI_Bill_Info/benefits.htm.

Transfer of Post 9/11 GI Bill Benefits to Dependents (TEB)
For the first time in history, service members enrolled in the Post 9/11 GI Bill program are able to transfer unused educational benefits to their spouses or children effective August 1, 2009. For more information on how to apply for TEB: http://www.gibill.va.gov/GI_Bill_Info/Ch33/Transfer.htm.

Academic Residency Requirement for Active Duty Service Members:
Danville Community College limits academic residency to no more than twenty-five (25) percent of the degree requirements for all associate degrees for active-duty service members. Academic residency can be completed at any time while active-duty service members are enrolled. Reservists and National Guardsmen on active-duty are covered in the same manner.

Career Services
The College offers resume writing assistance and instruction on interview techniques. Students who are undecided about career options may take advantage of career assessments. The Career Center offers a Career and Networking Fair each spring for DCC students and alumni in which area and regional employers discuss current and future job openings. For more information about Career Center services, please contact 434.797.8520.

Career Coaches
The College employs Career Coaches to meet the career planning and post-secondary needs of students. High school career coaches work within local high schools and provide students with individualized career and college planning. Community-based career coaches and adult career coaches provide career planning activities and access to college planning information to residents in the DCC service region. To learn more, contact 434.797.8520.
Student Activities
The student activities program is designed to provide a variety of meaningful educational, cultural, and social experiences. Clubs and organizations currently available include:

- African-American Culture Club
- Alpha Beta Gamma (International Business Honor Society)
- Baseball Club (National Junior College Athletic Association – NJCAA, Div. II)
- Gospel Choir
- Makers Club
- National Technical Honor Society
- Networking Club
- Nursing Club
- Omega Alpha Omicron Chapter (Justice Club)
- Phi Theta Kappa (International Honor Society)
- Programming Club
- Student American Dental Hygienist Association
- Student Government Association
- Student Leadership Program
- Student Veterans Organization (SVO)
- TEACH Club (To Educate Always Creates Hope)

All clubs, organizations and activities have a staff advisor and/or sponsor. Official recognition is given only to scholastic, civic, athletic, professional and religious clubs and organizations which have been approved by the Student Government Association and the Dean of Student Success and Academic Advancement. Should a sufficient number of students desire a particular activity, they must petition the Student Government Association for official recognition.

(*as of 3/1/14)

Student Handbook
The student handbook describes student activities and organizations as well as student rights and responsibilities. It also lists the College rules and regulations. Students are bound by the policies set forth in the Student Handbook. The handbook is widely distributed across campus and is available in the Admissions Office and on the web site.

Student Conduct
Each individual is considered a responsible adult, and it is assumed that men and women of college age will maintain standards of conduct appropriate to membership in the College community.

Failure to meet standards of conduct acceptable to the College may result in disciplinary probation, depending upon the nature of the offense. The Student Handbook includes the complete College Initiated Code of Student Conduct and Discipline and explains the channels of communication available to students.

Bookstore
DCC’s Bookstore is operated for the convenience of the students, faculty, and staff. Operating hours are posted each term. The bookstore offers a variety of products including books; supplies; and discounted computer items such as software, hardware, and other peripherals. Students and others interested in purchasing textbooks can receive an accurate listing of course material information including ISBN and retail prices by going to our webpage http://dccbookstore.dcc.vccs.edu/home.aspx. The Bookstore also sponsors the monthly Student Spotlight and an Excellence in Academics Scholarship.

Return and Refund Policy
Cash register receipts must be submitted for a refund. All refunds are made by check. The refund will be mailed within four to six weeks of the return date. New books and related materials must be in new, resalable condition to obtain a refund. Names should not be written in books until the student is sure he/she will remain in the class. Receipts are required for state audit purposes. If a receipt is unavailable, exchanges may be permitted for equal value.

Textbooks
Textbooks may be returned for a refund until the last day of the add/drop period. An official drop form along with the dated bookstore receipt is required.

General Books
General books such as trade paperbacks, hardcover fiction, and non-fiction are non-refundable.

Calculators and Electronics
Refunds on calculators are not available. Defective items are not replaced after 30 days of purchase. Merchandise must be returned with its carton, related product materials (instructions, warranty, etc.) and the dated sales receipt. For defective merchandise purchased and held for more than 30 days, the manufacturer or local service outlet must be contacted directly.

Computer Software
Computer software that is in its original shrink-wrap and is the current version may be returned within five days of the purchase date. There are no refunds on opened software.

General Merchandise
All merchandise purchased from the bookstore other than the above is non-refundable. Defective merchandise may be exchanged for like items.

Used Books
The Bookstore purchases and resells used books to provide more reasonable prices for students. Buy-back dates are posted around the campus prior to each book-buy. Used book purchases are based on the need for specific books.

Other Information
Parking and Traffic
All student, faculty, and staff vehicles that are parked on the campus must bear a current DCC parking sticker. Spaces for the faculty and staff are clearly marked with yellow lines, and they are reserved for faculty and staff only. Student parking spaces are marked with white lines. The College provides designated parking areas marked with blue lines to accommodate disabled students. Parking permits for the disabled are issued in the Office of the Vice President of Academic and Student Services. Only those issued by the College may be used for these spaces.

Parking permits are issued to students at the College Information Desk, located on the first floor of the Wyatt Building. Faculty and staff permits are available in the Office of the Vice President of Financial and Administrative Services.

The College has a 20 mile per hour speed limit within parking areas and 25 mile per hour speed limit on Neathery Lane. These limits are strictly enforced. Anyone violating these limits will have their parking privileges revoked. Security personnel will issue tickets for all parking violations. Individuals receiving more than one ticket will be subject to the College-Initiated Code of Student Conduct and Discipline, which includes towing.
Drug and Alcohol Abuse Policy
Danville Community College is committed to providing a drug-free environment for its employees and students. It is a violation of College rules for students to manufacture, distribute, dispense, possess, or use controlled substances while participating in College-related activities, on or off campus. Students who are using or dealing drugs are subject to disciplinary procedures. Students who are convicted of drug-related offenses are required to notify the Vice President of Academic and Student Services within five (5) days of such conviction. Students who are involved with drugs or who have drug-related problems are encouraged to contact the Dean of Student Success and Academic Advancement for assistance in obtaining treatment. (All such contacts will remain confidential.) For more information, see the Student Handbook/Calendar or contact the Dean of Student Success and Academic Advancement.

The College is committed to providing on-going educational information to students covering the effects and consequences of substance abuse.

Policy for Animals (Pets) on Campus
No pets or other animals are permitted on campus except for service animals used by persons with disabilities and animals used by the College for educational purposes. No animals may be left unattended on campus in parked vehicles.

Policy for the Prohibition of Sexual Misconduct, Sexual Assault, Sexual Harassment and Sexual Violence
Sexual misconduct, sexual assault, sexual harassment and sexual violence are contrary to the policies of the State Board for Community Colleges and Danville Community College. As a result, Danville Community College shall not tolerate any verbal or physical conduct of this nature. Danville Community College policy provides avenues (mechanisms) for reporting and resolving complaints. The Director of Public Relations and Minority Concerns has been designated as the College’s Affirmative Action Officer and Title IX Coordinator. All reported violations will be investigated. The office is located in the Wyatt Building, Room 212; phone: 434.797.8458; or email aburney@dcc.vccs.edu.

All DCC students and employees are covered by this policy. The official College policy is published in the DCC Policy Manual and the DCC Student Handbook, and on the DCC website (www.dcc.vccs.edu). In addition, College employees will receive annual training and/or resources to ensure that legal concepts associated with sexual misconduct, sexual assault, sexual harassment and sexual violence are understood; that instances of sexual misconduct, sexual assault, sexual harassment and sexual violence are promptly investigated and remediated; and that support services are available for complainants.

Information Technology Resources
Danville Community College provides telecommunications centers, library technological infrastructure, and computing centers to support the academic programs of the College. Users of these resources are expected to abide by the established Computer Ethics Guidelines in this catalog.
Transfer Associate Degrees

### Associate of Arts and Science

**Business Administration**
- Liberal Arts
  - Educational Interpreter Training Specialization
  - Humanities Specialization
  - Social Science Specialization

**Science**

Since much of the coursework taken during the first two years of a Bachelor’s Degree is in the area of general education, Danville Community College offers transferable courses to meet the first two years’ requirements for a variety of four-year degree programs. Listed below are several illustrations of four-year degrees with the recommended two-year program at DCC that would serve as good preparation for transfer. This list is not all-inclusive. Please contact DCC’s Counseling Office at 434.797.8460 or the Transition Counselor at 434.797.8469 for advice on a specific program at a particular university. You can also review our online resources at the following link: www.dcc.vccs.edu/transfer.

#### Four-Year Degree/Teaching Option

- Accounting
- Actuarial Science
- Agriculture
- Anthropology
- Business Administration
- Chemistry
- Computer Science
- Communications
- Early Childhood Education
- Economics/Finance
- Engineering
  - Civil, Electrical, Mechanical, Systems or any B.S.E. major
- English
- Forestry
- Hotel Management
- Information Technology
- International Relations
- Journalism
- Liberal Arts-Humanities Specialization
- Marketing
- Nursing (B.S.)
- Paleontology
- Performing Arts
- Pharmacy
- Philosophy and Religion
- Physical Therapy
- Political Science
- Pre-Law
- Pre-Med
- Psychology
- Secondary Education
- Social Work
- Sociology
- Speech Therapy
- Sports Management
- Sports Medicine
- Zoology

#### DCC Associate Degree Counterpart

- Business Administration
- Science
- Business Administration
- Science
- Business Administration
- Science
- Liberal Arts – Humanities Specialization
- Liberal Arts
- Business Administration
- Engineering
- Liberal Arts-Humanities Specialization
- Science
- Business Administration
- Business Administration
- Liberal Arts-Social Science Specialization
- Business Administration
- Science
- Science
- Liberal Arts-Humanities Specialization
- Science
- Liberal Arts-Humanities Specialization
- Science
- Liberal Arts-Social Science Specialization
- Liberal Arts-Any Specialization
- Science
- Liberal Arts-Social Science Specialization
- Depends on intended teaching field (see note below)
- Liberal Arts-Social Science Specialization
- Liberal Arts-Social Science Specialization
- Liberal Arts
- Business Administration
- Science
- Science
Articulation and Guaranteed Admission Agreements

DCC students who intend to transfer to four-year colleges or universities may take advantage of DCC’s Articulation or Guaranteed Admission Agreements as well as the Guaranteed Admission Agreements set up by the Virginia Community College System (VCCS). Qualified graduates seeking transfer to these schools will be admitted automatically with full third-year status upon application.

Admission to a given institution does not guarantee admission to particular degree-granting programs, majors, or fields of concentration. Admission to specific programs may require, for example, a minimum grade point average and specific prerequisite courses.

Students seeking transfer under one of these agreements must have graduated from DCC with a certain minimum grade point average (GPA). The required GPA is determined by each four-year college or university. Students may be required to sign a letter of intent to transfer to the desired institution, typically during their sophomore year.

DCC has Articulation or Guaranteed Admission Agreements with these colleges and universities:

- American Public University System (Criminal Justice)
- Averett University (General, Criminal Justice, Early Childhood Education, non-licensure Nursing)
- Bluefield College
- Davis and Elkins College
- Eastern Kentucky University (College of Justice and Safety)
- Excelsior College
- Ferrum College (Criminal Justice)
- Franklin University
- George Mason University
- James Madison University
- J. Sargeant Reynolds Community College (JSRCC-DCC Joint Venture Respiratory Therapy and Medical Laboratory Technology Programs)
- Longwood University (General and Business and Economics)
- Montreat College
- Radford University (General, Computer Science and Technology, Information Science and Systems)
- University of Richmond (School of Continuing Studies)
- University of Virginia (Engineering and Applied Science)
- Virginia Commonwealth University (School of Business—Selected Majors)
- Virginia State University
- Virginia Union University
- Virginia Western Community College (VWCC-DCC Joint Venture Dental Hygiene Program)

The Virginia Community College System (VCCS) has Guaranteed Admission Agreements with these colleges and universities:

- Virginia’s Public Colleges and Universities
  - Christopher Newport University
  - College of William and Mary
  - Longwood University
  - Norfolk State University
  - Old Dominion University
  - Radford University
  - University of Mary Washington
  - University of Phoenix
  - University of Virginia
    - School of Engineering and Applied Science, Nursing
    - University of Virginia’s College at Wise
    - Virginia Commonwealth University
    - Virginia State University
    - Virginia Tech
      - College of Agriculture and Life Sciences
      - College of Engineering

Virginia’s Private Colleges and Universities

- Bluefield College
- Emory and Henry College
- Ferrum College
- Hollins University
- Liberty University
- Lynchburg College
- Mary Baldwin College
- Randolph College
- Regent University
- Shenandoah University
- Sweet Briar College
- Virginia Union University
- Virginia Wesleyan College

Other Colleges and Universities

- ECPI University
- ECPI University (Nursing)
- Regis University
- Strayer University
- Troy University
- Western Governors University (online Nursing)

This information is current as of 4/01/14. For the most current list, visit: http://www.vccs.edu/transfer

Further information on transfer and Guaranteed Admission Agreements can be found at:

- DCC’s Transfer Center: http://www.dcc.vccs.edu/transfer
- State Council for Higher Education (SCHEV): http://www.schev.edu/students/transfer/default.asp
- Virginia Community College System (VCCS): http://myfuture.vccs.edu/transfer

Transfer from VCCS colleges to public institutions is facilitated by the State Policy on Transfer. Students desiring additional information about transfer programs and courses should contact the Chief Transfer Officer at a specific institution. The State Council of Higher Education (SCHEV) monitors and coordinates statewide transfer policy and activities through the State Committee on Transfer.
**Business Administration**

**Award:** ASSOCIATE OF ARTS AND SCIENCE

**Length:** A full-time student may complete this program in four semesters.

**Purpose:** The Associate of Arts and Science Degree in Business Administration is designed for students who plan to transfer to a four-year college or university to complete a baccalaureate degree program in Business Administration, Accounting, Business Information Systems, Economics, Finance, Marketing, or Management.

**Admission Requirements:** In addition to the admission requirements established by the College, entry into this program requires completion of four units of high school English, three units of college preparatory mathematics, one unit of Laboratory Science, and one unit of Social Studies. If you meet the general admission requirements, a counselor will discuss with you the strengths and weaknesses of your academic background and your strengths and weaknesses as revealed by an appropriate placement test. You may correct any deficiencies in academic preparation in the College’s Developmental Studies program.

**Program Description:** This program requires courses in the humanities, natural sciences and social sciences, in addition to the Principles of Economics, Principles of Accounting, Introduction to Information Systems, and Business Statistics, usually required in the first two years of a baccalaureate Business program. Courses should be selected to satisfy the requirements of the senior college or university to which you plan to transfer. You are urged to familiarize yourself with the college or university to which transfer is contemplated. A DCC counselor will help you in the initial planning of your program. You will also be assigned an academic advisor in the Business Department who will assist you in course selections at Danville Community College. In order to prepare for junior class standing at a four-year college or university, you must normally complete a program at the community college which is comparable in length and course content to the first two years of the program at the four-year institution. Upon satisfactory completion of this program at DCC, you will be awarded the Associate of Arts and Science Degree (AA&S) in Business Administration. DCC is accredited by Alpha Beta Gamma International Business Honor Society to initiate members into the honor society for business and related disciplines. For more information about the society, refer to http://www.abg.org.

**Program Outcomes:** Upon successful completion of this program, the student will:
1. Demonstrate an understanding of the ethical, legal, and regulatory parameters of business.
2. Calculate, compile, and analyze business data for problem solving. Demonstrate an awareness of appropriate current and emerging technologies to support business functions.
3. Use verbal, non-verbal, and written communication skills effectively.
4. Use critical thinking skills in problem analysis.
5. Demonstrate an awareness of economic and social issues and their impact on the business environment.

**Program Requirements:** To receive the degree, you must complete a minimum of 61 credits with a grade point average of 2.00 or better. The following outline represents a typical order of courses taken by full-time students. Part-time and/or evening students may take courses in any desired sequence, except for sequence courses or others requiring prerequisites.

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 101</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>CHM 101</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHM 111</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENG 111</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>HIS 101</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIS 121</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MTH 163</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SDV 100</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>13</strong></td>
<td><strong>3</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 102</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>CHM 102</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHM 112</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENG 112</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>HIS 102</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIS 122</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MTH 271</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BUS 147</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>14</strong></td>
<td><strong>5</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 211</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BUS 221</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ECO 201</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>EEE Humanities</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>EEE Social Sci.</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>PED/MLT</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
<td><strong>2</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fourth Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 212</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BUS 227</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ECO 202</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>EEE Humanities</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>EEE Elective</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
<td><strong>0</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

Total Minimum Credits for the Associate of Arts and Science Degree in Business Administration: 61

*Note: Choice of elective courses should be based on senior institution requirement. Students should contact their faculty advisor for specific requirements.

**Liberal Arts**

**Award:** ASSOCIATE OF ARTS AND SCIENCE

**Length:** A full-time student may complete this program in four semesters.

**Purpose:** The Associate of Arts and Science Degree program in Liberal Arts is designed for students who plan to transfer to a four-year college or university to complete a Bachelor of Arts degree program in any of the liberal arts. This Associate degree may also be appropriate for students who plan to complete a baccalaureate degree program with certification to teach elementary or secondary English, humanities, or social sciences.

**Admission Requirements:** In addition to the admission requirements established for the College, entry into this curriculum requires completion of four units of high school English; two units of college preparatory algebra; one unit of college preparatory geometry; one unit of laboratory science; and one unit of history. If
you meet the general admission requirements, a counselor will discuss with you the strengths and weaknesses of your academic background and your strengths and weaknesses as revealed by an appropriate placement test. You may correct any deficiencies in academic preparation in the College’s Developmental Studies program.

Program Description: This curriculum requires courses in the humanities, natural sciences, mathematics, social sciences, and health and physical education. You are urged to acquaint yourself with the requirements of the major department in the college or university to which transfer is contemplated. A DCC counselor will help you in the initial planning of your program. You will be assigned an academic advisor in the Division of Arts and Sciences who will assist you in schedule preparation for the time you are enrolled in the Liberal Arts curriculum at Danville Community College. In order to prepare for junior college standing at a four-year college or university, you must complete a program at the community college which is comparable in length and course content to the first two years of the program at the four-year institution. Upon satisfactory completion of the program at Danville Community College, you will be awarded the Associate of Arts and Science Degree in Liberal Arts.

Focus Courses: A sequence of four Focus Courses must be selected by a Liberal Arts student for presentation to the academic advisor. Approval by the advisor is required. The Focus Courses should be related to each other and should also be accepted in transfer to the four-year program of the student’s choice.

Liberal Arts Program Outcomes: All Liberal Arts programs, including specializations, are designed to prepare students to transfer to a four-year institution or enter the workforce. To this end, liberal arts graduates will demonstrate:
1. The ability to communicate effectively by means of listening, speaking, reading and writing.
2. The critical thinking skills of synthesizing and analyzing complex ideas.
3. An awareness and understanding of ethics, cultures, and society.
4. An understanding of individual and group development and behavior; and
5. An understanding of and competence in research methods and scientific inquiry.

Program Requirements: To receive an Associate of Arts and Science Degree in Liberal Arts, you must complete a minimum of 61-63 credits with a 2.00 or better grade point average. The following outline represents a typical order of courses taken by full-time day students. Part-time and/or evening students may take courses in any desired sequence, except for hyphenated courses or others requiring prerequisites in the course descriptions portion of this Catalog.

First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDV 100</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>ENG 111</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MTH 163</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BIO 101</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>CHM 111</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>GOL 105</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>CHM 101</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>16-17</td>
</tr>
</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 112</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MTH 102</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BIO 112</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>CHM 112</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>GOL 106</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>CHM 102</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>

Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 113</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>HST 101</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>HIS 111</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SOC 101</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>CHM 101</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>

Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 114</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>HST 102</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>HIS 112</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SOC 102</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>CHM 102</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>

Total Minimum Credits for the Associate of Arts and Science Degree in Liberal Arts ........................................................................................................................................61

1 The four Focus Courses (minimum of 12 credits) must be approved by the academic advisor. Focus Courses should be planned as preparation for transfer into the four-year degree program of choice. Examples of Focus Course sequences would include the following:

- ART 101-102, MUS 121-122, HIS 121-122, CHEM 121-122, HLT 101-102, PHI 100, REL 200-210, ENG 241-243
- ENG 242-244
- HIS 122 United States History II
- HIS 123 History of World Civilizations II
- SOC 101 Social Science Requirement
- SOC 201 Focus Course II
- HLT/PED 1 Approved “Wellness” Elective
- Total 16-17

2 Students must complete a full-year of social science coursework by taking one of the following sequences:

- ECO 201 and ECO 202
- PLS 211 and PLS 212
- SOC 201 and SOC 202
- SOC 200 and one sophomore-level sociology course excluding SOC 202, or PSY 201 and PSY 202, or
- SOC 201 and one sophomore-level psychology course excluding PSY 202. Courses used to complete the social science requirement will not count as Focus Courses. (PLS 241 and PLS 242 may substitute for PLS 211 and PLS 212).

3 This credit can be satisfied by a single 2 or more credit course in Health, Physical Education, or Recreation.

Liberal Arts – Educational Interpreter Training Specialization

Award: ASSOCIATE OF ARTS AND SCIENCE

Length: A student may complete this program in four semesters.

Purpose: The purpose of the Educational Interpreter Training Specialization is to prepare a student to transfer to a four-year college or university which may require a background in interpreter education, interpreting in a classroom environment, Deaf education, or other related fields. It also helps develop interpreting skills essential for the Virginia Quality Assurance Performance (VQAS) screening evaluation and to meet the Registry of Interpreters for the Deaf (RID) national certification requirement of an Associate degree for an interpreter for the Deaf community.

Admission Requirements: Students may register directly into the Associate of Arts and Science Degree Educational Interpreter Training Specialization who have signing skills as evidenced by:

1. VQAS level II certification or comparable certification as determined by the Program Director;
2. Completion of the Educational Interpreting Certificate or DCC’s American Sign Language Certificate or comparable combination of courses at another institution as determined by the Program Director.

Programs of Study • Danville Community College • 41
Students who do not possess either of the above criteria may enter the program by:
1. Completing a First Year Studies Certificate in which 15 semester hours are ASL classes, or
2. Completion of DCC’s ASL Certificate, or
3. Successful completion of the WEIT program’s entry assessment requiring average or above skills in signing, or
4. Completion of comparable coursework in ASL at other institutions.

Program Description: This specialization is a transfer degree designed to prepare students to function as educational interpreters in public or private school settings.

Liberal Arts Program Outcomes: In addition to the Liberal Arts program outcomes, graduates of this degree will also meet the following outcomes:
1. Upon completion of the Weekend Educational Interpreter Training (W.E.I.T.) Program, students will have basic entrance skills for interpreting/transliterating in entry level interpreting settings with individuals who are Deaf and/or hard of hearing.
2. Upon completion of the Weekend Educational Interpreter Training (W.E.I.T.) Program, students will demonstrate critical thinking and appropriate ethical responses required by the Virginia Quality Assurance Screening (VQAS).
3. Students will complete the program with a comprehensive portfolio of job seeking tools, such as a resume, DVDs demonstrating interpreting and transliterating skills and 42 hours of documented supervised work experience.

Program Requirements: Students in this program will be required to attend classes at least one weekend per month (Saturday and Sunday) in order to participate in EIP courses. The program assumes that the student possesses a basic level of competence in American Sign Language prior to entry. The program is presented in response to increasing demands for higher levels of competence for interpreters in the Commonwealth’s school systems and for the requirements deemed necessary by the national Registry of Interpreters for the Deaf (RID). To receive the Associate of Arts and Science Degree in Liberal Arts – Educational Interpreter Training Specialization, you must complete a minimum of 61-63 credits with a grade point average of 2.0 or better.

Upon completion of the WEIT Program, students will have the necessary skills and training to prepare them for the VQAS.

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDV 100</td>
<td>College Success Skills</td>
<td>1</td>
</tr>
<tr>
<td>ENG 111</td>
<td>College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>MTH 163</td>
<td>Precalculus I</td>
<td>3</td>
</tr>
<tr>
<td>–</td>
<td>SOC or HUM Elective*</td>
<td>3-4</td>
</tr>
<tr>
<td>BIO 101</td>
<td>General Biology I</td>
<td>4</td>
</tr>
<tr>
<td>–</td>
<td>Approved Computer Elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>17-18</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 112</td>
<td>College Composition II</td>
<td>3</td>
</tr>
<tr>
<td>–</td>
<td>SOC or HUM Elective*</td>
<td>3</td>
</tr>
<tr>
<td>EIP 181</td>
<td>Pre-Interpreting Skills</td>
<td>1</td>
</tr>
<tr>
<td>EIP 200</td>
<td>Linguistics of American Sign Language: An Overview</td>
<td>1</td>
</tr>
<tr>
<td>BIO 102</td>
<td>General Biology II</td>
<td>4</td>
</tr>
<tr>
<td>–</td>
<td>Approved Math</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 241</td>
<td>Survey of American Literature I or</td>
<td>3</td>
</tr>
<tr>
<td>ENG 242</td>
<td>Survey of English Literature I</td>
<td></td>
</tr>
<tr>
<td>HIS 101</td>
<td>History of Western Civilization I or</td>
<td>3</td>
</tr>
<tr>
<td>HIS 121</td>
<td>U. S. History I or</td>
<td></td>
</tr>
<tr>
<td>HIS 111</td>
<td>History of World Civilization I</td>
<td>3</td>
</tr>
<tr>
<td>EIP 211</td>
<td>Signed-to-Spoken Interpreting I</td>
<td>1</td>
</tr>
<tr>
<td>EIP 212</td>
<td>Signed-to-Spoken Interpreting II</td>
<td>1</td>
</tr>
<tr>
<td>EIP 213</td>
<td>Signed-to-Spoken Interpreting III</td>
<td>1</td>
</tr>
<tr>
<td>EIP 214</td>
<td>Signed-to-Spoken Interpreting IV</td>
<td>1</td>
</tr>
<tr>
<td>–</td>
<td>Approved SOC or PSY elective</td>
<td>3</td>
</tr>
<tr>
<td>(SOC 200, 201, PSY 200, 201, ECO 201)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>–</td>
<td>HLT/PED</td>
<td>2-3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>15-16</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fourth Semester</th>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EIP 231</td>
<td>Spoken-to-Signed Interpreting I</td>
<td>1</td>
</tr>
<tr>
<td>EIP 232</td>
<td>Spoken-to-Signed Interpreting II</td>
<td>1</td>
</tr>
<tr>
<td>EIP 233</td>
<td>Spoken-to-Signed Interpreting III</td>
<td>1</td>
</tr>
<tr>
<td>EIP 234</td>
<td>Spoken-to-Signed Interpreting IV</td>
<td>1</td>
</tr>
<tr>
<td>EIP Elective</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

Total Minimum Credits for the Associate of Arts and Science Degree in Liberal Arts with a Specialization in Educational Interpreter Training .......... 61 - 63

Liberal Arts – Humanities Specialization

Award: ASSOCIATE OF ARTS AND SCIENCE

Length: A full-time student may complete this program in four semesters.

Purpose: The Associate of Arts and Science Degree in Liberal Arts with the Humanities Specialization is designed for students who plan to transfer to a four-year college or university and who intend to complete a Bachelor’s degree in a humanities or related discipline. Humanities disciplines include English, philosophy, foreign languages, drama, religion, and speech. This program is also appropriate for students intending to pursue humanities-related fields which include communications and journalism as well as some of the fine arts such as theatre, music, and creative writing. Students interested in teaching in the above disciplines will find this program a good starting point for their careers.

Admission Requirements: In addition to the admission requirements established for the College, entry into this curriculum requires completion of four units of high school English, two units of college preparatory algebra and one unit of college preparatory geometry, one unit of laboratory science, and one unit of history. If you meet the general admission requirements, a counselor will discuss with you the strengths and weaknesses of your academic background and your strengths and weaknesses as revealed by an appropriate placement test. You may correct any deficiencies in academic preparation in the College’s Developmental Studies program.

Program Description: This curriculum requires a broad range of general education requirements in mathematics, social science, natural science and
humanities. Like the Social Science Specialization it is designed to give the student maximum flexibility in the selection of courses to meet both the interests of the student and the demands of the institution to which the student intends to transfer. It is important for students to identify their preferred transfer institution as soon as possible and to work closely with their academic advisor to ensure transferability of their selected courses. In order to prepare for junior class standing at a four-year college or university, you must ensure that the curriculum completed in the first two years at Danville Community College is comparable to the first two years of study at the four-year institution. Upon satisfactory completion of the program at Danville Community College, you will be awarded the Associate of Arts and Science Degree in Liberal Arts.

Program Requirements: To receive an Associate of Arts and Science Degree in Liberal Arts – Humanities Specialization, you must complete a minimum of 61 credits with a grade point average of 2.00 or better. The following outline represents a typical order of courses taken by full time day students. Part-time and/or evening students may take courses in any desired sequence, except for hyphenated courses or others requiring prerequisites in the Course Descriptions section in this Catalog.

Humanities and Fine Arts Elective: The core of this program consists of a requirement that students complete at least two humanities courses in addition to two sophomore literature courses. Further, students must take at least two courses in fine arts. The combination of the humanities and fine arts requirement is intended to promote an understanding of the connections between humanities disciplines and the arts. Students may continue to explore these connections by using the liberal arts elective requirement of six credit hours to pursue greater depth in the fine arts or humanities. Again, selection of courses should be based on the students’ interest and the demands of their intended transfer institution.

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDV 100 College Success Skills</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>ENG 111 College Composition I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MTH 151 Math for Liberal Arts I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Natural Science Course With Lab</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Approved Computer Elective</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Health and Wellness Elec.</td>
<td>—</td>
<td>—</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>—</td>
<td>—</td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 112 College Composition II</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MTH Approved Transfer Level Math</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Natural Science Course With Lab</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Social Science Elect. I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>History Requirement I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>—</td>
<td>—</td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanities Requirement I</td>
<td>3</td>
<td>0</td>
<td>3-4</td>
</tr>
<tr>
<td>Literature Requirement I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Liberal Arts Elective I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Social Science Elective II</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>History Requirement II</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>—</td>
<td>—</td>
<td><strong>15-16</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fourth Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanities Requirement II</td>
<td>3</td>
<td>0</td>
<td>3-4</td>
</tr>
<tr>
<td>Literature Requirement II</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Liberal Arts Elective II</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Fine Arts Elective I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Fine Arts Elective II</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>—</td>
<td>—</td>
<td><strong>15-16</strong></td>
</tr>
</tbody>
</table>

Total Minimum Credits for the Associate of Arts and Science in Liberal Arts - Humanities Specialization: 61

---

Liberals Arts – Social Science Specialization

Award: ASSOCIATE OF ARTS AND SCIENCE

Length: A full-time student may complete this program in four semesters.

Purpose: The Associate of Arts and Science degree in Liberal Arts with the Social Science Specialization is designed for students who plan to transfer to a four-year college or university and who intend to complete a Bachelor’s degree in a social science discipline. Social Science disciplines include sociology, anthropology, psychology, history, political science, and economics. This program is also appropriate for students intending to pursue social science-related fields such as communications as well as some of the helping professions that include public administration, social work and counseling. Students interested in teaching in the above disciplines will find this program a good starting point for their careers.

Admission Requirements: In addition to the admission requirements established for the College, entry into this curriculum requires completion of four units of high school English, two units of college preparatory algebra and one unit of college preparatory geometry, one unit of laboratory science, and one unit of history. If you meet the general admission requirements, a counselor will discuss with you the strengths and weaknesses of your academic background and your strengths and weaknesses as revealed by an appropriate placement test. You may correct any deficiencies in academic preparation in the College’s Developmental Studies program.

Program Description: This curriculum requires a broad range of general education requirements in mathematics, social science, natural science and humanities. Like the Humanities Specialization, it is designed to give the student maximum flexibility in the selection of courses to meet both the interests of the student and the demands of the institution to which the student intends to transfer. It is important for students to identify their preferred transfer institution as soon as possible and to work closely with their academic advisor to ensure transferability of their selected courses. In order to prepare for junior class standing at a four-year college or university, you must ensure that the curriculum completed in the first two years at Danville Community College is comparable to the first two years of study at the four-year institution. Upon satisfactory completion of the program at Danville Community College, you will be awarded the Associate of Arts and Science Degree in Liberal Arts.

Program Requirements: To receive an Associate of Arts and Science Degree in Liberal Arts - Social Science Specialization, you must complete a minimum of 61 credits with a grade point average of 2.00 or better. The following outline represents a typical order of courses taken by full-time students. Part-time and/or evening students may take courses in any desired sequence, except for hyphenated courses or others requiring prerequisites in the Course Descriptions section of this Catalog.

Social Science Requirements and Electives: The distinguishing feature of this program is the requirement that a student complete a year-long sequence in three social science areas: history, sociology and psychology. Students also must select two social science electives that may include courses in the above areas or in different social sciences such as political science or economics. Two additional liberal arts electives allow the student to pursue more depth in a social science discipline, though these electives and humanities electives should be used to meet the demands of a transfer institution and to achieve breadth of exposure to other disciplines.
**Science**

**Award:** ASSOCIATE OF ARTS AND SCIENCE

**Length:** A full-time student may complete this program in four semesters.

**Purpose:** The Associate of Arts and Science Degree program in Science is designed for students who plan to transfer to a four-year college or university to complete a baccalaureate degree program in any of the sciences or related pre-professional programs. Students interested in pursuing pre-med or health care bachelor’s programs will find this degree the best place to begin their studies. This Associate degree may also be appropriate for students who plan to complete a baccalaureate degree program with certification to teach elementary or secondary math, science, or technologies.

**Admission Requirements:** In addition to the admission requirements established for the College, entry into this curriculum requires completion of four units of high school English, three units of college preparatory mathematics, one unit of laboratory science, and one unit of social studies. If you meet the general admission requirements, a counselor will discuss with you the strengths and weaknesses of your academic background and your strengths and weaknesses as revealed by an appropriate placement test. You may correct any deficiencies in academic preparation in the College’s Developmental Studies program.

**Program Description:** Although the major emphasis in this curriculum is on mathematics, and the biological and physical sciences, the curriculum also includes a range of courses in humanities and social sciences. You have sufficient flexibility to select appropriate courses to correspond to the requirements of the senior college or university to which you plan to transfer. You are urged to familiarize yourself with the requirements of the college or university to which transfer is contemplated. A DCC counselor will assist you in the initial planning of your program. In addition, an academic advisor in the Division of Arts and Sciences will assist you on a regular basis with your program plan. In order to prepare for upper division (junior class) standing at a senior college or university, you should complete a program at the community college that is comparable to the first two years of the program at the senior college or university. Upon satisfactory completion of this program, you will be awarded the Associate of Arts and Science Degree.

**Program Outcomes:** Upon successful completion of this program, students will be able to:
1. Understand how the disciplines of Science and Math differ from other disciplines.
2. Demonstrate proficiency in conducting experiments and recording and interpreting data.
3. Demonstrate an understanding of the significance of math to all areas of Science.
4. Communicate appropriately within the respective disciplines of math and Science.
5. Work independently and collaboratively in the acquisition of scientific knowledge.

**Program Requirements:** To receive the Associate of Arts and Science Degree in Science, you must complete a minimum of 60 credits with a grade point average of 2.00 or better. The following outline represents a typical order of courses taken by full-time students. Part-time and/or evening students may take courses in any desired sequence, except for sequence courses or others requiring prerequisites.

---

**First Semester**

<table>
<thead>
<tr>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total**

—

17

---

**Second Semester**

<table>
<thead>
<tr>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total**

—

16

---

**Third Semester**

<table>
<thead>
<tr>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total**

—

15

---

**Fourth Semester**

<table>
<thead>
<tr>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total**

—

13-14

---

Total Minimum Credits for the Associate of Arts and Science in Liberal Arts – Social Science Specialization

---

1. Students must complete a full year sequence of U.S. History (HIS 121 and HIS 122), or Western Civilization (HIS 101 and HIS 102), or World Civilizations (HIS 111 and HIS 112).
**Pre-Teacher Education Program**

Danville Community College is a participant in the Virginia Community College System Chancellor’s Pre-Teacher Education Program. This program consists of courses which have been agreed to by many four year colleges and universities within the Commonwealth as being adequate preparation for their teacher education programs.

The pre-teacher education program provides students with a number of benefits. First, students can be assured that their course of study in the program is approved by the transfer institution. Second, students’ access to housing, communications and financial aid will be weighed equally with the institution’s own students. Third, students may be able to participate in an institution’s early registration. Fourth, admission of a VCCS graduate to an institution’s teacher education program will be given equal consideration with native students. Fifth, SAT and ACT requirements will be waived. Sixth, students will enjoy a seamless transition to the transfer school and will be eligible for special tuition scholarships.

Students at DCC who are interested in participating in this program will register in the AA&S Liberal Arts-Humanities Specialization degree program. While in that program, they must complete the courses below.

Students must complete the courses with a 2.5 grade point average or better and pass the Praxis I examination in order to secure the benefits mentioned above. Students must also complete and sign a letter of intent to pursue the Pre-Teacher Education program which specifies the school to which they intend to transfer. This letter is signed by the transfer school’s representative, the DCC Advisor (Dewitt Drinkard, Temple Building, Room 112, 434.797.8485), and the student. This announces to the transfer school your engagement in the program.

The following colleges are current participants in this program:

- George Mason University
- James Madison University
- Liberty University
- Longwood University
- Mary Baldwin College
- Norfolk State University
- Old Dominion University
- Radford University
- University of Virginia -Wise
- Virginia Commonwealth University
- Virginia State University
- Virginia Union University

<table>
<thead>
<tr>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ENG 111 College Composition I</td>
</tr>
<tr>
<td>2. ENG 112 College Composition II</td>
</tr>
<tr>
<td>3. CST 110 Intro. to Speech Communication</td>
</tr>
<tr>
<td>4. One sophomore literature class selected from the list below: ENG 241 Survey of American Literature I</td>
</tr>
<tr>
<td>5. One humanities class selected from the list below: ART 101</td>
</tr>
<tr>
<td>6. One of the below pairs of Math courses: MTH 163 and MTH 240 or MTH 151 and MTH 152</td>
</tr>
<tr>
<td>7. GEO 210 People and the Land: Intro to Cultural Geography</td>
</tr>
<tr>
<td>8. One of the below pairs of history courses: HIS 121 and HIS 102 or HIS 101 and HIS 102</td>
</tr>
<tr>
<td>9. PLS 135 American National Politics</td>
</tr>
</tbody>
</table>

---

<table>
<thead>
<tr>
<th><strong>First Semester</strong></th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111 College Composition I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SDV 100 College Success Skills</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>HIS 101 History of Western Civ. I or HIS 121 United States History I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MTH 163 1Precalculus I or MTH 166 1Precalculus with Trig.</td>
<td>3-4</td>
<td>0</td>
<td>3-4</td>
</tr>
<tr>
<td>HLT/PED 2Approved “Wellness” Elective</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

| **Total** | — | — | 15-16 |

<table>
<thead>
<tr>
<th><strong>Second Semester</strong></th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 112 College Composition II</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>HIS 102 Hist. of Western Civ. II or HIS 122 United States History II</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MTH 240 1Statistics Requirement</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Natural Lab Science</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Approved Elective</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

| **Total** | — | — | 16 |

<table>
<thead>
<tr>
<th><strong>Third Semester</strong></th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 112 College Composition II</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>1Literature I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>1Social Science Requirement</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Natural Lab Science</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Approved Elective</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

| **Total** | — | — | 12-14 |

<table>
<thead>
<tr>
<th><strong>Fourth Semester</strong></th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 112 College Composition II</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>1Literature II</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>1Social Science Requirement II</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Natural Lab Science</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Approved Elective or Field Requirements</td>
<td>—</td>
<td>—</td>
<td>2-4</td>
</tr>
</tbody>
</table>

| **Total** | — | — | 17 |

---

1 Other math courses are acceptable here. The MTH 273-MTH 274 Calculus sequence may be elected by students. In addition, students can take MTH 271 in place of statistics or take a calculus course to meet the second semester math requirement. As with all transfer degrees, students should select the math sequence which will be most helpful in transferring to their four year college.

2 Students must complete 20 credit hours of lab science coursework. This work must include 8 credit hours taken at the sophomore level and must include at least one full year lab sequence. Acceptable 100-level sequences are:

- CHM 111-112 College Chemistry I-II
- BIO 101-102 General Biology I-II
- BIO 141-142 Human Anatomy and Physiology I-II
- GOL 105 Physical Geology and GOL 106 Historical Geology

Acceptable 200-level laboratory science sequences are:

- BIO 231-232 Human Anatomy and Physiology I-II
- BIO 256 General Genetics and BIO 255 General Microbiology
- CHM 241-242 Organic Chemistry I-II with lab
- PHY 201-202 General College Physics I-II
- PHY 241-242 University Physics I-II

3 This credit can be satisfied by a single 1 or more credit course in Health, Physical Education, or Recreation.

4 Acceptable literature sequences are:

- ENG 241-242 Survey of American Literature I-II
- ENG 243-244 Survey of English Literature I-II
- ENG 251-252 Survey of World Literature I-II

5 Students must complete a full year of social science coursework by taking one of the following sequences:

- ECO 201 and ECO 202, or PLS 211 and PLS 212, (PLS 241 and PLS 242 may substitute for PLS 211 and PLS 212), or SOC 201 and SOC 202, or SOC 200 and one sophomore level sociology course excluding SOC 202, or PSY 201 and PSY 202, or PSY 200 and one sophomore level psychology course excluding PSY 202.
Students who are not prepared in mathematics in particular are encouraged sciences that may be the focus of one's junior and senior level courses. A skill is essential in electrical, chemical, mechanical, civil and other engineering mathematics and natural science, or at least feel comfortable doing the level of Additional Information: This program is rigorous. Students must either enjoy take prerequisite courses first before proceeding to more advanced courses. For purposes of transfer to a four-year engineering program. Students must average of C or better. Students should strive to receive a B average or better for Engineering, you must complete a minimum of 66 credits with a grade point Program Requirements:

5. The ability to understand professional and ethical responsibility

3. The ability to conduct experiments and analyze and interpret data

2. The ability to apply knowledge of math, sciences and engineering principles

1. The ability to apply engineering problem-solving methodology

Program Outcomes: The Danville Community College Engineering program is designed to prepare students to transfer to a four-year institution. To this end, engineering graduates will demonstrate:

1. The ability to apply engineering problem-solving methodology

2. The ability to apply knowledge of math, sciences and engineering principles to engineering problems

3. The ability to conduct experiments and analyze and interpret data

4. The ability to function in a team and to communicate effectively and professionally

5. The ability to understand professional and ethical responsibility

Program Requirements: To receive the Associate of Science Degree in Engineering, you must complete a minimum of 66 credits with a grade point average of C or better. Students should strive to receive a B average or better for purposes of transfer to a four-year engineering program. Students must take prerequisite courses first before proceeding to more advanced courses. Additional Information: This program is rigorous. Students must either enjoy mathematics and natural science, or at least feel comfortable doing the level of work in these areas that this program demands. This level of knowledge and skill is essential in electrical, chemical, mechanical, civil and other engineering sciences that may be the focus of one's junior and senior level courses. Students who are not prepared in mathematics in particular are encouraged to take preparatory courses first and to proceed at a slower pace in order to increase their likelihood of success in these courses.

The Virginia Community College System has guaranteed admission agreements with both the University of Virginia and Virginia Tech for students who are successful in this program. This program was also designed as part of the University of Virginia's "Produced in Virginia" initiative which aims to increase the number of engineers graduated in the Commonwealth. Eligible students may also apply for scholarship support from a National Science Foundation grant received by Danville Community College, Central Virginia Community College, and the University of Virginia.

**Associate of Science Degree**

**Engineering (Transfer Associate Degree)**

**Award:** ASSOCIATE OF SCIENCE

**Length:** A full-time student may complete this program in four semesters.

**Purpose:** The purpose of this degree is to prepare students to transfer to a four-year college or university to complete a bachelor’s degree in engineering.

**Admission Requirements:** In addition to the admission requirements established for the College, entry into this curriculum requires completion of four units of high school English, three units of college preparatory mathematics, one unit of laboratory science, and one unit of social studies. If you meet the general admission requirements, a counselor will discuss with you the strengths and weaknesses of your academic background. You may correct any weaknesses in academic preparation in the College’s Developmental Studies program. While not required, it is recommended that students have taken chemistry and/or physics in their high school curriculum along with intermediate algebra and trigonometry.

**Program Description:** The Associate of Science Degree in Engineering is a transfer degree designed to prepare students for upper level engineering courses. This curriculum ensures that students possess a firm foundation in the areas of mathematics and natural science which is essential for success in virtually every area of engineering. Students who plan on becoming professional engineers, regardless of their area of specialization or major, are required to apply principles of mathematics and science, to solve problems, create new systems, and envision new processes to meet the demands and resolve issues of a continually evolving global economy. Students who have a strong interest in math and science and who wish to have rewarding careers in industry and government that directly confront these problems should consider this degree as their first step in the engineering profession.

**Program Outcomes:** The Danville Community College Engineering program is designed to prepare students to transfer to a four-year institution. To this end, engineering graduates will demonstrate:

1. The ability to apply engineering problem-solving methodology

2. The ability to apply knowledge of math, sciences and engineering principles to engineering problems

3. The ability to conduct experiments and analyze and interpret data

4. The ability to function in a team and to communicate effectively and professionally

5. The ability to understand professional and ethical responsibility

**Program Requirements:** To receive the Associate of Science Degree in Engineering, you must complete a minimum of 66 credits with a grade point average of C or better. Students should strive to receive a B average or better for purposes of transfer to a four-year engineering program. Students must take prerequisite courses first before proceeding to more advanced courses. Additional Information: This program is rigorous. Students must either enjoy mathematics and natural science, or at least feel comfortable doing the level of work in these areas that this program demands. This level of knowledge and skill is essential in electrical, chemical, mechanical, civil and other engineering sciences that may be the focus of one’s junior and senior level courses. Students who are not prepared in mathematics in particular are encouraged to take preparatory courses first and to proceed at a slower pace in order to increase their likelihood of success in these courses.

The Virginia Community College System has guaranteed admission agreements with both the University of Virginia and Virginia Tech for students who are successful in this program. This program was also designed as part of the University of Virginia’s "Produced in Virginia" initiative which aims to increase the number of engineers graduated in the Commonwealth. Eligible students may also apply for scholarship support from a National Science Foundation grant received by Danville Community College, Central Virginia Community College, and the University of Virginia.

**First Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>3</td>
</tr>
<tr>
<td>'MTH 273</td>
<td>4</td>
</tr>
<tr>
<td>EGR 120</td>
<td>2</td>
</tr>
<tr>
<td>CHM 111</td>
<td>3</td>
</tr>
<tr>
<td>EGR 126</td>
<td>3</td>
</tr>
<tr>
<td>SDV 101</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>—</strong></td>
</tr>
</tbody>
</table>

**Second Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY 241</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112</td>
<td>3</td>
</tr>
<tr>
<td>'MTH 274</td>
<td>4</td>
</tr>
<tr>
<td>CHM 112</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>—</strong></td>
</tr>
</tbody>
</table>

**Third Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTH 277</td>
<td>4</td>
</tr>
<tr>
<td>PHY 242</td>
<td>3</td>
</tr>
<tr>
<td>'EGR 140</td>
<td>3</td>
</tr>
<tr>
<td>SS EEE</td>
<td>3</td>
</tr>
<tr>
<td>HUM EEE</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>—</strong></td>
</tr>
</tbody>
</table>

**Fourth Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTH 279</td>
<td>4</td>
</tr>
<tr>
<td>'EGR 245</td>
<td>3</td>
</tr>
<tr>
<td>'EGR 246</td>
<td>3</td>
</tr>
<tr>
<td>SS EEE</td>
<td>3</td>
</tr>
<tr>
<td>HUM EEE</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>—</strong></td>
</tr>
</tbody>
</table>

**Total Minimum Credits for the Associate of Science Degree in Engineering..........................................................66**

1Students who are not prepared for Calculus should begin with Precalculus with Trigonometry (MTH 166). Students may also wish to strengthen their algebraic skills with MTH 158, College Algebra. These students should also consider following a three or four year sequence to complete this program.

2Students may substitute college-level engineering or supportive discipline courses for engineering disciplines such as electrical engineering to meet these requirements. These substitutions must be approved by the Dean of the Arts and Sciences Division and Engineering faculty.

Note: The Arts and Sciences Division maintains on its website three and four year plans for students who must work part-time or full-time work schedules. In general, students who work part-time should plan on following the three year sequence. Students who are working full-time should plan on following the four year sequence.

Students planning to transfer to Virginia Tech should also plan to take MTH 177.
Associate of Applied Science Degrees

Accounting

Administration of Justice
  Law Enforcement Specialization
  Corrections Specialization
  Protective Services Specialization (Private Security)

Administrative Support Technology
  General Office Specialization
  Medical Office Specialization

Business Management
  Management Specialization
  Graphic Imaging Management Specialization
  Automotive Management Specialization

Dental Hygiene
  (awarded by Virginia Western Community College)

Early Childhood Education

General Engineering Technology

Health Science
  Practical Nursing Specialization

Information Systems Technology
  Computer Programming Specialization
  Gaming and Mobile Application Development Specialization
  Networking Specialization
  PC Technology Specialization

Marketing
  Marketing Specialization
  Warehousing and Distribution Specialization
  Electronic Commerce Specialization

Medical Laboratory Technology
  (awarded by J. Sargeant Reynolds Community College)

Nursing
  Radiologic Technology*

Respiratory Therapy
  (awarded by J. Sargeant Reynolds Community College)

Technical Studies
  Advanced Manufacturing Engineering Technology
  Integrated Systems Technology *
  Nanotechnology Technician
  Wood Science Technology
    - Product Design and Development Specialization

The Associate of Applied Science Degree is designed for the student who does not plan to pursue a four-year program of study, but still seeks an educational experience that includes courses other than those directly related to the chosen field. Along with the courses that are directly related to the chosen field of study, students will take a variety of general education courses such as English, speech, psychology, science or mathematics, and physical education or wellness. The types of jobs that you might expect to obtain upon completion of the degree requirements are listed on the following catalog pages. Also included are the specific requirements for completing each program of study.

*pending approval
Accounting

**Award:** ASSOCIATE OF APPLIED SCIENCE

**Length:** A full-time student may complete this program in four semesters.

**Purpose:** The Associate of Applied Science Degree program in Accounting is designed for persons who seek employment in the accounting field immediately upon completion of the program. Persons seeking initial employment in the accounting field and those in accounting seeking advancement may benefit from this program.

**Occupational Objectives:** The following occupational titles represent examples of possible employment opportunities:

- Accounting
- Accounting Technician
- Accounting Trainee
- Junior Accountant
- and many more...

**Admission Requirements:** In addition to the admission requirements established for the College, entry into this program requires completion of four units of high school English and one unit of high school mathematics. If you meet the general admissions requirements, a counselor will discuss with you the strengths and weaknesses of your academic background and your strengths and weaknesses as revealed by an appropriate placement test. You may correct any deficiencies in your academic preparation in the College’s Developmental Studies program.

**Program Description:** The first two semesters (first year) of the Associate of Applied Science Degree program in Accounting are similar to other programs in business. In the second year, you will pursue your specialty in Accounting. You are urged to consult with the Counseling Office and your faculty advisor in planning your program and selecting electives. Upon satisfactory completion of the four-semester program, you will be awarded the Associate of Applied Science Degree in Accounting. Some courses within this program may be applied to a four-year program at the discretion of the admitting institution. However, if your objective is to obtain a four-year degree in Accounting, you should enroll in DCC’s Business Administration program.

**Program Outcomes:** Students who successfully complete this program will:

1. Perform financial accounting functions from financial transactions to the completion of the accounting cycle using proper format and procedure based on GAAP.
2. Analyze, prepare, and communicate financial information, using proper format and procedure, for management decision-making.
3. Understand legal and functional types of business organizations and how financial and managerial accounting concepts apply to each.
4. Perform financial and managerial accounting functions and applications in both manual and computerized formats.
5. Utilize current income tax resources to prepare personal income tax returns in both manual and computerized formats.

**Program Requirements:** To receive the Associate of Applied Science Degree in Accounting, you must complete a minimum of 67 credits with a grade point average of 2.00 or better. The following outline represents a typical order of courses taken by full-time students.

### First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 111</td>
<td>Accounting I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BUS 100</td>
<td>Introduction to Business</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITE 115</td>
<td>Computer Applications and Concepts</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ENG 111</td>
<td>English Composition I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>PLS Elective or PSY Elective</td>
<td></td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SDV 100</td>
<td>College Success Skills</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>16</strong></td>
<td><strong>0</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

### Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 112</td>
<td>Accounting II</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ACC 110</td>
<td>Introduction to Computerized Accounting</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>BUS 121</td>
<td>Business Math I or MTH 121 Fundamentals of Math I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITE 215</td>
<td>Adv. Computer Applications and Integration</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ECO 120</td>
<td>Survey of Economics</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112</td>
<td>College Composition II</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>18</strong></td>
<td><strong>0</strong></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

### Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 221</td>
<td>Intermediate Accounting I</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ACC 261</td>
<td>Prin. of Federal Taxation</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BIO/NAS or Science or Math Elective</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MTH</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUS 240</td>
<td>Business Law</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>HLT/PED</td>
<td>Health/Physical Ed.</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>HUM</td>
<td>Humanities Elective</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>16</strong></td>
<td><strong>2</strong></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>

### Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 222</td>
<td>Intermediate Accounting II</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ELE</td>
<td>Elective</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Students may select 3 of the 4 following courses:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACC 231</td>
<td>Cost Accounting</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ACC 241</td>
<td>Auditing</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ACC 262</td>
<td>Prin. of Federal Taxation II</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>FIN 215</td>
<td>Financial Management</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>16</strong></td>
<td><strong>0</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

**Total Minimum Credits for the Associate of Applied Science Degree in Accounting**

---

1. One unit of high school algebra or MTH 3 is required as a prerequisite for MTH 121.
2. Students who take MTH 121 may substitute an approved business elective for the BIO or NAS elective.
Administration of Justice

Award: ASSOCIATE OF APPLIED SCIENCE

Length: A full-time student may complete this program in four semesters (two years).

Purpose: The Administration of Justice (ADJ) program is designed to prepare individuals for careers in law enforcement, corrections and protective services (private security). The curriculum serves the interests of career-oriented students and provides courses to meet the needs of in-service personnel. The A.A.S. degree does not substitute for attendance at a basic police academy required by Virginia's local and state law enforcement agencies. Transferability of ADJ coursework to four-year colleges or universities is contingent on the academic credit transfer policies of those institutions. The ADJ Program Coordinator and/or Counseling personnel will facilitate inquiries of ADJ majors, including possible transfer limitations of DCC ADJ coursework, regarding four-year programs in Administration of Justice/Criminal Justice, or related academic programs.

Occupational Objectives: The following occupational titles represent examples of possible law enforcement, corrections and/or protective service (private security) civilian or military employment opportunities:
- Air Force Office of Special Investigations (AFOSI)
- Air Force Security Forces
- Commercial and Industrial Security Officer
- Correctional Officer
- Deputy Sheriff
- Dispatcher
- Insurance Investigator
- Jail Deputy
- Loss Prevention Manager
- Military Police
- Military Intelligence
- Police Officer
- Security Supervisor
- Virginia State Trooper
- Youth Care Worker

Admission Requirements: In addition to DCC’s admission requirements, entry into the ADJ Program requires proficiency in high school English and mathematics. Applicants with deficiencies will be required to enroll in a DCC developmental English and/or mathematics course. All applicants must consult with the ADJ Program Coordinator for assistance in planning his or her ADJ curriculum, including program options - Specializations I, II, or III (see Program Requirements). Students who are sure that they will pursue bachelor-level education classes to be taken from disciplines such as natural science (or math), sociology, psychology and so on. Instruction includes both the theoretical concepts and practical applications needed for future success in public safety. Students who plan to transfer DCC courses into a four-year program in criminal justice/administration of justice are strongly urged to consult with the ADJ Program Coordinator and the Counseling Office as the student may be advised to substitute coursework for some classes listed in the suggested four-semester ADJ Program. The following sample program represents a typical order taken by full time ADJ majors. Part-time students may take courses in any desired sequence. In all cases, prerequisites must be met.

Depending on the interests of the Administration of Justice major, he or she should select one of the following three specializations allowing for a concentration of coursework in:
- Law Enforcement Specialization
- Corrections Specialization
- Protective Services Specialization (Private Security)

Danville Community College's ADJ Program is part of the Tech Prep Initiative. Students who have successfully completed certain high school courses may qualify for advanced standing and receive free credit in equivalent college courses. For additional details regarding Tech Prep, see your ADJ Program Coordinator and/or Tech Prep Coordinator.

Finally, the applicant must also consult with the ADJ Program Coordinator to learn if he or she would meet the specialized requirements set by criminal justice agencies. Minimal criminal justice agency requirements include:
1. Excellent physical and mental health;
2. Normal hearing and color vision. Eye functions must be normal (visual acuity must not be less than 20/40 in either eye without correction;
3. Weight should be in proportion to height;
4. Excellent moral character;
5. No conviction of any crime involving moral turpitude or conviction of any felony;
6. An excessive number of traffic citations would be cause to exclude an applicant from consideration by most all criminal justice agencies;
7. U.S. citizenship.

Note: An extensive background investigation will be conducted by the criminal justice agency to confirm the foregoing. Any student who has been convicted of a felony or any offense involving moral turpitude or violence should consult with the ADJ faculty advisor to determine if this degree is appropriate.
College Credit for Academy Training: After an ADJ student completes 35 or more credits required for graduation, 21 and 15 credits respectively will be awarded to the ADJ major, as follows:

**Virginia State Police Academy**
- 3 credits - ADJ 100, Survey of Criminal Justice
- 3 credits - ADJ 130, Criminal Law
- 3 credits - ADJ 236, Criminal Investigation
- 9 credits - ADJ coursework*
- 3 credits - Wellness Elective

Total: 21 credits

**Virginia Department of Criminal Justice Services Regional Academies**
- 3 credits - ADJ 100, Survey of Criminal Justice
- 3 credits - ADJ 130, Criminal Law
- 3 credits - ADJ 236, Criminal Investigation
- 3 credits - ADJ coursework*
- 3 credits - Wellness Elective

Total: 15 credits

*Possible ADJ coursework could include:
- ADJ 116, Special Enforcement Topics
- ADJ 227, Constitutional Law
- ADJ 215, Report Writing

Administration of Justice – Law Enforcement Specialization

<table>
<thead>
<tr>
<th>Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SDV 100</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>ENG 111</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SOC 200</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SOC 201</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ADJ 100</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ADJ 130</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ADJ 116</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>—</td>
<td>—</td>
<td>16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Second Semester</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NAS 105</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SOC 202</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ADJ 131</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ADJ 227</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ADJ 236</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>—</td>
<td>—</td>
<td>18-19</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Third Semester</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSY 200</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>PSY 201</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SPA 103</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SOC 235</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ADJ 171</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>—</td>
<td>—</td>
<td>15-16</td>
</tr>
</tbody>
</table>

*Such as SPA 150, Spanish For Law Enforcement
2Students may substitute CST 100 here if it is required by the transfer school.
3SOC 200 includes material covered in both SOC 201 and SOC 202. The student must enroll in either the SOC 201 and SOC 202 sequence, or enroll in SOC 200 with another sophmore level, non-introductory sociology course. SOC 200 will fulfill the general sociology requirement at the four-year college/university level. Students must check the academic transfer policy of the four-year school regarding transferability of SOC 201 to fulfill the general sociology requirement.

4Students intending to transfer should take a lab science and at least MTH 151 (Mathematics for the Liberal Arts I).

Fourth Semester
- HUM 165 Controversial Issues in American Society or
- CST 100 Principles of Public Speaking
- ADJ 296 Internship
- SOC 236 Criminology
- ADJ 215 Report Writing
- PED/HLT Approved Wellness Elective

Total: 18 credits

Total Minimum Credits for the Associate of Applied Science Degree in Administration of Justice (Law Enforcement Specialization)............................ 67-69

Administration of Justice – Corrections Specialization

<table>
<thead>
<tr>
<th>Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SDV 100</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>ENG 111</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SOC 200</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SOC 201</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ADJ 100</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ADJ 130</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ADJ 140</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>—</td>
<td>—</td>
<td>18</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Second Semester</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NAS 105</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SOC 202</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ADJ 131</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ADJ 227</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ADJ 145</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>—</td>
<td>—</td>
<td>18-19</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Third Semester</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSY 200</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>PSY 201</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SPA 103</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SPA 201</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SOC 235</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ADJ 171</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>—</td>
<td>—</td>
<td>15-16</td>
</tr>
</tbody>
</table>
### Administration of Justice – Protective Services Specialization (Private Security)

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDV 100</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>ENG 111</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SOC 200</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SOC 201</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>ADJ 100</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ADJ 130</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ADJ 150</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

Total: 16

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAS 105</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SOC 202</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ADJ 131</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ADJ 227</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ADJ 257</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

Total: 18-19

<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 200</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>PSY 201</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SPA 103</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SPA 235</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ADJ 234</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

Total: 15-16

### Administrative Support Technology

**Award:** ASSOCIATE OF APPLIED SCIENCE

**Length:** A full-time student may complete this program in four to five semesters, depending upon the specialization chosen.

**Purpose:** The Associate of Applied Science Degree program in Administrative Support Technology is designed to educate and train students wishing to enter or advance in an office support career. With two specializations offered under the Administrative Support Technology umbrella, students are given the opportunity to select a course of study that will meet their occupational objectives.

**Occupational Objectives:** Possible employment opportunities include:
- Administrative Assistant
- Executive Secretary
- Medical Secretary
- Medical Coding/Billing Specialist
- Medical Insurance Coder
- Office Manager

**Admission Requirements:** In addition to the admission requirements established for the College, entry into this program requires completion of four units of high school English and one unit of high school mathematics. If you meet the general admission requirements, a counselor will discuss with you the strengths and weaknesses of your academic background and your strengths and weaknesses as revealed by an appropriate placement test. You may correct any deficiencies in academic preparation in the College’s Developmental Studies program.

**Program Description:** Designed for completion in two years, the specializations of the Administrative Support Technology program combine instruction in critical areas related to successful career advancement within the office support area.

**The General Office Specialization** provides broad-based knowledge and skills needed in many different types of businesses.
The Medical Office Specialization offers training needed to work in a medical environment with specific training in medical insurance coding and medical transcription. The medical courses are usually taught during the evenings. A coding student who makes below a “C” in a HIM course is strongly encouraged to retake the course. A transcription student who makes below a “C” in any AST or HIM course is strongly encouraged to retake the course.

DCC is accredited by Alpha Beta Gamma International Business Honor Society to initiate members into the honor society for business and related disciplines. For more information about the society, refer to http://www.abg.org.

Program Outcomes: Students who successfully complete this program will:
1. Demonstrate knowledge of various administrative support functions to perform satisfactorily in an office environment.
2. Communicate effectively orally and in writing.
3. Demonstrate proficiency in using word processing software to accurately format a variety of business correspondence.
4. Perform mathematical calculation to accurately complete financial and accounting functions used in an office environment.
5. Key with a level of speed and accuracy acceptable to perform satisfactorily to industry standards.
6. Demonstrate knowledge of alphabetic and numeric filing rules.

Program Requirements: To receive the Associate of Applied Science Degree, you must complete a minimum of 66 credits in the General Office Specialization or a minimum of 68 credits for the Medical Office Specialization. Students must have a cumulative grade point average of 2.0 or better to graduate. The following outlines represent a typical order of courses taken by full-time day students. Part-time and/or evening students may take courses in any desired order, except for sequence courses, or courses requiring prerequisites.

Administrative Support Technology – General Office Specialization

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AST 101</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>AST 103</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>ECO 100</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ENG 134</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BUS 121</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITE 116</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>SDV 100</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>2</td>
<td>15</td>
</tr>
</tbody>
</table>

Administrative Support Technology – Medical Office Specialization

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AST 101</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>AST 103</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>ENG 134</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BUS 121</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITE 116</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>SDV 100</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>2</td>
<td>16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AST 102</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>AST 104</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>ECO 100</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ENG 135</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>HLT/PED</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>BIO/NAS</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>6</td>
<td>17</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AST 234</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>AST 238</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>AST 239</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>AST 113</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>ITE 140</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>4</td>
<td>16</td>
</tr>
</tbody>
</table>
Fifth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Lecture</th>
<th>Lab</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AST 244</td>
<td>Office Administration II</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>HIM 143</td>
<td>Managing Electronic Billing</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>HIM 253</td>
<td>Health Records Coding</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SDV 106</td>
<td>Job Search Strategies</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>SPA 103</td>
<td>Basic Spoken Spanish</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Minimum Credits for the Associate of Applied Science Degree in Administrative Support Technology (Medical Office Specialization) 68

Business Management – Management Specialization

Award: ASSOCIATE OF APPLIED SCIENCE

Length: A full-time student may complete this program in four semesters.

Purpose: The Associate of Applied Science Degree program in Business Management is designed primarily for persons who seek employment in business immediately upon completion of the program. Both persons who are seeking their first employment position and those who are seeking promotion may benefit from this program.

Occupational Objectives: The following occupational titles represent examples of possible employment opportunities for graduates of the management specializations:

- Management Trainee
- Administrative Assistant
- Purchasing Agent
- Human Resource Supervisor
- Production Supervisor
- Small Business Owner/Manager
- Office Manager
- Assistant Manager

Admission Requirements: In addition to the admission requirements established for the College, entry into this program requires completion of four units of high school English and one unit of high school mathematics. If you meet the general admission requirements, a counselor will discuss with you the strengths and weaknesses of your academic background and your strengths and weaknesses as revealed by an appropriate placement test. You may correct any deficiencies in your academic preparation in the College’s Developmental Studies program.

Program Description: The first two semesters (first year) of the Associate of Applied Science Degree program in Business Management are similar to other curriculums in business. In the second year you will pursue your specialty in Business Management. The program includes technical courses, courses in related areas, general education courses and electives. Instruction will include both the theoretical concepts and practical applications needed for success in business. You are urged to consult with the Counseling Office and your faculty advisor in planning your program and selecting electives. Upon satisfactory completion of the four-semester program, you will be awarded the associate degree in Business Management.

DCC is accredited by Alpha Beta Gamma International Business Honor Society to initiate members into the honor society for business and related disciplines. For more information about the society, refer to http://www.abg.org.

Program Outcomes: DCC Business Management—Management Specialization graduates will demonstrate the ability to:

1. utilize industry standard computer software products in business communication media such as written reports and business plans using word processing software (i.e., Microsoft Word) and business presentations using presentation software (i.e., Microsoft PowerPoint);
2. perform and interpret basic business math, accounting, and business statistical calculations;
3. understand the basic concepts associated with business ethics and the importance of developing and adhering to a strong set of generally-accepted ethical principles;
4. demonstrate basic principles of human relationship skills which can be used to successfully interrelate with customers, associates, employees, and superiors in a business setting;
5. understand how the principles of basic economics (e.g., supply and demand, the American free enterprise system, etc.) apply to successful business management practices;
6. understand basic legal and regulatory requirements for business and industry;
7. recognize the features, advantages, and disadvantages of business ownership categories (e.g., proprietorship, partnership, corporation, etc.);
8. understand standard methods for interviewing, hiring, training, motivating, and supervising employees;
9. recognize basic business strategy and philosophy development techniques (e.g., SWOT analysis, vision, mission, values, goals, objectives, etc.); and
10. evaluate marketing strategies for successful products and services.

Program Requirements: To receive the Associate of Applied Science Degree in Business Management, you must complete a minimum of 66 credits with a grade point average of 2.00 or better. The following outline represents a typical order of courses taken by full-time students.
Fourth Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Lecture</th>
<th>Lab</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 110</td>
<td>Introduction to Computerized Accounting</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>BIO/NAS or MTH</td>
<td>Science or Math Elective</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BUS 205</td>
<td>Human Resource Management</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BUS 298</td>
<td>Seminar and Project</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BUS 149</td>
<td>Workplace Ethics</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>MKT 170</td>
<td>Customer Service</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>BUS 209</td>
<td>Continuous Quality Improvement</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BUS 295</td>
<td>Topics in Business</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>17</td>
<td>0</td>
<td>17</td>
</tr>
</tbody>
</table>

Total Minimum Credits for the Associate of Applied Science Degree in Business Management (Management Specialization) .......................... 66

Business Management – Graphic Imaging Management Specialization

Award: ASSOCIATE OF APPLIED SCIENCE

Length: A full-time student may complete this program in two years, which includes one summer term.

Purpose: The Business Management – Graphic Imaging Management Specialization is designed for persons who seek employment in graphic imaging management or sales and marketing positions. Both persons who are seeking their first employment in a managerial position and those presently in management who are seeking promotion may benefit from this program.

Occupational Objectives: The following occupational titles represent examples of possible employment opportunities:
- Owner - Manager
- Department Manager
- Management Trainee
- Sales/Marketing Representative

Admission Requirements: In addition to the admission requirements established for the College, entry into the Graphic Imaging Management Specialization requires completion of four units of high school English, one unit of keyboarding, one unit of high school mathematics, and one unit of vocational printing/graphics. Students with deficiencies in academic preparation may correct weaknesses in the College’s Developmental Studies program or through fundamental printing courses offered by the Graphic Imaging Department.

Program Description: The Graphic Imaging Management Specialization is similar to other curriculums in business; however, the program provides opportunity for you to pursue a specialization in printing technology. Instruction will include both the theoretical concepts and practical applications needed for success in the printing management/marketing field. You are urged to consult with your faculty advisor in planning your program and selecting electives.

Program Outcomes: DCC Business Management – Graphic Imaging Management Specialization graduates will demonstrate the ability to:
1. utilize industry standard computer software products in business communication media such as written reports and business plans using word processing software (i.e., Microsoft Word) and business presentations using presentation software (i.e., Microsoft PowerPoint);
2. perform and interpret basic business math, accounting, and business statistical calculations;
3. understand the basic concepts associated with business ethics and the importance of developing and adhering to a strong set of generally-accepted ethical principles;
4. demonstrate basic principles of human relationship skills which can be used to successfully interrelate with customers, associates, employees, and superiors in a business setting;
5. understand how the principles of basic economics (e.g., supply and demand, the American free enterprise system, etc.) apply to successful business management practices;
6. understand basic legal and regulatory requirements for business and industry;
7. evaluate marketing strategies for successful products and services;
8. understand the basics of electronic publishing;
9. discuss the concepts of color separation and lithographic chemistry; and
10. perform basic graphic imaging industry production planning and estimating tasks.

Program Requirements: To receive the Associate of Applied Science Degree in Business Management (Graphic Imaging Management Specialization), you must complete a minimum of 66 credits with a grade point average of 2.00 or better. The following curriculum outline represents a typical order of courses taken by full-time day students. Part-time students may take courses in any desired order except sequential courses or others requiring prerequisites.

First Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Lecture</th>
<th>Lab</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AST 117</td>
<td>Keyboarding for Computer Usage</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>BUS 100</td>
<td>Introduction to Business</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BUS 121</td>
<td>Business Mathematics I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITE 115</td>
<td>Introduction to Computer Applications and Concepts</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ENG 111</td>
<td>College Composition I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MKT 100</td>
<td>Principles of Marketing</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SDV 100</td>
<td>College Success Skills</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>17</td>
<td>0</td>
<td>17</td>
</tr>
</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Lecture</th>
<th>Lab</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 111</td>
<td>Principles of Supervision</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ECO 120</td>
<td>Survey of Economics</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ENG 115</td>
<td>Technical Writing</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>PNT 211</td>
<td>Electronic Publishing I</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>PNT 221</td>
<td>Layout and Design I</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>13</td>
<td>4</td>
<td>15</td>
</tr>
</tbody>
</table>

Third Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Lecture</th>
<th>Lab</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PNT 260</td>
<td>Color Separation</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

Fourth Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Lecture</th>
<th>Lab</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 111</td>
<td>Accounting I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BUS 240</td>
<td>Business Law</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>HLT/PED 215</td>
<td>Health/Physical Education</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>ITE 215</td>
<td>Advanced Computer Applications and Integration</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>HUM 300</td>
<td>Humanities Elective</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>12</td>
<td>4</td>
<td>14</td>
</tr>
</tbody>
</table>
Fifth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Lecture</th>
<th>Lab</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 110</td>
<td>Introduction to Computerized Accounting - Peachtree</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>BIO/NAS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MTH</td>
<td>Math or Science Elective</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BUS 298</td>
<td>Seminar and Project</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>PNT 231</td>
<td>Lithographic Chemistry</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>PNT 245</td>
<td>Production Planning &amp; Estimating</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>BUS 149</td>
<td>Workplace Ethics</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>MKT 170</td>
<td>Customer Service</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>BUS 290</td>
<td>Topics in Business</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Total 16 3 17

Total Minimum Credits for the Associate of Applied Science Degree in Business Management (Graphic Imaging Management Specialization).............66

Business Management – Automotive Management Specialization

Award: ASSOCIATE OF APPLIED SCIENCE

Length: A full-time student may complete this program in four semesters and one summer term.

Purpose: The Business Management–Automotive Management Specialization is designed primarily for persons who seek employment in the automotive field immediately upon completion of the program. Both persons who are seeking their first employment position and those who are seeking promotion may benefit from the program.

Occupational Objectives: The following occupational titles represent examples of possible employment opportunities:

- Automotive Management/Support
- Service Advisor
- Service Manager
- Automotive Parts Sales
- Automotive Manufacturer Representative
- Automotive Sales
- Automotive Warranty Claims

Admission Requirements: In addition to the general admission requirements established for the College, entry into this program requires completion of four units of high school English and one unit of high school mathematics. If you meet the general admission requirements, a counselor will discuss with you the strengths and weaknesses of your academic background as revealed by an appropriate placement test. You may correct any deficiencies in the College's Developmental Studies program.

Program Description: The Automotive Management Program is designed for students who wish to pursue employment in management and support areas of automotive sales, repair, parts and manufacturing businesses. The program includes courses in automotive technology, general education and electives. Instruction will include both the theoretical concepts and practical applications needed for success in automotive management. You are urged to consult with the Counseling Office and your faculty advisor in planning your program and selecting electives.

Program Outcomes: DCC Business Management—Automotive Management Specialization graduates will demonstrate the ability to:

1. utilize industry standard computer software products in business communication media such as written reports and business plans using word processing software (i.e., Microsoft Word) and business presentations using presentation software (i.e., Microsoft PowerPoint);
2. perform and interpret basic business math, accounting, and business statistical calculations;
3. understand the basic concepts associated with business ethics and the importance of developing and adhering to a strong set of generally-accepted ethical principles;
4. demonstrate basic principles of human relationship skills which can be used to successfully interrelate with customers, associates, employees, and superiors in a business setting;
5. understand how the principles of basic economics (e.g., supply and demand, the American free enterprise system, etc.) apply to successful business management practices;
6. understand basic legal and regulatory requirements for business and industry;
7. evaluate marketing strategies for successful products and services;
8. discuss the principles of alternative fuels and hybrid vehicle design;
9. understand elementary principles of automotive electrical, fuel, and braking systems; and
10. apply customer service skills in an automotive business setting.

Program Requirements: To receive the Associate of Applied Science Degree in Business Management–Automotive Management Specialization, you must complete a minimum of 66 credits with a grade point average of 2.00 or better. The following outline represents a typical order of courses taken by full-time students.

First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Lecture</th>
<th>Lab</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AST 117</td>
<td>Keyboarding for Computer Usage</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>BIO/NAS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MTH</td>
<td>Science or Math Elective</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BUS 100</td>
<td>Introduction to Business</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BUS 121</td>
<td>Business Mathematics I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ENG 111</td>
<td>College Composition I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITE 115</td>
<td>Introduction to Computer Applications and Concepts</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SDV 100</td>
<td>College Success Skills</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Total 16 2 17

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Lecture</th>
<th>Lab</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT 241</td>
<td>Automotive Electricity I</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>AUT 265</td>
<td>Auto. Braking Systems</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>ECO 120</td>
<td>Survey of Economics</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ENG 115</td>
<td>Technical Writing</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITE 215</td>
<td>Advanced Computer Applications and Integration</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

Total 14 8 17

Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Lecture</th>
<th>Lab</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT 230</td>
<td>Introduction to Alternative Fuels and Hybrid Vehicles</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Total 3 3 4

Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Lecture</th>
<th>Lab</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 111</td>
<td>Accounting I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BUS 240</td>
<td>Business Law</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MKT 100</td>
<td>Principles of Marketing</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>HLT/PED</td>
<td>Elective</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>HUM</td>
<td>Humanities Elective</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

Total 12 2 13

Fifth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Lecture</th>
<th>Lab</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 149</td>
<td>Workplace Ethics</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>ACC 110</td>
<td>Introduction to Computerized Accounting</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>AUT 122</td>
<td>Fuel Systems I</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>BUS 111</td>
<td>Principles of Supervision</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BUS 205</td>
<td>Human Resource Management</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BUS 295</td>
<td>Topics in Business</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>MKT 170</td>
<td>Customer Service</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Total 14 3 15

Total Minimum Credits for the Associate of Applied Science Degree in Business Management (Automotive Management Specialization) ............................................66

*Students may substitute AUT courses approved by the advisor.*
Dental Hygiene

**Award:** ASSOCIATE OF APPLIED SCIENCE
(awarded by Virginia Western Community College)

**Purpose:** The curriculum is designed to prepare students as primary preventive oral health professionals licensed to practice dental hygiene. Upon successful completion of the program, graduates will be eligible to take national, regional, and state board examinations leading to licensure as a registered dental hygienist (RDH).

Note: Individuals who have a felony or misdemeanor conviction may not be allowed to take the licensing exam. This decision is made by the Virginia Board of Dentistry. For questions regarding this issue, call Virginia Board of Dentistry (804.367.4538).

**Accreditation Status:** The program has been accredited by the Commission on Dental Accreditation of the American Dental Association, a specialized accrediting body recognized by the United States Department of Education.

**Occupational Objectives:** A dental hygienist may practice in any of the following settings:
- Dental offices and dental clinics
- Federal, state, and local health departments
- Hospitals and nursing homes/home health organizations
- School districts or departments of education
- Educational programs for dental, dental hygiene, and dental assisting students
- Correctional facilities
- Private and public facilities for pediatric, geriatric, and other individuals/groups with special needs
- Health maintenance organizations/managed care organizations

**Admission Requirements:** Applicants to the Dental Hygiene program must have completed the following:
1. One unit each of high school or college biology and chemistry.
2. Completion of BIO 141-142, Anatomy and Physiology with grade of “C” or better.
3. Developmental Requirements: Students who do not place into college-level English on the placement test will be required to take developmental courses. Students who do not demonstrate proficiency on the placement test in the following mathematical units will be required to complete developmental courses: MTE 1, 2, 3, 4, 5, 6, 7, 8 and 9.
4. A grade of “C” or better is necessary in required high school/college units of math and science.

Prerequisites must be completed prior to the summer immediately preceding the fall entry semester. DCC students may register in its First Year Studies certificate in order to meet prerequisite requirements. The applicant’s high school or college (if applicable) cumulative grade point average (GPA) must be at least 2.5 and is based on at least 12 credit hours of college credit in a 12-month timeframe. The GPA is determined at the end of fall semester prior to admission. Priority consideration will be given to applicants with a cumulative grade point average (GPA) must be at least 3.0 or above.

All qualified applicants must take the HOBET Test.

**Admission Procedures:** The Dental Hygiene program is open to qualified male or female applicants. Admission to the dental hygiene program is offered to qualified applicants on an annual basis at the Roanoke campus. Admission to the VWCC-DCC joint venture distance program site in Danville is offered to qualified applicants on a biennial basis during odd-numbered years; and to the VWCC-Lord Fairfax joint venture distance program site in Middletown on a biennial basis during even-numbered years. Deadline for submitting complete application materials is February 15 for the upcoming academic year. If the number of qualified applicants falls below the maximum enrollment, the application deadline may be extended. Applicants should be aware that meeting the curriculum admission standards does not guarantee program admission. Applicants will be notified in writing of the action taken by the Dental Hygiene Admissions Committee in May. Students interested in this program should consult the VWCC catalog for additional information on admissions, VWCC policy on Infectious Disease Status, Essential Dental Hygiene Functions, Clinical Environment, Student Responsibilities, Student Retention and Readmission Policy. The catalog can be accessed through the VWCC website (http://www.virginiawestern.edu/).

**Program Outcomes (from VWCC):**
1. Students will demonstrate a thorough understanding of infection control.
2. Students will demonstrate the ability to gather the appropriate medical history information from clients.
3. Students will demonstrate the ability to use dental hygiene skills to provide patient care to treat complex dental issues.

**First-Year Curriculum**

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 141</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>DNH 111</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>DNH 115</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>DNH 120</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>DNH 130</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>DNH 141</td>
<td>3</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>DNH 142</td>
<td>2</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>DNH 145</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>DNH 146</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>DNH 216</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>NAS 185</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>—</td>
<td>—</td>
<td>19</td>
</tr>
</tbody>
</table>

**Second Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNH 114</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>DNH 150</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>DNH 190</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>DNH 235</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>—</td>
<td>—</td>
<td>14</td>
</tr>
</tbody>
</table>

**Summer Session**

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 142</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>ENG 111</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>DNH 150</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>DNH 190</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>DNH 235</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>—</td>
<td>—</td>
<td>14</td>
</tr>
</tbody>
</table>

**Second-Year Curriculum**

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNH 214</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>DNH 226</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>DNH 244</td>
<td>1</td>
<td>12</td>
<td>5</td>
</tr>
<tr>
<td>PSY 230</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>12</td>
</tr>
</tbody>
</table>
**Fourth Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNH 227</td>
<td>Public Health Dental Hygiene II</td>
<td>0 3 1</td>
</tr>
<tr>
<td>DNH 230</td>
<td>Office Practices and Ethics</td>
<td>1 0 1</td>
</tr>
<tr>
<td>DNH 245</td>
<td>Dental Hygiene V</td>
<td>1 12 5</td>
</tr>
<tr>
<td>HUM EEE</td>
<td>Humanities or Fine Arts Elective</td>
<td>3 0 3</td>
</tr>
</tbody>
</table>

**Total** | | 10 |

**Total Minimum Credits for the Associate of Applied Science Degree in Dental Hygiene**

---

**NOTE:** BIO 141 and 142 must be completed by the spring semester prior to program entry. Support courses (non-DNH courses) may be taken prior to entry. BIO 141, BIO 142, and NAS 185 must be repeated if they were completed more than five years prior to the date of admission into the program.

---

**Early Childhood Education**

**Award:** ASSOCIATE OF APPLIED SCIENCE

**Length:** A full time student may complete this program in four semesters. Students who have developmental requirements may need more semesters to complete this program.

**Purpose:** The Early Childhood Education curriculum is designed for students who plan to work with children from birth through age eight years using developmentally appropriate practices. This curriculum provides the student with skills in areas documented by Virginia Competencies for Early Childhood Professionals. The Associate of Applied Science Degree program is primarily designed to benefit persons interested in employment in the care and education of young children immediately after completion of community college studies. However, several adjustments in program schedules are available to enable a student to prepare for transfer to a baccalaureate degree program in Early Childhood Education.

**Occupational Objectives:** The following occupational titles represent examples of possible employment opportunities:
- Child Care Center Director
- Child Care Center Teacher
- Teacher Aide/Assistant
- Child Care Center Teacher Assistant
- Recreation Aide or Program Leader
- Substitute Teacher

**Admission Requirements:** In addition to the admission requirements established by the College, entry into this curriculum requires a high school diploma or the equivalent. Students with academic weaknesses, as determined by the College’s placement test, can correct these weaknesses by enrolling in Developmental Studies. Entry into the Associate of Applied Science Degree program in Early Childhood Education also requires the following:
1. A personal interview with a representative of the Early Childhood Education Department.
2. Special Requirement: Students who wish to enroll in the Early Childhood Education Certificate Program with the objective of obtaining employment in early childhood education settings are advised that excellent moral character is generally considered prerequisite to such employment. Background investigations will be conducted by the college laboratory school to confirm that students have not been convicted of a crime involving moral turpitude or any felony.
3. Program placed students must present documentation of a negative Tuberculosis (TB) screening.

---

**Program Description:** The Early Childhood Education curriculum prepares individuals to work in services for children from birth through age eight years. The program includes courses in child education, behavior management, methods of teaching children, general education and electives. Instruction will include both theoretical concepts and practical applications needed for success in providing high quality services for children. Upon successful completion of the four-semester program, you will be awarded the Associate of Applied Science Degree (AAS) in Early Childhood Education.

**Program Outcomes:** Upon successful completion of this program, students will be able to:
1. Plan, implement and evaluate curriculum plans and learning environments for children based on developmentally appropriate and a thorough knowledge of child development.
2. Adhere to Virginia’s Standards for Licensed Child Day Centers in the planning and evaluation of classroom and learning environments to ensure the health, safety and nutrition of children.
3. Communicate effectively and appropriately with children and families from all backgrounds to build respectful, reciprocal relationships and use appropriate positive guidance strategies with children in their care.
4. Assess children’s progress using formal and informal observation and assessment tools and methods.
5. Complete a plan for the educational, physical, fiscal and human resources needed to operate a program for children.

**Program Requirements:** To receive the Associate of Applied Science Degree in Early Childhood Education you must complete a minimum of 67 credits with a grade point average of 2.00 or better. The following outline represents a typical order of courses taken by full time students.

---

**First Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDV</td>
<td>100 College Success Skills</td>
<td>1 0 1</td>
</tr>
<tr>
<td>ENG</td>
<td>111 College Composition I</td>
<td>3 0 3</td>
</tr>
<tr>
<td>CHD</td>
<td>120 Intro. Early Childhood Education</td>
<td>3 0 3</td>
</tr>
<tr>
<td>CST</td>
<td>100 Principles of Public Speaking</td>
<td>3 0 3</td>
</tr>
<tr>
<td>CHD</td>
<td>145 Methods in Art, Music &amp; Movement</td>
<td>2 2 3</td>
</tr>
<tr>
<td>CHD</td>
<td>165 Obs. and Part. In Early Childhood/Primary Settings</td>
<td>1 6 3</td>
</tr>
</tbody>
</table>

**Total** | | 13 | 8 | 16 |

**Second Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG</td>
<td>112 College Composition II</td>
<td>3 0 3</td>
</tr>
<tr>
<td>SOC</td>
<td>215 Sociology of the Family or Approved Elective</td>
<td>3 0 3</td>
</tr>
<tr>
<td>CHD</td>
<td>118 Language Arts for Young Children</td>
<td>2 2 3</td>
</tr>
<tr>
<td>CHD</td>
<td>166 Infant and Toddler Programs</td>
<td>3 0 3</td>
</tr>
<tr>
<td>PSY</td>
<td>235 Child Psychology</td>
<td>3 0 3</td>
</tr>
</tbody>
</table>

**Total** | | 14 | 2 | 15 |

**Third Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHD</td>
<td>146 Math, Science and Social Studies for Children</td>
<td>2 2 3</td>
</tr>
<tr>
<td>CHD</td>
<td>119 Intro. To Reading Meth.</td>
<td>2 2 3</td>
</tr>
<tr>
<td>EDU</td>
<td>235 Health, Safety, &amp; Nutrition for Children</td>
<td>3 0 3</td>
</tr>
<tr>
<td>CHD</td>
<td>210 Intro. to Exceptional Children</td>
<td>3 0 3</td>
</tr>
<tr>
<td>CHD</td>
<td>205 Guiding the Behavior of Children</td>
<td>3 0 3</td>
</tr>
<tr>
<td>CHD</td>
<td>216 Early Childhood Prog.,Schools and Social Change</td>
<td>3 0 3</td>
</tr>
</tbody>
</table>

**Total** | | 16 | 4 | 18 |
Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHD 215</td>
<td>Models of Early Childhood Programs</td>
</tr>
<tr>
<td>CHD 270</td>
<td>Adm. of Early Childhood Programs</td>
</tr>
<tr>
<td>CHD 265</td>
<td>Adv. Obs. and Part. In Early Childhood/Primary Settings</td>
</tr>
<tr>
<td>CHD 298</td>
<td>Portfolio Development</td>
</tr>
<tr>
<td>HLT 106</td>
<td>First Aid Safety</td>
</tr>
<tr>
<td>BUS 121</td>
<td>Business Mathematics</td>
</tr>
<tr>
<td>ENG 250</td>
<td>Children's Literature</td>
</tr>
</tbody>
</table>

Total Minimum Credits for the Associate of Applied Science Degree in Early Childhood Education: 16

General Engineering Technology

Award: ASSOCIATE OF APPLIED SCIENCE

Length: Two years. Part-time students determine their own pace.

Purpose: The Associate of Applied Science Degree in General Engineering Technology is designed to provide a broad base of math, science, and engineering knowledge which will prepare the graduate to enter the technical workforce upon graduation. Entry into the workplace would be at the Engineering Assistant level. The graduate will have knowledge in areas of Engineering Technology such as engineering materials, design drafting, engineering mechanics, manufacturing methods, electronics, and computer programming.

Occupational Objectives: Possible employment opportunities for graduates of this program include the following titles:

- Engineering Technician
- Quality Control Technician
- Industrial Engineering Technician
- Material Testing Technician
- Technical Salesperson

Admission Requirements: In addition to the admission requirements established for the College, this curriculum requires successful completion of four units of high school English; three units of high school mathematics (Algebra I, Algebra II and Geometry); and two units of high school social studies; one unit of laboratory science, and one unit of Technical Drafting. If a student meets the general admission requirements, a counselor will discuss the student’s academic strengths and weaknesses. Any academic deficiencies may be corrected in the College’s Developmental Studies program.

Program Description: General Engineering Technology is a two-year curriculum combining a basic core of engineering courses. These courses are drawn from the field of Mechanical, Industrial, and Electronic Engineering. The first year includes studies in science, math, English, drafting, and general education courses. Although the first year is composed almost exclusively of engineering technology courses, these courses will prepare the student to enter the engineering field as an engineering technician upon graduation.

Program Outcomes: Upon successful completion of this program, students will:

1. Design, draw and build a model bridge then test the structural strength with the departments’ structure tester.
2. Develop, design, create a drawing package, and fabricate a 3 dimensional working model of a functioning mechanical system.

Program Requirements: To receive an Associate of Applied Science Degree in General Engineering Technology you must complete a minimum of 65 credits with a 2.00 or better grade point average. The 65 credits are distributed according to the following outline. The outline represents a typical order of courses taken by full-time day students. Part-time and/or evening students may take courses in any desired sequence, except for hyphenated courses or others requiring prerequisites.

First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDV 100</td>
<td>College Success Skills</td>
</tr>
<tr>
<td>ITE 140</td>
<td>Spreadsheets</td>
</tr>
<tr>
<td>DRF 114</td>
<td>Drafting I</td>
</tr>
<tr>
<td>MEC 100</td>
<td>Intro. to Engineering Tech.</td>
</tr>
<tr>
<td>MAC 131</td>
<td>Machining Technology</td>
</tr>
<tr>
<td>MTH 166</td>
<td>Precalculus w/Trig.</td>
</tr>
</tbody>
</table>

Total Credits: 15

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDV 195</td>
<td>Electronic Portfolio</td>
</tr>
<tr>
<td>MTH 271</td>
<td>Calculus I</td>
</tr>
<tr>
<td>MEC 111</td>
<td>Materials for Industry</td>
</tr>
<tr>
<td>MEC 126</td>
<td>Computer Programming</td>
</tr>
<tr>
<td>ENG 111</td>
<td>English Composition I</td>
</tr>
<tr>
<td>HLT/PED 100</td>
<td>Physical Ed. Elective</td>
</tr>
</tbody>
</table>

Total Credits: 15

Summer Term I

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD 201</td>
<td>Comp. Aided Drafting and Design</td>
</tr>
<tr>
<td>MEC 131</td>
<td>Mechanics I</td>
</tr>
<tr>
<td>MAC 126</td>
<td>Introduction to CNC</td>
</tr>
<tr>
<td>PHY 130</td>
<td>Tech. Physics</td>
</tr>
</tbody>
</table>

Total Credits: 13

Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETR 115</td>
<td>DC and AC Fundamentals</td>
</tr>
<tr>
<td>MEC 132</td>
<td>Mechanics II</td>
</tr>
<tr>
<td>CAD 233</td>
<td>SolidWorks</td>
</tr>
<tr>
<td>MEC 265</td>
<td>Fluid Mechanics</td>
</tr>
</tbody>
</table>

Total Credits: 12
Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEC 211</td>
<td>3</td>
</tr>
<tr>
<td>PSY/SOC/HUM Elective</td>
<td>3</td>
</tr>
<tr>
<td>HUM Elective</td>
<td>3</td>
</tr>
<tr>
<td>CST 100</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Minimum Credits for the Associate of Applied Science Degree in General Engineering Technology: 65

All students are recommended to take ITE 115 (Introduction to Computer Applications and Concepts) in addition to courses required for the AAS degree.

Technical Elective must be applicable to career objectives and approved by faculty advisor.

Health Science - Practical Nursing Specialization

Award: ASSOCIATE OF APPLIED SCIENCE

Length: A full-time student may complete this program in four semesters (two years)

Purpose: The Health Science program with a Specialization in Practical Nursing is designed to prepare students for careers as practical nurses. In addition, this program requires students to develop a firmer foundation in positive health practices, anatomy and physiology, and applied mathematics than is required in typical practical nursing certificates. This degree should be chosen by students who wish to develop professionally in directions of health care education, community health, or more advanced nursing training and supervision. Upon completion of the program, graduates will be eligible to take the National Council Licensure Examination (NCLEX-PN).

Occupational Objectives: Opportunities for the Licensed Practical Nurse include employment in hospitals, nursing homes, clinics, day care centers, doctor’s offices, industry, hospice, and private duty nursing.

Prerequisites/Admission Requirements:
1. High School diploma or GED
2. Non-developmental placement in English (writing and reading) and strong competence in basic arithmetic.
3. Successful completion of the Nursing Entrance examination
4. Current C.P.R. certification at the American Heart Association professional rescuer level.
5. Priority consideration will be given to students who have completed a sequence of preparatory college-level courses with a grade of “B” or better in three (3) attempts or less.
6. The First Year Studies Certificate for LPNs is beneficial for certain students but not required.
7. ENG 111 successfully completed with a grade of “C” or better.
8. MTH 126 successfully completed with a grade of “C” or better.
9. MTH 126 completed within the last year.
10. BIO 141 and BIO 142 successfully completed with a grade of “C” or better.
11. No student will be considered for admission who has previously failed to complete any allied health programs two or more times for academic reasons.
12. If accepted into the program, the student will be responsible for obtaining a physical exam, malpractice insurance and a criminal background check, all expenses to be incurred by the student.
13. Certain criminal convictions may prevent licensure as a nurse or certification as a nurse aide in Virginia. Criminal convictions may also prohibit employment in certain health care settings. Students convicted of any felony or any misdemeanor involving moral turpitude/barrier crimes do not qualify for the Nursing Program at DCC. The clinical facilities will not allow students to complete clinical hours and students will not be able to meet the Virginia Board of Nursing requirements of direct clinical hours, nor meet the credit requirement for graduation. Any student entering the program who has committed illegal offenses other than minor traffic violations should discuss these matters with the program head for clarification.

Note: This program is academically rigorous and there are more applicants than available seats. Therefore, admission is on a selective, not first-come, first-served basis. The selection process will focus on the student’s past academic performance and the results of the entrance examination. It is recommended that students enroll initially in the First Year Studies program and then apply to this degree.

Individuals who are currently licensed as practical nurses may register for this program without applying for admission by contacting the Admissions Office. Transcripts from the institution where the student graduated in a practical nursing program are required.

Readmission Requirements: Students desiring to be readmitted to the program will follow the same procedures outlined above. Once a student is readmitted, there are additional requirements regarding repetition of previous coursework. A copy of these additional requirements may be obtained from the Practical Nursing Department following readmission. Students are allowed readmission once.

Program Outcomes: Within the scope of Nursing and utilizing the nursing process, the graduate will:
1. Participate in the assessment of the patient’s physical and mental health.
2. Contribute to the development and implementation of the health care plan.
3. Communicate with patients, families, and other members of the health care team.
4. Identify legal-ethical issues, and self-limitations in the provision of patient care.
5. Identify ways to become an involved citizen within the community.
6. Engage in additional educational opportunities offered that will enhance growth.
7. Care for and respect patients regardless of cultural, racial, and socioeconomic differences.
8. Display dependability, cooperativeness, and initiative with peers, instructors and clinical staff.
9. Demonstrate safety, competence, and achievement in the discipline of Practical Nursing.
10. Demonstrate the necessary knowledge and skills to function as a novice in the care of all patients across the life span.

Program Requirements: To receive the Associate of Applied Science Degree in Health Science with a Specialization in Practical Nursing, students must complete 64-65 credits with a grade point average of 2.00 or better. In order to advance to the next semester, you must earn a grade of “C” or better in all course work. You must also demonstrate satisfactory attendance and performance in nursing clinical areas.

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR 100</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>MTH 126</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BIO 141</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>HLT 141</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>PNE 173</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>PNE 161</td>
<td>4</td>
<td>6</td>
<td>10</td>
</tr>
</tbody>
</table>

Total: 18

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEC 211</td>
<td>3</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>PSY/SOC/HUM Elective</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>HUM Elective</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>CST 100</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

Programs of Study - Danville Community College - 59
and your strengths and weaknesses as revealed by an appropriate placement discus with you the strengths and weaknesses of your academic background units of high school English and one unit of college preparatory high school

Admission Requirements:

Technical/Software Support Specialist
Programmer
PC Support Technician
Network Engineer
Network Administrator
Mobile Application Developer
Data Miner
Mobile Application Designer
Game Programmer

of possible employment opportunities:

Occupational Objectives: The following occupational titles represent examples of possible employment opportunities:

- Game Programmer
- Mobile Application Designer
- Data Communications Specialist
- Data Miner
- Mobile Application Developer
- Network Administrator
- Network Engineer
- Network Support Specialist
- PC Support Technician
- Programmer
- Technical Game Designer
- Technical/Software Support Specialist

Admission Requirements: In addition to the admission requirements established for the College, entry into this program requires completion of four units of high school English and one unit of college preparatory high school algebra. If you meet the general admission requirements, a counselor will discuss with you the strengths and weaknesses of your academic background and your strengths and weaknesses as revealed by an appropriate placement

test. You may correct any deficiencies in your academic preparation in the College’s Developmental Studies program.

Program Description: Designed for completion in two years, all specializations of the Information Systems Technology Program combine instruction in critical areas related to successful career advancement within the Information Systems Technology area.

The Computer Programming Specialization includes technical programming courses, courses in related areas, and general education. Instruction includes both the theoretical concepts and practical applications needed for success in Information Systems Technology. “Hands on” training in an interactive setting is achieved through exercises and programming assignments. You are urged to consult with the Counseling Office and your faculty advisor in planning your program.

The Gaming and Mobile Application Development Specialization includes courses which provide an emphasis on designing, creating and maintaining programs related to gaming, simulation and mobile applications. Courses provide instruction in game design and development using various languages and programming environments. The students will also experience writing programs for mobile applications using languages related to the newest cell phones on the market. Students will see the benefits of programming for training through applications for simulation.

The Networking Specialization Program includes courses which provide an emphasis on designing, creating and maintain local area networks and wide area networks. These courses provide instruction in Software Management, Voice Telephony Services, Switches, Firewalls, Routers, Servers, Workstations, and Virtualization Technologies. The Virtualization courses include VMware ICM, O&S, Virtual Desktop Infrastructure, Hyper-V, and SAN and NAS Storage Technologies all of which are an integral part of the curriculum and designed for student success. Through all of these courses, students will learn how to operate the newest networking equipment and software available today that will prepare them for numerous employment opportunities in the field of Information Technology.

The PC Technology Specialization includes courses in microcomputer software and systems applications. The program offers technical courses in microcomputer software and operations, courses in related areas, and in general education. Instruction includes both the theoretical concepts and practical applications needed for success using microcomputers. “Hands on” training in an interactive setting is achieved through exercises and assignments.

Program Requirements: To receive the Associate of Applied Science Degree, you must have a grade point average of 2.00 or better and a minimum of 65 credits for Computer Programming and Gaming and Mobile Application Development, and 66 credits for PC Technology and Networking Specializations. The following outlines represent a typical order of courses taken by full-time day students. Part-time and/or evening students may take courses in any desired order except for sequenced courses or courses requiring prerequisites.

Program Outcomes: Upon successful completion of the Information Technology programs at DCC, the student will:

1. Demonstrate proficiency in the fundamental information technology skills required to provide user support in business.
2. Implement and maintain computer-based information systems to support the decision-making function of management.
3. Apply analytical and problem solving skills for typical computer system designs, planning, implementation and support.
4. Design, code, test, debug, and document code for programs and other software needed for computer system implementation and maintenance.
5. Apply current industry standards, protocols, and techniques; and keep up with evolving technology to maintain professional proficiency.
6. Use vendor supplied instructional material and testing tools leading towards certification.

### Information Systems Technology

**Award:** ASSOCIATE OF APPLIED SCIENCE

**Length:** A full-time student may complete this program in four semesters.

**Purpose:** Persons seeking initial employment in an Information Systems Technology position or those who are seeking advancement will benefit from these programs. In addition, those who are preparing for certification examinations will find the courses in these programs beneficial as well.

With four specializations offered under the Information Systems Technology programs of study, students are given the opportunity to select a specialization that will meet their occupational objectives.

**Occupational Objectives:** The following occupational titles represent examples of possible employment opportunities:

- Game Programmer
- Mobile Application Designer
- Data Communications Specialist
- Data Miner
- Mobile Application Developer
- Network Administrator
- Network Engineer
- Network Support Specialist
- PC Support Technician
- Programmer
- Technical Game Designer
- Technical/Software Support Specialist

**Admission Requirements:** In addition to the admission requirements established for the College, entry into this program requires completion of four units of high school English and one unit of college preparatory high school algebra. If you meet the general admission requirements, a counselor will discuss with you the strengths and weaknesses of your academic background and your strengths and weaknesses as revealed by an appropriate placement

### Programs of Study

**Spring Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PNE 162</td>
<td>5</td>
</tr>
<tr>
<td>PNE 174</td>
<td>0</td>
</tr>
<tr>
<td>BIO 142</td>
<td>3</td>
</tr>
<tr>
<td>PNE 158</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>17</td>
</tr>
</tbody>
</table>

**Second Year**

**Fall Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PNE 163</td>
<td>4</td>
</tr>
<tr>
<td>PNE 135</td>
<td>4</td>
</tr>
<tr>
<td>PNE 145</td>
<td>1</td>
</tr>
<tr>
<td>Approved Elective</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>18</td>
</tr>
</tbody>
</table>

**Spring Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUM</td>
<td>3</td>
</tr>
<tr>
<td>PSY</td>
<td>3</td>
</tr>
<tr>
<td>HLT 130</td>
<td>3</td>
</tr>
<tr>
<td>HLT 230</td>
<td>2-3</td>
</tr>
<tr>
<td>ENG 111</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>11-12</td>
</tr>
</tbody>
</table>

Total Minimum Credits for the Associate of Applied Science Degree in Health Science — Practical Nursing Specialization .............................. 64-65

---

60 • Danville Community College • Programs of Study
### Information Systems Technology – Computer Programming Specialization

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AST 114</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>BUS 100</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ENG 131</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITE 115</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITP 100</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MTH 121</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SDV 100</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>18</td>
<td>0</td>
<td>18</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 111</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ECO 120</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>HUM 134</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITD 136</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ITE 150</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>17</td>
<td>0</td>
<td>17</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 220</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>HLT/PED</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>ITE 221</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITP 112</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ITP 120</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>14</td>
<td>2</td>
<td>15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fourth Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 236</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITN 102</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>ITP 212</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ITP 220</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>14</td>
<td>2</td>
<td>15</td>
</tr>
</tbody>
</table>

Total Minimum Credits for the Associate of Applied Science Degree in Information Systems Technology – Computer Programming Specialization: 65

*Students having prior keyboarding may request testing out.

### Information Systems Technology – Gaming and Mobile Application Development Specialization

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AST 114</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>ITE 115</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITP 100</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITP 160</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MTH 121</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SDV 100</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>15</td>
<td>0</td>
<td>18</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 111</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ECO 120</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITP 136</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ITE 150</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>16</td>
<td>2</td>
<td>17</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 220</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>HLT/PED</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>ITP 120</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>HUM 131</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>14</td>
<td>2</td>
<td>15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fourth Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 236</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BUS 236</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITD 120</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ITP 214</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ITP 265</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>18</td>
<td>0</td>
<td>18</td>
</tr>
</tbody>
</table>

Total Minimum Credits for the Associate of Applied Science Degree in Information Systems Technology – Gaming and Mobile Application Development Specialization: 65

*Students having prior keyboarding may request testing out.
### Information Systems Technology – Networking Specialization

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AST 114</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BUS 100</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITE 221</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITN 154</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>MTH 121</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SDV 100</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>15</td>
<td>2</td>
<td>16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Second Semester</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACC 111</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BUS 236</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ECO 120</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITN 102</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>ITN 155</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>15</td>
<td>4</td>
<td>17</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Third Semester</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENG 131</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ETR 115</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>HUM</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITN 103</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>ITN 156</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>15</td>
<td>6</td>
<td>18</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fourth Semester</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ETR 149</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITN 104</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>ITN 157</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>ITN 209</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>13</td>
<td>4</td>
<td>15</td>
</tr>
</tbody>
</table>

Total Minimum Credits for the Associate of Applied Science Degree in Information Systems Technology – Network Specialization .......................................................... 66

*Students having prior keyboarding may request testing out.*

### Information Systems Technology – PC Technology Specialization

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AST 114</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>BUS 100</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ENG 131</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITE 115</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITX</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MTH 121</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SDV 100</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>18</td>
<td>0</td>
<td>18</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Second Semester</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACC 111</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITX</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BUS 236</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>HLT/PED</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>ITE 140</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITP 100</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>15</td>
<td>4</td>
<td>17</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Third Semester</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENG 131</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ETR 115</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>HUM</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITN 103</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>ITN 156</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>15</td>
<td>2</td>
<td>16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fourth Semester</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ETR 149</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITX</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ECO 120</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ETR 149</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITN 102</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>16</td>
<td>2</td>
<td>17</td>
</tr>
</tbody>
</table>

Total Minimum Credits for the Associate of Applied Science Degree in Information Systems Technology – PC Technology Specialization .......................................................... 66

*Students having prior keyboarding may request testing out.*
Marketing – Marketing Specialization

Award: ASSOCIATE OF APPLIED SCIENCE

Length: A full-time student may complete this program in four semesters.

Purpose: The Marketing program is designed for students who are preparing for full-time employment in merchandising, retailing or related marketing occupations. Persons seeking initial employment in Marketing or those already employed in Marketing and seeking advancement may benefit from this program.

Occupational Objectives: The following occupational titles represent examples of possible employment opportunities:

- Sales Representative
- Buyer/Assistant Buyer
- Manager/Manager Trainee
- Department Manager
- Real Estate/Insurance Sales
- Small Business Management/Owner
- Other Related Marketing Occupations

Admission Requirements: In addition to the admission requirements established for the College, entry into this program requires completion of four units of high school English and one unit of high school mathematics. If you meet the general admission requirements, a counselor will discuss with you the strengths and weaknesses of your academic background as well as your strengths and weaknesses as revealed by an appropriate placement test. You may correct any deficiencies in academic preparation in the College’s Developmental Studies program.

Program Description: The program includes technical courses in marketing, related business courses and general education courses. Instruction will include both the theoretical concepts and practical applications needed for further success in Marketing. You are urged to consult with the Counseling Office and a faculty advisor in planning your program and selecting electives. Upon satisfactory completion of the program, you will be awarded the Associate of Applied Science Degree in Marketing.

DCC is accredited by Alpha Beta Gamma International Business Honor Society to initiate members into the honor society for business and related disciplines. For more information about the society, refer to http://www.abg.org.

Program Outcomes: DCC Marketing – Marketing Specialization graduates will demonstrate the ability to:

1. understand the role and practice of marketing within an organization, including theoretical and applied aspects of the marketing discipline;
2. demonstrate competency in presentation skills including organization, eye-contact, volume, pacing, and visual aids (i.e., PowerPoint);
3. apply a wide variety of computer software skills to business communication media such as written reports and business plans using word processing software and business presentations using presentation software;
4. perform and interpret basic business math calculations (e.g., mark-ups, interest rates, ratios, etc.) and business accounting principles, basic financial reports and book keeping fundamentals;
5. create marketing strategies and plans that utilize elements of the marketing mix, product mix, and/or media mix;
6. analyze marketing problems and issues facing companies and organizations and conceptualize possible alternative solution action plans;
7. understand the basic concepts associated with business ethics and the importance of developing and adhering to a strong set of generally-accepted ethical principles;
8. demonstrate basic principles of human relationship skills which can be used to successfully interact with customers, associates, employees, and superiors in a business setting;
9. understand basic economics, various economic systems, legal and regulatory requirements for business and industry and their impact on business; and
10. apply the strategic principles of selling to consumer buying behavior and marketing decisions as it relates to the marketing goals and objectives.

Program Requirements: To receive the Associate of Applied Science Degree in Marketing you will need to complete 66 credits with a grade point average of 2.00 or better. The following outline represents a typical order of courses taken by full-time students.

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td>AST 117</td>
<td>Keyboarding for Computer Usage</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>BUS 100</td>
<td>Introduction to Business</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BUS 121</td>
<td>Business Mathematics I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ENG 111</td>
<td>College Composition I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ITE 115</td>
<td>Introduction to Computer</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MKT 100</td>
<td>Principles of Marketing</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SDV 100</td>
<td>College Success Skills</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>17</td>
<td>0</td>
<td>17</td>
</tr>
<tr>
<td>Second Semester</td>
<td>BUS 111</td>
<td>Principles of Supervision</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BUS 122</td>
<td>Business Mathematics II</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ITE 215</td>
<td>Adv. Computer App. &amp; Integration</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>MKT 110</td>
<td>Principles of Selling</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BUS 236</td>
<td>Communication in Management</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>16</td>
<td>0</td>
<td>16</td>
</tr>
<tr>
<td>Third Semester</td>
<td>ACC 111</td>
<td>Accounting I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MTH</td>
<td>Science or Math Elective</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ECO 120</td>
<td>Survey of Economics</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>HLT/PED</td>
<td>Health/Physical Education</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>MKT 216</td>
<td>Retail Organization &amp; Management</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MKT 228</td>
<td>Promotion</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>15</td>
<td>2</td>
<td>16</td>
</tr>
<tr>
<td>Fourth Semester</td>
<td>ACC 110</td>
<td>Introduction to Computerized Accounting</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>BUS 149</td>
<td>Workplace Ethics</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>BUS 295</td>
<td>Topics in Business</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>HUM</td>
<td>Humanities Elective</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MKT 170</td>
<td>Customer Service</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>MKT 227</td>
<td>Merchandise Buying &amp; Control</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MKT 298</td>
<td>Seminar &amp; Project or</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MKT 297</td>
<td>Cooperative Education</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MKT 281</td>
<td>Principles of Internet Marketing</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>17</td>
<td>0</td>
<td>17</td>
</tr>
</tbody>
</table>

Total Minimum Credits for the Associate of Applied Science Degree in Marketing ........................................................................................................................................66
Marketing – Warehousing and Distribution Specialization

Award: ASSOCIATE OF APPLIED SCIENCE

Length: A full-time student may complete this program in four semesters.

Purpose: The Marketing – Warehousing and Distribution Specialization program is designed for students who are preparing for full-time employment in a career field involving the care and control of stock, dispatching goods and materials, and assembling bulk orders for distribution. Persons seeking initial employment in marketing, warehousing and/or distribution of goods and services or those already employed in these fields and seeking advancement may benefit from this program.

Occupational Objectives: The following occupational titles represent examples of possible employment opportunities:
- Shipping
- Receiving
- Logistics/Traffic
- Warehouse Manager/Manager Trainee
- Department Manager
- Purchasing
- Other Related Marketing Occupations

Admission Requirements: In addition to the admission requirements established for the College, entry into this program requires completion of four units of high school English and one unit of high school mathematics. If you meet the general admission requirements, a counselor will discuss with you the strengths and weaknesses of your academic background as well as your strengths and weaknesses as revealed by an appropriate placement test. You may correct any deficiencies in academic preparation in the College’s Developmental Studies program.

Program Description: The program includes technical courses in marketing, related business courses and general education courses. Instruction will include both the theoretical concepts and practical applications needed for further success in Marketing. You are urged to consult with the Counseling Office and a faculty advisor in planning your program and selecting electives. Upon satisfactory completion of the program, you will be awarded the Associate of Applied Science Degree (AAS) in Marketing with a Warehousing and Distribution Specialization.

Program Outcomes: DCC Marketing – Warehousing and Distribution Specialization graduates will demonstrate the ability to:
1. understand the role and practice of marketing within an organization, including theoretical and applied aspects of the marketing discipline;
2. demonstrate competency in presentation skills including organization, eye-contact, volume, pacing, and visual aids (i.e., PowerPoint);
3. apply a wide variety of computer software skills to business communication media such as written reports and business plans using word processing software and business presentations using presentation software;
4. perform and interpret basic business math calculations (e.g., mark-ups, interest rates, ratios, etc.) and business accounting principles, basic financial reports and book keeping fundamentals;
5. think logically and analytically in proposing plans and creating strategies that may be considered in complex warehousing and logistics issues facing organizations;
6. recognize and evaluate the components of a warehousing and logistics organization including layout, material handling, communications, shipping utilities, and building design;
7. understand the basic concepts associated with business ethics and the importance of developing and adhering to a strong set of generally-accepted ethical principles;
8. demonstrate basic principles of human relationship skills which can be used to successfully interrelate with customers, associates, employees, and superiors in a business setting;
9. understand basic economics, various economic systems, legal and regulatory requirements for business and industry and their impact on business; and
10. understand the concepts necessary to address warehouse and logistics trade-offs between space and time in optimizing a modern warehousing and logistics organization while recognizing the social and ethical responsibilities within an organization to function effectively in the environment.

Program Requirements: To receive the Associate of Applied Science Degree in Marketing with a Warehousing and Distribution Specialization, you will need to complete 66 credits with a grade point average of 2.00 or better. The following outline represents a typical order of courses taken by full-time students.

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AST 117</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>BUS 100</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BUS 121</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ENG 111</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITE 115</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MKT 100</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SDV 100</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>17</td>
<td>0</td>
<td>17</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 111</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BUS 122</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITE 215</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>MKT 110</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BUS 236</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>16</td>
<td>0</td>
<td>16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 111</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BIO/NAS or MTH</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BUS 223</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ECO 120</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>HLT/PED</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>MKT 216</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>15</td>
<td>2</td>
<td>16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fourth Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 110</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>BUS 149</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>BUS 255</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BUS 295</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>HUM 170</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MKT 227</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MKT 298</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MKT 297</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>17</td>
<td>0</td>
<td>17</td>
</tr>
</tbody>
</table>

Total Minimum Credits for the Associate of Applied Science Degree in Marketing with a Warehousing and Distribution Specialization: 66
Marketing –
Electronic Commerce Specialization

Award: ASSOCIATE OF APPLIED SCIENCE

Length: A full-time student may complete this program in four semesters. This program is also offered online.

Purpose: The Marketing – Electronic Commerce Specialization program is designed for students who are interested in employment in the fields of Web design and Internet marketing in business-to-business (B2B) and business-to-consumer (B2C) transactions. This degree program is a blend of business, marketing, and information technology courses. Persons seeking initial employment in the electronic commerce field or already employed in a related area and seeking advancement may benefit from this program.

Occupational Objectives: Students completing the marketing degree with a concentration in electronic commerce will have the skills needed to take a leadership role in the development and/or management of electronic commerce activities in a variety of workplace settings. In addition to being trained specifically in electronic commerce, graduates of this program will be prepared for possible employment opportunities in a variety of management and marketing positions. The following occupational titles represent examples of possible employment opportunities for graduates with an electronic commerce specialization:
- Web Designer / Developer
- Sales Representative
- E-Business Account Manager
- Management Trainee
- Internet Service Provider
- Department Manager
- Web Sales Support Coordinator
- Direct Marketer
- Administrative Assistant
- Internet Entrepreneur
- Web Site Development and Maintenance Specialist
- Production Supervisor
- Internet Marketer/Search Engine Optimization
- Small Business Owner/Manager
- Other Related E-Commerce Occupations
- Other Related Marketing Occupations
- Office Manager

Admission Requirements: In addition to the requirements established for the College, entry into this program requires completion of four units of high school English and one unit of high school mathematics. If you meet the general admission requirements, a counselor will discuss with you the strengths and weaknesses of your academic background and your strengths and weaknesses as revealed by an appropriate placement test. You may correct any deficiencies in academic preparation in the College’s Developmental Studies program.

Program Description: The program includes technical courses in marketing, information technology, business management, and general education courses. Instruction will include both theoretical concepts and practical applications needed for further success in marketing and e-commerce. You are urged to consult with the counseling office to plan your program. Since this program has several elective courses, you must work with your academic advisor in planning your program and selecting electives. Upon satisfactory completion of the program, you will be awarded the Associate of Applied Science Degree (AAS) in Marketing with an Electronic Commerce Specialization.

Program Outcomes: DCC Marketing—Electronic Commerce Specialization graduates will demonstrate the ability to:
1. understand the role and practice of marketing within an organization, including theoretical and applied aspects of the marketing discipline;
2. utilize industry standard computer software products in business communication media such as written reports and business plans using word processing software (i.e., Microsoft Word) and business presentations using presentation software (i.e., Microsoft PowerPoint);
3. perform and interpret basic business math calculations (e.g., mark-ups, interest rates, ratios, etc.) and business accounting principles, basic financial reports and book keeping fundamentals;
4. understand the basic concepts associated with business ethics and the importance of developing and adhering to a strong set of generally-accepted ethical principles, particularly the rapidly-developing area of Internet ethics;
5. demonstrate basic principles of human relationship skills which can be used to successfully interrelate with customers, associates, employees, and superiors in an electronic commerce setting;
6. understand basic economics, various economic systems, legal and regulatory requirements for business and industry and their impact on business;
7. create, develop, and update attractive, fully-functional web pages using HTML;
8. create, develop, and update attractive, fully-functional web pages using a variety of industry standard web editing software products (i.e., Microsoft Expression, Dreamweaver, etc.);
9. understand the basics of web programming (i.e., Java), electronic payment systems, and back-end applications (i.e., Microsoft Access); and
10. understand how electronic commerce strategies and web design techniques fit into an organization's overall marketing plan.

Program Requirements: To receive the Associate of Applied Science Degree in Marketing with an Electronic Commerce Specialization, you will need to complete 66 credits with a grade point average of 2.00 or better. The following outline represents a typical order of courses taken by full-time students.

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDV 100 Principles of Marketing</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BUS 100 Introduction to Business</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BUS 121 Business Mathematics I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ENG 111 College Composition I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITE 115 Introduction to Computer Applications and Concepts</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MKT 100 Principles of Marketing</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SDV 100 College Success Skills</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17</strong></td>
<td><strong>0</strong></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 111 Principles of Supervision I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITD 110 Web Design I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ECO 120 Survey of Economics</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Elective E-Commerce Elective*</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>HLT/PED Health/Physical Education</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>MKT 281 Principles of Internet Marketing</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
<td><strong>2</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 111 Accounting I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BIONAS or MTH Science or Math Elective</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MKT 216 Retail Organization &amp; Management</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Elective E-Commerce Elective*</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Elective E-Commerce Elective*</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MKT 228 Promotion</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>18</strong></td>
<td><strong>0</strong></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

Programs of Study • Danville Community College • 65
Fourth Semester

| BUS 149 | Workplace Ethics | 1 | 0 | 1 |
| BUS 295 | Topics in Business | 1 | 0 | 1 |
| Elective | E-Commerce Elective* | 3 | 0 | 3 |
| HUM | Humanities Elective | 3 | 0 | 3 |
| MKT 110 | Principles of Selling | 3 | 0 | 3 |
| MKT 170 | Customer Service | 1 | 0 | 1 |
| MKT 297 | Cooperative Education or Seminar & Project | 3 | 0 | 3 |

Total: 15 0 15

Total Minimum Credits for the Associate of Applied Science Degree in Marketing with an Electronic Commerce Specialization .............................................................. 66

*E-Commerce Electives: With approval of their advisor, students will be allowed to select from the following classes as long as the prerequisite course(s) have already been taken:

<table>
<thead>
<tr>
<th>Number</th>
<th>Course Title</th>
<th>Prerequisite(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITE 195</td>
<td>Expression Web 2 or Dreamweaver</td>
<td>ITE 115</td>
</tr>
<tr>
<td>ENG 123</td>
<td>Writing for the World Wide Web</td>
<td>ENG 111 or 115</td>
</tr>
<tr>
<td>ITP 110</td>
<td>Designing Web Page Graphics</td>
<td>ITP 110</td>
</tr>
<tr>
<td>ITP 210</td>
<td>Web Page Design II</td>
<td>ITP 110</td>
</tr>
<tr>
<td>ITP 212</td>
<td>Interactive Web Design</td>
<td>ITP 110</td>
</tr>
<tr>
<td>ITP 130</td>
<td>Intro to Internet Services</td>
<td>None</td>
</tr>
<tr>
<td>ITP 150</td>
<td>Desk Top Database Software</td>
<td>ITP 115</td>
</tr>
<tr>
<td>ITP 182</td>
<td>User Support / Help Desk Principles</td>
<td>ITP 115</td>
</tr>
<tr>
<td>ITE 100</td>
<td>Software Design</td>
<td>ITE 115</td>
</tr>
<tr>
<td>ITE 140</td>
<td>Client Side Scripting</td>
<td>ITE 100</td>
</tr>
<tr>
<td>MKT 282</td>
<td>Principles of E-Commerce</td>
<td>MKT 100</td>
</tr>
<tr>
<td>ITP 120</td>
<td>Java Programming</td>
<td>ITP 100</td>
</tr>
<tr>
<td>ITP 100</td>
<td>Software Design</td>
<td>ITE 115</td>
</tr>
<tr>
<td>ITP 115</td>
<td>Web Page Design and Site Management</td>
<td>None</td>
</tr>
<tr>
<td>ITE 100</td>
<td>Introduction to Photography</td>
<td>None</td>
</tr>
<tr>
<td>PHT101</td>
<td>Introduction to Photogra phy</td>
<td>None</td>
</tr>
</tbody>
</table>

First Semester

<table>
<thead>
<tr>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>*SDV 100</td>
<td>1</td>
<td>College Success Skills</td>
</tr>
<tr>
<td>*MTH 120</td>
<td>1</td>
<td>Intro. to Mathematics or</td>
</tr>
<tr>
<td>*MTH 163</td>
<td>1</td>
<td>Precalculus</td>
</tr>
<tr>
<td>*CHM 101</td>
<td>2</td>
<td>General Chemistry I or</td>
</tr>
<tr>
<td>*CHM 111</td>
<td>2</td>
<td>College Chemistry I</td>
</tr>
<tr>
<td>*BIO 101</td>
<td>2</td>
<td>General Biology I</td>
</tr>
<tr>
<td>*ENG 111</td>
<td>2</td>
<td>College Composition I</td>
</tr>
<tr>
<td>*SOC 101</td>
<td>2</td>
<td>Social/Behavioral Science Elective</td>
</tr>
</tbody>
</table>

Total: 16 6 18

Second Semester

<table>
<thead>
<tr>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>*ITE 115</td>
<td>3</td>
<td>Introduction to Computer</td>
</tr>
<tr>
<td>*ENG 112</td>
<td>3</td>
<td>College Composition II</td>
</tr>
<tr>
<td>*HUM 101</td>
<td>2</td>
<td>Humanities/Fine Arts Elective</td>
</tr>
<tr>
<td>*HIT 101</td>
<td>0-2</td>
<td>Personal Wellness Elective</td>
</tr>
<tr>
<td>MDL 110</td>
<td>2</td>
<td>Urinalysis and Body Fluids</td>
</tr>
</tbody>
</table>

Total: 13-15 6-10 17

Third Semester

<table>
<thead>
<tr>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDL 125</td>
<td>2</td>
<td>*Clinical Hematology I</td>
</tr>
<tr>
<td>MDL 190</td>
<td>8</td>
<td>Coordinated Internship I-MLT</td>
</tr>
<tr>
<td>MDL 210</td>
<td>2</td>
<td>Immunology &amp; Serology</td>
</tr>
<tr>
<td>MDL 251</td>
<td>2</td>
<td>*Clinical Microbiology I</td>
</tr>
</tbody>
</table>

Total: 6 18 11

Fourth Semester

<table>
<thead>
<tr>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDL 216</td>
<td>2</td>
<td>*Blood Banking</td>
</tr>
<tr>
<td>MDL 225</td>
<td>3</td>
<td>*Clinical Hematology II</td>
</tr>
<tr>
<td>MDL 226</td>
<td>3</td>
<td>*Clinical Microbiology II</td>
</tr>
<tr>
<td>MDL 262</td>
<td>3</td>
<td>*Clinical Chemistry &amp; Instrumentation II</td>
</tr>
</tbody>
</table>

Total: 9 15 14

Fifth Semester

<table>
<thead>
<tr>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDL 190</td>
<td>12</td>
<td>*Coordinated Internship II</td>
</tr>
<tr>
<td>MDL 290</td>
<td>12</td>
<td>*Coordinated Internship IV</td>
</tr>
<tr>
<td>MDL 282</td>
<td>12</td>
<td>*Clinical Laboratory Techniques - Coordinated Internship III</td>
</tr>
<tr>
<td>MDL 281</td>
<td>1</td>
<td>Clinical Correlations (online course)</td>
</tr>
</tbody>
</table>

Total: 1 36 10

Total Minimum Credits for the Associate of Applied Science Degree in Medical Laboratory Technology ................................................................. 70

Medical Laboratory Technology

Award: ASSOCIATE OF APPLIED SCIENCE (Awarded by J. Sargeant Reynolds Community College)

Danville Community College is a cooperating institution for the J. Sargeant Reynolds Community College (JSRCC) program in Medical Laboratory Technology.

A student may complete this Associate of Applied Science Degree without moving from the Danville area. Like other Allied Health programs, students are admitted to this program after completing certain prerequisite courses and maintaining a grade point average of 2.5. J. Sargeant Reynolds maintains a list of prerequisite classes for this program on its website (www.jsr.vccs.edu). Please go to the Pre-Nursing and Allied Health Certificate page. Danville area residents can meet these requirements by enrolling in the First Year Studies certificate and taking these courses in Danville.

The J. Sargeant Reynolds Community College Associate of Applied Science Degree in Medical Laboratory Technology is as follows. Please contact the Division of Arts and Sciences at 434.797.8402 for more information about this program and its requirements.

Program Outcomes: The educational experiences in the JSRCC Medical Laboratory Technology Program are designed to ensure that students are well prepared to enter the profession of Medical Laboratory Technology and continue to learn throughout their professional career. At career entry, the MLT will be proficient in performing a wide range of tests in areas such as hematology, clinical chemistry, immunohematology, microbiology, serology/immunology, coagulation and urinalysis. At the completion of the JSRCC program, students will be able to:

1. Comply with all standard safety regulations and monitor changes in safety regulations.
2. Perform and evaluate pre-analytical, analytical, and post-analytical procedures to ensure the quality of laboratory results.
3. Perform laboratory tests, analyze and verify results, and resolve common problems in all the major areas of the clinical laboratories.
4. Obtain acceptable blood and body fluid samples for laboratory tests using standard phlebotomy and collection procedures.
5. Use quality assurance principles and practices to ensure the accuracy and reliability of laboratory information.
6. Perform preventative and corrective maintenance of equipment and instruments.
7. Communicate effectively, both orally and in writing, with laboratory personnel, other health care professionals, patients and the public.
8. Demonstrate professional conduct and interpersonal skills with patients, laboratory personnel, other health care professionals and the public.

This course may be taken through DCC’s First Year Studies program.

*MTH 120 meets the graduation requirement for the AAS degree in Medical Laboratory Technology.

Students planning to pursue a four-year degree should take MTH 163.
Purpose: The Nursing program at DCC is designed to prepare students for careers as registered nurses. This degree should be chosen by students who wish to work in a variety of occupations where the skills and knowledge of the registered nurse are either required or desirable, including direct patient care, healthcare management and supervision, and health education. Upon successful completion of the program, students will be eligible to take the National Licensure Examination leading to licensure as a Registered Nurse (RN).

Opportional Objectives: Opportunities for the Registered Nurse include employment as clinicians, supervisors or educators in colleges, hospitals, clinics, industry, adult homes, day care centers and schools, doctor’s offices, and home health companies.

Prerequisites/Admission Requirements:
1. All students must have completed MTH 101 and MTH 102 or equivalent with a grade of "C" or higher.
2. All students must have completed ENG 111 or equivalent with a grade of "C" or higher.
3. All anatomy and physiology courses must be taken within 10 years or less.
4. All students must have completed MTH 126 or equivalent with a grade of "C" or higher.
5. All students must have completed all prerequisite courses with a "C" or higher by the third attempt for a course.
6. All students must have completed CHM 101 or CHM 111 is a prerequisite or co-requisite for MDL 262.
7. All anatomy and physiology courses must be taken within 10 years or less.
8. All students must have completed at least eight (8) semester hours of anatomy and physiology or equivalent. In addition, classes must be equivalent in content with BIO 231 and BIO 232 on the DCC campus. BIO must be a 200 level class in the VCCS system.
9. All anatomy and physiology courses must be taken within 10 years or less.
10. All students will be assessed for admission based on quantitative selection criteria involving GPA, previous degree completion, grades in prerequisite classes and number of attempts for a class, which include withdrawals. For more information, please contact the nursing department.

Program Outcomes: The graduate will:
1. Incorporate values and principles obtained from the nursing curriculum to provide competent care to clients across the lifespan as a novice nurse.
2. Assess, plan, implement and evaluate individualized care plans.
3. Integrate physical, spiritual, cultural and ethnically sensitive care in the role as a nurse.
4. Use current and emerging technology in providing patient care.
5. Demonstrate critical thinking skills through the nursing process.
6. Use cognitive, psychomotor, and affective skills in providing patient care.
7. Pass the National Council of State Boards of Nursing NCLEX-RN exam to practice as a novice nurse.

Program Requirements: To receive the Associate of Applied Science Degree in Nursing, students must complete 66 credit hours with a 2.50 GPA or better. In addition, students must pass all courses with at least a C. Attendance and satisfactory performance in clinical portions of each class is mandatory.

Total Minimum Credits for the Associate of Applied Science Degree in Nursing: 66

* BIO 101 General Biology I or BIO 1 need to be taken as a prerequisite if unable to pass the BIO 231 entrance test.
Radiologic Technology*

Award: ASSOCIATE OF APPLIED SCIENCE
The AAS degree in Radiologic Technology is offered in cooperation with Danville Regional Medical Center’s Certificate program in Radiologic Technology.

Length: A full-time student may complete this program in six semesters, which includes two summer semesters.

Purpose: The Radiologic Technology program at DCC is designed to prepare students for careers as Registered Radiologic Technologists. This degree should be chosen by students who wish to work in the health care field, who are geared toward technology and those who might have a desire to later continue their education in a multitude of various imaging modalities and subspecialties. Upon successful completion of this program, graduates will be eligible to sit for the American Registry of Radiologic Technologists (ARRT) certification exam.

Occupational Objectives: Opportunities for Radiologic Technologists include employment as clinicians in hospitals, imaging centers and physician’s offices where x-ray equipment is present. Technologists may choose to continue their education in the areas of sonography, nuclear medicine, radiation therapy, interventional radiology and radiologist assistants. Other possibilities are available in education, management, sales and service, and industrial radiography.

Admission Requirements: Radiologic Technology courses are only available to students upon acceptance to the Danville Regional Medical Center program through the admissions process below:
1. All applicants must have a high school diploma or GED.
2. All applicants must have a minimum of two (2) high school math (ALG 1 and higher)
3. All applicants must have a minimum of two (2) high school lab sciences (i.e. Biology, Chemistry, Anatomy or Physics).
4. All applicants must have completed all developmental course work prior to admission.
5. All applicants must have completed BIO 141 or equivalent with a grade of "C" or higher.
6. All applicants must have completed HLT 143 or equivalent with a grade of "C" or higher.
7. All anatomy and physiology courses must have been taken within 10 years or less.
8. All general education courses MUST be taken at DCC. Any courses required for this degree that have been completed at another institution may be accepted. However, said credits in that category must be fulfilled by a comparable substitute class that is approved by DCC.
9. All applicants will be assessed based on quantitative selection criteria involving GPA, previous degree completion grades in prerequisite and co-requisite courses and number of attempts for class completion, which includes withdrawals. For more information contact the Radiography Program Director.

Program Outcomes: Following completion of the AAS degree in Radiologic Technology, students will be able to:
1. Determine the need to modify standard procedures to accommodate patient condition and other variables
2. Utilize effective critical thinking skills
3. Demonstrate the ability to behave in a compassionate manner
4. Demonstrate positive ethical and professional behavior
5. Demonstrate the ability to provide quality patient care
6. Demonstrate proper positioning skills on the patient
7. Apply the principles of radiation protection to the patient, self and others
8. Correctly make changes to technical factors to compensate for pathology, body habitus and other conditions
9. Recognize emergency patient conditions and initiate appropriate treatments
10. Communicate effectively with the patient prior to and during the procedure
11. Demonstrate effective oral and written communication skills

Program Requirements: To receive the Associate of Applied Science Degree in Radiologic Technology*, students must complete 70 credit hours with a 2.50 GPA or better. In addition, students must pass all courses with a minimum of a "C". Attendance and satisfactory performance in clinical portions of each class is mandatory.

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDV 100</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>BIO 141</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>ENS 111</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>HLT 143</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MTH</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

Total 14

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAD 105 Introduction to Radiology, Protection and Patient Care</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>RAD 111 Radiologic Science I</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>RAD 121 Radiographic Procedures I</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>RAD 131 Elementary Clinical Procedures I</td>
<td>0</td>
<td>16</td>
<td>3</td>
</tr>
</tbody>
</table>

Total 14

<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAD approved Humanities Elective</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>RAD 132 Elementary Clinical Procedures II</td>
<td>0</td>
<td>16</td>
<td>3</td>
</tr>
</tbody>
</table>

Total 6

<table>
<thead>
<tr>
<th>Fourth Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAD 112 Radiologic Science II</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>RAD 221 Radiographic Procedures II</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>RAD 231 Advanced Clinical Procedures I</td>
<td>0</td>
<td>24</td>
<td>5</td>
</tr>
</tbody>
</table>

Total 13

<table>
<thead>
<tr>
<th>Fifth Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAD 205 Radiation Protection and Radiobiology</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>RAD 215 Correlated Radiographic Theory</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>RAD 240 Radiographic Pathology</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>RAD 232 Advanced Clinical Procedures II</td>
<td>0</td>
<td>24</td>
<td>5</td>
</tr>
</tbody>
</table>

Total 12

<table>
<thead>
<tr>
<th>Sixth Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAD 246 Special Procedures</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Social Science Elective</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>RAD 290 Coordinated Internship</td>
<td>0</td>
<td>24</td>
<td>5</td>
</tr>
</tbody>
</table>

Total 11

Total Minimum Credits for the Associate of Applied Science Degree in Radiologic Technology* .................................................. 70

*pending approval
Respiratory Therapy

**Award:** ASSOCIATE OF APPLIED SCIENCE
(awarded by J. Sargeant Reynolds Community College)

Danville Community College is a cooperating institution for the J. Sargeant Reynolds Community College program in Respiratory Therapy.

A student may complete this Associate of Applied Science Degree without moving from the Danville area. Approximately 30 credits in specified DCC courses must be completed prior to acceptance by JSRCC in the Respiratory Therapy program. After a student is accepted by JSRCC into the program, core courses in RTH are offered in the Danville area via distance learning technology, while clinical experiences are coordinated through area hospitals.

Below is the J. Sargeant Reynolds Community College curriculum for the Associate of Applied Science Degree in Respiratory Therapy. For more details about this program, please call DCC’s Division of Arts and Sciences at 434.797.8402.

**Program Outcomes:** Graduates of the Respiratory Therapy Program will become contributing members of the modern health care team concerned with the treatment, management, and care of patients with breathing, cardiovascular and sleep abnormalities. Graduates of this program will be able to:

1. Obtain and analyze physiologic specimens
2. Interpret physiologic data
3. Perform test and studies of the cardiopulmonary system
4. Administer and monitor mechanical ventilator support
5. Establish and monitor artificial airway care
6. Perform and monitor bronchopulmonary hygiene techniques
7. Administer and monitor pharmacological agents
8. Prescribe and monitor cardiopulmonary rehabilitation
9. Monitor hemodynamic cardiovascular support
10. Administer gas, humidity, aerosol and hyperinflation therapies
11. Demonstrate the ability to comprehend, apply and evaluate critical information relevant to the role of an entry level and advanced practice therapist
12. Demonstrate the technical proficiency in all skills necessary to fulfill the role of an entry-level and advanced practice therapist
13. Demonstrate professional behavior consistent with employer expectations as an entry-level and advanced practice therapist

**First Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTH 102</td>
<td>Integrated Sciences for Respiratory Care</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>RTH 110</td>
<td>Fundamental Theory &amp; Procedures for Respiratory Care</td>
<td>2</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>RTH 121</td>
<td>Cardiopulmonary Science I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>RTH 135</td>
<td>Diagnostic Therapeutic Procedures I</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>RTH 145</td>
<td>Pharmacology for Respiratory Care I</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>ENG 111</td>
<td>*College Composition I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SDV 100</td>
<td>*College Success Skills</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>*Health or Physical Ed.</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total** 14 9 18

**Second Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTH 113</td>
<td>Pathophysiology of the Cardiopulmonary System</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>RTH 131</td>
<td>Respiratory Care Theory &amp; Procedures I</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>RTH 190</td>
<td>Coordinated Practice in Respiratory Care</td>
<td>0</td>
<td>20</td>
<td>6</td>
</tr>
<tr>
<td>RTH 199</td>
<td>Supervised Study in Respiratory Care</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>ENG 112</td>
<td>*College Composition I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total** 10 26 18

**Third Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTH 132</td>
<td>Respiratory Care Theory &amp; Procedures II</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>RTH 222</td>
<td>Cardiopulmonary Science II</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>RTH 190</td>
<td>Coordinated Practice in Respiratory Care</td>
<td>0</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>RTH 215</td>
<td>Pulmonary Rehabilitation</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>RTH 265</td>
<td>Current Issues in Respiratory Care</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>NAS 161</td>
<td>Health Science I</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total** 12 16 18

**Fourth Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTH 290</td>
<td>Coordinated Practice in Respiratory Care</td>
<td>0</td>
<td>20</td>
<td>6</td>
</tr>
<tr>
<td>RTH 299</td>
<td>Supervised Study in Respiratory Care</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>NAS 162</td>
<td>Health Science II</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>*Social Science Elective</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Humanities/Fine Arts Elective</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>*Health or Physical Education</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total** 10 23 18

**Total Minimum Credits for the Associate of Applied Science Degree in Respiratory Therapy** ............................................................71

*Note: Students may prepare for the above program by taking this course while registered in DCC’s First Year Studies program. Please contact an academic advisor in the Arts and Sciences Division to discuss this program, 434.797.8402.

---

**Technical Studies**

**Award:** ASSOCIATE OF APPLIED SCIENCE

**Purpose:** The State Council for Higher Education in Virginia (SCHEV) has approved an Associate of Applied Science degree in Technical Studies for the Virginia Community College System to respond to the training and employment needs of local and regional industries. The program can be used as a general (or individualized) studies degree to enhance the education and training of current employees or to ensure basic technical and general work-based skills for new employees. The basic structure of the curriculum includes four components – general education, a technical core, occupational-technical content area(s), and work-based learning.

**Program Description:** Each Virginia Community College determines the specific majors for their respective areas and reports these to the VCCS Chancellor. The Technical Studies majors at Danville Community College include the following:

- Advanced Manufacturing Engineering Technology
- Industrial Maintenance Technician
- Nanotechnology Technician
- Wood Science Technology
  - Wood Science Technology - Product Design & Development Specialization

**Length:** These programs are designed for employees of existing and new industries. The length of time required to complete the program varies.

**Admission Requirements:** Students must meet the general admission requirements of the College. All students who are not proficient in communication and computation skills will be required to correct deficiencies through developmental courses.
Technical Studies –
Advanced Manufacturing Engineering Technology

Award: ASSOCIATE OF APPLIED SCIENCE

Purpose: The Advanced Manufacturing Engineering Technology program is designed to prepare the student to function as an advanced manufacturing engineering technology technician. It provides the student with the general knowledge and technical foundation skills necessary to function and advance in an advanced manufacturing field.

Objectives: The program will prepare the student to function effectively as an advanced manufacturing technician or serve in a supervisory position in a manufacturing setting.

Program Description: The program includes four educational components: namely, general education, technical foundations, content skills and knowledge, and work-based learning. The content skills and knowledge and work-based learning components are specific to the field of advanced manufacturing.

Program Outcomes: Graduates of the Advanced Manufacturing Engineering Technology program will:
1. Demonstrate how modern manufacturers use people, technologies and materials to make highly engineered products at a competitive cost.
2. Demonstrate the ability to communicate technical concepts and ideas effectively.
3. Demonstrate knowledge of basic automation and how computers are used by manufacturers in the production of products.
4. Demonstrate the operation or maintenance of at least one type of production equipment.
5. Demonstrate use of practical skills by working in a manufacturing environment.

Program Requirements: To receive the Associate of Applied Science Degree in Technical Studies – Advanced Manufacturing Engineering Technology, you must complete a minimum of 69 credits with a grade point average of 2.0 or better.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>3</td>
</tr>
<tr>
<td>PHI 100</td>
<td>3</td>
</tr>
<tr>
<td>REL 230</td>
<td>3</td>
</tr>
<tr>
<td>HUM 165</td>
<td>3</td>
</tr>
<tr>
<td>PSY 126</td>
<td>3</td>
</tr>
<tr>
<td>PSY 201</td>
<td>3</td>
</tr>
<tr>
<td>ECO 201</td>
<td>3</td>
</tr>
<tr>
<td>PSY 230</td>
<td>3</td>
</tr>
<tr>
<td>SOC 201</td>
<td>3</td>
</tr>
<tr>
<td>HLT/PED Elective</td>
<td>2</td>
</tr>
<tr>
<td>MTH 103</td>
<td>3</td>
</tr>
<tr>
<td>MTH 163</td>
<td>3</td>
</tr>
<tr>
<td>SDV 100</td>
<td>1</td>
</tr>
</tbody>
</table>

Technical Foundation

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETR 115</td>
<td>3</td>
</tr>
<tr>
<td>ITE 115</td>
<td>4</td>
</tr>
<tr>
<td>ENG 131</td>
<td>3</td>
</tr>
<tr>
<td>IND 235</td>
<td>3</td>
</tr>
<tr>
<td>IND 137</td>
<td>3</td>
</tr>
<tr>
<td>DRF 195</td>
<td>3</td>
</tr>
</tbody>
</table>

Content, Skills and Knowledge

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEC 111</td>
<td>3</td>
</tr>
<tr>
<td>IND 295</td>
<td>3</td>
</tr>
<tr>
<td>DRF 160</td>
<td>3</td>
</tr>
<tr>
<td>MAC 131</td>
<td>2</td>
</tr>
<tr>
<td>IND 195</td>
<td>2</td>
</tr>
<tr>
<td>IND 195 Intro to Extrusion</td>
<td></td>
</tr>
</tbody>
</table>

IND 181 World Class Manufacturing 3
IND 195 Intro to Automation and Robotics 3
ETR 286 Principles and Applications of Robotics 3
ELE 143 Programmable Logic Controllers I 3
SAF 246 Hazardous Chemicals, Materials, Waste in the Workplace 3
MEC 210 Machine Design or 3
INS 121 Intro to Measurement and Control 3

Work-Based Learning 6 Crs.

Total Minimum Credits for the Associate of Applied Science Degree in Technical Studies — Advanced Manufacturing Engineering Technology ........69

Technical Studies –
Integrated Systems Technology*

Award: ASSOCIATE OF APPLIED SCIENCE

Length: This program is intended for the full-time or part-time student. The length of time required to complete the program is variable.

Purpose: This program combines the concepts, theory and practices associated with mechanical and electrical processes found in modern automated industries. Students in the Mechanical Track develop the skills to assemble, install, troubleshoot and service pneumatic, hydraulic and mechanical systems. Students in the Electrical / Electronic Track develop skills to install, test and troubleshoot, program and calibrate a variety of electronic devices including robotics and programmable logic controllers. Coursework also provides opportunities where students learn teamwork and lean manufacturing through simulated work experience.

Occupational Objectives:
Objectives: The following occupational titles represent examples of possible employment opportunities:
- Industrial Integrated Systems Technician
- Industrial Electrical Technician
- Industrial Controls Technician
- Industrial Multi-craft Maintenance Technician
- Process Technician
- Industrial Mechanical Technician
- Mechatronics Technician

Admission Requirements: Students must meet the general admission requirements of the College. All students who are not proficient in communication and computation skills will be required to correct deficiencies through developmental courses.

Program Description: Integrated Systems Technology is a two-year program of study that is comprised of general and technical foundational courses, specific skills and knowledge, and project-based learning. The specific skills and knowledge and project-based learning components are specific to the field of industrial maintenance.

Program Outcomes: Following completion of the AAS degree, students will be able to:
1. Demonstrate the knowledge gained in how modern manufacturers use different technologies and automation in manufacturing.
2. Demonstrate the ability to communicate integrated systems concepts effectively.
3. Demonstrate analytical ability to effectively perform machine troubleshooting on simple to complex integrated systems.
4. Demonstrate the use of different types of tools and test equipment that are commonly used to maintain integrated systems in industry.
5. Demonstrate the use of concepts used in manufacturing such as Lean manufacturing and how it relates to integrated systems in an industrial environment.
### Integrated Systems Technology - Electrical / Electronic Track*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAC 131</td>
<td>Machine Lab</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>SDV 100</td>
<td>College Success Skills</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>ITE 115</td>
<td>Computer Software Applications</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>IND 137</td>
<td>Teamwork and Problem Solving</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ETR 115</td>
<td>DC &amp; AC Circuits</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MEC 154</td>
<td>Mechanical Maintenance I</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>HLT 116</td>
<td>Personal Wellness</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total**: 16 5 18

### Integrated Systems Technology - Mechanical Track*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAC 131</td>
<td>Machine Lab</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>SDV 100</td>
<td>College Success Skills</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>ITE 115</td>
<td>Computer Software Applications</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>IND 137</td>
<td>Teamwork and Problem Solving</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ETR 115</td>
<td>DC &amp; AC Circuits</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MEC 154</td>
<td>Mechanical Maintenance I</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>HLT 116</td>
<td>Personal Wellness</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total**: 16 5 18

#### First Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 131</td>
<td>Technical Report Writing I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ECO 100</td>
<td>Elementary Economics</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MEC 162</td>
<td>Applied Hydraulics &amp; Pneumatics</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>SAF 130</td>
<td>OSHA 10 Training</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>ELE 147</td>
<td>Electrical Power &amp; Controls Systems</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>MTH 103</td>
<td>Applied Tech Math I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total**: 14 4 14

#### Third Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUM 165</td>
<td>Controversial Issues</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ETR 141</td>
<td>Electronics I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>IND 181</td>
<td>World Class Manufacturing I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ELE 233</td>
<td>Programmable Logic Controller I</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>INS 230</td>
<td>Instrumentation I</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total**: 13 5 15

#### Fourth Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETR 246</td>
<td>Electronic Motor Drives Systems</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>IND 243</td>
<td>Mechatronics</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>ELE 237</td>
<td>Human Machine Interface Systems – HMI</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>IND 298</td>
<td>Seminar and Project</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>ELE 240</td>
<td>Advanced Programmable Logic Controllers</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>ETR 177</td>
<td>Industrial Robotics and Robotics Programming</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total**: 11 12 17

**Total Minimum Credits for the Associate of Applied Science Degree in Integrated Systems Technology – Electrical / Electronic Track*..........................66
### Technical Studies – Nanotechnology Technician

**Award:** ASSOCIATE OF APPLIED SCIENCE

**Purpose:** The Nanotechnology Technician Program is designed to prepare the student to function as a Nanotechnology technician. It provides the student with general knowledge and training required to advance in the Nanotechnology/ Nanoscience field.

**Objectives:**
1. Ability to communicate technical concepts and ideas effectively through oral and written communication.
2. Knowledge of basic technologies needed to fabricate and characterize nanomaterials.
3. Operation or maintenance of at least one type of characterization tool.
4. Basic knowledge of lab and chemical/hazardous materials safety training.

**Program Description:**

The program includes four educational components: general education, technical foundations, content skills and knowledge, and work-based learning. The content skills and knowledge and work-based learning components are specific to the field of Nanotechnology.

**Program Outcomes:**

Graduates of the Nanotechnology Technician Program with an AAS degree will be able to demonstrate:
1. Ability to communicate technical concepts and ideas effectively through oral and written communication.
2. Knowledge of basic technologies needed to fabricate and characterize nanomaterials.
3. Operation or maintenance of at least one type of characterization tool.
4. Basic knowledge of lab and chemical/hazardous materials safety training.

**Program Requirements:**

To receive the Associate of Applied Science Degree in Technical Studies - Nanotechnology Technician, you must complete a minimum of 65 credits with a grade point average of 2.0 or better.

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTH 166</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>NAN 100</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>NAN 101</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ENG 111</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>IND 137</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SDV 100</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAN 200</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>DRF 201</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>ETR 115</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ENG 131</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>HLT Elective</td>
<td>-</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAN 205</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>IND 230</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>HUM Elective</td>
<td>-</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>MEC 100</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fourth Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAN 208</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>IND 145</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>NAS 105</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITE 101</td>
<td>-</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>MEC 111</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Minimum Credits for the Associate in Applied Science Degree in Nanotechnology Technician: 65

---

### Technical Studies – Wood Science Technology

**Award:** ASSOCIATE OF APPLIED SCIENCE

**Length:** A full-time student may complete this program in two years.

**Purpose:** The Wood Science Technology program is designed to prepare students with the knowledge, skills, and foundational concepts necessary to function in several different career fields related to advanced manufacturing in the wood products industry.

**Occupational Objective:** The program is designed to provide participants the creative and practical skills to be gainfully employed in manufacturing, supervisory or management positions in the wood manufacturing industry.

**Admission Requirements:**

Students must meet the general admission requirements of the College. All students who are not proficient in communication and computation skills will be required to correct deficiencies through developmental studies courses.

**Program Description:**

The program includes four educational components: namely, general education, technical foundations, content skills and knowledge, and work-based learning. The content skills and knowledge and work-based learning components are specific to wood science.

**Program Outcomes:**

Graduates of the AAS Technical Studies – Wood Science Technology program will:
1. Demonstrate the knowledge gained on how modern manufacturers use different technologies and automation in manufacturing.
2. Demonstrate the ability to use CAD/CAM in manufacturing design and development.
3. Demonstrate the ability to program and operate different types of equipment related to modern day furniture manufacturing.
4. Demonstrate the ability to use different types of tools and materials used in modern day furniture manufacturing.
5. Demonstrate the use of concepts used in manufacturing such as Lean manufacturing and how it relates to advanced manufacturing.

**Program Requirements:**

To receive the Associate in Applied Science Degree, you must complete a minimum of 65 credits with a grade point average of 2.0 or better.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111 College Composition</td>
<td>3</td>
</tr>
</tbody>
</table>
| Students may elect one of the following courses:
| HUM 165 Controversial Issues in Contemporary American Culture | 3 |
| PHI 100 Intro. To Philosophy | 3 |
| PHI 226 Social Ethics | 3 |
| REL 230 Religions of the World | 3 |
| HUM 246 Creative Thinking | 3 |
| Students may elect two of the following courses:
| PSY 126 Psychology for Business & Industry | 3 |
| PHI 115 Practical Reasoning | 3 |
| PSY 200 Principles of Psychology | 3 |
| ECO 120 Survey of Economics | 3 |
| ECO 201 Principles of Economics I | 3 |
| PSY 230 Developmental Psychology | 3 |
| SOC 200 Principles of Sociology | 3 |
| MTH 103 Applied Technical Mathematics I | 3 |
| MTH 163 Pre-calculus I | 3 |
| HLT 116 Personal Wellness | 3 |
| SDV 100 College Success Skills | 1 |

Total Minimum Credits for the Associate in Applied Science Degree in Wood Science Technology: 65

---

72 • Danville Community College • Programs of Study
Technical Foundations 19 Crs.

DRF 114 Drafting I or 3
MAC 150 Intro. to Computer Aided Manuf. 3
ITE 115 Intro. to Microcomputer Apps. or 4
ART 130 Introduction to Multimedia 4
CAD 233 Computer Aided Drafting III 3
IND 181 World Class Manufacturing or 3
BUS 165 Small Business Management 3
ENG 115 Technical Writing 3
IND 137 Teamwork and Problem Solving 3

Content, Skills and Knowledge 21 Crs.

IND 163 Manufacturing Apps. & Design I 3
IND 164 Manufacturing Apps. & Design II 3
ARC 131 Material & Methods of Construction I 3
FUR 127 Furniture Plant Maintenance 3
CRF 159 Introduction to Fine Woodworking 3
IND 264 Manufacturing Applications & Design III 3
IND 243 Prin. and Apps. in Mechatronics 3

Work-Based Learning 6 Crs.

IND 190 Coordinated Internship 6

Total Minimum Credits for the Associate of Applied Science Degree in Technical Studies – Wood Science Technology .......................................................... 65

Technical Studies – Wood Science Technology

- Product Design & Development Specialization

Award: ASSOCIATE OF APPLIED SCIENCE

Length: A full-time student may complete this program in two years.

Purpose: The Wood Science Technology Product Design and Development Specialization is designed to prepare students with the knowledge, skills, and foundational concepts necessary to design, engineer, and produce a product utilizing wood as a primary design medium and incorporating CAD/CAM/CNC technology. These skills include: critical thinking, project planning, managing creativity and design, form and function, product management through customer-focused innovation. Completion of this program prepares the student for work in various positions in the manufacturing industry.

Occupational Objectives: The program is designed to provide participants the creative and practical skills to be gainfully employed in manufacturing, supervisory or management positions in the wood manufacturing industry.

Admission Requirements: Students must meet the general admission requirements of the College. All students who are not proficient in communication and computation skills will be required to correct deficiencies through developmental studies coursework.

Program Description: The program includes four educational components: namely, general education, technical foundations, content skills and knowledge, and work-based learning. The content skills and knowledge and work-based learning components are specific to wood science.

Program Outcomes: Graduates of the Wood Science Technology - Product Design and Development Specialization will:

1. Apply various manufacturing concepts in technologies and automation used in today’s manufacturing.
2. Demonstrate the ability to use CAD/CAM/CNC in manufacturing design and development.
3. Demonstrate the ability to program and operate different types of equipment related to modern day manufacturing.
4. Demonstrate the use of different types of tools and materials used in modern day manufacturing.
5. Demonstrate various problem solving techniques in product design and development.

Program Requirements: To receive the Associate of Applied Science Degree in Wood Science Technology Product Design and Development Specialization, the student must complete a minimum of 65 credits with a grade point average of 2.0 or better.

General Education 18 Crs.

ENG 111 College Composition I 3

Students may elect one of the following courses:

HUM 165 Controversial Issues in Contemporary American Culture 3
PHI 100 Intro. To Philosophy 3
PHI 226 Social Ethics 3
REL 230 Religions of the World 3
HUM 246 Creative Thinking 3

Students may elect two of the following courses:

PSY 126 Psychology for Business & Industry 3
PHI 115 Practical Reasoning 3
PSY 200 Principles of Psychology 3
ECO 120 Survey of Economics 3
ECO 201 Principles of Economics I 3
SOC 200 Principles of Sociology 3
MTH 103 Applied Technical Mathematics I or 3
MTH 163 Pre-calculus I 3
HLT 116 Personal Wellness 3
SDV 100 College Success Skills 3

Technical Foundations 18-24 Crs.

DRF 114 Drafting I or 3
MAC 150 Introduction to Computer Aided Manufacturing 3
ITE 115 Introduction to Computer Applications or 4
ART 130 Introduction to Multimedia 4
CAD 233 Computer Aided Drafting III 3
IND 181 World Class Manufacturing or 3
BUS 165 Small Business Management 3
ENG 115 Technical Writing 3
IND 137 Teamwork and Problem Solving 3

Content, Skills and Knowledge 15-27 Crs.

IND 161 Product Design and Development I 5
IND 162 Product Design and Development II 5
ART 180 Intro to Computer Graphics 3
IND 163 Manufacturing Apps. & Design I 3
FUR 298 Seminar & Projects 5

Work-Based Learning 6-15 Crs.

IND 190 Coordinated Internship 6

Total Minimum Credits for the Associate of Applied Science Degree in Technical Studies – Wood Science Technology – Product Design and Development Specialization .......................................................... 65
Diploma Programs

Air Conditioning and Refrigeration
Automotive Analysis and Repair
Computer-Aided Drafting & Design
Electrical/Electronic Equipment Servicing
Electrical/Electronics Engineering Technology
Graphic Imaging Technology
Precision Machining Technology

The Diploma programs differ from the Associate Degree programs in several ways. They may be presented at a different educational level and are developed in response to specific local employment needs, as identified by the programs’ lay advisory committees and the College’s Curriculum Committee. Their specific objective is to give students a variety of hands-on training experiences to prepare them for immediate employment. The diploma programs do not require the same level of general education training as the associate degree programs, so more of the required courses are directly related to the chosen field of study. There is no limit on the maximum number of credits required in these programs, but they are designed to be completed after one or two years of full-time study. The types of jobs that you might expect to obtain upon completion of the degree requirements are listed on the following catalog pages which also outline the specific courses for completing each program of study.
Air Conditioning & Refrigeration

Award: DIPLOMA

Length: A full-time student may complete this program in two years.

Purpose: The Air Conditioning & Refrigeration Diploma program is designed to prepare you for employment as an air conditioning and refrigeration technician upon completion of the program.

Occupational Objectives: The following occupational titles represent examples of possible employment opportunities:
- Air Conditioning/Heating Technician
- Sales Engineer
- Installation and Service Sales and Design Engineer

Admission Requirements: Entry into this curriculum may be attained by meeting the general admission requirements established for the College. If you meet the general admission requirements, a counselor will discuss with you the strengths and weaknesses of your academic background and your strengths and weaknesses as revealed by an appropriate placement test. You may correct any deficiencies in academic preparation in the College’s Developmental Studies program.

Program Description: The Air Conditioning & Refrigeration program is designed to provide both the practical experience and technical knowledge required for competence as a technician in the air conditioning industry. Laboratory experience, field trips and specialized seminars give you the skill and know-how you need in order to plan, install and service air conditioning equipment. The program contains general education courses to assist you in social and business communications and to prepare you to meet the obligations of a citizen in the American democratic society.

Program Outcomes: Upon completion of the Air Conditioning and Refrigeration Program, students will be able to:
1. Demonstrate mathematical skills to solve problems in electrical, heating, air conditioning, and refrigeration systems.
2. Apply troubleshooting skills to diagnose and repair the following: air flow, electrical, heating systems and refrigeration systems.
3. Apply theory and knowledge learned to design and fabricate projects dealing with HVAC.
4. Sit for the EPA Certification.

Program Requirements: To receive a Diploma in Air Conditioning & Refrigeration, you must complete a minimum of 73 credits with a grade point average of 2.00 or better. The credits are distributed according to the following outline. This outline represents a typical order of courses taken by full-time day students. Part-time students may take courses in any desired order, except for hyphenated courses or others requiring prerequisites.

<table>
<thead>
<tr>
<th>Lecture</th>
<th>Lab</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIR 117 Metal Layout I</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>AIR 134 Circuits &amp; Controls I</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>AIR 154 Heating Systems I</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>AIR 161 Heating, Air Cond. &amp; Refrigeration Calculations I or approved substitute</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>AIR 121 Refrigeration I</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>SDV 100 College Success Skills</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>13</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lecture</th>
<th>Lab</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Second Semester</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIR 118 Metal Layout II</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>AIR 122 Air Conditioning &amp; Refrigeration II</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>AIR 135 Circuits &amp; Controls II</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>AIR 155 Heating Systems II</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>ENG 131 Technical Report Writing I</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>11</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lecture</th>
<th>Lab</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Third Semester</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIR 273 Air Conditioning &amp; Refrigeration III</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>AIR 136 Circuits &amp; Controls III</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>AIR 165 Air Conditioning Systems I</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>AIR 254 Air Conditioning Systems IV</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>8</td>
<td>12</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lecture</th>
<th>Lab</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fourth Semester</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIR 137 Air Conditioning Electronics Survey</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>AIR 167 Air Conditioning Systems III</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>AIR 231 Circuits and Controls IV</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>ECO 100 Elementary Economics</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>ITE 116 Survey of Computer Software Application</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
<td>9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lecture</th>
<th>Lab</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fifth Semester</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIR 156 Heating Systems III</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>AIR 195 EPA Certification</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>AIR 232 Circuits and Controls V</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>AIR 255 Air Conditioning Systems V</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>AIR 259 Green Technology</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>HUM 165 Controversial Issues</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>10</td>
</tr>
</tbody>
</table>

Total Minimum Credits for a Diploma in Air Conditioning and Refrigeration........73

Note: SDV 100 - College Success Skills is required for graduation and should be taken during the first semester the student is enrolled in the curriculum.

Automotive Analysis & Repair

Award: DIPLOMA

Length: The Automotive Analysis and Repair curriculum is designed to train persons for employment in the many occupations available in servicing motor transportation vehicles.

Purpose: The Automotive Analysis and Repair curriculum is designed to train persons for employment in the many occupations available in servicing motor transportation vehicles.

Occupational Objectives: The following occupational titles represent examples of possible employment opportunities:
- Automotive Technician
- Auto Parts Sales
- Driveability Specialist
- Automotive Machinist
- Service Manager
- Automotive Dealer
- Factory Service Representative
- Automotive Recycling
Admission Requirements: Entry into this curriculum may be attained by meeting the general admission requirements established for the College. If you meet the general admission requirements, a counselor will discuss with you the strengths and weaknesses of your academic background and your strengths and weaknesses as revealed by an appropriate placement test. You may correct any deficiencies in academic preparation in the College’s Developmental Studies program.

Program Description: The Automotive Analysis and Repair program includes theoretical and practical experiences in engine overhaul, computerized engine control systems, emission control servicing, automatic transmission servicing and overhaul, power train servicing, front-end alignment, electrical system diagnosis, and maintenance. Diagnosis of problems with the ability to correct the specific problem located is emphasized. The program contains general education courses to assist you in social and business communications and to prepare you to meet the obligations of a citizen in the American democratic society.

Program Outcomes: Upon successful completion of this program, students will:
1. Demonstrate the ability to use an automotive scan tool and a multi-meter to retrieve information and diagnose a modern automobile.
2. Work in teams to complete the disassembly and reassembly of an automatic transmission.
3. Demonstrate the use of precision measurement tools such as an outside micrometer and a torque wrench.
4. Complete a four wheel brake job on a modern automobile.
5. Successfully complete a Shop Safety Course.

Program Requirements: To receive a Diploma in Automotive Analysis and Repair, you must complete a minimum of 72 credits with a grade point average of 2.00 or better. The credits are distributed according to the following outline. This outline represents a typical order of courses taken by full-time day students. Part-time students may take courses in any desired sequence, except for hyphenated courses or others requiring prerequisites.

First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT 111 Automotive Engines I</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>AUT 112 Automotive Engines II</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>AUT 127 Auto. Lubrication &amp; Cooling Systems</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>AUT 130 Intro. to Auto Mechanics</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>ENG 131 Technical Report Writing I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SDV 100 College Success Skills</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
<td>12</td>
<td>16</td>
</tr>
</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT 121 Automotive Fuel Systems</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>AUT 236 Auto. Climate Control</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>AUT 241 Automotive Electricity I</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>AUT 265 Automotive Braking Systems</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>12</td>
<td>15</td>
</tr>
</tbody>
</table>

Summer Term I

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT 230 Intro. to Alternative Fuels &amp; Hybrid Vehicles</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>AUT 242 Electricity II</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>AUT 266 Auto Alignment, Suspension &amp; Steering</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>6</td>
<td>11</td>
</tr>
</tbody>
</table>

Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT 122 Auto Fuel Systems II</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>AUT 136 Auto. Vehicle Inspection</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>AUT 211 Automotive Systems III</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>AUT 237 Automotive Systems I</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>HUM 165 Controversial Issues</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>8</td>
<td>15</td>
</tr>
</tbody>
</table>

Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT 178 Auto. Final Drive &amp; Manual Trans. Systems</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>AUT 212 Automotive Systems IV</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>AUT 251 Automatic Trans. I</td>
<td>2</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>ECO 100 Elementary Economics</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>12</td>
<td>15</td>
</tr>
</tbody>
</table>

Total Minimum Credits for a Diploma in Automotive Analysis and Repair ...............72

Note: SDV 100 - College Success Skills is required for graduation and should be taken during the first semester the student is enrolled in the curriculum.

Computer-Aided Drafting and Design

Award: DIPLOMA

Length: A full-time student may complete this program in two years.

Purpose: The Computer-Aided Drafting and Design curriculum is designed to train persons for employment in the many occupations available in the field of drafting and design. Graduates of this program will be prepared to go into one of the occupations below.

Occupational Objectives: The following occupational titles represent examples of possible employment opportunities:
- Drafting Technician
- Fixture Design Technician
- Machine Design Technician
- Engineering Assistant
- Piping Designer
- Surveying Assistant

Admission Requirements: In addition to the admission requirements established for this College, this curriculum requires completion of four units of high school English and two units of high school mathematics. If you meet the general admission requirements, a counselor will discuss with you the strengths and weaknesses of your academic background and your strengths and weaknesses as revealed by an appropriate placement test. You may correct any deficiencies in academic preparation in the College’s Developmental Studies program.

Program Description: The Computer-Aided Drafting and Design program offers instruction in the drafting procedures, materials, manufacturing processes, and science and mathematics that is needed by the technician or engineering assistant in the field. You will receive theoretical and practical experiences in drafting principles, drafting skills, CAD Drafting (AUTOCAD, SolidWorks, Chief Architect, FeatureCAM) manufacturing processes, and machine and tool design. The program contains general education courses to assist you in social and business communications and to prepare you to meet the obligations of a citizen in the American democratic society.
Program Outcomes: Upon successful completion of this program, students will:

1. Design, draw, and fabricate a prototype of a design project using drafting equipment.
2. Develop, design, create a drawing package, and fabricate a three-dimensional working model of a functioning mechanical system.
3. Design, draw, and fabricate a prototype of two design projects using a CAD program.
4. Work in teams to survey a traverse and create a plat from field data.
5. Design, graphically represent, and present their plan of a mechanical system created in a computer aided drafting program to the drafting advisory committee.

Program Requirements: To receive a Diploma in Computer-Aided Drafting and Design you must complete a minimum of 75 credits with a grade point average of 2.00 or better. The 75 credits are distributed according to the following outline. This outline represents a typical order of courses taken by full-time day students. Part-time students may take courses in any desired sequence, except for hyphenated courses or others requiring prerequisites.

<table>
<thead>
<tr>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SDV 100 College Success Skills</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>DRF 114 Drafting I</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>MEC 100 Intro. to Engineering</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>ECO 100 Elementary Economics</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>MAC 131 Machining Technology</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>SDV 195 Electronic Portfolios</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>ENG 111 College Composition</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>11</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRF 115 Drafting II</td>
</tr>
<tr>
<td>MTH 115 Technical Math I</td>
</tr>
<tr>
<td>MEC 111 Materials for Industry</td>
</tr>
<tr>
<td>MEC 126 Computer Programming/visual basic</td>
</tr>
<tr>
<td>CIV 171 Surveying I</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Summer Term I</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD 201 Computer Aided Design II/Autocad</td>
</tr>
<tr>
<td>MEC 131 Mechanics I</td>
</tr>
<tr>
<td>PHY 130 Technical Physics</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTH 116 Technical Math II</td>
</tr>
<tr>
<td>CAD 116 Drafting III</td>
</tr>
<tr>
<td>MEC 132 Mechanics II</td>
</tr>
<tr>
<td>MEC 265 Fluid Mechanics</td>
</tr>
<tr>
<td>CAD 233 Computer Aided Drafting III/SolidWorks</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD 210 Advanced Technical Drafting</td>
<td>1</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>MEC 211 Machine Design I</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>CAD 298 Seminar Project</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>ARC 115 Architecture/Chief Arch.</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>7</td>
<td>11</td>
<td>12</td>
</tr>
</tbody>
</table>

Summer Term II

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD 202 Computer Aided Design II/solidworks</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>MAC 126 Introduction to CNC./featurecam</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MEC 212 Machine Design II</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>7</td>
<td>8</td>
<td>10</td>
</tr>
</tbody>
</table>

Total Minimum Credits for a Diploma in Computer- Aided Drafting and Design ...........................................75

Note: SDV 100 - College Success Skills is required for graduation and should be taken during the first semester the student is enrolled in the curriculum.

Electrical / Electronic Equipment Servicing

Award: DIPLOMA

Length: A full-time student may complete the program in two years. The actual time required to complete this program may vary depending upon the schedule of some course offerings and the student’s schedule. Students enrolled in this program may be required to take some evening courses in order to complete the program requirements.

Purpose: The purpose of the Electrical/Electronic Equipment Servicing program is to train, upgrade and increase technical competence of qualified personnel to operate, maintain and service electrical-electronic equipment.

Occupational Objectives: The following occupational titles represent examples of possible employment opportunities:

- Electronic Equipment Technician
- Equipment Service Technician
- Instrument Technician
- Laboratory Technician

Admission Requirements: To enter this curriculum requires that an individual meet the general admission requirements of the college. If you meet the general admissions requirements, a counselor will discuss with you the strengths and weaknesses as revealed by an appropriate placement test. You may correct any deficiencies in academic preparation in the College’s Developmental Studies program. A student may enroll in sophomore-level courses only after completing all freshman courses or with the permission of the instructor of each course.

Program Description: The Electrical/Electronic Equipment Servicing program is a specialized and concentrated work-study program including specialized field trips and seminars. The program has been designed for the full- or part-time student and provides maximum flexibility for the business and industrial worker. The first year includes common core courses. These courses provide for a general foundation in electrical-electronic concepts, devices, networks and fundamental circuits/systems. Technical electives are provided to reinforce the career objectives and must be approved by the student’s faculty advisor. Students working in related areas may receive 2 to 4 credits per semester by choosing the Coordinated Internship electives.
### Program Outcomes:
Upon successful completion of this program, students will be able to:

1. Design, draw, construct, analyze, and troubleshoot basic series and parallel AC and DC electrical circuits including all typical circuit elements and explain the function of each.
2. Design, draw, construct, analyze, and troubleshoot basic analog and digital electronic circuits.
3. Demonstrate an understanding of electronic digital and analog stages, devices, systems, and equipment.
4. Identify, select, set up and operate basic electronic test and measuring equipment including ammeters, ohmmeters, voltimeters, clamp-on ammeters, multi-meters, power supplies, function generators, RF generators, logic probes, curve tracers and oscilloscopes and explain the application of each.
5. Connect, configure, install, program and modify Programmable Logic Controllers.
6. Build, configure, analyze, maintain, upgrade and troubleshoot personal computers.
7. Plan, construct, repair, operate and test custom designed basic robotic devices.
8. Program microcontrollers and explain the function of each command and demonstrate an understanding of program flow. Construct and analyze the function of microcontroller interface circuits.
9. Connect, configure, install and commission process control devices and systems.
10. Identify, explain, and utilize safety measures and equipment in the lab and the workplace required by NFPA, NEC and OSHA.
11. Explain the characteristics and theories of operation of DC and AC single and multi-phase electric motors and motor control devices and circuits.
12. Identify, select and properly use tools that are used in the electrical and electronics industry.
13. Demonstrate an understanding of commercial 3-phase electric power generation, transmission, distribution and control, including three-phase power generation, delta and wye connections, transformers and all associated calculations.
14. Demonstrate an understanding of alternative energy sources and how they relate to the generation, distribution and control of residential, commercial, and industrial power.
15. Demonstrate a basic familiarity with fluid mechanics concepts and equipment.
16. Identify, select and install residential, commercial and industrial electrical devices and equipment.
17. Demonstrate experience in the field of Electrical Electronic Equipment Servicing or equivalent coursework.

### Program Requirements:
To receive a Diploma in Electrical/Electronic Equipment Servicing, you must complete a minimum of 72 credits with a cumulative grade point average of 2.00 or better.

#### First Year (Fall Semester)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
<th>Hours</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDV 100</td>
<td>College Success Skills</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>ELE 113</td>
<td>Basic Electricity I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ELE 123</td>
<td>Electrical Applications I</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>ELE 152</td>
<td>Calculations I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ENG 131</td>
<td>Technical Report Writing I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>11</strong></td>
<td><strong>2</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

#### First Year (Spring Semester)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
<th>Hours</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELE 114</td>
<td>Basic Electricity II</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ELE 124</td>
<td>Electrical Applications II</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>ETR 141</td>
<td>Electronics I</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>ETR 123</td>
<td>Electronics Applications I</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>ETR 151</td>
<td>Electronic Circuits &amp; Troubleshooting</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>ECO 100</td>
<td>Elementary Economics</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>11</strong></td>
<td><strong>6</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

#### Second Year (Fall Semester)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
<th>Hours</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELE 239</td>
<td>Programmable Controllers</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>ELE 132</td>
<td>National Electric Code II</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ELE 190</td>
<td>Coordinated Internship</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>HUM 165</td>
<td>Controversial Issues</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ETR 295</td>
<td>Topics in E/E (Schematic Reading)</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>12</strong></td>
<td><strong>3</strong></td>
<td><strong>13</strong></td>
</tr>
</tbody>
</table>

#### Second Year (Spring Semester)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
<th>Hours</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETR 136</td>
<td>Industrial Electronic Systems</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>ELE 240</td>
<td>Advanced PLCs</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>ITE 116</td>
<td>Survey of Computer Software Application</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>PSY 126</td>
<td>Psychology for Business &amp; Industry</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>9</strong></td>
<td><strong>6</strong></td>
<td><strong>11</strong></td>
</tr>
</tbody>
</table>

**Total Minimum Credits required for a Diploma in Electrical/Electronic Equipment Servicing: 72**

### Electrical/Electronics Engineering Technology

#### Award:
DIPLOMA

**Length:** A full-time student may complete these programs in six semesters, which includes two summers.

**Purpose:** The purpose of the Electrical/Electronics Engineering Technology program is to train persons for employment in the technical positions available in business and industry related to electricity and electronics.

**Occupational Objectives:** The following occupational titles represent examples of possible employment opportunities:
- Automation Control Engineering
- Biomedical Electronics Technician
- Communications Technician
- Computer Technician
- Electrical/Electronics Technician
- Electric Power Utility Technician
- Laboratory Technician
- Maintenance Technician
- Robotics Technician
- Service Technician
- Telecommunications Technician
Admission Requirements: To enter this curriculum requires that an individual meet the general admission requirements of the College. If you meet the general admission requirements, a counselor will discuss with you the strengths and weaknesses of your academic background and your strengths and weaknesses as revealed by an appropriate placement test. You may correct any deficiencies in academic preparation in the College’s Developmental Studies program.

Program Description: The program is designed to develop a general foundation in electricity, electronics, theorems, networks, and fundamental circuits. The first three semesters of the Electrical/Electronics Engineering Technology curriculum includes common core courses. To receive the diploma, you must complete the required credits with a grade point average of 2.00 or better. The courses are distributed according to the following outlines. These outlines represent a typical order of courses taken by full-time day students.

Program Outcomes: Upon successful completion of this program, students will be able to:
1. Design, draw, construct, analyze, and troubleshoot basic series and parallel AC and DC electrical circuits including all typical circuit elements including switches, fuses, resistors, lamps and other loads and explain the function of each component.
2. Design, draw, construct, analyze, and troubleshoot basic analog and digital electronic circuits.
3. Demonstrate an understanding of digital and analog RF communications techniques, stages, devices, systems, and equipment.
4. Identify, select, set up and operate basic electronic test and measuring equipment including ammeters, ohmmeters, voltmeters, clamp-on ammeters, multimeters, power supplies, function generators, RF generators, logic probes, curve tracers and oscilloscopes and explain the function of each component.
5. Connect, configure, install, program and modify Programmable Logic Controllers.
6. Build, configure, analyze, maintain, upgrade and troubleshoot personal computers.
7. Install, solder, inspect, and test circuit components including conventional and surface mounted devices.
8. Plan, construct, repair, operate and test custom designed basic robotic devices.
9. Program microcontrollers and explain the function of each command and demonstrate an understanding of program flow. Construct and analyze the function of microcontroller interface circuits.
10. Connect, configure, install and commission process control devices and systems.
11. Identify, explain, and utilize safety measures and equipment in the lab and the workplace required by NFPA, NEC and OSHA.
12. Explain the characteristics and theories of operation of DC and AC single and multi-phase electric motors and motor control devices and circuits.
13. Research and learn unfamiliar devices, circuits and systems and explain these to others unfamiliar with them using oral and written presentations.
14. Identify, select and properly use tools that are used in the electrical and electronics industry.
15. Demonstrate an understanding of commercial 3-phase electric power generation, distribution and control including three-phase power generation, delta and wye connections and transformers.
16. Demonstrate an understanding of alternative energy sources and how they relate to the generation, distribution and control of residential, commercial, and industrial power.
17. Identify, select and install residential, commercial and industrial electrical devices and equipment.

Program of Study

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Year (Fall Semester)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SDV 100</td>
<td>College Success Skills</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>ITE 116</td>
<td>Survey of Computer Software Applications</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>ELE 113</td>
<td>Basic Electricity I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ELE 123</td>
<td>Electrical Applications I</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>ELE 152</td>
<td>Calculations I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>PED</td>
<td>Physical Ed Elective</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>10</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td><strong>First Year (Spring Semester)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELE 114</td>
<td>Basic Electricity II</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ELE 124</td>
<td>Electrical Applications II</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>ELE 153</td>
<td>Calculations II</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ELE 141</td>
<td>Electronics I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ELE 151</td>
<td>Electronic Circuits Troubleshooting I</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>ENG 131</td>
<td>Technical Writing</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>16</td>
<td>4</td>
<td>18</td>
</tr>
<tr>
<td><strong>Second Year (Fall Semester)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELE 156</td>
<td>Electrical Control Systems</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>ELE 152</td>
<td>Electronic Circuits Troubleshooting II</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>ETR 142</td>
<td>Electronics II</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ELE 124</td>
<td>Electronic Applications II</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>8</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td><strong>Second Year (Spring Semester)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECO 100</td>
<td>Elementary Economics</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ETR 255</td>
<td>Active Devices &amp; Circuits</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>ELE 216</td>
<td>Industrial Electricity</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>ETR 282</td>
<td>Digital Systems I</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>ELE 158</td>
<td>Surface Mount Soldering</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>9</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td><strong>Second Year (Summer Term)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ETR 243</td>
<td>Digital, Analog &amp; Data Communications</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>CST 100</td>
<td>Principles of Public Speaking</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ELE 239</td>
<td>Programmable Logic Controllers (PLCs)</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>ELE 217</td>
<td>Electric Power Utilities</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>ETR 295</td>
<td>Topics in E/E (Schematic Reading)</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>10</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td><strong>Total Minimum Credits for a Diploma in Electrical/Electronics Engineering Technology</strong></td>
<td></td>
<td></td>
<td></td>
<td>73</td>
</tr>
</tbody>
</table>

Note: SDV 100 — College Success Skills is required for graduation and should be taken during the first semester the student is enrolled in the curriculum.
Graphic Imaging Technology

Award: DIPLOMA

Length: A full-time student may complete this program in two years, which includes one summer term.

Purpose: The Graphic Imaging Technology program is designed to prepare you for full-time employment in occupations related to the Graphics Industry.

Occupational Objectives: The following occupational titles represent examples of possible employment opportunities:
- Bindery & Finishing Worker
- Color Technician
- Computer Design Artist
- Digital Photographer
- Graphic Designer
- Electronic Pre-Press Technician
- Estimator
- Manager
- Press Operator
- Salesperson

Admission Requirements: Entry into this curriculum may be attained by meeting the general admission requirements established for the College. If you meet the general admission requirements, a counselor will discuss with you the strengths and weaknesses of your academic background and your strengths and weaknesses as revealed by an appropriate placement test. You may correct any deficiencies in academic preparation in the College’s Developmental Studies program.

Program Description: The Graphic Imaging Technology program provides both the practical experience and technical knowledge required for a career in the many phases of graphics. Laboratory experiences give you the skills and understanding of the complexities of the graphic imaging trades. The curriculum includes basic courses in general education to assist you in social and business communications and to prepare you to meet the obligations of a citizen in the American democratic society.

Program Outcomes: In addition to the General Education Objectives of Danville Community College, a graduate of the Graphic Imaging program will be able to:
1. Demonstrate an understanding of the fundamentals of reproduction processes.
2. Demonstrate technical and skill competencies in the area of lithography to complete laboratory projects.
3. Use graphic design software to complete laboratory project.
4. Demonstrate technical and skill competencies in color separation procedures.
5. Discuss the aspects of lithographic chemistry as it relates to the printing industry.
6. Demonstrate an understanding of production planning and estimating as it relates to the printing industry.
7. Demonstrate technical and skill competencies in the finishing and bindery operations of printed pieces.
8. Utilize mathematical skills necessary for effective performance in the printing industry.

Program Requirements: To receive a Diploma in Graphic Imaging Technology, you must complete a minimum of 72 credits with a grade point average of 2.00 or better. The credits are distributed according to the following outline. This outline represents a typical order of courses taken by full-time day students. Part-time students may take courses in any desired sequence, except for hyphenated courses or others requiring prerequisites.

### First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 180 Intro. to Computer Graphics</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>PNT 110 Survey of Reproduction Processes</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>PNT 130 Applied Math for the Graphics Industry</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>PNT 131 Principles of Lithography I</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>PNT 135 Print Imaging</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>PNT 298 Health &amp; Safety</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>SDV 100 College Success Skills</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>13</strong></td>
<td><strong>14</strong></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

### Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 131 Technical Writing</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>PNT 132 Principles of Lithography II</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>PNT 141 Printing Applications I</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>PNT 211 Electronic Publishing I</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>PNT 221 Layout &amp; Design I</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>11</strong></td>
<td><strong>12</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

### Summer Term I

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PNT 142 Printing Applications II</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>PNT 212 Electronic Publishing II</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>PNT 222 Layout &amp; Design II</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>PNT 260 Color Separation</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>8</strong></td>
<td><strong>10</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

### Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PNT 213 Electronic Publishing III</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>PNT 223 Layout &amp; Design III</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>PNT 251 Offset Press Operations I</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>PNT 264 Color Image Assembly</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>10</strong></td>
<td><strong>11</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

### Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 100 Elementary Economics or Approved Substitute</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>PNT 241 Advanced Printing App. I</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>PNT 231 Lithographic Chemistry</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>PNT 245 Production Planning and Estimating</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>9</strong></td>
<td><strong>7</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

Total Minimum Credits for the Diploma in Graphic Imaging Technology:......72
Precision Machining Technology

Award: DIPLOMA

Length: A full-time student may complete the program in two years.

Purpose: The Precision Machining Technology program is designed to train persons for employment in the many occupations available in industrial manufacturing shops.

Occupational Objectives: The following occupational titles represent examples of possible employment opportunities:
- Machine Tool Operator
- Machinist
- Mold Maker
- Shop Manager
- Tool and Die Maker

Admission Requirements: Entry into this curriculum may be attained by meeting the general admission requirements established for the College. If you meet the general admission requirements, a counselor will discuss with you the strengths and weaknesses of your academic background and your strengths and weaknesses as revealed by an appropriate placement test. You may correct any deficiencies in academic preparation in the College’s Developmental Studies program.

Program Description: The Precision Machining Technology program provides training in basic machine shop operations, materials, and manufacturing processes. You will receive theoretical and practical experiences in the care and use of tools, care and use of machines, working to proper tolerances, technical drafting, computer numerical control programming, CAD-CAM training, metallurgy, tool making, jig and fixture design, precision measurements, and the development of leadership qualities. The program contains general education courses to assist you in social and business communications and to prepare you to be a leader and team player in high-tech manufacturing industries.

Program Outcomes: All Precision Machining Technology Program completers will:
1. Demonstrate competency in their ability to operate machine shop equipment: lathes, mills, grinders, and drills
2. Demonstrate competency in their ability to read and interpret blueprints per industry standards
3. Successfully demonstrate their ability to process and plan a piece part through the lab until completion
4. Demonstrate competency in CNC machine tool operation and programming
5. Demonstrate competency in CAM design and manufacturing

Program Requirements: To receive a Diploma in Precision Machining Technology you must complete a minimum of 80 credits with a grade point average of 2.00 or better. The credits are distributed according to the following outline. This outline represents a typical order of courses taken by full-time day students. Part-time students may take courses in any desired sequence, except for hyphenated courses or others requiring prerequisites.

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAD 120</td>
<td>Intro. to Graphic Rep.</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENG 131</td>
<td>Technical Report Writing I</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAC 101</td>
<td>Machine Shop I</td>
<td>5</td>
<td>9</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>MTH 103</td>
<td>Basic Tech. Math I</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SDV 100</td>
<td>College Success Skills</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>14</td>
<td>12</td>
<td>18</td>
</tr>
<tr>
<td><strong>Second Semester</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DRF 160</td>
<td>Mac. Blueprint Reading</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAC 102</td>
<td>Machine Shop II</td>
<td>4</td>
<td>7</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>MAC 121</td>
<td>Numerical Control I</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MTH 104</td>
<td>Basic Tech. Math. II</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ITE 116</td>
<td>Survey of Computer Software Appl.</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>SAF 130</td>
<td>Industrial Safety - OSHA</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>14</td>
<td>11</td>
<td>18</td>
</tr>
<tr>
<td><strong>Summer Term</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAC 221</td>
<td>Adv. Machine Tool Operations I</td>
<td>4</td>
<td>9</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>MAC 127</td>
<td>Adv. CNC Program</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>7</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td><strong>Third Semester</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECO 120</td>
<td>Survey of Economics</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAC 209</td>
<td>Standards, Measurements &amp; Calculations</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAC 122</td>
<td>Numerical Control II</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MAC 222</td>
<td>Adv. Machine Tool Operations II</td>
<td>4</td>
<td>9</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>MAC 134</td>
<td>CMM Operation and Programming</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>12</td>
<td>13</td>
<td>17</td>
</tr>
<tr>
<td><strong>Fourth Semester</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAC 128</td>
<td>CNC Programming</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MAC 123</td>
<td>Numerical Control III</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MAC 150</td>
<td>Intro. to Computer-Aided Manufacturing</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CST 100</td>
<td>Prin. of Public Speaking or Approved Substitute</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>12</td>
<td>14</td>
<td>17</td>
</tr>
</tbody>
</table>

Total Minimum Credits for the Diploma in Precision Machining Technology: 80

Programs of Study - Danville Community College
Certificate Programs

Air Conditioning and Refrigeration Servicing (Day and Night Programs)
Auto Body Mechanics
Building Trades Technology
Corrections
Cybercrime Investigation
Drafting Technology
First Year Studies
General Education
Industrial Electrical Principles
Industrial Electronic Principles
Law Enforcement
Maintenance Mechanics
Office Information Processing
Protective Services (Private Security)
Residential Design and Estimation
Welding Technology

The Certificate programs differ from the Associate Degree programs in several ways. They may be presented at a different educational level and are developed in response to specific local employment needs, as identified by the programs’ lay advisory committees and the College’s Curriculum committee. Their specific objective is to give students a variety of hands-on training experiences to prepare them for immediate employment. The certificate programs do not require the same level of general education training as the associate degree programs, so more of the required courses are directly related to the chosen field of study. There is no limit on the maximum number of credits required in these programs, but most are designed to be completed in one year of full-time study. The types of jobs which you might expect to obtain upon completion of the certificate requirements are listed in this section. Specific courses for completing each program of study are also included.
Air Conditioning & Refrigeration Servicing

Award: CERTIFICATE

Length: Variable

Purpose: The Air Conditioning & Refrigeration Servicing Certificate program is designed to train persons to service equipment currently in the field and to give them a background that will enable them to cope with new developments as they occur.

Occupational Objectives: The following occupational titles represent examples of possible employment opportunities:
- Air Conditioning Technician
- Circuits & Controls Service Technician
- Air Conditioning/Heating Technician
- Installation and Service Technician
- Refrigeration Service Technician

Admission Requirements: Entry into this curriculum may be attained by meeting the general admission requirements established for the College. If you meet the general admission requirements, a counselor will discuss with you the strengths and weaknesses of your academic background and your strengths and weaknesses as revealed by an appropriate placement test. You may correct any deficiencies in academic preparation in the College’s Developmental Studies program.

Program Description: The program is designed for both beginners and persons presently employed in the air conditioning and refrigeration field. It provides the practical experience and the technical knowledge required for competence as a service technician in the air conditioning and refrigeration field. The student will receive specialized seminars, theoretical and practical training in basic electricity, circuits and controls (electric, electronic, and pneumatic), combustion devices (oil burners and gas burners), refrigeration and air conditioning (residential and commercial).

Program Outcomes: Upon completion of the Air Conditioning and Refrigeration Servicing Certificate, students will be able to:
1. Demonstrate mathematical skills to solve problems in electrical, refrigeration, and air conditioning systems, gas heating systems, and oil heating systems.
2. Apply troubleshooting skills to diagnose and repair the following: refrigeration, heating, and electrical systems.
3. Apply knowledge learned to install heating, air conditioning, and refrigeration systems.
4. Sit for the EPA Certification.

Program Requirements: To receive a Certificate in Air Conditioning & Refrigeration Servicing, you must complete a minimum of 40 or 41 credits with a grade point average of 2.00 or better. The credits are distributed according to the following outline as indicated for day and evening programs. This outline represents a typical order of courses taken by full-time students. Part-time and/ or evening students may take courses in any desired sequence, except for hyphenated courses or others requiring prerequisites.

Air Conditioning & Refrigeration Servicing (Night Program)

<table>
<thead>
<tr>
<th></th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIR 111 Air Conditioning &amp; Refrigeration Controls I</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>AIR 121 Air Conditioning &amp; Refrigeration I</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>AIR 161 Heating, Air Conditioning &amp; Refrigeration Calculations I or Approved Substitute</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ENG 131 Technical Report Writing or Approved Substitute</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SDV 100 College Success Skills</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>11</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td><strong>Second Semester</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIR 112 Air Conditioning &amp; Refrigeration Controls II</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>AIR 122 Air Conditioning &amp; Refrigeration II</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>AIR 154 Heating Systems I</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>ITE 116 Survey of Computer Software Applications</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>MKT 170 Customer Relations</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>9</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td><strong>Third Semester</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIR 123 Air Conditioning &amp; Refrigeration III</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>AIR 155 Heating Systems II</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>AIR 213 Air Conditioning &amp; Refrigeration Controls III or Approved Substitute</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>6</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td><strong>Fourth Semester</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIR 124 Air Conditioning &amp; Refrigeration IV</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>AIR 214 Air Conditioning &amp; Refrigeration Controls IV</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>4</td>
<td>4</td>
<td>6</td>
</tr>
</tbody>
</table>

Total Minimum Credits for the Certificate in Air Conditioning & Refrigeration Servicing (Night Program) .................................................. 40
Air Conditioning & Refrigeration Servicing (Day Program)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIR 111</td>
<td>Air Conditioning &amp; Refrigeration Controls</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>AIR 121</td>
<td>Air Conditioning &amp; Refrigeration I</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>AIR 122</td>
<td>Air Conditioning &amp; Refrigeration II</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>AIR 155</td>
<td>Heating Systems II</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>AIR 156</td>
<td>Heating Systems III</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>AIR 161</td>
<td>Heating, Air Conditioning &amp; Refrigeration Calculations I or Approved Substitute</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>AIR 135</td>
<td>Circuits II</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>AIR 122</td>
<td>Air Conditioning &amp; Refrigeration II</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>AIR 155</td>
<td>Heating Systems II</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>AIR 161</td>
<td>Heating, Air Conditioning &amp; Refrigeration Calculations I or Approved Substitute</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>ENG 131</td>
<td>Technical Writing or Approved Substitute</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>SDV 100</td>
<td>College Success Skills</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>SDV 120</td>
<td>Fundamentals of Welding</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>10</td>
<td>6</td>
</tr>
</tbody>
</table>

Air Conditioning & Refrigeration Servicing (Day Program) Minimum Credits: 41

Auto Body Mechanics

**Award:** CERTIFICATE

**Length:** A full-time student may complete this program in one year.

**Purpose:** The program in Auto Body Mechanics is designed to provide the student with the knowledge and skill necessary to obtain full-time employment upon completion of the program of studies.

**Occupational Objectives:** The following occupational titles represent examples of possible employment opportunities:
- Auto Body Mechanic
- Painter
- Service Manager
- Insurance Adjuster

**Admission Requirements:** Entry into this curriculum may be attained by meeting the general admission requirements established for the College. If you meet the general admission requirements, a counselor will discuss with you the strengths and weaknesses of your academic background and your strengths and weaknesses as revealed by an appropriate placement test. You may correct any deficiencies in academic preparation in the College’s Developmental Studies program.

**Program Description:** The Auto Body Mechanics program is designed to provide training in all phases of auto body mechanics. Emphasis is placed on the solution of everyday problems that arise in auto body repair, such as blistering, chipping, cracking, blushing, pin holes, panel replacement, and the use of plastics. You will be taught to use up-to-date equipment and materials that are constantly developed, as well as new methods for detecting and repairing damage. The program contains general education courses to assist you in social and business communications and to prepare you to meet the obligation of a citizen in the American democratic society.

**Program Outcomes:** Upon successful completion of this program students will be able to:
1. Identify the tools and equipment in auto body repair.
2. Straighten sheet metal.
3. Use plastic fillers.
4. Prepare and prime a panel for painting.
5. Paint a panel.
6. Use the frame machine and measuring equipment.
7. Compute cost estimates for completing repairs.
8. Work safely in the shop.

**Program Requirements:** To receive a Certificate in Auto Body Mechanics, you must complete a minimum of 45 credits with a 2.00 grade point average or better. The credits are distributed according to the following outline. This outline represents a typical order of courses taken by full-time students. Part-time students may take courses in any desired sequence, except for hyphenated courses or others requiring prerequisites.

<table>
<thead>
<tr>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
</table>
| First Semester
| AIR 111 Air Conditioning & Refrigeration Controls | 2 | 9 |
| AIR 121 Air Conditioning & Refrigeration I | 2 | 9 |
| AIR 161 Heating, Air Conditioning & Refrigeration Calculations I or Approved Substitute | 3 | 9 |
| AIR 154 Heating Systems I | 2 | 9 |
| SDV 100 College Success Skills | 1 | 9 |
| Total | 10 | 6 | 13 |

<table>
<thead>
<tr>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
</table>
| Second Semester
| AIR 135 Circuits II | 2 | 9 |
| AIR 122 Air Conditioning & Refrigeration II | 2 | 9 |
| AIR 155 Heating Systems II | 2 | 9 |
| AIR 156 Heating Systems III | 2 | 9 |
| ENG 131 Technical Writing or Approved Substitute | 3 | 9 |
| SDV 100 College Success Skills | 1 | 9 |
| Total | 12 | 6 | 15 |

<table>
<thead>
<tr>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
</table>
| Third Semester (Summer)
| AIR 273 Refrigeration III | 2 | 9 |
| AIR 156 Heating Systems III | 2 | 9 |
| AIR 136 Circuits III | 2 | 9 |
| AIR 195 EPA Certification | 1 | 9 |
| MKT 170 Customer Relations | 1 | 9 |
| ITE 116 Survey of Computer Software Appl. | 2 | 9 |
| Total | 10 | 6 | 13 |

<table>
<thead>
<tr>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Minimum Credits for the Certificate in Auto Body Mechanics</td>
<td>45</td>
<td></td>
</tr>
</tbody>
</table>

Air Conditioning & Refrigeration Servicing (Day Program) Minimum Credits: 41

<table>
<thead>
<tr>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
</table>
| First Semester
| AUB 111 Automobile Body Theory & Shop Practices I | 5 | 9 | 8 |
| AUB 116 Auto Body Repair | 3 | 9 | 4 |
| ENG 131 Technical Report Writing I | 3 | 9 | 3 |
| SDV 100 College Success Skills | 1 | 9 | 1 |
| WEL 120 Fundamentals of Welding | 1 | 9 | 2 |
| Total | 13 | 15 | 18 |

<table>
<thead>
<tr>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
</table>
| Second Semester
| AUB 112 Automobile Body Theory & Shop Practices II | 5 | 9 | 8 |
| AUB 198 Seminar & Project or | 3 | 9 | 4 |
| AUB 190 Coordinated Internship | 0 | 9 | 2 |
| AUB 206 Automotive Body Component Service | 1 | 9 | 2 |
| ECO 100 Elementary Economics | 3 | 9 | 3 |
| Total | 12 | 13 | 15 |

<table>
<thead>
<tr>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
</table>
| Third Semester
| AUB 113 Automobile Body Theory & Shop Practices III | 3 | 9 | 6 |
| AUB 115 Damage Repair Estimating | 1 | 9 | 2 |
| AUB 298 Adv. Seminar & Project or | 1 | 9 | 4 |
| AUB 290 Coordinated Internship | 1 | 9 | 5 |
| Total | 5 | 17 | 12 |

Total Minimum Credits for a Certificate in Auto Body Mechanics: 45
Building Trades Technology

Award: CERTIFICATE

Length: A full-time student may complete this program in one year.

Purpose: The purpose of the Building Trades Technology Program to help entry-level employees in construction-related trades gain specific knowledge and skills to improve their work performance and career status within the construction industry.

Occupational Objectives: Graduates of this program will have:
1. Basic carpentry skills including framing, exterior siding, and trim, interior trim
2. A familiarity with plumbing for light construction
3. An understanding of job site safety training
4. An introduction to HVAC systems found in residential housing
5. Basic math skills required in the building trades industry
6. An introduction to home electrical wiring

Admission Requirements: Entry into this curriculum may be attained by meeting the general admission requirements established for the College. If you meet the general admission requirements, a counselor will discuss with you the strengths and weaknesses of your academic background and your strengths and weaknesses as revealed by an appropriate placement test. You may correct any deficiencies in academic preparation in the College’s Developmental Studies program.

Program Description: The program is designed to develop a general foundation in residential construction with an emphasis on carpentry. Students will also be given an introduction to plumbing, electrical, HVAC (Heating, Ventilation and Air Conditioning), and the skills required to build a residential building.

Program Outcomes: Graduates of the Building Trades Technology program will:
1. Know construction terminology.
2. Practice construction safety.
3. Use hand and power tools.
4. Estimate materials.
5. Interpret construction drawings.
6. Use measurement tools.
7. Apply green construction and energy conservation practices.
8. Perform general carpentry skills.

Program Requirements: To receive a Certificate in Building Trades Technology, you must complete a minimum of 44 credits with a grade point average of 2.00 or better. The credits are distributed according to the following outline. This outline represents a typical order of courses taken by full-time students. Part-time and/or evening students may take courses in any desired sequence, except for hyphenated courses or others requiring prerequisites.

First Semester
- BLD 103 Principles of Residential Construction 3 0 3
- BLD 110 Introduction to Construction 3 0 3
- BLD 120 Applied Construction Mathematics 3 0 3
- BLD 131 Carpentry I 3 4 5
- SAF 195 Shop Safety 1 0 1
- SDV 100 *College Success Skills 1 0 1

Total 14 4 16

Second Semester
- BLD 20 Introduction to Plumbing 1 2 2
- BLD 132 Carpentry II 3 4 5
- BLD 184 Interior and Exterior Finishes 3 0 3
- ELE 110 Home Electric Power 2 2 3
- ENG 131 Technical Report Writing 3 0 3

Third Semester
- AIR 121 Air Conditioning & Refrigeration I 2 3 3
- BLD 195 Topics in Communication Skills/Work Ethics/Green Construction 3 0 3
- BLD 196 On-Site Training 0 15 3
- ECO 100 Elementary Economics 3 0 3

Total 12 8 16

Total Minimum Credits for the Certificate in Building Trades Technology 44

*Should be taken in first semester

Corrections

Award: CERTIFICATE

Length: Four-semesters, can be completed part-time.

Purpose: The Certificate in Corrections is designed for practitioners in corrections and associated fields who desire to take only those courses which relate directly to their employment needs. Students who are deficient in meeting academic standards may be advised to enroll in appropriate classes which are designed to provide the background necessary for academic proficiency.

Occupational Objectives: The following occupational titles represent examples of possible employment opportunities:
- Corrections Officer
- Jailer

Admission Requirements: The Certificate in Corrections Program is designed to improve the job-related skills of the person engaged in corrections-related duties. You will be advised as to which courses are most applicable in your field of interest. You must complete at least 43 credits in the curriculum, to be awarded a Certificate in Corrections.

Program Outcomes: Students who successfully complete this program will demonstrate:
1. An in-depth knowledge of various sources of crime data (e.g. FBI-based Uniform Crime Reporting system) and analytical skills necessary to evaluate "strengths" and "weaknesses" of crime data reporting
2. Assessment skills applied to community-police programs and evaluative measures to be applied to the merits of police-sponsored community crime prevention efforts
3. Knowledge of each component of the criminal justice system – police, judiciary, corrections and protective services (private security) – and articulation of various sub-components of the criminal justice system ranging from prosecutor, defense attorney and probation – parole duties to functions performed by public safety offices such as the public defender and sheriff
4. Knowledge of the role diversity plays in decision-making at all levels of the criminal justice system
5. Knowledge of the global nature of crime to include the impact of crime and the prosecution of criminal offenders who utilize not only the United States, but also international destinations from Europe to Asia to further a terrorist goal, commit cybercrime, or reap huge profits associated with criminal enterprises
6. Knowledge of stress reduction techniques including a meaningful and consistent physical fitness conditioning program
7. Knowledge of the importance of volunteering one’s talents for the overall improvement of one’s community
8. Knowledge of the need for uncompromising ethical and moral standards
9. Exemplary written and oral communications skills
10. Excellent information literacy skills

**Program Requirements:** The Certificate in Corrections Program is designed to improve the job-related skills of the person engaged in corrections-related duties. You will be advised as to which courses are most applicable in your field of interest. You must complete at least 43 credits in the curriculum, to be awarded a Certificate in Corrections.

### First Semester

<table>
<thead>
<tr>
<th>Lecture</th>
<th>Lab</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>ADJ 100</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>SOC 200</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>SDV 100</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total:** 10 0 10

### Second Semester

<table>
<thead>
<tr>
<th>Lecture</th>
<th>Lab</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJ 130</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>SOC 235</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>SOC 215</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>SOC 268</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total:** 12 0 12

### Third Semester

<table>
<thead>
<tr>
<th>Lecture</th>
<th>Lab</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJ 140</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>PSY 200</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>ITE 115</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total:** 9 0 9

### Fourth Semester

<table>
<thead>
<tr>
<th>Lecture</th>
<th>Lab</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJ 227</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>ADJ 145</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>SOC 236</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>HLT 116</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total:** 12 0 12

**Total Minimum Credits for the Certificate in Corrections:** 43

**Note:** All courses must be approved by the Administration of Justice Program Advisor. Graduates of Corrections Officer’s and Jailer’s Training Academy Programs may receive advanced standing credit for some program requirements. Additional course credits may be received for relevant and qualified in-service corrections officer/jailer’s training courses. Students must be enrolled in the Administration of Justice Program in order to have previous corrections officer/jailer training evaluated.

---

## Cybercrime Investigation

**Award:** Certificate

**Length:** Four semester part-time program

**Purpose:** The Certificate in Cybercrime Investigation is designed for practitioners in law enforcement and associated fields who desire to take only those courses which related directly to their employment needs. Students who are deficient in meeting academic standards may be advised to enroll in appropriate classes which are designed to provide the background necessary for academic proficiency.

**Occupational Objectives:** Police officer, deputy sheriff, game warden, Virginia State Trooper, protective services (private security/homeland security) personnel.

**Admission Requirements:** Regular DCC admission requirements apply. The Administration of Justice Program Lead Faculty Member is available to answer specific questions regarding application to DCC and/or cybercrime investigation prerequisites and course requirements.

**Program Outcomes:** Students who successfully complete this program will know how to:

1. Investigate computer crimes and incidents and accurately analyze and report findings
2. Prepare written computer-forensics investigation reports that are admissible in court
3. Describe network components, protocols, architectures, and the application of current communication and networking technologies
4. Acquire, recover, document and analyze information contained within and created by computer systems, including different operating systems and networks, computer devices, and digital devices including cellular telephones and digital cameras
5. Identify the specifics of computer and network security exposures and vulnerabilities and the countermeasures available to prevent breaches and other system intrusions
6. Help organizations increase awareness of security policies and procedures
7. Collect, analyze and evaluate evidence data using industry-standard computer forensic software and hardware
8. Collaborate with others to conduct a proper computer-forensics investigation
9. Discuss and apply the rules of evidence and court procedures and apply the legal and ethical issues related to the acquisition and analysis of digital evidence

**Program Requirements:** The Cybercrime Investigation Certificate is designed to improve the job-related skills of individuals engaged in law enforcement and/ or security duties. Students are advised as to which courses are applicable in their field of interest and will upon completion of 38 credits in the curriculum be awarded a Certificate in Cybercrime Investigation.

**Program Notes:** Graduates of the "Law Enforcement Officers Training Standards Course" and the Virginia State Police “Basic Training Academy” may receive advanced standing credit for some program requirements. Additional course credits may be received for relevant and qualified in-service criminal justice seminars and training courses.

### First Semester

<table>
<thead>
<tr>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>ADJ 100</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>PSY 200</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>ITE 116</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>SDV 100</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total:** 12 0 12
Program Outcomes: Successful graduates of this program will:
1. Demonstrate competency in graphically describing the shape and size of a design project using traditional drafting methods.
2. Demonstrate competency in designing, graphically representing, and fabricating solid models of mechanical parts.
3. Demonstrate proficiency in surveying the boundaries of a property.
4. Demonstrate proficiency in solving a unique design problem.

Program Requirements: To receive the Certificate in Drafting Technology, you must complete a minimum of 39 credits with a grade point average of 2.0 or better. The credits are distributed according to the following outline. This outline represents a typical order of courses taken by full-time students. Part-time students may take courses in any desired sequence, except for hyphenated courses or others requiring prerequisites.

<table>
<thead>
<tr>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

First Semester
*SDV 100 College Success Skills 1 0 1
Elective Technical Elective 3 0 3
DRF 114 Drafting I 1 6 3
CAD 233 Drafting III 2 2 3
MEC 100 Introduction to Engineering Technology 1 2 2
MAC 131 Machine Lab I 1 3 2
SDV 195 Electronic Portfolios 1 0 1

Total 10 13 15

Second Semester
DRF 115 Drafting II 1 6 3
MEC 111 Materials for Industry 3 0 3
CIV 171 Surveying I 2 3 3
ENG 131 Technical Writing 3 0 3
MTH 115 Basic Math 3 0 3

Total 12 9 15

Summer Term
DRF 201 Comp. Aid Drafting & Design I 2 2 3
DRF 199 Supervised Study 1 2 2
ARC 211 Architectural Drafting I 2 2 3

Total 5 6 8

Total Minimum Credits for the Certificate in Drafting Technology ................. 39

Note:应该 be taken in first semester.

Drafting Technology

Award: CERTIFICATE

Length: A full-time student may complete this program in one year.

Purpose: The Certificate in Drafting Technology is designed to provide the student with the knowledge and skill necessary to obtain full-time employment upon completion of the program courses.

Occupational Objectives: The following occupational titles represent examples of possible employment opportunities:
- Draftsman
- Surveying Assistant

Admission Requirements: Entry into this curriculum may be attained by meeting the general admission requirements established for the College. If you meet the general admission requirements, a counselor will discuss with you the strengths and weaknesses of your academic background and your strengths and weaknesses as revealed by an appropriate placement test. You may correct any deficiencies in academic preparation in the College’s Developmental Studies program.

Program Description: The program is designed for both beginning draftsmen and those with drafting dual credit from local high schools. It could also be beneficial to those in the drafting field looking to gain experience with new software and new fabrication technologies. It provides extensive computer application training, instruction in the areas of board and computer drafting techniques, and an introduction to surveying. The student will receive specialized training in the use of 2D and 3D mechanical design software and will be exposed to 3D residential design software. Students will complete a variety of lab exercises which are designed to focus on mechanical design and construction-related applications.
Admission Requirements: Entry into this curriculum may be attained by meeting the general admission requirements established for the College. A high school diploma or GED is required. You must take developmental coursework as required by placement testing, long-term educational goals, and the college-level coursework which you would like to pursue.

Program Description: This program consists of a minimum of 30 credit hours of instruction distributed into general education and elective course areas. In the general education area, students must take college composition, a 100-level or above math course, one social science course, one natural science course, and one humanities or arts course. Students are then allowed to select 12 credit hours of coursework which prepares them directly for the program to which they would like to transfer. Students are also required to take a computer elective and the college’s orientation course. All courses should be selected in consultation with an academic advisor in the Arts and Science Division who will have recommended sequences of coursework for various medical and dental programs. Completion of the appropriate sequence of courses for particular programs may benefit students by decreasing their course load on a semester-by-semester basis in their projected programs as well as prepare them for the specialized coursework in many fields of study.

Program Outcomes: The Danville Community College First Year Studies Certificate is designed to prepare students for entry into a variety of health care programs by taking the necessary prerequisites for those programs. To this end, graduates of this certificate will demonstrate:

1. The ability to communicate effectively by means of listening, speaking, reading and writing
2. An understanding of ethics, cultures and society
3. An understanding of and competence in research methods and scientific inquiry
4. Excellent information literacy skills
5. Critical thinking skills in various fields

Program Requirements: To receive a Certificate in First Year Studies, you must complete a minimum of 30 credits with a grade point average of 2.00 or better. Credits for this certificate may be distributed according to the sequence of courses below.

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Lecture</th>
<th>Lab</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDV 100 College Success Skills</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>ENG 111 College Composition</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MTH Math course at 100-level or above Approved Computer Elective</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15-16</strong></td>
<td><strong>0</strong></td>
<td><strong>15-16</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Lecture</th>
<th>Lab</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>College-level Natural Science</td>
<td>3</td>
<td>0-3</td>
<td>3-4</td>
</tr>
<tr>
<td>College-level Social Science</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>College-level Humanities or Arts</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
<td><strong>0-3</strong></td>
<td><strong>15-16</strong></td>
</tr>
</tbody>
</table>

Total Minimum Credits for the Certificate in First Year Studies .................. 30

---

General Education

Award: CERTIFICATE

Length: A full-time student may complete this program in one year.

Purpose: The Certificate in General Education is designed for students who are preparing to transfer to a four-year institution after one year of study at DCC. The program may also be attractive to students who intend to transition into one of DCC’s transfer degrees. Course selection should be made in consultation with an academic advisor to ensure that students complete courses required by their transfer institution.

Admission Requirements: Entry into this curriculum may be attained by meeting the admission requirements established by the College. A high school diploma or GED is required. You must take development coursework as required by placement testing.

Program Description: This program consists of a minimum of 33 credit hours of instruction distributed into general education and elective course areas. Only courses which are transfer level college courses may be counted in this degree. This curriculum is roughly equivalent to the first year of study in a DCC transfer degree and it may be tailored to meet the requirements of most transfer degree programs at four-year institutions.

Program Outcomes: The General Education certificate is designed for those students who intend to transfer to a four-year school after one year and is designed to give a solid basis in a variety of general education courses. To this end, graduates will demonstrate:

1. The ability to communicate effectively by means of writing, speaking, listening and reading
2. Proficiency in conducting experiments and recording and interpreting data
3. An awareness and understanding of ethics, cultures and society
4. The critical thinking skills of synthesizing and analyzing complex ideas
5. An awareness of the role of the arts and humanities in society

Program Requirements: To receive the Certificate in General Education you must complete a minimum of 33 credits with a grade point average of 2.0 or better. The credits are distributed according to the outline below.

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Lecture</th>
<th>Lab</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDV 100 College Success Skills</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>ENG 111 College Composition I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MTH MTH 151 or higher</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>HUM or Fine Arts Elective</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Science Transfer Level Science</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Soc. Sci. Social Science Elective</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
<td><strong>3</strong></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Lecture</th>
<th>Lab</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 112 College Composition II</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>HIS HIS 101, HIS 112, HIS 102, HIS 122, OR HIS 112</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Soc Sci Social Science Elective</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>HUM or Fine Arts Elective</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Science Transfer Level Science</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
<td><strong>3</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

Total Minimum Credits for the Certificate in General Education .................. 33

1 Any HIS 101, HIS 121, HIS 111, HIS 102, HIS 122, OR HIS 112.  
2 Any PSY 200, PSY 201, SOC 200, SOC 201, PLS 211, PLS 212, ECO 201, ECO 202.
Industrial Electrical - Electronic Principles

Awards:
CERTIFICATE IN INDUSTRIAL ELECTRICAL PRINCIPLES or
CERTIFICATE IN INDUSTRIAL ELECTRONIC PRINCIPLES

Length: A full-time student may complete either program in three semesters, which includes one summer term.

Purpose: The purpose of the Industrial Electrical Principles and the Industrial Electronic Principles curricula are designed to train industrial workers who have the need or desire to keep up with occupational requirements or to learn a necessary skill in the Electrical-Electronic field.

Occupational Objectives: The following occupational titles represent examples of possible employment opportunities:
- Assembler
- Electrical Helper
- Electrician
- Electrical-Electronic Tester
- Salesperson/or Serviceperson

Admission Requirements: To enter these curricula require that an individual meet the general admission requirements for the College. If you meet the general admission requirements, a counselor will discuss with you the strengths and weaknesses of your academic background and your strengths and weaknesses as revealed by an appropriate placement test. You may correct any deficiencies in academic preparation in the College’s Developmental Studies program.

Program Description: The Industrial Electrical Principles and the Industrial Electronic Principles curricula are designed for full-time or part-time students and allow flexibility for the industrial worker. These programs will prepare you for industrial employment and are also designed to aid those who need to keep abreast of occupational changes and requirements. The two programs offer a variety of field trips and seminars. You must complete the Industrial Electrical Principles Certificate requirements or have had equivalent courses and/or occupational experience prior to entering the Industrial Electronic program.

Program Outcomes – Industrial Electrical Principles: Upon successful completion of this program, students will be able to:
1. Design, draw, construct, analyze, and troubleshoot basic series and parallel AC and DC electrical circuits including all typical circuit elements and explain the function of each.
2. Identify, select, set up and operate basic electronic test and measuring equipment including ammeters, ohmmeters, voltmeters, clamp-on ammeters, multi-meters, power supplies, function generators, RF generators, logic probes, curve tracers and oscilloscopes and explain the application of each.
3. Identify, select and properly use tools that are used in the electrical and electronics industry.
4. Demonstrate an understanding of commercial 3-phase electric power generation.
5. Identify, select and install residential, commercial and industrial electrical devices and equipment.

Program Outcomes – Industrial Electronic Principles: Upon successful completion of this program, students will be able to:
1. Demonstrate an understanding of commercial 3-phase electric power generation.
2. Design, draw, construct, analyze, and troubleshoot basic circuits including all typical circuit elements and explain the function of each.
3. Identify, select, set up and operate basic electronic test and measuring equipment including ammeters, ohmmeters, voltmeters, clamp-on ammeters, multi-meters, power supplies, function generators, and oscilloscopes and explain the application of each.
4. Demonstrate an understanding of commercial 3-phase electric power generation.

Program Requirements: To receive the Certificate in Industrial Electrical Principles or the Certificate in Industrial Electronic Principles, you must complete a minimum of 42 credits with a 2.00 or higher grade point average. The credits are distributed according to the following outlines. These outlines represent a typical order of courses taken by full-time day students.

Industrial Electrical Principles

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDV 100</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>ENG 131</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ELE 113</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ELE 123</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>ELE 152</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ELE/ETR</td>
<td>—</td>
<td>—</td>
<td>3</td>
</tr>
</tbody>
</table>

Total: 11 2 15

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELE 114</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ELE 124</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>ELE 153</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ELE 190</td>
<td>—</td>
<td>—</td>
<td>3</td>
</tr>
<tr>
<td>ELE/ETR</td>
<td>—</td>
<td>—</td>
<td>3</td>
</tr>
</tbody>
</table>

Total: 7 2 14

Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELE 156</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>ECO 100</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ELE/ETR</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITE 116</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>ELE 217</td>
<td>—</td>
<td>—</td>
<td>2</td>
</tr>
</tbody>
</table>

Total: 7 2 13

Total Minimum Credits for the Certificate in Industrial Electrical Principles ..................42

Industrial Electronic Principles

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDV 100</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>ETR 141</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ETR 190</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>ENG 131</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ELE 152</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

Total: 12 0 12

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETR 142</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ELE/ETR</td>
<td>6</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>ETR 190</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>ELE 153</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ETR 151</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

Total: 16 0 16

Programs of Study - Danville Community College - 89
Law Enforcement

Award: CERTIFICATE

Length: Four semesters – can be completed on a part time basis.

Purpose: The Certificate in Law Enforcement is designed for practitioners in law enforcement and associated fields who desire to take only those courses which relate directly to their employment needs. Students who have academic deficiencies may be advised to enroll in appropriate classes which are designed to provide the background necessary for academic proficiency.

Occupational Objectives: The following titles represent examples of possible employment opportunities:
- Police Officer
- Deputy Sheriff
- Game Warden
- Virginia State Trooper

Admission Requirements: A high school diploma or GED is required. In addition to the admission requirements established by the College, entry into this curriculum requires proficiency in English, mathematics, and reading. If you do not meet entry requirements or your placement test scores indicate a need for further preparation, you will be placed in the appropriate developmental studies courses in English, mathematics, and/or reading. These developmental course credits do not apply toward degrees or certificates. Students required to take two or more developmental courses may need additional semesters to complete the program.

Program Outcomes: Students who successfully complete this program will demonstrate:
1. An in-depth knowledge of various sources of crime data (e.g. FBI-based Uniform Crime Reporting system) and analytical skills necessary to evaluate "strengths" and "weaknesses" of crime data reporting
2. Assessment skills applied to community-police programs and evaluative measures to be applied to the merits of police-sponsored community crime prevention efforts
3. Knowledge of each component of the criminal justice system – police, judiciary, corrections and protective services (private security) – and articulation of various sub-components of the criminal justice system ranging from prosecutor, defense attorney and probation – parole duties to functions performed by public safety offices such as the public defender and sheriff
4. Knowledge of the role diversity plays in decision-making at all levels of America’s criminal justice system
5. Knowledge of the global nature of crime to include the impact of crime and the prosecution of criminal offenders who utilize not only the United States, but also international destinations from Europe to Asia to further a terrorist goal, commit cybercrime, or reap huge profits associated with criminal enterprises
6. Knowledge of stress reduction techniques including a meaningful and consistent physical fitness conditioning program
7. Knowledge of the importance of volunteering one’s talents for the overall improvement of one’s community
8. Knowledge of the need for uncompromising ethical and moral standards
9. Exemplary written and oral communications skills
10. Excellent information literacy skills

Program Requirements: The Law Enforcement Certificate program is designed to improve the job-related skills of the person engaged in law enforcement duties. You will be advised as to which courses are most applicable in your field of interest. To receive the Certificate, you must successfully complete 44 credits in the curriculum.

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ADJ 100</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SOC 200</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SDV 100</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>10</td>
<td>0</td>
<td>10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJ 130</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SOC 235</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SOC 215</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SOC 268</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>12</td>
<td>0</td>
<td>12</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJ 236</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>PSY 200</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITE 115</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>9</td>
<td>0</td>
<td>9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fourth Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJ 227</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ADJ 171</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>SOC 236</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>HLT 116</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>12</td>
<td>3</td>
<td>13</td>
</tr>
</tbody>
</table>

Total Minimum Credits for the Certificate in Law Enforcement .............................. 44

Note: All courses must be approved by the Administration of Justice Program advisor. Graduates of the “Law Enforcement Officers Training Standards Course” and the Virginia State Police “Basic Training Academy” may receive advanced standing credit for some program requirements. Additional course credits may be received for relevant and qualified in-service criminal justice seminars and training courses. Students must be enrolled in the Administration of Justice Program in order to have previous law enforcement training evaluated.
Maintenance Mechanics

Award: CERTIFICATE

Length: A full-time student may complete this program in three semesters, which could include one summer. Because of class availability this program may require more time.

Purpose: The Maintenance Mechanics program prepares individuals for employment in entry level positions available in industry and provides advancement opportunities to mechanics currently working in industry.

Occupational Opportunities: The following occupational titles represent examples of possible employment opportunities:
  - Industrial Maintenance Mechanic
  - Industrial Maintenance Assistant

Admission Requirements: See a College counselor for the admissions requirements for this program. If you meet the general admission requirements, a counselor will discuss with you the strengths and weaknesses of your academic background and your strengths and weaknesses as revealed by an appropriate placement test. You may correct any deficiencies in academic preparation in the College's Developmental Studies program.

Program Description: The curriculum is designed to assist students in entering technical careers in industrial maintenance. Academic and technical instruction and hands-on laboratory experiences provide a balance between theory and practice. The program contains general education courses to assist you in social and business communications.

Program Outcomes: Upon completion of the Maintenance Mechanics Program, students will be able to:
1. Demonstrate competency in reading and basic drawings and symbols.
2. The student will be able to stick weld, and demonstrate the ability to choose and use basic welding tools materials.
3. Demonstrate proficiency in wiring basic electrical circuits and understand basic wiring symbols.
4. Demonstrate proficiency in troubleshooting basic control circuits.
5. Demonstrate proficiency choosing and using basic tools and equipment.
6. Demonstrate proficiency in troubleshooting and repairing basic mechanical and electrical equipment.

Program Requirements: To receive a Maintenance Mechanics Certificate you must complete a minimum of 36 credits with a grade point average of 2.00 or better. The credits are distributed according to the following outline. The part-time and/or evening student may take courses in any desired sequence, except for hyphenated courses or others requiring prerequisites.

First Semester

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETR 115 DC/AC Circuits</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITE 116 Survey of Computer Software</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>MTH 103 Basic Technical Math I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MEC 154 Mechanical Maintenance I</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>SDV 100 College Success Skills</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>11</strong></td>
<td><strong>1</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELE 147 Electrical Power &amp; Controls Systems</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>IND 103 Industrial Methods</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>ITE 131 Survey of Internet Services</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>MEC 162 Applications in Hydraulics &amp; Pneumatics</td>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>SAF 130 OSHA 10</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>WEL 120 Fundamentals of Welding</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>8</strong></td>
<td><strong>8</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

Third Semester

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELE 233 Programmable Logic Controller Sys I</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>IND 243 Mechatronics</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>ENG 131 Technical Report Writing I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>PSY 126 Psychology for Business/Industry</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>10</strong></td>
<td><strong>5</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

Total Minimum Credits for the Certificate in Maintenance Mechanics...........................36

Office Information Processing

Award: CERTIFICATE

Length: A full-time student may complete this program in one year, which includes one summer term.

Purpose: The Office Information Processing program is designed for persons who are seeking employment in the information processing field immediately upon completion of the community college program. Persons who are seeking initial employment and those presently employed in information processing who are seeking advancement, or who want to improve or update skills, will benefit from this program.

Occupational Objectives: The following occupational titles represent examples of possible employment opportunities:
  - Bill and Account Collector
  - Billing, Cost or Rate Clerk
  - Cashier
  - Customer Service Representative – Utilities
  - Data Keyer (except Composing)
  - Dispatcher – Police, Fire or Ambulance
  - Computer Operator
  - Counter or Rental Clerk
  - File Clerk
  - Hotel, Motel, or Resort Desk Clerk
  - Human Resources Assistant (except Payroll and Timekeeping)
  - Interviewing Clerk
  - Loan and Credit Clerk
  - Mail Clerk or Mail Machine Operator
  - Messenger
  - Office Clerk – General
  - Order Clerk – Materials, Merchandise and Service
  - Payroll and Timekeeping Clerk
  - Receptionist or Information Clerk
  - Shipping, Receiving and Traffic Clerk
  - Switchboard Operator
  - Teller
  - Word Processor or Typist

Admission Requirements: You may be admitted to this program by meeting the admission requirements established for the College. If you meet the general admission requirements, a counselor will discuss with you the strengths and weaknesses of your academic background and your strengths and weaknesses as revealed by an appropriate placement test. You may correct any deficiencies in academic preparation in the College's Developmental Studies program.

Program Description: The Office Information Processing program includes technical courses in related areas and general education courses. Instruction includes both the theoretical concepts and practical applications needed for success in information processing.

Program Outcomes: Upon completion of the Office Information Processing program, the students will be able to:
1. Communicate effectively orally and in writing.
2. Demonstrate proficiency in using word processing software to accurately format a variety of business correspondence.
3. Perform mathematical calculations to accurately complete financial and accounting functions used in an office environment.
4. Key with a level of speed and accuracy acceptable to perform satisfactorily to industry standards.
5. Demonstrate knowledge of alphabetic and numerical filing rules to efficiently file and retrieve business correspondence.

Program Requirements: To receive the Certificate in Office Information Processing you must complete a minimum of 40 credits with a cumulative grade point average of 2.0 or better. The credits are distributed according to the following outline. This outline represents a typical order of courses taken by full-time students. Part-time and/or evening students may take courses in any desired order, except for sequence courses or courses requiring prerequisites.

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AST 101 Keyboarding I</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>AST 103 Keyboarding II Lab</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>AST 243 Office Administration I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BUS 121 Business Mathematics I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ENG 134 Grammar for Writing &amp; Speaking</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITE 116 Survey of Computer Applications</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>*SDV 100 College Success Skills</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>14</td>
<td>2</td>
<td>15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AST 102 Keyboarding II</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>AST 104 Keyboarding II Lab</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>AST 238 Microsoft Word for Windows</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>AST 239 Microsoft Word for Windows Lab</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>AST 244 Office Administration II</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ENG 135 Applied Grammar II</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>10</td>
<td>0</td>
<td>12</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 105 Office Accounting</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>AST 234 Records &amp; Database Mgt.</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>AST 253 Desktop Publishing w/InDesign</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>AST 255 Desktop Publishing Lab</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>ITE 140 Spreadsheet Software</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SDV 106 Job Search Strategies</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>12</td>
<td>0</td>
<td>13</td>
</tr>
</tbody>
</table>

Total Minimum Credits for the Certificate in Office Information Processing ..........40

*Note: Should be taken during the first semester the student is enrolled in the curriculum.

Protective Services (Private Security)

Award: CERTIFICATE

Length: Four-semesters; can be completed on a part-time basis

Purpose: The Certificate in Protective Services (Private Security) is designed for practitioners in protective services and private security who desire to take only those courses which relate directly to their employment needs. Students who are deficient in meeting academic standards may be advised to enroll in appropriate classes which are designed to provide the background necessary for academic proficiency.

Occupational Objectives: The following occupational titles represent examples of possible employment opportunities:
- Security Officer
- Private Investigator
- Insurance Investigator

Admission Requirements: A high school diploma or GED is required. In addition to the admission requirements established for the College, entry into the Protective Services (Private Security) Certificate program requires proficiency in English, mathematics, and reading. If you do not meet entry requirements or if placement test scores indicate a need for further preparation, you will be placed in the appropriate developmental studies course(s) in English, mathematics, and/or reading. These developmental course credits do not apply toward degrees or certificates. If you are required to take two or more developmental courses you will need additional semesters to complete the program.

Program Outcomes: Students who successfully complete this program will demonstrate:
1. An in-depth knowledge of various sources of crime data (e.g. FBI-based Uniform Crime Reporting system) and analytical skills necessary to evaluate "strengths" and "weaknesses" of crime data reporting
2. Assessment skills applied to community-police programs and evaluative measures to be applied to the merits of police-sponsored community crime prevention efforts
3. Knowledge of each component of the criminal justice system – police, judiciary, corrections and protective services (private security) – and articulation of various sub-components of the criminal justice system ranging from prosecutor, defense attorney and probation – parole duties to functions performed by public safety offices such as the public defender and sheriff
4. Knowledge of the role diversity plays in decision-making at all levels of America’s criminal justice system
5. Knowledge of the global nature of crime to include the impact of crime and the prosecution of criminal offenders who utilize not only the United States, but also international destinations from Europe to Asia to further a terrorist goal, commit cybercrime, or reap huge profits associated with criminal enterprises
6. Knowledge of stress reduction techniques including a meaningful and consistent physical fitness conditioning program
7. Knowledge of the importance of volunteering one’s talents for the overall improvement of one’s community
8. Knowledge of the need for uncompromising ethical and moral standards
9. Exemplary written and oral communications skills
10. Excellent information literacy skills

Program Requirements: The Certificate in Protective Services (Private Security) is designed to improve the job-related skills of the person engaged in protective services duties. You will be advised as to which courses are most applicable in your field of interest. You must complete a minimum of 43 credits in the curriculum to be awarded a Certificate in Protective Services (Private Security).

Note: All courses must be approved by the Administration of Justice Program Advisor. Graduates of Protective Services and Private Security Training Programs may receive advanced standing credit for some program requirements. Additional course credits may be received for relevant and qualified in-service protective services training courses. Students must be enrolled in the Administration of Justice Program in order to have previous protective services/private security training experiences evaluated.

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111 College Composition I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ADJ 100 Survey of Criminal Justice</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SOC 200 Principles of Sociology</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SDV 100 College Success Skills</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>10</td>
<td>0</td>
<td>10</td>
</tr>
</tbody>
</table>
### Second Semester

<table>
<thead>
<tr>
<th>Program</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
<th>Hours</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJ</td>
<td>130</td>
<td>Introduction to Criminal Law</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SOC</td>
<td>235</td>
<td>Juvenile Delinquency</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ENG</td>
<td>112</td>
<td>College Composition II</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SOC</td>
<td>215</td>
<td>Sociology of the Family or</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SOC</td>
<td>268</td>
<td>Social Problems</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>12</td>
<td>0</td>
<td>12</td>
</tr>
</tbody>
</table>

### Third Semester

<table>
<thead>
<tr>
<th>Program</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
<th>Hours</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJ</td>
<td>150</td>
<td>Introduction to Security Admin.</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>PSY</td>
<td>200</td>
<td>Principles of Psychology</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITE</td>
<td>115</td>
<td>Introduction to Computer</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Applications &amp; Concepts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>9</td>
<td>0</td>
<td>9</td>
</tr>
</tbody>
</table>

### Fourth Semester

<table>
<thead>
<tr>
<th>Program</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
<th>Hours</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJ</td>
<td>227</td>
<td>Constitutional Law</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ADJ</td>
<td>257</td>
<td>Loss Prevention</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SOC</td>
<td>236</td>
<td>Criminology</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>HLT</td>
<td>116</td>
<td>Personal Wellness</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>12</td>
<td>0</td>
<td>12</td>
</tr>
</tbody>
</table>

Total Minimum Credits for the Certificate in Protective Services (Private Security): 43

Note: In selecting courses, students should seek the advice of the ADJ Program Advisor in order to ensure courses taken are consistent with transfer or career goals.

### Residential Design and Estimation

**Award:** CERTIFICATE

**Length:** A full-time student may complete this program in three semesters.

**Purpose:** The Certificate in Residential Design and Estimation is designed to provide the student with the knowledge and skill necessary to obtain employment upon completion of the program courses.

**Occupational Objectives:** The following occupational titles represent examples of possible employment opportunities:
- Draftsman
- Construction Estimator
- Construction Planner
- Sales Technician
- Surveying Assistant
- Site Inspector

**Admission Requirements:** You may be admitted to this program by meeting the admission requirements established for the College. If you meet the general admission requirements, a counselor will discuss with you the strengths and weaknesses of your academic background and your strengths and weaknesses as revealed by an appropriate placement test. You may correct any deficiencies in academic preparation in the College’s Developmental Studies program.

**Program Description:** The program is designed for both beginners and persons already employed in the construction field. It provides extensive computer application training, instruction in the areas of residential design and construction techniques, an introduction into site surveys as well as plan development and layout. The student will receive specialized training in the use of 3D residential design software, construction mathematics, construction estimation and materials, as well as extensive lab exercises which are designed to focus on construction-related applications.

**Program Outcomes:** Students who successfully complete this program will:
1. Demonstrate the ability to interpret blueprints.
2. Demonstrate the ability to estimate material quantities required for the construction of a residential structure.
3. Utilize software packages in the development of a residential design.
4. Demonstrate the ability to survey a tract of property and to create a plat plan of that property.

**Program Requirements:** To receive the Certificate in Residential Design and Estimation, you must complete a minimum of 35 credits with a cumulative grade point average of 2.0 or better. The credits are distributed according to the following outline. This outline represents a typical order of courses taken by full-time students. Part-time and/or evening students may take courses in any desired order, except for sequence courses or courses requiring prerequisites.

**Graduate Skill Sets:** Graduates of the Residential Design and Estimation program will be provided an opportunity to:
1. Learn the fundamental principles of design for residential structures.
2. Learn the fundamental principles and drafting techniques and standards used in design for residential structures.
3. Learn the applications of 2D and 3D CAD software as used by design professionals for the design of residential structures.
4. Learn the mathematic skill set necessary to perform calculations required for the design for residential structures.
5. Learn to interpret and understand information shown on drawings and plans developed for residential structures.
6. Learn the fundamental principles of surveying and interpretation of site plans as are used in residential.
7. Learn the fundamental terms and phrases associated with residential structures.
8. Learn the fundamental principles and applications of theory used in estimation of cost for construction of residential structures.
9. Learn economic principles and theory.
10. Learn the fundamental principles of design for residential structures.
11. Learn software applications required for use in the residential construction industry.
12. Learn the fundamental principles of material selection for use in the Residential Design industry.

**First Semester (Fall)**

<table>
<thead>
<tr>
<th>Program</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
<th>Hours</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDV</td>
<td>100</td>
<td>College Success Skills</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>ITE</td>
<td>140</td>
<td>Spreadsheet Software</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>DRF</td>
<td>114</td>
<td>Drafting I</td>
<td>1</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>BLD</td>
<td>120</td>
<td>Construction Mathematics</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>DRF</td>
<td>165</td>
<td>Architectural Blueprint Reading</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>ENG</td>
<td>131</td>
<td>Technical Report Writing</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>13</td>
<td>8</td>
<td>16</td>
</tr>
</tbody>
</table>

**Second Semester (Spring)**

<table>
<thead>
<tr>
<th>Program</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
<th>Hours</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEC</td>
<td>111</td>
<td>Materials for Industry</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ARC</td>
<td>255</td>
<td>Construction Estimation</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>CIV</td>
<td>171</td>
<td>Surveying I</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>ARC</td>
<td>115</td>
<td>Architectural Graphics</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>ECO</td>
<td>100</td>
<td>Elementary Economics</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>11</td>
<td>6</td>
<td>13</td>
</tr>
</tbody>
</table>

**Third Semester (Summer)**

<table>
<thead>
<tr>
<th>Program</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
<th>Hours</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD</td>
<td>201</td>
<td>Computer Aided Design I</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>ARC</td>
<td>211</td>
<td>Computer Aided Drafting Apps</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>4</td>
<td>4</td>
<td>6</td>
</tr>
</tbody>
</table>

Total Minimum Credits for the Certificate in Residential Design and Estimation: 35
Welding Technology

**Award:** CERTIFICATE

**Length:** A full-time student may complete this program in one year.

**Purpose:** The Welding Technology Certificate Program is designed to help entry-level employees in welding related trades obtain job-specific knowledge and skills to improve their work performance and career status within the industry.

**Occupational Objectives:** Graduates of this program will have:
1. Knowledge of the principles of welding, as well as advanced welding skills;
2. A familiarity with different welding techniques used in the welding industry;
3. An understanding of welding concepts;
4. Knowledge of the requirements for safety in the workplace;
5. An introduction to expected welding performance and the demand of welders in the industry.

**Admission Requirements:** Entry into this curriculum may be attained by meeting the general admission requirements established for the College. If you meet the general admission requirements, a counselor will discuss with you the strengths and weaknesses of your academic background and your strengths and weaknesses as revealed by an appropriate placement test. You may correct any deficiencies in academic preparation in the College’s Developmental Studies program.

**Program Description:** The program is designed to develop a general foundation in welding.

**Program Outcomes:** Graduates of the Welding Certificate program will:
1. Understand and follow industry safety practices.
2. Display manipulative skills with various welding processes to assure adequate weld integrity and appearance.
3. Be able to weld in flat vertical and horizontal positions using the SMAW, GMAW, GTAW processes.
4. Be able to cut metals using the oxyfuel and plasma arc cutting process.
5. Be capable of entering an entry level welding position with advancements.

**Program Requirements:** To receive a Certificate in Welding Technology, you must complete a minimum of 40 credits with a grade point average of 2.00 or better. This outline represents courses taken by full-time students; part-time and/or evening students may take courses in any desired sequence, except for hyphenated courses or others requiring prerequisites.

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIR 117 Metal Layout</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>MTH 103 Applied Tech. Math</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SAF 126 Principles of Industrial Safety</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITE 116 Survey of Comp. Software App.</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>WEL 120 Fundamentals of Welding</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>WEL 121 Arc Welding I</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>SDV 100 College Success Skills</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>12</strong></td>
<td><strong>10</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEL 150 Welding, Drawing and Interpretation</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>HUM 165 Controversial Issues</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>WEL 122 Arc Welding II</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>WEL 135 Inert Gas Welding I</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>WEL 136 Inert Gas Welding II</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>9</strong></td>
<td><strong>9</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 131 Technical Report Writing I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MAC 161 Machine Shop Practices I</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>WEL 126 Pipe Welding I</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>WEL 145 Welding Metallurgy</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>10</strong></td>
<td><strong>6</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

**Total Minimum Credits for a Certificate in Welding Technology** .......................... **40**
Programs of Study

Career Studies

Advanced Nurse Aide
Advanced Product Design & Development
Alternative Energy Technology I
American Sign Language
Basic Dental Assisting
Building Construction Trades
Commercial Art
Digital Art & Design
Digital Imaging & Photography
Early Childhood Development
Educational Interpreter Training
Electrical Concepts
Electronic Concepts
Emergency Medical Services - Basic
Emergency Medical Services - Intermediate
Emergency Medical Technician - Intermediate
Factory Automation & Robotics
Graphic Communications

Health Information Technology
(awarded by Northern Virginia Community College)

Logistics Management
Manufacturing Technician
Medical Coding
Medical Terminology
Metal Processing
Microcomputer Software
Network Technology
Networking with CISCO/CCNA
Nurse Aide
PC Upgrade and Repair
Pharmacy Technician
Polymer Processing Technician
Printing Technology
Product Design & Development
Programming
Web Site Design
Welding

Length: Variable for part-time students. The options available represent the equivalent of one or more semesters of full-time community college work.

Purpose: Danville Community College has a significant percentage of part-time students who are taking courses during evening hours. Many students seek post-secondary programs of study that are less than the conventional one- or two-year programs designed primarily for the College’s full-time student population. Many occupational, industrial, or student interest content areas within the DCC region do not typically require pre-service or in-service post-secondary preparation extending to one- and two-years of full-time studies. The Career Studies Certificate Program is a response to the non-conventional short-term program of study needs of many students within the College’s region.

The programs are designed as a series of specialized program options. These options represent a variety of career and academic interest course areas. They are intended to represent the minimum amount of college coursework considered representative of these fields of study. Each of the program options is designed as a distinct “mini-curriculum” to meet minimum vocational skills. Typically, the credits in the Career Studies programs are less than the one-year Certificate programs (i.e., less than 31 semester hours).

Admission Requirements: Admission to these Career Studies Certificate programs is based upon the general requirements for admission to the College. Deficiencies in general education may require enrollment in Developmental Studies. The student is expected to select one of the available program options during admission and registration.
Advanced Nurse Aide

**Occupational Objectives:** The Advanced Nurse Aide Career Studies Program is designed to prepare students for employment as licensed nurse aides who possess foundational skills that allow for more training in health care occupations.

**Program Outcomes:** Graduates of the Advanced Nurse Aide Career Studies Certificate program will:

1. Demonstrate recognizing changes in body functioning and the importance of reporting such changes to a supervisor.
2. Demonstrate measuring and recording routine vital signs.
3. Demonstrate measuring and recording height and weight.
4. Demonstrate caring for the clients’ environment.
5. Demonstrate measuring and recording fluid and food intake and output.
6. Demonstrate performing basic emergency measures.
7. Demonstrate caring for a client when death is imminent.
8. Demonstrate bathing, grooming, and oral hygiene.
9. Demonstrate grooming, dressing, and toileting.
10. Demonstrate assisting with eating and hydration, including proper feeding techniques.
11. Demonstrate caring for skin, to include prevention of pressure ulcers.
12. Demonstrate transfer, positioning and turning.
13. Apply skills learned in individual client’s needs, including mental health and social service needs.
14. Demonstrating skills supporting age-appropriate behavior by allowing the client to make personal choices, and by providing and reinforcing other behavior consistent with the client’s dignity.
15. Demonstrate providing appropriate clinical care to the aged and disabled.
16. Demonstrate using techniques for addressing the unique needs and behaviors of individuals with dementia (Alzheimer’s and others).
17. Demonstrate the use of assistive devices in transferring, ambulation, eating and dressing.
18. Demonstrate maintaining range of motion, turning & positioning.
19. Demonstrate caring for and using prosthetic and orthotic devices.
20. Apply skills in dealing with clients’ rights.
21. Apply skills used in maintaining legal and regulatory aspects of practice as a certified nurse aide, including, but not limited to, consequences of abuse, neglect, misappropriation of client property and unprofessional conduct.
22. Demonstrate occupational health and safety measures.
23. Apply skills used in the appropriate management of conflict.

**Course Credits**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 141</td>
<td>Human Anatomy and Physiology I</td>
<td>4</td>
</tr>
<tr>
<td>BIO 142</td>
<td>Human Anatomy and Physiology II</td>
<td>4</td>
</tr>
<tr>
<td><strong>MTH 126</strong></td>
<td>Math for Allied Health</td>
<td>3</td>
</tr>
<tr>
<td>ENG 111</td>
<td>College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>HLT 141</td>
<td>Introduction to Medical Terminology</td>
<td>1</td>
</tr>
<tr>
<td>NUR 25</td>
<td>Nursing Assistant</td>
<td>3</td>
</tr>
<tr>
<td>NUR 27</td>
<td>Nursing Assistant Advanced</td>
<td>3</td>
</tr>
<tr>
<td>NUR 98</td>
<td>Seminar and Project</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Minimum Credits:** 24

*Students must have completed MTH 2 and be non-developmental in Reading and Writing to take this course.  **Successful completion of MTH 2 is required for this course.

Advanced Product Design & Development

**Purpose:** This Advanced Product Design and Development Career Studies Certificate* is designed to prepare students with the knowledge, skills, and foundational concepts necessary to design, engineer, and produce a product utilizing wood as a primary design medium and incorporating CAD/CAM/CNC technology. These skills include critical thinking, project planning, managing creativity and design, form and function, product management through customer-focused innovation. Completion of this certificate will prepare the student for work in various positions in the design and manufacturing sectors.

**Occupational Objectives:** The Career Studies Certificate in Advanced Product Design and Development* is designed to provide students the necessary skills to be gainfully employed in this field.

**Admission Requirements:** Admission to the Advanced Product Design and Development Career Studies Certificate Program* is based upon the general admission requirements to the College. If a student meets the general admission requirements, a counselor will discuss the student’s academic strengths and weaknesses. Placement recommendation for MTH 2 and Basic Arithmetic or equivalent is required.

**Program Outcomes:** Graduates of the Advanced Product Design and Development Career Studies Certificate program will:

1. Apply various manufacturing concepts in technologies and automation used in today’s manufacturing.
2. Demonstrate the ability to use CAD/CAM/CNC in manufacturing design and development.
3. Demonstrate the ability to program and operate different types of equipment related to modern day manufacturing.
4. Demonstrate the use of different types of tools and materials used in modern day manufacturing.
5. Demonstrate various problem solving techniques in product design and development.

**Program Requirements:** To receive the Advanced Product Design and Development Career Studies Certificate*, you must complete 19 credits as listed below:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IND 161</td>
<td>Product Design &amp; Development</td>
<td>1</td>
<td>12</td>
<td>5</td>
</tr>
<tr>
<td>IND 162</td>
<td>Product Design &amp; Development II</td>
<td>1</td>
<td>12</td>
<td>5</td>
</tr>
<tr>
<td>CAD 200</td>
<td>Survey of Computer Aided Drafting</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>CAD 233</td>
<td>Computer Aided Drafting III*</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>IND 137</td>
<td>Team Concepts &amp; Problem Solving</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Minimum Credits:** 9 29 19

*A prior drafting course, such as DRF 114, DRF 120, DRF 160 or equivalent, is recommended before enrolling in DRF 233.
Alternative Energy Technology I

Length: Variable

Purpose: The Alternative Energy Technology I Career Studies Certificate curriculum is designed for persons who are seeking entry-level employment in the solar energy or modern battery storage industries. Persons that would benefit from this program include, but are not limited to, those who are seeking initial employment, those currently employed seeking advancement, those wanting to improve or update their skill set and those seeking career change.

Occupational Objectives: The Career Studies Certificate in Alternative Energy Technology I provides an understanding of the elements and practices of alternative energy technologies (solar pv, wind, geothermal, biomass, solar thermal and battery storage). Possible careers in alternative energy-related fields include manufacturing, installation or sales.

Admission Requirements: In addition to the admission requirements of the College, entry into this program requires a basic level of computer proficiency and one unit of HS math. Strengths and weaknesses can be determined by an appropriate placement test as recommended by your counselor. You may correct any deficiencies though the College’s Developmental Studies program.

Program Requirements: To receive the Alternative Energy Technology I Career Studies Certificate you must complete a minimum of 16 credits of the listed courses.

Program Outcomes: Graduates of the Alternative Energy Technology I Career Studies Certificate will:
1. Demonstrate ability to produce or store energy using at least one non-traditional energy technology.
2. Demonstrate the ability to communicate technical concepts and ideas effectively.
3. Demonstrate knowledge of basic technologies needed to produce and use energy from solar and wind sources.

Course Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELE 115</td>
<td>Basic AC/DC Electric Circuits</td>
<td>3</td>
</tr>
<tr>
<td>ENV 170</td>
<td>Fundamentals of Energy Technology</td>
<td>2</td>
</tr>
<tr>
<td>ENE 100</td>
<td>Conventional and Alternate Energy Applications</td>
<td>4</td>
</tr>
<tr>
<td>ENE 195</td>
<td>Intro to Battery Technology</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>One of the following courses:</td>
<td></td>
</tr>
<tr>
<td>ENE 110</td>
<td>Solar Power Installations or</td>
<td></td>
</tr>
<tr>
<td>ENE 105</td>
<td>Solar Thermal Active and Passive Technology</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Minimum Credits 16

Basic Dental Assisting

Purpose: The Basic Dental Assisting Certificate is designed to prepare students for employment as dental assistants in the Commonwealth of Virginia. Students wishing to enter this program must take the Compass placement test and demonstrate skills in writing, reading, and basic mathematics. Students who do not demonstrate college readiness will be expected to take appropriate developmental classes.

Program Outcomes: Upon successful completion of this program, students will be able to:
1. Assist with the delivery of dental care as an integral team member.
2. Provide basic and expanded function skills with a variety of dental materials.
3. Expose, process, and mount dental radiographs including safety and digital applications.
4. Meet industry standards for asepsis, disinfection and sterilization to ensure a safe working environment.
5. Show communication skills demonstrating knowledge of dental ethics and jurisprudence.
6. Use clinical externships to integrate classroom and laboratory skills in an office setting.
7. Perform basic office procedures to manage the business operation of a dental practice.
8. Pass the Dental Assisting National Board in Infection Control and Radiation Safety for graduates who choose to take the boards.

Course Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNA 100</td>
<td>Intro. to Oral Health Professions</td>
<td>1</td>
</tr>
<tr>
<td>DNA 103</td>
<td>Intro. to Oral Health</td>
<td>1</td>
</tr>
<tr>
<td>DNA 109</td>
<td>Practical Infection Control</td>
<td>2</td>
</tr>
<tr>
<td>DNA 110</td>
<td>Dental Materials</td>
<td>2</td>
</tr>
<tr>
<td>DNA 113</td>
<td>Chairside Assisting</td>
<td>2</td>
</tr>
<tr>
<td>DNA 134</td>
<td>Dental Radiology &amp; Practicum</td>
<td>2</td>
</tr>
<tr>
<td>DNA 190</td>
<td>Coordinated Internship</td>
<td>1</td>
</tr>
<tr>
<td>HLT 105</td>
<td>Cardiopulmonary Resuscitation</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Minimum Credits 19

American Sign Language

Occupational Objectives: The American Sign Language (ASL) Certificate Program is designed to train members of the community to communicate proficiently in ASL as well as enable them to develop an understanding of Deaf Culture. The ASL Career Studies Certificate Program prepares students, parents, educators, social workers, etc. to serve people who are Deaf or Hard of Hearing. The program will also assist in making the work environment “Deaf friendly” and accommodating to those who are Deaf or Hard of Hearing.

Program Outcomes: Upon completion of the ASL Program, students will be able to:
1. Demonstrate basic ASL conversational skills in communicating with people who are Deaf

Programs of Study • Danville Community College • 97
## Building Construction Trades

**Purpose:** The Career Studies program in Building Construction Trades is designed to help entry-level employees in construction-related trades obtain job-specific knowledge and skills to improve their work performance and career status within the industry. The curriculum provides an understanding of the common principles and practices of the modern construction industry, as well as specific knowledge and skills in a trade area selected by the student. Five specializations are available: Electrical, HVAC, Plumbing, Carpentry, and Masonry. The courses contained in these programs are applicable to fulfilling the related education requirements that are prerequisite to taking the Journeyman or Master Certification tests. Information on specific trade certification requirements may be obtained from the National Assessment Institute (NAI), Toll-Free in Virginia 1-800-356-3381.

**Occupational Objectives:** Opportunities for employment and license as a Journeyman or Master’s Level Tradesman in the areas of Electrical, HVAC, Plumbing, Carpentry, and Masonry fields.

**Admission Requirements:** Admission is based upon the general requirements for admission to the college. Deficiencies in general education may require enrollment in Developmental Studies. The student is expected to select one of the available program options during admission and registration.

**Program Outcomes:** Graduates of the Building Construction Trades program will:
1. Understand construction terminology within a specific trade
2. Practice construction safety
3. Demonstrate the proper use of hand and power tools
4. Interpret construction drawings within a specific trade
5. Demonstrate the correct use and understanding of measurement tools

**Program Requirements:** Students entering any of the options must complete the three general education core courses as listed and all courses included in each option.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
<th>Hours</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTH 103</td>
<td>Applied Technical Math</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BLD 111</td>
<td>Blueprint Reading</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>SAF 120</td>
<td>Safety &amp; Health Standard Reg. &amp; Codes</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ELE 110</td>
<td>Home Electric Power</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>ELE 133</td>
<td>Practical Electricity</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>ELE 134</td>
<td>Practical Electricity</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>ELE 131</td>
<td>National Electrical Code</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ELE 216</td>
<td>Industrial Electricity</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>ELE 156</td>
<td>Electrical Control System</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>HVAC Option</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIR 121</td>
<td>A/C &amp; Refrigeration I</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>AIR 122</td>
<td>A/C &amp; Refrigeration I</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>AIR 123</td>
<td>A/C &amp; Refrigeration III</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>AIR 154</td>
<td>Heating System</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>AIR 156</td>
<td>Mechanical</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>AIR 117</td>
<td>Metal Layout</td>
<td>1</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Plumbing Option</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BLD 20</td>
<td>Introduction to Plumbing</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>BLD 25</td>
<td>Analysis &amp; Troubleshooting in Plumbing</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>BLD 195</td>
<td>Plumbing I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BLD 196</td>
<td>Plumbing II</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BLD 197</td>
<td>Plumbing III</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BLD 198</td>
<td>Plumbing IV</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BLD 199</td>
<td>Plumbing V</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

### Total Minimum Credits

- **18** in each option.

---

## Digital Art & Design

**Purpose:** The Digital Art and Design Career Studies Certificate is a response to the nonconventional short-term program of study needs of many students within our region. These specialized program options represent a variety of career and academic interest areas and are intended to represent the minimum amount of college coursework considered representative of their fields of study. Each program option is designed as a distinct “mini-curriculum” to meet minimum vocational skills.

**Occupational Objectives:** The five-course, 17-credit Digital Art & Design Career Studies Certificate is intended to provide a solid foundation of skills for entry level work in graphic and interactive design, multimedia, and video production.

**Admission Requirements:** Admission to the Digital Art and Design Career Studies Certificate is based upon the general requirements for the College. If a student meets the general admission requirements, a counselor will discuss the student’s academic strengths and weaknesses. Any academic deficiencies may be corrected in the College’s Developmental Studies program.

### Programs of Study

#### Building Construction Trades

- **Lectures:** 13 hours
- **Labor:** 10 hours
- **Credits:** 18 hours

#### HVAC Option

- **Lectures:** 11 hours
- **Labor:** 14 hours
- **Credits:** 17 hours

#### Plumbing Option

- **Lectures:** 18 hours
- **Labor:** 4 hours
- **Credits:** 20 hours
Program Requirements: To receive a Digital Art and Design Career Studies Certificate you must complete the listed courses.

Program Outcomes: Upon successful completion of this program, students will:
1. Display an understanding of the differences between various industry standard digital file types including raster image files, vector image files, HTML, CSS, and digital video files.
2. Demonstrate an understanding through class projects, of digital photo manipulation as pertaining to photography and graphic design.
3. Demonstrate how different uses of typography can affect the intended audience of a graphic design project.
4. Demonstrate an understanding of vector image creation to complete assigned projects.
5. Demonstrate an understanding of the digital video process including storyboarding, digital video capture, and linear digital video editing.
6. Demonstrate an understanding of basic web principles including proper image sizing, what content management systems are, and the basic use of FTP software.

Program Requirements:

1. Plan, implement and evaluate curriculum plans and learning environments for children based on developmental appropriateness and a thorough knowledge of child development.
2. Adhere to Virginia’s Standards for Licensed Child Day Centers in the planning and evaluation of classroom and learning environments to ensure the health, safety and nutrition of children.
3. Use appropriate positive guidance strategies with children in their care.
4. Choose project and elective courses, with the help of the program advisor, to tailor learning towards possible career options in early childhood.
5. Assess children’s progress using informal observation.

Program Descriptions:

Digital Imaging & Photography

Occupational Objectives: The Digital Imaging and Photography Career Studies Certificate will enable you to improve your skills or prepare for a career as a professional photographer. In these classes, you will learn the secrets of taking better pictures, as well as how to edit, enhance, and print them. You will also learn how to publish your photos on the web.

Program Outcomes: Upon successful completion of this program, students will produce a portfolio of their digital photography that will demonstrate:
1. An understanding of the impact using different types of cameras, flash, and studio lighting and equipment.
2. A technical understanding of basic camera functions aperture, shutter speed, ISO sensitivity, and focus.
3. Concepts of composition including the rule of thirds, vanishing point, lines perspective and more.
4. The ability to edit photos using basic digital photo editing tools, to create black and white, to crop, straighten, color adjust, burn and dodge, and much more.

The program is structured within the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUM 246</td>
<td>Creative Thinking</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ART 130</td>
<td>Introduction to Multimedia</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>ART 116</td>
<td>Design for the Web I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ART 180</td>
<td>Introduction to Computer Graphics</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>ART 208</td>
<td>Video Techniques</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Minimum Credits: 12

Early Childhood Development

Purpose: The Early Childhood Development Career Studies Certificate is designed for students who plan to work with children from birth through age eight years using developmentally appropriate practices. This curriculum provides the student with skills in areas documented by Virginia Competencies for Early Childhood Professionals. The Certificate program is primarily designed to benefit persons interested in employment in the care and education of young children immediately after the certificate program completion but would also benefit someone with prior education or experience who is a “career switcher.” Additional coursework in Early Childhood Education also leads to the Associate of Applied Science degree in Early Childhood Education should a student wish to further his/her education.

Occupational Objectives: The following occupational titles represent examples of possible employment opportunities:
- Child Care Center Teacher Assistant
- Recreation Leader or Aide
- Substitute Teacher

Program Descriptions:

Early Childhood Development Career Studies Certificate prepares individuals to work in services for children from birth through age eight years. The program includes courses in early childhood development, behavior management, and methods of teaching children. Instruction will include both theoretical concepts and practical applications needed for success in providing high quality services for children. Upon successful completion of the one-semester program, you will be awarded the Career Studies Certificate in Early Childhood Development.

Program Requirements: To receive the Career Studies Certificate in Early Childhood Development you must complete a minimum of 19 credits with a grade point average of 2.00 or better. The following outline represents the typical order of courses taken by full time students.

Program Descriptions:

Early Childhood Development

Purpose: The Early Childhood Development Career Studies Certificate is designed for students who plan to work with children from birth through age eight years using developmentally appropriate practices. This curriculum provides the student with skills in areas documented by Virginia Competencies for Early Childhood Professionals. The Certificate program is primarily designed to benefit persons interested in employment in the care and education of young children immediately after the certificate program completion but would also benefit someone with prior education or experience who is a “career switcher.” Additional coursework in Early Childhood Education also leads to the Associate of Applied Science degree in Early Childhood Education should a student wish to further his/her education.

Program Descriptions:

Early Childhood Development

Purpose: The Early Childhood Development Career Studies Certificate is designed for students who plan to work with children from birth through age eight years using developmentally appropriate practices. This curriculum provides the student with skills in areas documented by Virginia Competencies for Early Childhood Professionals. The Certificate program is primarily designed to benefit persons interested in employment in the care and education of young children immediately after the certificate program completion but would also benefit someone with prior education or experience who is a “career switcher.” Additional coursework in Early Childhood Education also leads to the Associate of Applied Science degree in Early Childhood Education should a student wish to further his/her education.
First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDV 100</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>CHD 120</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>CHD 145</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>CHD 205</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>EDU 235</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>EE Elective</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>CHD 165</td>
<td>1</td>
<td>6</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Minimum Credits 16 8 19

Total Minimum Credits for Career Studies Certificate in Early Childhood Development

Students desiring to continue their education and achieve the Associate of Applied Science in Early Childhood Education may use these courses toward the Associate of Applied Science Degree at any Virginia Community College. Students completing this certificate to satisfy Head Start regulations must take CHD 167 (CDA Theories and Applications: Portfolio) as their approved elective.

Educational Interpreter Training

The Educational Interpreter Training Career Studies Certificate program is designed to train individuals with proficiency in American Sign Language to become educational interpreters. The focus is on developing the processing skills necessary to proceed from being “signer” to becoming an interpreter. Coursework will focus on interpreting skills, interpreting skills, and continued sign vocabulary development as well as a specialized focus on interpreting in the educational setting. The objective of this career studies certificate is to prepare individuals to take the Virginia Quality Assurance Screening (VQAS).

Occupational Objectives: Occupational opportunities include working as an interpreter in the public schools as well as working as an interpreter in private practice. A prerequisite to this program is the American Sign Language Career Studies certificate or approval of the coordinator/program director.

Program Outcomes: Upon completion of the Weekend Educational Interpreter Training (W.E.I.T.) Program, students will be able to:

1. Demonstrate basic entrance skills for interpreting/translating in entry level interpreting settings with individuals who are deaf and/or hard of hearing.
2. Demonstrate critical thinking and appropriate ethical responses required by the Virginia Quality Assurance Screening (VQAS).
3. Demonstrate a comprehensive portfolio of job seeking tools, such as a resume, DVDs demonstrating interpreting and transliterating skills and 42 hours of documented supervised work experience.
4. Demonstrate the necessary skills and training to prepare them for the VQAS.

Course Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EIP 181</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>EIP 201</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>EIP 202</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>EIP 211</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>EIP 212</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>EIP 213</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>EIP 214</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>EIP 232</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>EIP 233</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>EIP 234</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>EIP 280</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>EIP 289</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>EIP Elective</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

These courses do NOT articulate to the ASL/INT/SCM curriculum.

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EIP 101</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>EIP 102</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>EIP 111</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>EIP 112</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>EIP 150</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>EIP 151</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>EIP 160</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>EIP 161</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>EIP 182</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>EIP 203</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>EIP 215</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>EIP 216</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>EIP 235</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>EIP 236</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>EIP 240</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>EIP 242</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>EIP 254</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>EIP 261</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>EIP 262</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>EIP 263</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>EIP 264</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>EIP 281</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>EIP 291</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Minimum Credits 14 4 19

Electrical Concepts

Occupational Objectives: The Electrical Concepts Career Studies Program is designed for the investigation of career possibilities, retraining for a career change, upgrading occupational skills and/or to provide entry level skills in the electrical field. Graduates of this program will be eligible for further specialized training in the electrical field or to become more productive in their present occupation. Other opportunities for the graduate are available in sales and installation of electrical components and equipment.

The program is structured within the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELE 199</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ELE 113</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ELE 123</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>ELE 199</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ELE 114</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ELE 124</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>ELE Approved Tech. Elective</td>
<td>-</td>
<td>-</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Minimum Credits 15
Emergency Medical Services - Basic

Occupational Objectives: The Career Studies Certificate in Emergency Medical Services – Basic is designed to prepare individuals to work in a variety of job entry-leave positions in the broad field of health services. Job opportunities may be available with ambulance services, nursing homes, and home-health care sales and service. This program meets the educational requirements to sit for the National Registry for Emergency Medical Technicians (NREMT) Certification.

Admission Requirements: Entry into this program may be attained by meeting the general admission requirements established for the College.

Program Outcomes: Upon completion of this program, students will:
2. Know the provisions for initial care for an illness or injury until definitive medical treatment can be accessed and may include life-saving techniques.
3. Be able to recognize cardiac arrest and provide basic life support.
4. Be able to describe unique needs for assessing a patient.

Program Requirements: This program is structured within the courses listed below. To receive the Emergency Medical Services-Basic Career Studies Certificate, students must complete 11 credits of the courses listed below.

Program Outcomes: Students who complete this program will be able to:
1. To understand the roles and responsibilities of an EMT-Intermediate within an EMS System, apply the basic concepts of anatomy and physiology to the assessment and management of emergency patients, and safety use and administer emergency medications.
2. To be able to take a proper history and perform an advanced physical assessment on an emergency patient, and communicate the findings to others.
3. Be able to utilize the assessment findings to formulate a field impression and implement the treatment plan in relationship to the common complaints and emergencies.
4. Demonstrate patient assessment of both critical and non-critical trauma patients presenting with various types of injuries and chief complaints.

Program Requirements: To receive the Emergency Medical Technician-Intermediate Career Studies Certificate, you must complete 20 credits of the courses listed.

The program is structured within the following courses:

Program Outcomes: Students who complete this program will be able to:
1. Understand the roles and responsibilities of an EMT-Intermediate within an EMS System, apply the basic concepts of anatomy and physiology to the assessment and management of emergency patients, and safety use and administer emergency medications.
2. Be able to establish and /or maintain a patient airway, oxygenate, and ventilate a patient
3. Be able to take a proper history and perform an advanced physical assessment on an emergency patient, and communicate the findings to others.
4. Be able to utilize the assessment findings to formulate a field impression and implement the treatment plan for the patient with respiratory emergencies.
5. Be able to utilize the assessment findings to formulate a field impression and implement a treatment plan for the patient with an allergic or anaphylactic reaction.
6. Be able to integrate the principles of assessment based management to perform an appropriate assessment and implement the management plan for patients with common complaints.

Emergency Medical Services - Intermediate

Purpose: The Career Studies Certificate is designed to produce competent entry-level Emergency Medical Technicians (EMS) Intermediates who can service the community with advanced life support care via the EMS infrastructure. Upon completion of the program, students will be eligible for National Registry testing and certification in Virginia.

Occupational Objectives: Employment opportunities for EMT-I’s are available with Ambulance, Fire and Rescue Services, Hospitals, Government Departments, Sales, and Humanitarian Relief organizations.

Admission Requirements: The Student is required to have a GED or high school diploma and meet the general education requirements of the College. In addition, admission requires current credentialing as an EMT-Basic or Enhanced or Basic Life Support Provider Certification. Admission is on a selective basis. For more information, contact the Workforce Services Office.

Program Outcomes: Graduates of this program will:
1. Understand the roles and responsibilities of an EMT-Intermediate within an EMS System, apply the basic concepts of anatomy and physiology to the assessment and management of emergency patients, and safety use and administer emergency medications.
2. Be able to establish and /or maintain a patient airway, oxygenate, and ventilate a patient
3. Be able to take a proper history and perform an advanced physical assessment on an emergency patient, and communicate the findings to others.
4. Be able to utilize the assessment findings to formulate a field impression and implement the treatment plan for the patient with respiratory emergencies.
5. Be able to utilize the assessment findings to formulate a field impression and implement a treatment plan for the patient with an allergic or anaphylactic reaction.
6. Be able to integrate the principles of assessment based management to perform an appropriate assessment and implement the management plan for patients with common complaints.
**Program Requirements:** To receive the Emergency Medical Technician - Intermediate Career Studies Certificate you must complete 21 credits of the listed courses.

The program is structured within the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMS 151 Introduction to ALS</td>
<td>4</td>
</tr>
<tr>
<td>EMS 170 ALS Internship I</td>
<td>1</td>
</tr>
<tr>
<td>EMS 153 Basic EKG Recognition</td>
<td>2</td>
</tr>
<tr>
<td>EMS 155 ALS Medical Care</td>
<td>4</td>
</tr>
<tr>
<td>EMS 172 ALS Internship II</td>
<td>2</td>
</tr>
<tr>
<td>EMS 157 ALS Trauma Care</td>
<td>3</td>
</tr>
<tr>
<td>EMS 159 Special Populations</td>
<td>3</td>
</tr>
<tr>
<td>EMS 173 ALS Internship III</td>
<td>1</td>
</tr>
<tr>
<td>EMS 213 ALS Skills Development</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Minimum Credits** 21

---

**Factory Automation and Robotics**

**Purpose:** The Factory Automation and Robotics Career Studies Certificate is designed for persons who are seeking employment in an automated production environment. Persons that would benefit from this program include, but are not limited to those who are seeking initial employment, those currently employed seeking advancement, those wanting to improve or update their skill set and those seeking a career change. The curriculum provides an understanding of the common elements that comprise a modern automated production system.

**Occupational Objectives:** The Career Studies Certificate in Factory Automation and Robotics is designed to prepare participants to enter into the field as a factory equipment operator or technician.

**Admission Requirements:** In addition to the admission requirements of the College, entry into this program requires a basic level of computer proficiency and one unit of college preparatory high school Algebra. Strengths and weaknesses can be determined by an appropriate placement test as recommended by your counselor. You may correct any deficiencies though the College’s Developmental Studies program.

**Program Requirements:** To receive the Career Studies Certificate in Factory Automation and Robotics, you must complete 18 credits of the courses listed in the outline below.

**Program Outcomes:** Graduates of the Factory Automation and Robotics Career Studies Certificate will:

1. Demonstrate the ability to communicate technical concepts and ideas effectively.
2. Demonstrate knowledge of basic automation and robotics used by manufacturers in the production of products.
3. Demonstrate the operation or maintenance of at least one type of automated production equipment or component.

---

**Graphic Communications**

**Occupational Objectives:** The Career Studies Certificate in Graphic Communications is designed to prepare individuals for various entry-level positions or to upgrade existing skills to meet technology trends in the printing industry. Procedures and processes will be covered in both theory and/or hands-on application.

**Program Outcomes:** Students complete the program will develop competencies in the following areas:

1. Mathematical concepts for practical application
2. Basic understanding of various printing processes
3. Desktop publishing techniques including Photoshop and InDesign.
4. Understanding of the varieties, properties, handling and printing characteristics of paper and inks
5. Understanding of safety and health issues and of the OSHA Hazard Communication Standard
6. Understanding of the current trends in technology in the field

The program is structured as follows:

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PNT 110 Survey of Reproduction Processes</td>
<td>3</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>PNT 211 Electronic Publishing I</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>PNT 231 Paper and Ink Concepts</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>PNT 132 Principles of Lithography II</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>PNT 135 Print Imaging</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>PNT 221 Layout and Design I</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>PNT 298 Safety and Health Issues</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>ART 180 Introduction to Computer Graphics</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Minimum Credits** 17 16 22

---

**Health Information Technology**

*(awarded by Northern Virginia Community College)*

**Purpose:** The Health Information Technology program is offered through Northern Virginia Community College. The curriculum is designed to produce students competent in all aspects of workflow process analysis and redesign, as it relates to the adoption, implementation, maintenance, and optimization phases of the transition to the use of an electronic health records system.

**Admissions Requirements:** Prior to starting the program, the applicant must do the following:

- Comply with the College’s general admission requirements.
- Adhere to the prerequisites outlined therein.
- Have satisfactory scores on the English placement test.
- Apply to the program and be accepted.

**Academic Requirements:** Students must complete each course with a grade of “C” or better in order to continue in the HIT sequence. Students who receive a “D” or “F” grade in a course must repeat that course before continuing in the HIT course sequence. If students receive two such grades, they will be removed from the program.

**First Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIM 100 Introduction to Healthcare Delivery System</td>
<td>1</td>
</tr>
<tr>
<td>HIM 130 Healthcare Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>HIM 141 Fundamentals of Health Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>HIM 196 On-site Training in: Working with Healthcare Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 141 Introduction to Medical Terminology</td>
<td>1</td>
</tr>
<tr>
<td>SDV 101 Orientation to Health Professions</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total** 12
Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Subject Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIM 229</td>
<td>Performance Improvements in Healthcare Setting</td>
<td>2</td>
</tr>
<tr>
<td>HIM 330</td>
<td>Information Systems and Technology in Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>HIM 233</td>
<td>Electronic Health Record Application</td>
<td>3</td>
</tr>
<tr>
<td>HIM 296</td>
<td>On-site Training in: Configuration EHR’s</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Minimum Credits 23

Logistics Management

**Purpose:** Logistics is a rapidly-growing field encompassing the care and management of inventory while at rest and in motion. The DCC Online Logistics Management Career Studies Certificate is primarily designed to provide formal training for individuals already employed in careers associated with the following logistics-related jobs: inventory management, care and control; dispatching and shipping of goods and materials; and assembling bulk orders for distribution. Upon completion of the Logistics Management Career Studies Certificate, individuals will have been exposed to the skills necessary for career advancement. This program is also suitable for students interested in obtaining an entry-level position in warehousing and distribution.

**Occupational Objectives:** The following occupational titles represent examples of possible employment or advancement opportunities:
- Shipping
- Receiving
- Dispatching
- Inventory Control Manager
- Warehouse Manager
- Warehouse Department Manager or Area Manager
- Manager Trainee
- Other Related Logistics Occupations

**Admissions Requirements:** Admission to the Logistics Management Career Studies Certificate is based on the general requirements for admission to the college. The student is required to have a GED or standard high school diploma. Deficiencies in general education may require enrollment in Developmental Studies. As an online program, it is expected that applicants will be proficient with World Wide Web navigation, e-mail, Microsoft Word, and Microsoft Excel.

**Program Requirements:** The program can be completed in two semesters on a part-time basis. Students will be exposed to the following: essentials of distribution and transportation management; inventory management; the role of retailing and wholesaling in the supply chain; people-management skills necessary for supervising warehouse and transportation employees; and warehouse organization and management. All five required courses are conveniently available online through DCC.

**Program Outcomes:** Logistics Management Career Studies Certificate graduates will demonstrate the ability to:
1. Understand the role and practice of logistics within an organization, including theoretical and applied aspects of the warehousing/distribution discipline;
2. Apply a wide variety of computer software skills to business communication media including written reports and operational plans using word processing software and business presentations using presentation software;
3. Perform and interpret basic business math calculations (e.g., mark-ups, interest rates, ratios, etc.) and business accounting principles, basic financial reports and bookkeeping fundamentals;
4. Think logically and analytically in proposing plans and creating strategies that may be considered in complex warehousing and logistics issues facing organizations;
5. Recognize and evaluate the components of a warehousing and logistics organization including layout, material handling, communications, shipping utilities, and building design;
6. Demonstrate basic principles of human relationship skills which can be used to successfully interrelate with customers, associates, employees, and superiors in a business setting while adhering to a strong set of generally-accepted ethical principles; and
7. Understand the concepts necessary to address warehouse and logistics trade-offs between space and time in optimizing a modern warehousing and logistics organization while recognizing the social and ethical responsibilities within an organization to function effectively in the environment.

**Program Outcomes:** Graduates of the Manufacturing Technician Career Studies Certificate program will:
1. Demonstrate how modern manufacturers use people, technologies and materials to make highly engineered products at a competitive cost.
2. Demonstrate the ability to communicate manufacturing concepts and ideas effectively.
3. Demonstrate knowledge of basic automation and how technology is used by manufacturers in a modern day factory.
5. Apply skills learned in social, business and work ethics required by modern manufacturing.

**Manufacturing Technician**

**Occupational Objectives:** The Manufacturing Technician Career Studies Certificate is designed to prepare participants to gain employment in various manufacturing jobs requiring advanced technical and operator skills as well as knowledge of advanced manufacturing practices.

**Program Requirements:** To receive a Manufacturing Technician Career Studies Certificate you must complete 28 credits. This program is offered to a cohort of students entering at the same time. Please contact Gerald Sexton at 434.797.8565, or email gsexton@dcc.vccs.edu for more information and program start dates.

**Program Outcomes:** Graduates of the Manufacturing Technician Career Studies Certificate program will:
1. Demonstrate how modern manufacturers use people, technologies and materials to make highly engineered products at a competitive cost.
2. Demonstrate the ability to communicate manufacturing concepts and ideas effectively.
3. Demonstrate knowledge of basic automation and how technology is used by manufacturers in a modern day factory.
5. Apply skills learned in social, business and work ethics required by modern manufacturing.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 223</td>
<td>Distribution &amp; Transportation</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MKT 216</td>
<td>Retail Organization &amp; Management</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BUS 111</td>
<td>Principles of Supervision</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BUS 255</td>
<td>Inventory &amp; Warehouse Management</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>Marketing or Business Elective</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Minimum Credits 15

Note: The courses in the Logistics Management Career Studies Certificate will all transfer to the Associate of Applied Science Degree, Marketing - Warehousing and Distribution Specialization.
Medical Coding

Occupational Objectives: The Medical Coding Career Studies Certificate is designed for persons who wish to pursue a career in medical coding. Upon completion of this certificate program, students will be able to pursue employment in hospitals, doctors’ offices, nursing facilities, and other health care facilities. Classes will be offered in the evening to accommodate students who are employed during the day. Students must earn a grade of “C” or better in all HIM courses in order to complete the program.

Program Outcomes: Graduates of the Medical Coding career studies certificate will demonstrate:
1. Knowledge of medical terminology necessary to perform satisfactorily in a medical office environment;
2. Proficiency in using industry standard health care coding software products and systems; and
3. Competence with industry standard software (word processing, spreadsheet, and database) used in a general office environment.

<table>
<thead>
<tr>
<th>First Year — First Semester</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 100 Basic Human Biology</td>
<td>3</td>
</tr>
<tr>
<td>HLT 143 Medical Terminology I</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>First Year — Second Semester</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLT 144 Medical Terminology II</td>
<td>3</td>
</tr>
<tr>
<td>ITE 115 Intro. to Computer Applications &amp; Concepts</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Year — First Semester</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AST 234 Records &amp; Database Mgt.</td>
<td>3</td>
</tr>
<tr>
<td>HIM 106 ICD-10-CM Coding I</td>
<td>2</td>
</tr>
<tr>
<td>HIM 226 Legal Aspects of Health Records Documents</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Year — Second Semester</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIM 130 Health Care Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>HIM 107 ICD-10-CM Coding II</td>
<td>3</td>
</tr>
<tr>
<td>HIM 105 CPT Coding</td>
<td>2</td>
</tr>
<tr>
<td>HIM 253 Health Records Coding</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
</tr>
</tbody>
</table>

| Total Minimum Credits | 31 |

Microcomputer Software

Occupational Objectives: The Career Studies Certificate in Microcomputer Software is designed to give a basic understanding of various microcomputer software through a variety of applications in word processing, spreadsheets, database, and graphic design. Graduates can use these courses to update their skills or open new areas of microcomputer expertise.

Program Outcomes: Graduates of the Microcomputer Software Career Studies Certificate will:
1. Demonstrate proficiency in the fundamental information technology skills required to provide user support in business.
2. Apply current industry standards, protocols and techniques; and keep up with evolving technology to maintain professional proficiency.

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AST 238/239</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>ITX 239</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITP 140</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITP 182</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Select two of the following:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AST 253</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>ITD 115</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITP 150</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

| Total Minimum Credits | 17-19 2 17-19 |

Metal Processing

Occupational Objectives: The Metal Processing Career Studies Certificate Program is both broad and detailed enough to permit the graduate to fill a number of jobs in a company’s machine shop maintenance department, yet detailed enough to ensure that the student fully understands different types of metal processing. Layout procedures and processes on the lathe, drill press, grinding machines, and milling machines are covered in both theory and practice.

The program is structured as follows:

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRF 160</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MAC 161</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAC 162</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAC 163</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAC 164</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>WEL 120</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

| Total Minimum Credits | 17 |

Medical Terminology

Occupational Objectives: The Career Studies Certificate in Medical Terminology is an employment option for clerk-typists and stenographers planning to seek employment as a medical records specialist in a medical facility, such as a hospital, medical clinic, or physician’s office. Those entering the program should be proficient in typing and general secretarial skills or in the process of acquiring these skills. The program is structured within the following courses:

Program Outcomes: Graduates of this program will:
1. Recognize and utilize roots, suffixes and prefixes to form medical terms.
2. Pronounce, define, and spell terms relating to body areas, directions related to medical records, laboratory, imaging and pharmacology.
3. Pronounce, define, and spell terms relating to disorders of the skin.
4. Pronounce, define, and spell terms relating to disorders of the blood and blood-forming organs.
5. Pronounce, define, and spell terms relating to oncology.
6. Pronounce, define, and spell terms relating to disorders of the immune system.
7. Pronounce, define, and spell terms relating to disorders of the endocrine system.
8. Define, pronounce, and spell terms relating to disorders of the nervous system.
9. Define and spell terms relating to disorders of the digestive system.
10. Define and spell terms relating to disorders of the respiratory system.
11. Define and spell disorders relating to the cardiovascular system.
12. Pronounce terms relating to the urinary system.
13. Pronounce terms relating to reproductive system.

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLT 143</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>HLT 144</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>PSY 126</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

| Total Minimum Credits | 9 | 0 | 9 |
Network Technology

**Occupational Objectives:** The Network Technology Career Studies Certificate Program is designed for individuals employed in the field of information systems who wish to upgrade their skills. It is also designed for individuals with previous occupational or academic experience relating to computing systems who may be contemplating a career change.

**Program Outcomes:** Graduates of the Network Technology Career Studies program will:

1. Demonstrate proficiency in the fundamental information technology skills required to provide user support in business;
2. Implement and maintain computer-based information systems to support the decision-making function of management;
3. Apply analytical and problem solving skills for typical computer system designs, planning, implementation and support;
4. Design, code, test, debug, and document code for programs or software needed for computer system implementation and maintenance; and
5. Apply current industry standards, protocols, and techniques to keep up with evolving technology to maintain professional proficiency.

The program is structured as follows:

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETR 149 PC Repair</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITN 102 Intro to Networked Client Operating Systems</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>ITN 103 Administration of Networked Servers</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>ITN 104 Maint Servers in Networked Infrastructure</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>ITN 154 Networking Fund. CISCO</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>ITN 155 Introductory Routing - CISCO</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total Minimum Credits**

18 10 23

*Advanced standing credit may be awarded to those persons with a demonstrated proficiency/certification in Microsoft Windows or Linux Desktop Operating Systems

Networking with Cisco/CCNA

**Occupational Objectives:** The Networking with Cisco Career Studies Certificate Program is designed to give an understanding of the various components of CISCO networking through the four levels of the CISCO courses. Graduates can use these courses to complete the CISCO Network Administrator (CCNA) examination, update their skills or open new areas of expertise with networking through the use of CISCO.

**Program Outcomes:** Graduates of the Networking with CISCO/CCNA Career Studies Certificate will:

1. Demonstrate proficiency in the fundamental information technology skills required to provide user support in business;
2. Implement and maintain computer-based information systems to support the decision-making function of management;
3. Apply analytical and problem solving skills for typical computer system designs, planning, implementation and support;
4. Design, code, test, debug, and document code for programs or software needed for computer system implementation and maintenance; and
5. Apply current industry standards, protocols, and techniques to keep up with evolving technology to maintain professional proficiency.

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITN 154 Networking Fundamentals (CISCO)</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>ITN 155 Introductory Routing (CISCO)</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>ITN 156 Basic Switching &amp; Routing (CISCO)</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>ITN 157 WAN Technologies (CISCO)</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total Minimum Credits**

12 6 16

Nurse Aide

**Occupational Objectives:** The Nurse Aide is capable of working under the supervision of a licensed nurse in caring for residents of a long-term health care facility or to work under limited supervision in the home. In either situation, the Nurse Aide will use basic skills in observation, communication, reporting, and assisting in maintaining a safe, clean environment for the patient.

**Program Outcomes:** Graduates of the Nurse Aide Career Studies Certificate program will:

1. Demonstrate recognizing changes in body functioning and the importance of reporting such changes to a supervisor.
2. Demonstrate measuring and recording routine vital signs.
3. Demonstrate measuring and recording height and weight.
4. Demonstrate caring for the clients’ environment.
5. Demonstrate measuring and recording fluid and food intake and output.
6. Demonstrate performing basic emergency measures.
7. Demonstrate caring for a client when death is imminent.
8. Demonstrate bathing, grooming, and oral hygiene.
9. Demonstrate grooming, dressing, and toileting.
10. Demonstrate assisting with eating and hydration, including proper feeding techniques.
11. Demonstrate caring for skin, to include prevention of pressure ulcers.
12. Demonstrate transfer, positioning and turning.
13. Apply skills learned in individual client’s needs, including mental health and social service needs.
14. Demonstrating skills supporting age-appropriate behavior by allowing the client to make personal choices, and by providing and reinforcing other behavior consistent with the client’s dignity.
15. Demonstrate providing appropriate clinical care to the aged and disabled.
16. Demonstrate using techniques for addressing the unique needs and behaviors of individuals with dementia (Alzheimer’s and others).
17. Demonstrate the use of assistive devices in transferring, ambulation, eating and dressing.
18. Demonstrate maintaining range of motion, turning & positioning.
19. Demonstrate caring for and using prosthetic and orthotic devices.
20. Apply skills in dealing with clients' rights.
21. Apply skills used in maintaining legal and regulatory aspects of practice as a certified nurse aide, including, but not limited to, consequences of abuse, neglect, misappropriation of client property and unprofessional conduct.
22. Demonstrate occupational health and safety measures.
23. Apply skills used in the appropriate management of conflict.

The program is structured as follows:

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR 25 Nursing Assistant</td>
<td>2</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>NUR 27 Nursing Assistant Advanced</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>NUR 98 Seminar and Project</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Minimum Credits**

9 6 9
PC Upgrade and Repair

Description: The PC Upgrade and Repair Career Studies Certificate is designed to present the student with an opportunity to obtain valuable skills in the exciting field of PC repair within a relatively short period of time. A student may complete this program in two semesters or less with all classes being offered in the day or evening.

Occupational Objectives: Employment opportunities may include PC Repair Technician or Wireless Network Technician.

Program Outcomes: Graduates of the PC Upgrade and Repair Career Studies Certificate program will:
1. Demonstrate proficiency in the fundamental information technology skills required to provide user support in business.
2. Apply analytical and problem solving skills for typical computer system designs, planning, implementation and support.

The program is structured as follows:

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETR 149 Computer Repair</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ETR 115 DC &amp; AC Fundamentals</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITE 115 Intro to Computer Applications</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITE 221 PC Hardware &amp; OS Architecture</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Minimum Credits: 12

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTH 126 Math for Allied Health</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>HLT 143 Medical Terminology I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>HLT 250 General Pharmacology</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>HLT 261 Basic Pharmacy I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>HLT 263 Basic Pharmacy Lab.</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

Total: 12

Pharmacy Technician

Purpose: The Pharmacy Technician program is designed to prepare students to assist and support licensed pharmacists in providing health care and medications to patients. Students will obtain a broad knowledge of pharmacy practice and be skilled in the techniques required to order, stock, package, prepare, and dispense medications under the supervision of a licensed pharmacist.

Occupational Objectives: Pharmacy technicians work in hospital, retail, home health care, nursing home, clinic, nuclear medicine, and mail order prescription pharmacies. Pharmacy technicians have been employed with medical insurance, medical computer software, drug manufacturing, drug wholesale, and food processing companies, and as instructors in pharmacy technician training programs. Currently, hospital, home health care, and retail pharmacies hire the majority of technicians.

Admission Requirements: In addition to the general admission requirements established for the College, entry into this program requires:
1. A high school diploma or a State approved equivalent education.
2. Acceptable admissions test scores or satisfactory completion of required developmental studies courses.
3. A personal interview with an admissions interview team. See note below.
4. A physician's report of good physical and mental health. (The required health certificate form will be provided by the College and may be completed by a physician of your choice.)

Note: The Pharmacy Technician program is an academically rigorous program and there are more applicants than available seats in the program. Therefore, admission is on a selective basis, not first-come, first-served. The selection process considers the student's academic background as well as the timely and successful completion of Developmental Studies requirements. Approximately one-half of the class will be selected by August of each year from those applicants meeting the second admissions requirement before January 1 and interviewed during February or March. The remaining spots in the class will be filled during June from those applicants meeting the second requirement before May 16.

Re-admission Requirements: Students wishing to be re-admitted to the program will follow the same procedures outlined above. Once a student is readmitted, there are additional requirements regarding repetition of previous coursework. A copy of these additional requirements may be obtained from the Workforce Services Office following readmission.

Program Outcomes: Graduates of this program will:
1. Be able to assist and support licensed pharmacists in providing health care and medications to patients
2. Have a broad knowledge of pharmacy practice
3. Be skilled in the techniques required to order, stock, package, prepare, and dispense medications under the supervision of a licensed pharmacist

Program Requirements: To receive the Pharmacy Technician Career Studies Certificate, you must complete a minimum of 25 credits with a grade point average of 2.00 or better.

The credits are distributed according to the following outline:

<table>
<thead>
<tr>
<th>Semester</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td>12</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>Second Semester</td>
<td>8</td>
<td>17</td>
<td>25</td>
</tr>
</tbody>
</table>

Total Minimum Credits: 25

Polymer Processing Technician

Purpose: The Polymer Processing Technician Career Studies Certificate is designed to provide relevant education and skills for work in a broad range of modern polymer manufacturing organizations.

Occupational Objective: Polymer Technician I

Admission Requirements: Admission to the Polymer Processing Technician Career Studies Certificate program is based upon the general requirements of the college.

Program Outcomes: To receive the Polymer Processing Technician Career Studies Certificate, you must successfully complete the following:
1. Demonstrate how modern plastics manufacturers use people, technologies and materials to make highly engineered products at a competitive cost.
2. Demonstrate the ability to communicate plastics manufacturing data and information effectively.
3. Demonstrate knowledge of commercial plastics processes and how technology is used by manufacturers to efficiently produce plastic products.
4. Demonstrate the ability to monitor and control processes through statistical use of manufacturing data.

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AST 114 Keyboarding for Info. Processing</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>AST 115 Keyboarding for Info. Processing Lab.</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Minimum Credits: 15

Classes are usually scheduled one-per-semester on Monday evenings, 4:30 – 8:30 p.m.
Printing Technology

**Purpose:** The Career Studies Certificate in Printing Technology is designed to prepare individuals for various entry level positions or to upgrade existing skills in the press operations area to meet technology trends in the printing industry. Procedures and processes will be covered in both theory and/or hands-on application.

**Occupational Objectives:** Students who complete the program will develop competencies in the following areas:
1. Basic understanding of various printing processes.
2. Understanding of the basic technology of the lithographic printing process.
3. Complex understanding of the technology of the lithographic printing process.
4. Understanding of the varieties, properties, handling and printing characteristics of paper and inks.
5. Understanding of the basic operation of the lithographic offset press.
7. Complex understanding of the operation of the lithographic offset press.
8. Understanding of the current trends in technology.

**Program Outcomes:** Upon successful completion of this program, students will:
1. Demonstrate an understanding of the fundamentals of reproduction processes.
2. Demonstrate technical and skill competencies in the area of lithography complete laboratory projects.
3. Discuss the aspects of lithographic chemistry as it relates to the printing industry.

The program is structured in the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 180</td>
<td>Introduction to Computer Graphics</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>PNT 110</td>
<td>Survey of Repro. Processes</td>
<td>3</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>PNT 131</td>
<td>Principles of Lithography I</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>PNT 132</td>
<td>Principles of Lithography II</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>PNT 231</td>
<td>Paper and Ink Concepts</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>PNT 251</td>
<td>Offset Press Operations I</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>PNT 298</td>
<td>Safety and Health Issues</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total Minimum Credits**

19 11 22

Product Design & Development

**Purpose:** This Product Design and Development Career Studies Certificate is designed to prepare students with the knowledge, skills, and foundational concepts necessary to design, engineer, and produce a product utilizing wood as a primary design medium and incorporating CAD/CAM/CNC technology. These skills include critical thinking, project planning, managing creativity and design, form and function, product management through customer-focused innovation. Completion of this certificate will prepare the student for work in various positions in the design and manufacturing sectors.

**Occupational Objectives:** The Career Studies Certificate in Product Design and Development is designed to provide students the necessary skills to be gainfully employed in this field. This certificate is primarily targeted to dual enrollment students, but other students may enroll.

**Admission Requirements:** Admission to the Product Design and Development Career Studies Certificate Program is based upon the general admission requirements to the College. If a student meets the general admission requirements, a counselor will discuss the student’s academic strengths and weaknesses. Placement recommendation for MTH 2 and Basic Arithmetic or equivalent is required.

**Program Outcomes:** To receive a Product Design and Development Career Studies Certificate, you must complete 13 credits as listed in the outline below:
1. Apply various manufacturing concepts in technologies and automation used in today’s manufacturing.
2. Demonstrate the ability to use CAD/CAM/CNC in manufacturing design and development.
3. Demonstrate the ability to program and operate different types of equipment related to modern day manufacturing.
4. Demonstrate the use of different types of tools and materials used in modern day manufacturing.

**Program Requirements:** To receive a Product Design and Development Career Studies Certificate, you must complete 13 credits as listed in the outline below:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IND 161</td>
<td>Product Design &amp; Development I</td>
<td>1</td>
<td>12</td>
<td>5</td>
</tr>
<tr>
<td>IND 162</td>
<td>Product Design &amp; Development II</td>
<td>1</td>
<td>12</td>
<td>5</td>
</tr>
<tr>
<td>DRF 233</td>
<td>Computer Aided Drafting II**</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Minimum Credits**

4 27 13

Programming

**Occupational Objectives:** The Programming Career Studies Certificate is designed to gain a basic understanding of various programming languages through a variety of 3 and 4 credit courses. Graduates can use these courses to update their skills or open new areas of programming expertise.

**Program Outcomes:** Graduates of the Programming Career Studies Certificate program will:
1. Demonstrate proficiency in the fundamental information technology skills required to provide user support in business;
2. Implement and maintain computer-based information systems to support the decision-making function of management;
3. Apply analytical and problem solving skills for typical computer system designs, planning, implementation and support;
4. Design, code, test, debug, and document code for programs or software needed for computer system implementation and maintenance; and
5. Apply current industry standards, protocols, and techniques to keep up with evolving technology to maintain professional proficiency.

The program is structured within the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITP 100</td>
<td>Software Design</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ITP 112</td>
<td>Visual Basic .Net I or</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ITP 120</td>
<td>Java Programming I</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ITP 136</td>
<td>Visual C# Programming I</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ITE 150</td>
<td>Desktop Database Software</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ITP 236</td>
<td>C# Programming II or</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ITP 212</td>
<td>Visual Basic .NET II or</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ITP 220</td>
<td>Java Programming II</td>
<td>3-4</td>
<td>–</td>
<td>3-4</td>
</tr>
</tbody>
</table>

**Total Minimum Credits**

22-23 0 22-23
Web Site Design

Occupational Objectives: Students completing the Web Site Design Career Studies Certificate Program will have the skills to fully develop a web site, from conceptualizing the overall logic and design of the site to creating the Web pages using graphics and other media. Students will learn how to work with a client to achieve the business, organizational, professional or commercial requirements desired. A professional portfolio will be developed as the student progresses through the program. This program can be completed entirely online. This means that the student can decide the time and place to complete the courses. This is a perfect option for the working person who has trouble finding the time to come to school or for the individual who lives too far from campus for an easy commute.

Program Outcomes: Graduates of this program will:
1. Demonstrate proficiency in the fundamental information technology skills required to provide user support in business.
2. Implement and maintain computer-based information systems to support the decision-making function of management.
3. Apply analytical and problem solving skills for typical computer system designs, planning, implementation and support.
4. Design, code, test, debug, and document code for programs and other software needed for computer system implementation and maintenance.
5. Apply current industry standards, protocols, and techniques; and keep up with evolving technology to maintain professional proficiency.
6. User vendor supplied instructional material and testing tools leading towards certification.

The program is structured within the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 131</td>
<td>Technical Report Writing</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>ITD 110</td>
<td>Web Page Design I (Programming with HTML)</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>ITD 115</td>
<td>Web Page Design &amp; Site Mgt.</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>ITD 112</td>
<td>Designing Web Page Graphics</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>ITE 130</td>
<td>Introduction to Internet Services</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>ITP 140</td>
<td>Client Side Scripting (Internet Programming I)</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>MKT 281</td>
<td>Marketing for the Internet</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>ITX</td>
<td>Approved IT Elective</td>
<td>3-4</td>
<td>3-4</td>
</tr>
<tr>
<td>ITX</td>
<td>Approved IT Elective</td>
<td>3-4</td>
<td>3-4</td>
</tr>
</tbody>
</table>

Total Minimum Credits 27-29 0 27-29

Welding

Occupational Objectives: The Welding Career Studies Certificate is a response to the short-term training needs of many adults in our service region. It is designed to provide students with the knowledge and skills needed to obtain employment in the welding field. The fundamental objective of the program is to teach students how to weld. Individuals trained in this program must be able to meet welding performance demands of industry; consequently, a minimum amount of time is spent on book and classroom study with most of the time used on supervised welding practice.

Program Outcomes: Graduates of the Welding Career Studies Certificate program will:
1. Understand and follow industry practices.
2. Successfully complete projects in a given time.
3. Weld in the flat vertical and horizontal position using the basic welding processes SMAW, GMAW, GTAW.
4. Cut metals using the oxyfuel and plasma arc cutting process.

The program is structured within the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAC 161</td>
<td>Machine Shop Practices I</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>WEL 115</td>
<td>Drawing and Interpretation</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>WEL 145</td>
<td>Welding Metallurgy</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>WEL 120</td>
<td>Fundamentals of Welding</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>WEL 121</td>
<td>Arc Welding I</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>WEL 122</td>
<td>Arc Welding II</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>WEL 135</td>
<td>Inert Gas Welding I</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>WEL 136</td>
<td>Inert Gas Welding II</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Minimum Credits 13 18 19
Developmental Studies

Award: NONE

Length: Variable

Purpose: The Virginia Community College System (VCCS) requires that each campus assess student readiness for college-level work. Based on assessment outcomes, a student may be required to take developmental courses in mathematics, reading, and writing. These courses do not carry college-level credit but are designed to develop essential skills necessary for college-level work. By obtaining these skills, students increase the likelihood of successful completion of their chosen program of study.

VCCS campuses currently use both the ASSET and COMPASS tests to assess incoming students who register for transfer or vocational degrees and certificates. Both tests are developed by American College Testing which ensures the validity and accuracy of their assessment tools. Students seeking additional information on these tests are invited to view ACT’s website at www.act.org. This site contains valuable information about the test, sample questions and tips for taking both the ASSET and COMPASS.

Program Requirements: All students are assigned to an academic advisor. College-level course enrollment requires advisor approval, and students must complete all developmental pre-requisites before taking college-level courses. Students requiring remediation are encouraged to complete Developmental Studies course requirements as early as possible in their college enrollment. When a student completes the required objectives for the Developmental Studies courses, a grade of “S” (satisfactory completion of objectives) is awarded. When a student makes satisfactory progress during the term but has not completed all of the requirements to pass the course, the student receives a grade of “R” (re-enroll) and should re-enroll in that Developmental Studies course during the subsequent term. When a Developmental Studies student receives the “U” (unsatisfactory) grade, that student is to be re-counseled by a Developmental Studies academic advisor with the assistance of the Counseling Office. For assessment and precise placement into math modules, contact the Student Success and Academic Advancement Division at 434.797.6435.

Developmental Studies Prerequisites

Curricular students should not enroll in the following courses until they have demonstrated proficiency on the placement examination or completed the appropriate developmental course. Note: “C” attached to a course number indicates it may be taken concurrently as a co-requisite.

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 105</td>
<td>Office Accounting (MTE 1, MTE 2, ENF 3)</td>
</tr>
<tr>
<td>ACC 111</td>
<td>Accounting I (MTE 2, ENF 1C)</td>
</tr>
<tr>
<td>ACC 211</td>
<td>Principles of Accounting I (MTE 1, MTE 2, MTE 3, ENF 1, ENF 2)</td>
</tr>
<tr>
<td>ARC 211</td>
<td>Computer-Aided Drafting Applications (MTE 1, MTE 2, MTE 3)</td>
</tr>
<tr>
<td>ARC 255</td>
<td>Construction Estimating (MTE 1, MTE 2, MTE 3)</td>
</tr>
<tr>
<td>ADJ 100</td>
<td>Survey of Criminal Justice (ENF 2)</td>
</tr>
<tr>
<td>ADJ 116</td>
<td>Special Enforcement Topics (ENF 2)</td>
</tr>
<tr>
<td>ADJ 130</td>
<td>Introduction to Criminal Law (MTE 1, MTE 2, ENF 2)</td>
</tr>
<tr>
<td>ADJ 131</td>
<td>Legal Evidence (MTE 1, MTE 2, ENF 3)</td>
</tr>
<tr>
<td>ADJ 140</td>
<td>Introduction to Corrections (ENF 2)</td>
</tr>
<tr>
<td>ADJ 145</td>
<td>Corrections and the Community (ENF 2)</td>
</tr>
<tr>
<td>ADJ 150</td>
<td>Introduction to Security Administration (ENF 2)</td>
</tr>
<tr>
<td>ADJ 171</td>
<td>Forensic Science I (MTE 2, ENF 2)</td>
</tr>
<tr>
<td>ADJ 215</td>
<td>Report Writing (ENF 3)</td>
</tr>
<tr>
<td>ADJ 227</td>
<td>Constitutional Law for Justice Personnel (MTE 1, MTE 2, ENF 3)</td>
</tr>
<tr>
<td>ADJ 236</td>
<td>Principles of Criminal Investigation (MTE 2, ENF 3)</td>
</tr>
<tr>
<td>ADJ 257</td>
<td>Loss Prevention (ENF 3)</td>
</tr>
<tr>
<td>ASL 100</td>
<td>American Sign Language I (ENF 3)</td>
</tr>
<tr>
<td>ASL 101</td>
<td>American Sign Language II (ENF 1C)</td>
</tr>
<tr>
<td>AST 101</td>
<td>Keyboarding I (MTE 2, ENF 1C)</td>
</tr>
<tr>
<td>AST 113</td>
<td>Keyboarding for Speed and Accuracy (ENF 1C)</td>
</tr>
<tr>
<td>AST 117</td>
<td>Keyboarding for Computer Usage (ENF 1C)</td>
</tr>
<tr>
<td>AST 201</td>
<td>Keyboarding III (ENF 1)</td>
</tr>
<tr>
<td>AST 234</td>
<td>Records and Database Management (MTE 1, MTE 2, ENF 1)</td>
</tr>
<tr>
<td>AST 238</td>
<td>Word Processing Advanced Operations (MTE 1, MTE 2, ENF 1)</td>
</tr>
<tr>
<td>AST 243</td>
<td>Office Administration I (ENF 1)</td>
</tr>
<tr>
<td>AST 244</td>
<td>Office Administration II (ENF 1)</td>
</tr>
<tr>
<td>AST 253</td>
<td>Advanced Desktop Publishing I (ENF 1)</td>
</tr>
<tr>
<td>AST 265</td>
<td>Legal Office Procedures I (ENF 3)</td>
</tr>
<tr>
<td>BIO 100</td>
<td>Basic Human Biology (MTE 1, MTE 2, ENF 3C)</td>
</tr>
<tr>
<td>BIO 101</td>
<td>General Biology I (MTE 1, MTE 2, MTE 3C, MTE 4C, MTE 5C, ENF 3)</td>
</tr>
<tr>
<td>BIO 102</td>
<td>General Biology II (MTE 1, MTE 2, MTE 3, MTE 4, ENF 3)</td>
</tr>
<tr>
<td>BIO 141</td>
<td>Human Biology and Physiology I (MTE 1, MTE 2, MTE 3, ENF 3)</td>
</tr>
<tr>
<td>BIO 231</td>
<td>Human Anatomy and Physiology I (MTE 1, MTE 2, MTE 3, MTE 4, MTE 5)</td>
</tr>
<tr>
<td>BIO 232</td>
<td>Human Anatomy and Physiology II (MTE 1, MTE 2, MTE 3, MTE 4, MTE5)</td>
</tr>
<tr>
<td>BLD 120</td>
<td>Applied Construction Mathematics (MTE 1, MTE 2)</td>
</tr>
<tr>
<td>BUS 100</td>
<td>Introduction to Business (MTE 1, MTE 2, ENF 1, ENF 2)</td>
</tr>
<tr>
<td>BUS 111</td>
<td>Principles of Supervision (MTE 1, MTE 2, ENF 1, ENF 2)</td>
</tr>
<tr>
<td>BUS 121</td>
<td>Business Mathematics I (MTE 1, MTE 2, ENF 1, ENF 2)</td>
</tr>
<tr>
<td>BUS 122</td>
<td>Business Mathematics II (MTE 1, MTE 2)</td>
</tr>
</tbody>
</table>

Course # | Course Name

| BUS 125  | Applied Business Mathematics (MTE 3, ENF 1, ENF 2) |
| BUS 147  | Introduction to Business Information Systems (MTE 1, MTE 2, MTE 3, ENF 1, ENF 2) |
| BUS 165  | Small Business Management (MTE 1, MTE 2, ENF 1, ENF 2) |
| BUS 209  | Continuous Quality Improvement (MTE 1, MTE 2, ENF 1, ENF 2) |
| BUS 220  | Introduction to Basic Statistics (MTE 1, MTE 2, ENF 1, ENF 2) |
| BUS 221  | Business Statistics I (MTE 1, MTE 2, MTE 3, MTE 4, MTE 5, MTE 6, MTE 7, MTE 8, MTE 9) |
| BUS 223  | Distribution and Transportation (MTE 1, MTE 2) |
| BUS 227  | Quantitative Methods (MTE 1, MTE 2, MTE 3, MTE 4, MTE 5, MTE 6, MTE 7, MTE 8, MTE 9) |
| BUS 241  | Business Law I (ENF 1) |
| BUS 255  | Inventory and Warehouse Management (MTE 1, MTE 2) |
| BUS 298  | Seminar and Project in Business (MTE 1, MTE 2) |
| CAD 118  | Drafting III (MTE 1, MTE 2, ENF 3) |
| CAD 120  | Introduction to Graphic Representation (MTE 1, MTE 2, MTE 3, ENF 4) |
| CAD 130  | Introduction to Electrical/Electronics Drafting (MTE 1, MTE 2, MTE 3, ENF 4) |
| CAD 200  | Survey of Computer-Aided Drafting (MTE 1, MTE 2, ENF 3) |
| CAD 201  | Computer Aided Drafting and Design (MTE 1, MTE 2, MTE 3, ENF 1) |
| CAD 233  | Computer Aided Drafting III (MTE 1, MTE 2, ENF 3) |
| CHD 118  | Language Arts for Young Children (ENF 2) |
| CHD 120  | Introduction to Early Childhood Education (ENF 2) |
| CHD 125  | Creative Activities for Children (ENF 2) |
| CHD 126  | Science and Math Concepts for Children (MTE 1, MTE 2, ENF 2) |
| CHD 145  | Teaching Art, Music, and Movement to Children (ENF 2) |
| CHD 166  | Infant and Toddler Programs (ENF 2) |
| CHD 167  | CDA Theories and Applications: Portfolio (ENF 2) |
| CHD 205  | Guiding the Behavior of Children (MTE 1, MTE 2, ENF 2) |
| CHD 210  | Introduction to Exceptional Children (MTE 1, MTE 2, ENF 2) |
| CHD 215  | Models of Early Childhood Education Programs (MTE 1, MTE 2, ENF 2) |
| CHM 101  | General Chemistry I (MTE 1, MTE 2, ENF 3) |
| CHM 102  | General Chemistry II (MTE 1, MTE 2, ENF 3) |
| CHM 111  | College Chemistry I (MTE 1, MTE 2, MTE 3, ENF 3) |
| CHM 122  | College Chemistry II (MTE 1, MTE 2, MTE 3, MTE 4, MTE 5, MTE 6, ENF 3) |
| CIV 171  | Principles of Surveying (MTE 1, MTE 2, MTE 3, MTE 4, ENF 2) |
| CSC 200  | Introduction to Computer Science (MTE 1, MTE 2, MTE 3, MTE 4, MTE 5, MTE 6, MTE 7, MTE 8, MTE 9, ENF 3) |
Course Descriptions

Note: Courses separated by hyphens, e.g. ENG 111-112, must be taken in sequence. Courses separated by commas, e.g. HIS 101, HIS 102, do not have to be taken in sequence.

(ACC) Accounting

ACC 105 Office Accounting (3 cr.)
Provides an introduction to accounting cycle, journals, ledgers, working papers, closing of books, payrolls, financial statements, accounting forms and practical procedures. Lecture 3 hours per week.

ACC 110 Introduction to Computerized Accounting (1-2 cr.)
Introduces the computer in solving accounting problems. Focuses on the operation of computers. Presents the accounting cycle and financial statement preparation in a computerized system and other applications for financial and managerial accounting. Co-requisite(s): ACC 111, ACC 211 or equivalent.

ACC 111 Accounting I (3 cr.)
Presents fundamental accounting concepts and principles governing the accounting cycle, journals, ledgers, working papers, and preparation of financial statements for sole proprietorships. Covers services and merchandising businesses. Lecture 3 hours.

ACC 112 Accounting II (3 cr.)
Continues ACC 111 with emphasis on application to partnerships, and corporations. Also includes an introduction to cost and managerial accounting. Prerequisite: ACC 111. Lecture 3 hours.

ACC 211 Principles of Accounting I (3 cr.)
Introduces the study of federal taxation as it relates to partnerships, corporations, and other tax entities. Includes tax planning, compliance, and reporting. Prerequisite: ACC 111, ACC 211 or equivalent.

ACC 212 Principles of Accounting II (3 cr.)
Introduces the study of federal taxation as it relates to individuals, and related entities. Lecture 3 hours per week.

(ADJ) Administration of Justice

ADJ 100 Survey of Criminal Justice (3 cr.)
Provides an overview of the United States criminal justice system; introduces the major system components law enforcement, judiciary, and corrections. Lecture 3 hours per week.

ADJ 116 Special Enforcement Topics (3 cr.)
Concentrates on societal responses to the offender. Traces the evolution of practices based on retribution, deterrence, and rehabilitation. Reviews contemporary correctional activities and their relationships to other aspects of the criminal justice system. Lecture 3 hours per week.

ADJ 118 Crisis Intervention and Critical Issues (3 cr.)
Introduces the student to crisis intervention and current critical issues in law enforcement and the administration of justice; emphasizes practical approaches to discovering and implementing solutions. Lecture 2 hours per week.

ADJ 120 Introduction to Criminal Law (3 cr.)
Introduces the study of criminal law for the purpose of examining related areas of the United States criminal justice system. Lecture 3 hours per week.

ADJ 131 Legal Evidence (3 cr.)
Introduces the study of legal evidence for criminal prosecution; examines pre-trial procedures as they pertain to the rules of evidence. Pre-requisite: ADJ 130. Lecture 3 hours per week.

ADJ 140 Introduction to Corrections (3 cr.)
Introduces the study of correctional philosophy, correctional activities and their relationships to other aspects of the criminal justice system. Lecture 3 hours per week.

ADJ 145 Corrections and the Community (3 cr.)
Introduces the student to the field of private security – its histories, structures, functions, and personnel; surveys the principles and practices of security administration. Lecture 3 hours per week.

ADJ 150 Introduction to Security Administration (3 cr.)
Introduces the student to crime scene technology, procedures for sketching, diagramming and using casting materials. Surveys the concepts of forensic chemistry, fingerprint classification/identification and latent techniques, drug identification, hair and fiber evidence, death investigation techniques, thin-layer chromatographic methods, and arson materials examination. Prerequisites: ADJ 100 and ADJ 236. Lecture 3 hours. Laboratory 3 hours. Total: 6 hours per week.

ADJ 161 Introduction to Computer Crime (3 cr.)
Introduces the student to computer crime, computer criminals, and their relationships to other aspects of the criminal justice system. Lecture 3 hours per week.

ADJ 171 Forensic Science I (4 cr.)
Introduces the student to crime scene technology, procedures for sketching, diagramming and using casting materials. Surveys the concepts of forensic chemistry, fingerprint classification/identification and latent techniques, drug identification, hair and fiber evidence, death investigation techniques, thin-layer chromatographic methods, and arson materials examination. Prerequisites: ADJ 100 and ADJ 236. Lecture 3 hours. Laboratory 3 hours. Total: 6 hours per week.

ADJ 227 Constitutional Law for Justice Personnel (3 cr.)
Introduces the student to the nature of computer crime, computer criminals, relevant law, investigative techniques and emerging trends. Lecture 3 hours per week.

(ADJ) Administration of Justice
ADJ 234 Terrorism and Counter-Terrorism (3 cr.)
Surveys the historical and current practices of terrorism that are national, transnational, or domestic in origin. Includes biological, chemical, nuclear, and cyber-terrorism. Teaches the identification and classification of terrorist organizations, violent political groups and issue-oriented militant movements. Examines investigative methods and procedures utilized in counter terrorist efforts domestically and internationally. Prerequisite: ADJ 100. Lecture 3 hours per week.

ADJ 236 Principles of Criminal Investigation (3 cr.)
Surveys the fundamentals of criminal investigation procedures and techniques. Examines crime scene search, collecting, handling and preserving of evidence. Lecture 3 hours per week.

ADJ 257 Loss Prevention (3 cr.)
Studies internal and external theft that affects all private and public operations, with focus on retail businesses. Examines and evaluates major loss prevention programs used by security operations, again with focus on retail security. Lecture 3 hours per week.

ADJ 296 Internship (3 cr.)
In order to apply criminal justice theory to practice, this course will allow the student to participate in an on-site criminal justice learning experience in a variety of criminal justice agencies. Appropriate placements will be with police departments, sheriffs' departments, juvenile and adult probation departments, correctional institutions, and departments of social services. Other placements will be evaluated on a case by case basis. Prerequisites: ADJ 100 and ADJ 130. Variable hours per week.

(AIR) Air Conditioning and Refrigeration

AIR 111-112 Air Conditioning and Refrigeration Controls I-II (3 cr. each)
Introduces the functions of angles, trigonometric functions, angles of elevation and depression, and powers and roots. Prerequisite: AIR 161 or approval. Lecture 3 hours. Total 6 hours per week.

AIR 117 Metal Layout I (3 cr.)
Introduces the functions of angles, trigonometric functions, angles of elevation and depression, and powers and roots. Prerequisite: AIR 117 or approval. Lecture 1 hour. Laboratory 6 hours. Total 7 hours per week.

AIR 118 Metal Layout II (3 cr.)
Introduces the functions of angles, trigonometric functions, angles of elevation and depression, and powers and roots. Prerequisite: AIR 118 or approval. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

AIR 121 Air Conditioning and Refrigeration I (3 cr.)
Introduces basic circuit diagrams, types of heaters, and components of heating units. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

AIR 122 Air Conditioning and Refrigeration II (3 cr.)
Introduces circuits and controls used in home, commercial and industrial air conditioning systems. Includes reading wiring and schematic diagrams, troubleshooting, and designing and drawing residential systems take-off of materials and estimating the cost of the systems. Prerequisite: AIR 134 or approval. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

AIR 123-124 Air Conditioning and Refrigeration III-IV (3 cr. each)
Introduces types of circuits and controls used in home, commercial and industrial air conditioning systems. Includes reading wiring and schematic diagrams, troubleshooting, and designing and drawing residential systems take-off of materials and estimating the cost of the systems. Lecture 2 hours. Laboratory 1 hour. Total 3 hours. Total 5 hours per week.

AIR 134 Circuits and Controls I (3 cr.)
Introduces types of circuits and controls used in home, commercial and industrial air conditioning systems. Includes reading wiring and schematic diagrams, troubleshooting, and designing and drawing residential systems take-off of materials and estimating the cost of the systems. Include service and control devices. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

AIR 135 Circuits and Controls II (3 cr.)
Introduces types of circuits and controls used in home, commercial and industrial air conditioning systems. Includes reading wiring and schematic diagrams, troubleshooting, and designing and drawing residential systems take-off of materials and estimating the cost of the systems. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

AIR 213-214 Air Conditioning and Refrigeration Controls III-IV (3 cr. each)
Introduces types of circuits and controls used in home, commercial and industrial air conditioning systems. Includes reading wiring and schematic diagrams, troubleshooting, and designing and drawing residential systems take-off of materials and estimating the cost of the systems. Include service and control devices. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.
AIR 231. Circuits and Controls IV (5 cr.)
Applies controls and control circuits to air conditioning and refrigeration, including components, pilot devices and controls and circuit diagrams. Prerequisite: AIR 130 or approval. Lecture 4 hours. Laboratory 3 hours. Total 7 hours per week.

AIR 232. Circuits and Controls V (3 cr.)
Presents application and design of wiring and schematic diagrams of commercial refrigeration systems. Teaches fundamentals of operation and applications of pneumatic controls including basic pneumatic control circuits. Prerequisite: Air 231 or approval. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

AIR 233. Circuits and Controls VI (3 cr.)
Studies planning and design of electric, pneumatic, and combination control systems used in the air conditioning industry. Prerequisite: AIR 232 or approval. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

AIR 254. Air Conditioning Systems I (3 cr.)
Requires preparation of detailed material quantity surveys from plans and specifications and notes to the computer generated views. Prerequisite: AIR 167 or approval. Lecture 3 hours. Total 5 hours per week.

AIR 255. Air Conditioning Systems II (3 cr.)
Requires creation of working drawings by adding the necessary sections, dimensions, systems, windows, doors, cabinets and flooring. Lecture 2 hours. Total 5 hours per week.

ARC 255. Construction Estimating (2 cr.)
Requires preparation of detailed material quantity surveys from plans and specifications and notes to the computer generated views. Prerequisite: AIR 167 or approval. Lecture 3 hours. Total 5 hours per week.

ARC 271. Refrigeration I (6 cr.)
Studies refrigeration, care and use of refrigeration tools and equipment, soldering, brazing, refrigeration systems, cycles, and compressors, domestic refrigeration, charging and testing systems. Lecture 4 hours. Laboratory 6 hours. Total 10 hours per week.

ARC 272. Refrigeration II (5 cr.)
Studies commercial refrigeration systems, components, sizing, and testing. Includes low temperature refrigeration systems, equipment selection, load calculations, absorption systems, air conditioning systems, window units, air-cooled and water-cooled condensers. Prerequisite: AIR 271 or approval. Lecture 3 hours. Laboratory 6 hours. Total 9 hours per week.

ARC 273. Refrigeration III (3 cr.)
Studies heat pumps, sizing, installation, and servicing, reciprocating chillers and centrifugal air conditioners. Prerequisite: AIR 272 or approval. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

(ARC) Architecture

ARC 115. Architectural Graphics (2 cr.)
Covers various types of presentation techniques associated with architecture, including rendered plans and elevations, pictorial drawings and perspectives, and the use of drawing media. Lecture 1 hour. Laboratory 3 hours. Total 4 hours per week.

ARC 121. Architectural Drafting I (3 cr.)
Introduces techniques of architectural drafting, including lettering, dimensioning, and symbols. Requires production of plans, sections, and elevations of a simple building. Studies use of common reference material and the organization of architectural working drawings. Requires development of a limited set of working drawings, including a site plan, related details, and pictorial drawings. Part I of II. Credit will not be awarded for both ARC 121 and ARC 122. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

ARC 131. Materials and Methods of Construction I (3 cr.)
Covers use of wood as a building material in all phases of construction. Deals with species used, growth characteristics, hygroscopic properties, and applications of lumber and plywood. Includes wood framing systems, pre-manufactured components, modular systems, windows, doors, cabinets and flooring. Lecture 3 hours per week.

ARC 211. Computer Aided Drafting Applications (3 cr.)
Utilizes computer’s hardware and software to create orthographic and pictorial drawings. Requires creation of working drawings by adding the necessary sections, dimensions, and notes to the computer generated views. Prerequisite ARC 210 or equivalent. Lecture 1-2 hours. Laboratory 2-3 hours. Total 5-5 hours per week.

ARC 225. Construction Estimating (2 cr.)
Requires preparation of detailed material quantity surveys from plans and specifications for commercial construction. Discusses cost, bid, and contract procedures. Lecture 2 hours per week.

(ART) Arts

ART 100. Art Appreciation (3 cr.)
Introduces art from prehistoric times to the present day. Describes architectural styles, sculpture, photography, printmaking, and painting techniques. Lecture 3 hours per week.

ART 101-102. History and Appreciation of Art I-II (3 cr. each)
Presents the history and interpretation of architecture, sculpture, and painting. Begins with prehistoric art and follows the development of western civilization to the present. Lecture 3 hours per week.

ART 121-122. Drawing I-II (3 cr. each)
Develops basic drawing skills and understanding of visual language through studio instruction/lecture. Introduces concepts such as proportion, space, perspective, tone and composition as applied to still life, landscape and the figure. Uses drawing media such as pencil, charcoal, ink wash and color media. Includes field trips and gallery assignments as appropriate. Variable hours per week.

ART 130. Introduction to Multimedia (4 cr.)
Introduces the student to the basic components of multimedia: text, graphics, animation, sound, and video, and explores how the components combine to create a multimedia product. Emphasizes the design aspects of multimedia projects and teaches the techniques required to develop a presentation. Lecture 2 hours. Laboratory 4 hours. Total 6 hours per week.

ART 131-132. Fundamentals of Design I-II (3-4 cr. each)
Explores the concepts of two- and three-dimensional design and color. May include field trips as required. Lecture 1-2 hours. Studio instruction 4 hours. Total 5-6 hours per week.

ART 140. Introduction to Graphic Skills (3-4 cr.)
Teaches basic studio skills necessary for communication arts students. Emphasizes use of drafting equipment and materials such as knives, pencils, pens, brushes, glues and papers. Includes introductory production skills. Lecture 1-2 hours. Studio instruction 4 hours. Total 5-6 hours per week.

ART 153. Ceramics I (3-4 cr.)
Presents problems in the design and production of functional and non-functional ceramic wares. Includes handbuilding the potter’s wheel and clays and glazes. Part I of II. Lecture 0-2 hours. Studio instruction 4-6 hours. Total 5-8 hours per week.

ART 180. Introduction to Computer Graphics (3 cr.)
Provides a working introduction to computer-based electronic technology used by visual artists and designers. Presents the basics of operating platforms and standard industry software. Introduces problems in which students can explore creative potential of the new electronic media environment. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

ART 195-295. Topics in Silkscreen Printing I-II (2 cr. each)
Develops skills in silkscreen stencil techniques with emphasis on design. Includes field trips when applicable. Lecture 1 hours. Studio instruction 2 hours. Total 3 hours per week.

ART 221. Drawing III (3-4 cr.)
Introduces advanced concepts and techniques of drawing as applied to the figure, still life and landscape. Gives additional instruction in composition, modeling, space and perspective. Encourages individual approaches to drawing. Part I of II. Lecture 1-2 hours. Studio instruction 4 hours. Total 5-6 hours per week.

ART 231. Sculpture I (3-4 cr.)
Introduces sculptural concepts and methods of production in traditional and contemporary media. Includes clay, plaster, wood, stone, metal, plastics and terra cotta. May include field trips. Prerequisite ART 131. Part I of II. Lecture 1-2 hours. Studio instruction 4 hours. Total 5-6 hours per week.

ART 241. Painting I (3-4 cr.)
Introduces abstract and representational painting in acrylic and/or oil with emphasis on color composition and value. Prerequisites ART 122 or divisional approval. Part I of II. Lecture 1-2 hours. Studio instruction 4 hours. Total 5-6 hours per week.

ART 242. Painting II (3-4 cr.)
Introduces abstract and representational painting in acrylic and/or oil with emphasis on color composition and value. Prerequisites ART 122 or divisional approval. Part II of II. Lecture 1-2 hours. Studio instruction 4 hours. Total 5-6 hours per week.
ART 243 Watercolor I (3-4 cr.)
Provides abstract and representational painting in watercolor with emphasis on design, color, composition, technique and value. Prerequisite ART 131, or divisional approval. Lecture 1-2 hours. Studio instruction 2-4 hours. Total 4-6 hours per week.

ART 244 Watercolor II (3-4 cr.)
Provides abstract and representational painting in watercolor with emphasis on design, color, composition, technique and value. Prerequisite ART 131, or divisional approval. Lecture 1-2 hours. Studio instruction 2-4 hours. Total 4-6 hours per week.

ART 248 Painting III (3-4 cr.)
Introduces advanced concepts and techniques of representational and abstract painting as applied to the head/figure, still-life, landscape and other subject matter including non-objective painting. Gives additional instruction in color, composition, modeling, space and perspective. Encourages individual approaches to painting. Prerequisite: ART 242 to ART 248. Part I of II. Lecture 2-3 hours. Laboratory 2-3 hours. Total 4-6 hours per week.

ART 283 Computer Graphics I (3-4 cr.)
Utilizes microcomputers and software to produce computer graphics. Emphasizes techniques learned to solve studio projects which reinforce instruction and are appropriate for portfolio use. Part I of II. Lecture 1-2 hours. Studio instruction 3-4 hours. Total 5-6 hours per week.

(ASL) American Sign Language

ASL 101-102 American Sign Language I-II (3-4 cr. each)
Introduces the fundamentals of American Sign Language (ASL) used by the Deaf Community, including basic vocabulary, syntax, fingerspelling, and grammatical non-manual signals. Focuses on communicative competence, develops gestural skills as a foundation for ASL enhancement. Introduces cultural knowledge and increases understanding of the Deaf Community. ASL 101 is a prerequisite for ASL 102.

ASL 115 Fingerspelling and Number Use in ASL (2 cr.)
Provides intensive practice in comprehension and production of fingerspelled words and numbers with emphasis on clarity and accuracy. Focuses on lexicalized fingerspelling and number incorporation as used by native users of American Sign Language. Prerequisite: ASL 101 or permission of instructor.

ASL 125 History & Culture of the Deaf Community I (3 cr.)
Examines the history of the Deaf Community. Lecture 3 hours per week.

ASL 201-202 American Sign Language III-IV (3-4 cr. each)
Develops vocabulary, conversational competence, and grammatical knowledge with a total immersion approach. Introduces increasingly complex grammatical aspects including those unique to ASL. Discusses culture and literature. Contact with the Deaf Community is encouraged to enhance linguistic and cultural knowledge. Prerequisite: ASL 102 or permission of instructor.

(AST) Administrative Support Technology

AST 101 Keyboarding I (2 cr.)
Teaches the alphabetic keyboard and numeric keys: develops correct keying techniques. Teaches basic keyboarding skills and the importance of speed and accuracy. Emphasizes the development of critical-thinking, problem-solving, and job performance skills in a business office environment. Co-requisite or Prerequisite: AST 102 or instructor approval. Lecture 3 hours per week.

AST 102 Keyboarding II (2 cr.)
Develops keyboarding and document production skills with emphasis on developing proofreading skills in the preparation of specialized business documents. Continues skill building for speed and accuracy. Prerequisite: AST 101. A laboratory co-requisite (AST 103) is required. Lecture 2 hours per week.

AST 103 Keyboarding I Laboratory (1 cr.)
Provides supplemental instruction in AST 101. Should be taken concurrently with AST 101. Laboratory 2 hours per week.

AST 104 Keyboarding II Laboratory (1 cr.)
Provides supplemental instruction in AST 102. Should be taken concurrently with AST 102. Laboratory 2 hours per week.

AST 113 Keyboarding for Speed and Accuracy (1 cr.)
Focuses on improving keyboarding speed and accuracy through assigned exercises that diagnose problem areas. Emphasizes increased productivity through improved speed and accuracy. Prerequisite: AST 101 or equivalent. Laboratory 2 hours per week.

AST 114 Keyboarding for Information Processing (1-2 cr.)
Teaches the alphabetic and numeric keys: develops correct techniques and competency in the use of computer keyboards. May include basic correspondence and report formats. A laboratory co-requisite (AST 115) may be required. Lecture 1-2 hours per week.

AST 115 Keyboarding for Information Processing Laboratory (1 cr.)
Provides supplemental instruction in AST 114. Should be taken concurrently with AST 114, in appropriate curricula, as identified by the college. Laboratory 2 hours per week.

AST 117 Keyboarding for Computer Usage (1 cr.)
Teaches the alphabetic keyboard and 10-key pad. Develops correct keyboarding techniques. Lecture 1 hour per week.

AST 201 Keyboarding III (2 cr.)
Develops decision-making skills, speed, and accuracy in production keying. Applies word processing skills in creating specialized business documents. An internship in an office during the latter part of the course provides on-the-job training. Prerequisite: AST 102. A laboratory co-requisite (AST 202) is required. Lecture 3 hours per week.

AST 202 Keyboarding III Laboratory (1 cr.)
Provides supplemental instruction in AST 201. Should be taken concurrently with AST 201. Laboratory 2 hours per week.

AST 205 Business Communications (3 cr.)
Teaches techniques of oral and written communications. Emphasizes writing and presenting business-related materials including instruction in PowerPoint. Includes brief instruction in voice recognition software use (DRAGON Naturally Speaking). Prerequisite: AST 102, ENG 135, and BUS 235, or departmental approval. Lecture 3 hours per week.

AST 234 Records and Database Management (3 cr.)
Teaches filing and records management procedures. Incorporates both manual and electronic methods using Access database software for managing information. Lecture 3 hours per week.

AST 238 Microsoft Word For Windows (2 cr.)
Teaches advanced word processing features including working with merge files, macros, and graphics; develops competence in the production of complex documents. Prerequisite: Touch Keyboarding Skills (ability to type 20 wpm). A laboratory co-requisite (AST 239) is required. Lecture 2 hours per week.

AST 239 Microsoft Word for Windows Laboratory (1 cr.)
Provides supplemental instruction in AST 238. Should be taken concurrently with AST 238. Laboratory 2 hours per week.

AST 234 Office Administration I (3 cr.)
Develops an understanding of the administrative support role and the skills necessary to provide organizational and technical support in a contemporary office setting. Emphasizes the development of critical-thinking, problem-solving, and job performance skills in a business office environment. Co-requisite or Prerequisite: AST 101 or instructor approval. Lecture 3 hours per week.

AST 244 Office Administration II (3 cr.)
Enhances skills necessary to provide organizational and technical support in a contemporary office setting. Emphasizes administrative and supervisory roles of the office professional, includes travel and meeting planning, office budgeting, and financial procedures, international issues, and career development. Prerequisite: AST 101 or instructor approval. Lecture 3 hours per week.

AST 253 Advanced Desktop Publishing I (InDesign) (2 cr.)
Introduces specific desktop publishing software. Teaches document layout and design, fonts, type styles, style sheets, and graphics. Develops abilities in creating letterheads, business cards, brochures, newsletters, forms and many other publications. Prerequisite: AST 101 or equivalent, experience in using a word processing package, and ITE 115 or instructor approval. A laboratory co-requisite AST 255 is required. Lecture 2 hours per week.

AST 255 Desktop Publishing I Lab (1 cr.)
Provides supplemental instruction in AST 253. Should be taken concurrently with AST 253. Laboratory 2 hours per week.
AST 260 Presentation Software (2-4 cr.)
Teaches creation of slides including use of text, clip art, and graphs. Includes techniques for enhancing presentations with on-screen slide show as well as printing to transparencies and hand-outs. Incorporates use of sound and video clips. A laboratory co-requisite (AST 261) may be required. Lecture 2-4 hours per week.

AST 265 Legal Office Procedures (3 cr.)
Concentrates on office procedures used in law offices and develops skills necessary to provide organizational and technical support in a legal setting. An internship in a legal environment provides on-the-job training in the course, providing the student has a curricular Grade Point Average (GPA) of 3.0 or higher. Prerequisite: AST 102.

(AUB) Auto Body
AUB 111-112 Automotive Body Theory and Shop Practices I-II (8 cr. each)
Teaches and applies the fundamentals and use of body tools and materials. Emphasizes shop safety, metal working, welding, and cooling systems. Teaches the recommended methods of identifying, analyzing and repairing collision damage to the front, top, side and rear of the vehicle. Lecture 5 hours. Laboratory 9 hours. Total 14 hours per week.

AUB 113 Automotive Body Theory and Shop Practices III (6 cr.)
Presents the fundamentals of refinishing and painting automobiles including the techniques of masking, blending and spraying. Covers paint shop layout, management, equipment, and damage estimating. Lecture 3 hours. Laboratory 9 hours. Total 12 hours per week.

AUB 115 Damage Repair Estimating (2 cr.)
Teaches inspection and estimation of cost to repair collision damage. Emphasizes writing acceptable estimates for insurance companies. Studies practices used by repair shops and insurance adjusters. Lecture 1 hour. Laboratory 3 hours. Total 4 hours per week.

AUB 116 Automotive Body Repair (4 cr.)
Teaches collision straightening procedures and use of equipment, planning repair procedures, disassembly techniques, body fastening systems, glass removal and replacement and panel repair and alignment. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

AUB 190-290 Coordinated Internship In Auto Body Repair (1-5 cr.)
Supervised on-the-job training in selected business, industrial or service firms coordinated by the College. Credit/ practice ratio maximum 1:5 hours. May be repeated for credit. Variable hours.

AUB 198 Seminar and Project (2 cr.)
Teaches and applies the fundamentals and use of body and frame equipment. Teaches body and frame design and frame construction. Teaches frame and body measuring equipment use. Teaches the recommended methods of identifying and repairing the different types of frame damage. Variable hours.

AUB 206 Automotive Body Component Service (2 cr.)
Teaches operating principles, adjustment and service of selected automotive body components. Emphasizes bumper overhaul and adjustments, hood alignment, door overhaul and adjustments, deck lid alignment, and door-glass adjustments. Lecture 1 hour. Laboratory 3 hours. Total 4 hours per week.

AUB 298 Seminar and Project (1-5 cr.)
Requires completion of a project or research report related to the student's occupational objectives and a study of approaches to the selection and pursuit of career opportunities in the field. May be repeated for credit. Variable hours.

(AUT) Automotive
AUT 111-112 Automotive Engines I-II (3 cr. each)
Presents analysis of power, cylinder condition, valves and bearings in the automotive engine to establish the present condition, repairs or adjustments. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

AUT 113 Cylinder Block Service I (3 cr.)
Studies basic cylinder block reconditioning, including boring, resleeving, line-boring and deck resurfacing. Includes repair techniques for damaged block and cylinder head castings to include cold welding, brazing, welding and epoxy. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

AUT 114 Cylinder Head Service II (3 cr.)
Studies cylinder head reconditioning, including valve seat grinding, refacing valves, servicing valve guides, valve seat inserts, cutting for valve seals and spring thread repair and resurfacing mating surfaces. Prerequisite: AUT 113. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

AUT 121-122 Automotive Fuel Systems I-II (4 cr. each)
Analyzes major domestic and foreign automotive fuel systems to include carburetors and fuel injection systems. Includes detailed inspection and discussion of fuel tanks, connecting lines, instruments, filters, fuel pumps, superchargers, and turbo charger. Also includes complete diagnosis, troubleshooting, overhaul and factory adjustment procedures of all major fuel injection systems. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week. AUT 122 Prerequisite: AUT 121.

AUT 127 Automotive Lubrication and Cooling Systems (3 cr.)
Analyzes lubrication systems to include lubricants, pumps, lines, filters, and vents. Also analyzes cooling systems, coolants, pumps, fans, lines and connections. Teaches estimating repairs, adjustments needed and their costs. Lecture 2 hour. Laboratory 3 hours. Total 5 hours per week.

AUT 136 Automotive Vehicle Inspection (2 cr.)
Presents information on methods for performing automotive vehicle safety inspection. Virginia State Police approved course. Lecture 1 hour. Laboratory 2 hours. Total 3 hours per week.

AUT 178 Automotive Final Drive and Manual Transmission Systems (4 cr.)
Presents the operation, design, construction and repair of manual transmissions and final drive systems, for both front and rear drive vehicles, including clutches, synchronizers, torque multiplication/gear reduction, along with differentials, transmission/transaxles, drive axles, U-joints, CV joints, 4-wheel drive and all-wheel drive systems. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

AUT 211-212 Automotive Systems III-IV (4 cr. each)
Presents advanced theory and detailed study of automobile systems. Provides laboratory periods for actual field practice in troubleshooting. Prerequisite: AUT 12 or in conjunction with AUT 211. AUT 212 Prerequisite: AUT 211 or with instructor approval. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

AUT 230 Introduction to Alternative Fuels and Hybrid Vehicles (3 cr.)
Introduces current trends in alternative fueled vehicles including current alternative fueled vehicles and the implication and safety precautions necessary for working on hybrid vehicles systems. Hybrid - hours per week.

AUT 236 Automotive Climate Control (4 cr.)
Introduces principles of refrigeration, air conditioning controls, and adjustment and general servicing of automotive air conditioning systems. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

AUT 237 Automotive Accessories (3 cr.)
Introduces the principles, design, construction, adjustment, and maintenance of all automotive equipment classed as an accessory which is not studied in other automotive courses. 3 hours per week – web-based.

AUT 241-242 Automotive Electricity I-II (4 cr. each)
Introduces electricity and magnetism, symbols and circuitry as applied to the alternators, regulators, starters, lighting systems, instruments and gauges. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

AUT 245 Automotive Electronics (3-4 cr.)
Introduces field of electronics as it applies to the modern automobile. Emphasizes basic circuit operation, diagnosis and repair of digital indicator and warning systems. Lecture 3 hours. Laboratory 0-3 hours. Total 3-6 hours per week.

AUT 251 Automatic Transmissions I (4 cr.)
Studies several types of automatic transmissions, torque converters, and their principles of operation. Includes adjustment, maintenance, and rebuilding. Lecture 2 hours. Laboratory 6 hours. Total 8 hours per week.

AUT 265 Automotive Braking Systems (3 cr.)
Presents operation, design, construction, repair, and servicing of braking systems. Explains uses of tools and test equipment, evaluation of test results, estimation of repair cost for power, standard and disc brakes. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.
AUT 266 Auto Alignment, Suspension and Steering (4 cr.)
Introduces use of alignment equipment in diagnosing, adjusting, and repairing front and rear suspensions. Deals with repair and servicing of power and standard steering systems. Lecture 2 hours. Laboratory 0-9 hours. Total 2-9 hours per week.

AUT 295 Topics In (1-5 cr.)
Provides an opportunity to explore topical areas of interest to or needed by students. May be used also for special honors courses. May be repeated for credit. Variable hours.

AUT 298 Seminar and Project (1-5 cr.)
Requires completion of a project or research report related to the student's occupational objectives and a study of approaches to the selection and pursuit of career opportunities in the field. May be repeated for credit. Variable hours.

(BIO) Biology

BIO 100 Basic Human Biology (3 cr.)
Presents basic principles of human anatomy and physiology. Discusses cells, tissues, and selected human systems. Lecture 3 hours per week.

BIO 101 General Biology I (4 cr.)
Focuses on foundations in cellular structure, metabolism, and genetics in an evolutionary context. Explores the core concepts of evolution; structure and function; information flow, storage and exchange; pathways and transformations of energy and matter; and systems biology. Emphasizes process of science, interdisciplinary approach, and relevance of biology to society. Part I of a two-course sequence. Lecture 3 hours. Recitation and laboratory 3 hours. Total 6 hours per week.

BIO 102 General Biology II (4 cr.)
Focuses on diversity of life, anatomy and physiology of organisms, and ecosystem organization and processes in an evolutionary context. Explores the core concepts of evolution; structure and function; information flow, storage and exchange; pathways and transformations of energy and matter; and systems biology. Emphasizes process of science, interdisciplinary approach, and relevance of biology to society. Part II of a two-course sequence. Lecture 3 hours. Recitation and laboratory 3 hours. Total 6 hours per week.

BIO 105 Introduction to Microbiology (1 cr.)
Examines morphology, genetics, physiology, ecology, and control of microorganisms. Emphasizes application of microbiological techniques to selected fields. Prerequisites: BIO 101, one year of college biology and one year of college chemistry or divisional approval. Lecture 3 hours. Recitation and laboratory 3 hours. Total 6 hours per week.

BIO 106 Microbiology (4 cr.)
Examines morphology, genetics, physiology, ecology, and control of microorganisms. Emphasizes application of microbiological techniques to selected fields. Prerequisites: BIO 101, one year of college biology and one year of college chemistry or divisional approval. Lecture 3 hours. Recitation and laboratory 3 hours. Total 6 hours per week.

BIO 205 General Microbiology (4 cr.)
Examines morphology, genetics, physiology, ecology, and control of microorganisms. Emphasizes application of microbiological techniques to selected fields. Prerequisites: BIO 101, one year of college biology and one year of college chemistry or divisional approval. Lecture 3 hours. Recitation and laboratory 3 hours. Total 6 hours per week.

BIO 256 General Genetics (4 cr.)
Explores the principles of genetics ranging from classical Mendelian inheritance to the most recent advances in the biochemical nature and function of the gene. Includes experimental design and statistical analysis. Prerequisite: BIO 101-102 or equivalent. Lecture 3 hours. Recitation and laboratory 3 hours. Total 6 hours per week.

BIO 270 General Ecology (2-6 cr.)
Studies interrelationships between organisms and their natural and cultural environments with emphasis on populations, communities, and ecosystems. Prerequisite BIO 101-102 or divisional approval. Lecture 1-4 hours. Recitation and laboratory 3-6 hours. Total 4-10 hours per week.

(BLD) Building

BLD 103 Principles of Residential Building Construction Inspection (3 cr.)
Introduces general principles of residential building inspection including materials, foundations, framing, finishing, and building codes. Use local pre/co-requisites. Lecture 3 hours per week.

BLD 110 Introduction to Construction (3 cr.)
Covers basic knowledge and requirements needed in the construction trades. Introduces use of tools and equipment, with emphasis on construction safety, including personal and tool safety. Provides a working introduction to basic blueprint reading and fundamentals of construction mathematics. Lecture 3 hours per week.

BLD 120 Applied Construction Mathematics (3 cr.)
Presents a review of mathematic principles and concepts necessary for typical construction applications. Includes: whole numbers, order of operations, fractions, decimals, weights, measures and conversions, ratio and proportions, percentages, angles and perimeters, volume and surface area solids, board measure, lumber pricing, computations for preparing footing, foundations and slabs, beams and framing roofs systems and stairs. Covers basic estimation and working from construction plans. This course is not intended to satisfy general education requirements. Prerequisite: MTE 2. Lecture 3 hours per week.

BLD 131-132 Carpentry Framing I-II (5 cr. each)
Presents an introduction to carpentry with emphasis on residential construction. Covers safety on the job, appropriate use of power tools, basic construction techniques, and introduction to working drawings, and the team approach to residential buildings. Presents an introduction to selection and use of ladders and scaffolds, basic form removal and demolition, and use of basic first aid. Includes the concepts of carpentry framing for floors, walls, ceilings, porches and decks. Includes theoretical and practical application as well as the concepts of carpentry framing for roof, truss installation and door and window installation. Lecture 3 hours per week. Laboratory 4 hours. Total 7 hours.

BLD 133-134 Carpentry Framing III-IV (5 cr. each)
Continues the study of carpentry with emphasis on residential construction. Lecture 3 hours. Laboratory 4 hours. Total 7 hours per week.

BLD 184 Interior and Exterior Finishes (3 cr.)
Introduces the student to interior wall framing with wood and/or metal studs, layout of walls, and the steps required to successfully complete interior framing. Also covers the steps used for exterior finishes, such as siding, cornice work, and gutters. Lecture 3 hours per week.

BLD 195 Introduction to Construction Mathematics (3 cr.)
Covers fundamentals of construction mathematics and requirements needed in the construction trades. Introduces use of techniques and equations, with emphasis on construction applications, including areas, volumes and ratios. Introduces basic material estimation and costing projects. Lecture 3 hours per week.

BLD 195 Plumbing I (3 cr.)
Course will include topics in understanding blueprints and their symbols; the Cabo/Ansi A117.1-1992 Standard for Accessible Facilities; water heaters; water supply and distribution systems; and sizing water lines.

BLD 195 Plumbing II (3 cr.)
Topics include the design of sanitary systems, learning drainage fixture units, materials, joints and connections. Health care plumbing, plumbing math, and plumbing in one and two family dwelling units will also be covered.

BLD 195 Plumbing III (3 cr.)
Covers the study of indirect/special waste, vents, vent stack and stack vents, wet venting, waste stack venting, island fixture venting, relief vents, combination drain and vent system, and sizing vents.

BLD 200 Plumbing IV (3 cr.)
Introduces the study of indirect/special waste, vents, vent stack and stack vents, wet venting, waste stack venting, island fixture venting, relief vents, combination drain and vent system, and sizing vents.
BUS 195 Plumbing IV (1 cr.)
Understanding traps, interceptors, separators, storm water drainage, sizing conductors, leaders and storm drains; root drains, cabo one and two-family dwelling plumbing.

BUS 195 Plumbing V (3 cr.)
Topics include the study of the current uniform Statewide Building Code and how it relates to plumbing, Department of Building Inspections, Application for Permits, Conditions of Permits, Inspections, Violations, Plumbing Definitions, General Regulations, and Plumbing Fixtures.

BUS 195 Topics In (1-5 cr.)
Provides an opportunity to explore topical areas of interest to or needed by students. May be used also for special honors courses. May be repeated for credit. Variable hours.

BUS 195 On-Site Training (1-5 cr.)
Specializes in career orientation and training program without pay in selected businesses and industry, supervised and coordinated by the college. Credit/work ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.

BUS 200 Introduction To Business (3 cr.)
Provides a broad introduction to the functioning of business enterprises within the U.S. economic framework. Introduces economic systems, essential elements of business organizations, production, human resource management, marketing, finance, and risk management. Develops business vocabulary. Lecture 3 hours per week.

BUS 111 Principles of Supervision (3 cr.)
Teaches the fundamentals of supervision, including the primary responsibilities of the supervisor. Introduces factors relating to the work of supervisor and subordinates. Covers aspects of leadership, job management, work improvement, training, orientation, performance evaluation, and effective employee/supervisor relationships. Prerequisite: BUS 100 or Department/Instructor approval. Lecture 3 hours per week.

BUS 121 Business Mathematics I (3 cr.)
Applies mathematical operations to business processes and problems. Reviews operations, equations, percents, sales taxes, checkbook and cash records, wage and payroll computations, discounts, markup, mark-down and simple interest. Lecture 3 hours per week.

BUS 122 Business Mathematics II (3 cr.)
Applies mathematical operations to business problems. Reviews basic statistics, distribution of profit and loss in partnerships, distribution of corporate dividends, mortgage amortization, insurance, simple interest, present value, bank discount notes, multiple payment plans, compound interest, annuities, sinking funds, and depreciation, and mortgage amortization. Lecture 3 hours per week.

BUS 147 Introduction To Business Information Systems (3 cr.)
Presents an overview of business information systems. Introduces computer hardware, software, procedures, systems, and human resources, and explores their integration and application in business. Discusses fundamentals and applications of computer problem solving and programming. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

BUS 149 Workplace Ethics (1 cr.)
Provides a broad overview of ethics in the modern day business world including workforce skill building and self awareness through group discussions. Discusses workplace topics such as diversity, substance abuse, hiring and firing and workplace practices, appropriate dress, communication, business ethics, and interviewing. Lecture 1 hour per week.

BUS 165 Small Business Management (3 cr.)
Identifies management concerns unique to small businesses. Introduces the requirements necessary to initiate a small business, and identifies the elements comprising a business plan. Presents information establishing financial and administrative controls, developing a marketing strategy, managing business operations, and the legal and government relationships specific to small businesses. Lecture 3 hours per week.

BUS 195 Workplace Preparedness (3 cr.)
The class provides workforce skill building through workplace assessments and group discussions. Students will be introduced to workforce topics such as teambuilding, communication, problem solving, business ethics, customer service and personal finances. Lecture 3 hours per week.

BUS 205 Human Resource Management (3 cr.)
Introduces employment, selection, and placement of personnel, usage levels and methods, job descriptions, training methods and programs, employee evaluation systems, compensation and labor relations. Includes procedures for management of human resources and uses case studies and problems to demonstrate implementation of these techniques. Lecture 3 hours per week.

BUS 209 Continuous Quality Improvement (3 cr.)
Presents the different philosophies in Continuous Quality Improvement. Introduces students to Process Improvement, Team Development, Consensus Building, and Problem Solving strategies. Identifies methods for Process Improvement in manufacturing and service organizations, which includes Statistical Process Control when used in the quality assurance function of business and industry. Lecture 3 hours per week.

BUS 220 Introduction To Business Statistics (3 cr.)
Introduces statistics as a tool in decision-making. Emphasizes ability to collect, present, and analyze data. Employs measures of central tendency and dispersion, statistical inference, index number, and time series analysis. Lecture 3 hours per week.

BUS 221 Business Statistics I (3 cr.)
Focuses on statistical methodology in the collection, organization, presentation, and analysis of data. Emphasizes applications of statistical concepts and distribution, sampling, statistical estimation, normal and T-distribution, and hypothesis testing for means and proportions. Prerequisite: MTH 163, or departmental approval. Lecture 3 hours per week.

BUS 223 Distribution and Transportation (3 cr.)
Examines the background and history of transportation, emphasizing the fundamental role and importance the industry plays in companies, society, and the environment in which transportation service is provided. Provides an overview of carrier operations, management, technology, and strategies including transportation regulations and public policy. Lecture 3 hours per week.

BUS 227 Quantitative Methods (3 cr.)
Includes an overview of quantitative methods in business decision-making, simple and multiple regression and correlation analysis, time series analysis and business forecasting, decision analysis, linear programming, transportation and assignment methods, and network models. Includes computer applications. Prerequisite: MTH 163, or departmental approval. Lecture 3 hours per week.

BUS 235 Business Letter Writing (3 cr.)
Applies composition principles to business correspondence, employment documents, and reports (including presentation of data in various chart formats). Focuses on preparing effective communications with customers, suppliers, employees, the public, and other business contacts. Prerequisite: AST 102/104, ENG 134. Co-requisite: ENG 135. Lecture 3 hours per week.

BUS 236 Communication In Management (3 cr.)
Introduces the functions of communication in management with emphasis on gathering, organizing, and transmitting facts and ideas. Teaches the basic techniques of effective oral and written communication. Lecture 3 hours per week.

BUS 240 Introduction to Business Law (3 cr.)
Introduces students to the American legal system, including an overview of the courts, civil and criminal law. Develops an in-depth understanding of contracts, agency law, and business organizations. Also includes an overview of property, UCC Sales, and Commercial Paper. Lecture 3 hours per week.

BUS 255 Inventory and Warehouse Management (3 cr.)
Emphasizes the relationships of inventory and warehouse management to customer service and profitability of the wholesale distributor. Focuses on the role of computerized systems and resulting information for effective management of inventory and the warehouse under various conditions. Lecture 3 hours per week.

BUS 295 Topics In: (1-5 cr.)
Provides an opportunity to explore topical areas of interest to or needed by students. May be used also for special honors courses. May be repeated for credit. Variable hours.

BUS 297 Cooperative Education in Business (1-5 cr.)
Provides on-the-job training in approved business, industrial and service firms. Credit/work ratio not to exceed 1:5 hours. Variable hours per week.
BUS 290 Seminar and Project in Business (3 cr.)
Requires completion of a project or research report related to the student's occupational objectives and a study of approaches to the selection and pursuit of career opportunities in the field. May be repeated for credit. Prerequisite: Sophomore standing in business management plus ACC 111 (or departmental approval). Lecture 3 hours per week.

(CAD) Computer Aided Drafting and Design

CAD 116 Drafting III (3 cr.)
Focuses on auxiliaries, basic concepts, terms of reference, choice of views, axis, proportioning distances and perspective drawings. Prerequisite: DRF 114. Lecture 1 hour. Laboratory 6 hours. Total 7 hours per week.

CAD 120 Introduction to Graphic Representation (3 cr.)
Teaches use of instruments, lettering, sketching, and drawing conventions. Emphasizes legible drawings and the value of presentation. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

CAD 160 Machine Blueprint Reading (3 cr.)
Introduces interpreting of various blueprints and working drawings. Applies basic principles and techniques such as visualization of an object, orthographic projection, technical sketching and drafting terminology. Requires outside preparation. (Credit will not be awarded for both CAD 160 and DRF 160.) Lecture 3 hours per week.

CAD 199 Supervised Study (1-5 cr.)
Assigns problems for independent study outside the normal classroom setting under the guidance and direction of an instructor. Incorporates prior experience and instruction in the discipline. Variable hours per week.

CAD 200 Survey of Computer Aided Drafting (3-4 cr.)
Surveys computer-aided drafting equipment and concepts. Develops general understanding of components, operations and use of a typical CAD system. Lecture 2-3 hours. Laboratory 2-3 hours. Total 4-6 hours per week.

CAD 201 Computer Aided Drafting and Design I (3 cr.)
Teaches computer-aided drafting concepts and equipment designed to develop a general understanding of components of a typical CAD system and its operation. Prerequisite: DRF 114 or department approval. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

CAD 202 Computer Aided Drafting and Design II (3 cr.)
Teaches working drawings and advanced operations in computer aided drafting. Prerequisite: CAD 201. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

CAD 210 Advanced Technical Drafting (4 cr.)
Intersections of plane surfaces, lines and planes, skew lines and surfaces; intersections of prisms, pyramids and other shapes, developments, sheet metal-drafting, screw threads and fasteners, keys and springs. Prerequisite: DRF 114 or departmental approval. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

CAD 232 Computer Aided Drafting II (2 cr.)
Teaches advanced operation in computer aided drafting. Lecture 1 hour per week. Laboratory 2 hours per week. Total 3 hours per week.

CAD 233 Computer Aided Drafting III (3 cr.)
Exposes student to 3-D and modeling. Focuses on proficiency in Production drawing using a CAD system. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

CAD 280 - Design Capstone Project (2-3 cr.)
Focuses on design projects developed in independently and in consultation with the Instructor. Topics covered but not limited to, parametric modeling, civil, mechanical piping, architectural applications, structural, electro-mechanical, 3-D Solids, exploration of application software and the integration of CAD/CAM. Prerequisites: CAD 211 or 212, and CAD 199 or 201. (Credit will not be awarded for both CAD 280 and DRF 280.) Lecture 2-3 hours per week.

CAD 295 Blueprint Reading I (2-3 cr.)
Focuses on design projects developed independently and in consultation with the instructor. Topics covered include parametric modeling, civil, mechanical piping, architectural applications, structural, electro-mechanical, 3-D Solids, exploration of application software and the integration of CAD/CAM. Lecture 2-3 hours per week.

(CHD) Childhood Development

CHD 118 Language Arts for Young Children (3 cr.)
Presents techniques and methods for encouraging the development of language and perceptual skills in young children. Stresses improvement of vocabulary, speech and methods to stimulate discussion. Surveys children's literature, examines elements of quality story telling and story reading, and stresses the use of audio-visual materials. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

CHD 119 Introduction to Reading Methods (3 cr.)
Focuses on promoting language and literacy skills as the foundation for emergent reading. Emphasizes phonetic awareness and alphabetic knowledge, print awareness and concepts, comprehension and early writing. Addresses strategies for intervention and support for exceptional children and English Language Learners. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

CHD 120 Introduction to Early Childhood Education (3 cr.)
Introduces early childhood development through activities and experiences in nursery, pre-kindergarten, and primary programs. Investigates classroom organization and procedures, and use of classroom time and materials, approaches to education for young children, professionalism, and curriculum procedures. Lecture 3 hours per week.

CHD 125 Creative Activities for Children (3 cr.)
Prepares individuals to work with young children in the arts and other creative age-appropriate activities. Investigates affective classroom experiences and open-ended activities. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

CHD 145 Methods for Teaching Art, Music, and Movement to Children (3 cr.)
Provides experiences in developing the content, methods, and materials for directing children in art, music, and movement activities. Lecture 3 hours.

CHD 146 Science & Math Concepts for Children (3 cr.)
Covers the selection of appropriate developmental learning materials for developing activities to stimulate the logical thinking skills in children. Lecture 3 hours.

CHD 165 Observation and Participation in Early Childhood/Primary Settings (3 cr.)
Observes and participates in early childhood settings such as child care centers, preschools, Montessori schools or public schools in Kindergarten through 3rd grade levels. Students spend one hour each week in a seminar session in addition to 60 clock hours in the field. May be taken again for credit. Lecture 1 hour. Laboratory 6 hours. Total 7 hours per week.

CHD 166 Infant and Toddler Programs (3 cr.)
Examines the fundamentals of infant and toddler development, including planning and implementing programs in group care. Emphasizes meeting physical, social, emotional, and cognitive needs: scheduling, preparing age-appropriate activities, health and safety policies, record keeping, and reporting to parents. Lecture 3 hours.

CHD 205 Guiding the Behavior of Children (3 cr.)
Explores positive ways to build self-esteem in children and help them develop self-control. Presents practical ideas for encouraging pro-social behavior in children and emphasizes basic skills and techniques in classroom management. Lecture 3 hours per week.

CHD 210 Introduction to Exceptional Children (3 cr.)
Reviews the history of education for exceptional children. Studies the characteristics associated with exceptional children, explores positive techniques for managing behavior and adapting materials for classroom use. Lecture 3 hours per week.

CHD 215 Models of Early Childhood Education Programs (3 cr.)
Studies and discusses the various models and theories of early childhood education programs, including current trends and issues. Presents state licensing and staff requirements. Lecture 3 hours per week.

CHD 216 Early Childhood Programs, School, and Social Change (3 cr.)
Explores methods of developing positive, effective relations with families to enhance their developmental goals for children. Considers diverse needs, perspectives and abilities of both families and teaching staff. Reviews current trends and issues in early care and education. Lecture 3 hours per week.

CHD 265 Advanced Observation and Participation in Early Childhood/Primary Settings (3 cr.)
Observes and participates in early childhood settings such as child care centers, preschools, Montessori schools or public school settings (Kindergarten through third grade). Emphasizes planning and implementation of appropriate activities and materials for children. Students will spend one hour each week in a seminar session in addition to 60 clock hours in the field. May be taken again for credit. Lecture 1 hour. Laboratory 6 hours. Total 7 hours per week.
CHD 270 Administration of Child Care Programs (3 cr.)
Examines the skills needed for establishing and managing early childhood programs. Emphasizes professionalism and interpersonal skills, program planning, staff selection and development, creating policies, budgeting and developing forms for recordkeeping. Lecture 3 hours per week.

CHD 298 Portfolio Development (1 cr.)
In conjunction with CHD 265, serves as the capstone course for the Early Childhood Associate in Applied Science Degree. Focuses on the development of a portfolio to demonstrate professional competence in the field of early care and education. The resulting portfolio will be reviewed by early childhood faculty and other designated early childhood professionals. Lecture 1 hour per week.

(CHM) Chemistry

CHM 5 Developmental Chemistry for Health Sciences (1-5 cr.)
Introduces basic principles of inorganic, organic, and biological chemistry. Emphasizes applications to the health sciences. Laboratory is optional. Lecture 1-4 hours. Laboratory 0-3 hours. Total 1-7 hours per week.

CHM 101-102 General Chemistry I-II (4 cr. each)
Emphasizes experimental and theoretical aspects of inorganic, organic, and biological chemistry. Discusses general chemistry concepts as they apply to issues within our society and environment. Designed for the non-science major. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

CHM 111-112 College Chemistry I-II (4 cr. each)
Explores the fundamental laws, theories, and mathematical concepts of chemistry. Designed primarily for science and engineering majors. Requires a strong background in mathematics. Prerequisite: MTH 03 or equivalent. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

CHM 241-242 Organic Chemistry I-II (3 cr. each)
Introduces fundamental chemistry of carbon compounds, including structures, physical properties, syntheses, and typical reactions. Emphasizes reaction mechanisms. Prerequisite: CHM 112. Co-requisite CHM 243-244 or CHM 245-246. Lecture 3 hours per week.

CHM 243-244 Organic Chemistry Lab. I-II (1 cr. each)
Taken concurrently with CHM 241 and CHM 242. Laboratory 3 hours per week.

CHM 245-246 Organic Chemistry Lab. I-II (2 cr. each)
Taken concurrently with CHM 241 and CHM 242 by chemistry and chemical engineering majors. Includes qualitative organic analysis. Laboratory 6 hours per week.

(CIV) Civil Engineering Technology

CIV 171 Surveying I (3 cr.)
Introduces surveying equipment, procedures and computations including adjustment of instruments, distance measurement, leveling, angle measurement, traversing, traverse adjustments, area computations and introduction to topography. Prerequisite: Engineering Technical Math or divisional approval. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

(CRF) Crafts

CRF 159 Introduction to Fine Woodworking (3 cr.)
Introduces wood as a medium for realizing their designs. Includes the milling technique, mortise and tenon joinery, surface preparation, and application of oil finishes. Students learn safe use of the radial arm saw, jointer, planer, table saw, band saw, drill press, horizontal boring machine, and router. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

(CSC) Computer Science

CSC 200 Introduction to Computer Science (3-4 cr.)
Provides broad introduction to computer science. Discusses architecture and function of computer hardware, including networks and operating systems, data and instruction representation and data organization. Covers software, algorithms, programming languages and software engineering. Discusses artificial intelligence and theory of computation. Includes a hand-on component. Lecture 3-4 hours per week.

CSC 201 Computer Science I (4 cr.)
Introduces algorithm and problem solving methods. Emphasizes structured programming concepts, elementary data structures and the study and use of a high level programming language. Corequisite CSC 100 or equivalent and MTH 173 or equivalent or divisional approval. Lecture 4 hours per week.

CSC 202 Computer Science II (4 cr.)
Examines data structures and algorithm analysis. Covers data structures (including sets, strings, stacks, queues, arrays, records, files, linked lists, and trees), abstract data types, algorithm analysis (including searching and sorting methods), and file structures. Prerequisite CSC 201. Corequisite MTH 174. Lecture 4 hours per week.

CSC 205 Computer Organization (3-4 cr.)
Examines the hierarchical structure of computer architecture. Focuses on multi-level machine organization. Uses a simple assembler language to complete programming projects. Includes processors, instruction, execution, addressing techniques, data representation and digital logic. Lecture 3-4 hours per week.

(CST) Communications Studies and Theatre

CST 100 Principles of Public Speaking (3 cr.)
Applies theory and principles of public address with emphasis on preparation and delivery. Lecture 3 hour per week.

CST 110 Introduction to Communication (2-3 cr.)
Examines the elements affecting speech communication at the individual, small group, and public communication levels with emphasis on practice of communication at each level. Lecture 2-3 hours per week.

CST 126 Interpersonal Communication (3 cr.)
Teaches interpersonal communication skills for both daily living and the world of work. Includes perception, self-concept, self-disclosure, listening and feedback, nonverbal communication, attitudes, assertiveness and other interpersonal skills. Lecture 3 hours per week.

CST 130 Introduction to the Theatre (3 cr.)
Surveys the principles of drama, the development of theatre production, and selected plays to acquaint the student with various types of theatrical presentations. Lecture 3 hours per week.

CST 131 Acting I (3 cr.)
Develops personal resources and explores performance skills through such activities as theatre games, role playing, improvisation, work on basic script units, and performance of scenes. Part I of II. Lecture 2 hours. Laboratory 3 hour. Total 5 hours per week.

CST 132 Acting II (3 cr.)
Develops personal resources and explores performance skills through such activities as theatre games, role playing, improvisation, work on basic script units, and performance of scenes. Part II of II. Lecture 2 hours. Laboratory 3 hour. Total 5 hours per week.

CST 136 Theatre Workshop (1-6 cr.)
Enables students to work in various activities of play production. The student participates in performance, set design, stage carpentry, sound, costumeing, lighting, stage managing, props, promotion, or stage crew. May be repeated for credit. Variable hours per week.

CST 151, CST 152 Film Appreciation I, II (3 cr. each)
Provides students with a critical understanding of film through the discussion and viewing of motion pictures with emphasis upon the study of film history and the forms and functions of film. Students will develop skills to analyze the shared social, cultural and historical influences of films and their contexts. Lecture 3 hours per week.

CST 231 History of Theatre I (3 cr.)
Analyzes and studies theatre history to include architecture, performers and performance, playwright, stage, production methods, and audience from the Greeks through modern drama. Part I of II. Lecture 3 hours per week.

(DNA) Dental Assisting

DNA 100 Introduction to Oral Health Professions (1 cr.)
Provides an introduction to the oral health profession and covers basic terminology, historical perspective, the credentialing process, accreditation, professional organizations, and legal and ethical considerations. Lecture 1 hour per week.
DNA 103 Introduction to Oral Health (1 cr.)
Teaches anatomy of the head and neck, the oral cavity hard and soft tissues, as well as tooth morphology. Includes dental terminology, deciduous and permanent dentition as well as pathology. Lecture 1 hour per week.

DNA 109 Practical Infection Control (3 cr.)
Studies principles of management of disease producing microorganisms and diseases associated. Emphasis is placed on sterilization, asepsis, and disinfection techniques applicable in the dental office. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

DNA 110 Dental Materials (3 cr.)
Studies the materials utilized in the laboratory aspect of dentistry as support in treatment. Emphasis is placed on the characteristics, manipulation, economical control, storage, and delivery of materials. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

DNA 113 Chairside Assisting I (3 cr.)
Provides instruction on the principles of clinical chair side dental assisting, dental equipment use and maintenance, safety, instrument identification, tray set-ups by procedures, and patient data collection. Emphasis on patient management during restorative procedures. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

DNA 134 Dental Radiology and Practicum (3 cr.)
Teaches the physics of dental radiation and safety, equipment operation, cone placement for the parallel and bisection techniques, panoramic exposures, mounting and film processing. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

DNA 190 Coordinated Internship (1-5 cr.)
Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.

(DRF) Drafting
(see also CAD – Computer Aided Drafting)

DRF 114-115 Drafting I-II (4 cr. each)
Focuses on instruments, geometric construction, orthographic projection, sections and conventions, pictorial drawings, isometric principles, oblique drawing, and dimensioning. Prerequisite: for DRF 115: DRF 114. Lecture 1 hour. Laboratory 6 hours. Total 7 hours per week.

DRF 160 Machine Blueprint Reading (3 cr.)
Introduces interpreting of various blueprints and working drawings. Applies basic principles and techniques such as visualization of an object, orthographic projection, technical sketching and drafting terminology. Requires outside preparation. Lecture 3 hours per week.

DRF 165 Architectural Blueprint Reading (3 cr.)
Emphasizes reading, understanding and interpreting standard types of architectural drawings including plans, elevation, sections and details. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

(ECO) Economics

ECO 100 Elementary Economics (3 cr.)
Introduces students to the most basic elements of economics without detailed study of theory. Presents and interprets current issues and concerns publicized in the media. Allows students to understand and grasp the importance of current local, state, and national issues with economic themes and overtones. Lecture 3 hours per week.

ECO 120 Survey of Economics (3 cr.)
Presents a broad overview of economic theory, history, development, and application. Introduces terms, definitions, policies, and philosophies of market economies. Provides some comparison with other economic systems. Includes some degree of exposure to microeconomic and macroeconomic concepts. Lecture 3 hours per week.

ECO 201 Principles of Macroeconomics (3 cr.)
Introduces macroeconomic principles and their relationship to current economic conditions. Presents the concept of a free enterprise economy and how it compares to other economic systems. Introduces the concepts of supply and demand and discusses how markets allocate resources. Presents measures of economic activity and discusses the problems of economic instability - inflation and unemployment. Discusses the various approaches to achieving economic stability including classical, Keynesian, monetarist and supply side positions. The structure of the banking system and the role of the Federal Reserve are discussed. Lecture 3 hours per week.

ECO 202 Principles of Microeconomics (3 cr.)
Introduces microeconomic principles and their relationship to current economic conditions. Further analysis of the theories of supply and demand is presented. The costs of production for private business firms are analyzed. The concept of profit maximization by business firms under various market conditions is presented. Describes the four basic market models and their implications for business decision making. Analyzes resource markets and the determination of resource prices. Discusses the U.S. role in the global economy and the importance of competitiveness. Lecture 3 hours per week.

(EDU) Education

EDU 114 Driver Task Analysis (3 cr.)
Introduces the “driver task” as related to the highway transportation system and factors that influences performance ability. Prepares students so they may be eligible to take certification exams for driving school instructors in both public and private schools. Prerequisite: Must be eligible for ENG 3 and ENG 5 or ESL 13. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

EDU 200 Introduction to Teaching as a Profession (3 cr.)
Provides an orientation to the teaching profession in Virginia, including historical perspectives, current issues, and future trends in education on the national and state levels. Emphasizes information about teacher licensure examinations, steps to certification, teacher preparation and induction programs, and attention to critical shortage areas in Virginia. Includes supervised field placement (recommended: 40 clock hours) in a K-12 school. Prerequisite: Successful completion of 24 credits of transfer courses. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

EDU 214 Instructional Principles of Driver Education (3 cr.)
Analyzes rules and regulations that govern the conduct of Driver Education programs with special emphasis on organization and administration. Includes uses in the classroom, driving range and on the street. Prepares students so they may be eligible to take the state certification exam in driver education. Prerequisite: EDU 114. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

EDU 235 Health, Safety, and Nutrition Education (3 cr.)
Focuses on the physical needs of children and explores strategies to meet these needs. Emphasizes positive health routines, hygiene, nutrition, feeding and clothing habits, childhood diseases, and safety. Places emphasis on the development of food habits and concerns in food and nutrition. Describes symptoms and reporting procedures for child abuse. Lecture 3 hours per week.

(VCCS) Educational Interpreter Program
(Nota: These courses may not transfer to any other Virginia Community College System (VCCS) institutions in ASL or INT programs.)

EIP 100 Foundations of Vocabulary Building (1 cr.)
Expands general expressive and receptive sign skills necessary for effective communication. Includes incorporation of non-manual skills, including mime and gestures. Includes expressive and receptive vocabulary building within context, refinement of sign production and general memory exercises. Lecture 1 hour per week.

EIP 101 Orientation to Deafness I (1 cr.)
Provides an overview of the Deaf community and its inherent Culture. Includes Deaf Culture, Deaf community dynamics, causes of hearing loss/deafness, and education of the Deaf. This course may not transfer to any other VCCS institutions in ASL or INT programs. Lecture 1 hour per week.

EIP 102 Orientation to Deafness II (1 cr.)
Further investigates the dynamics of the Deaf Community and its inherent Culture, including the differences between the Deaf Community/Culture and the Hearing Community/Culture in areas such as sociolinguistics, political aspects and the development and role of organizations of and by the Deaf. Prerequisite: EIP 101 or consent of instructor. This course may not transfer to any other VCCS institutions in ASL or INT programs. Lecture 1 hour per week.

EIP 111 Introduction to Expressive and Receptive Fingerspelling and Number Systems (1 cr.)
Provides intensive practice in expressive and receptive fingerspelling and numbers with emphasis on clarity, accuracy and speed. Focuses on increasing skills in vocabulary, spelling, letter production, number incorporation and improving fluency. Prerequisite: EIP 11 or consent of instructor. This course may not transfer to any other VCCS institutions in ASL or INT programs. Lecture 1 hour per week.
EIP 112 Advanced Expressive and Receptive Fingerspelling and Number Systems (1 cr.)
Provides more intensive practice in expressive and receptive fingerspelling and numbers with an emphasis on clarity, accuracy, speed and fluency. Addresses appropriate incorporation of fingerspelling and numbers into expressive skills and appropriate comprehension of receptive fingerspelling and numbers and within texts. This course may not transfer to any other VCCS institutions in ASL or INT programs. Lecture 1 hour per week.

EIP 150 Expressive Vocabulary Building and Expressive Text Analysis for Interpreters I (1 cr.)
Expands and improves expressive sign language skills necessary for effective communication and interpreting. Includes vocabulary building within context (spoken and written), refinement of sign production and auditory memory training. This course may not transfer to any other VCCS institutions in ASL or INT programs. Lecture 1 hour per week.

EIP 151 Expressive Vocabulary Building and Expressive Text Analysis for Interpreters II (1 cr.)
Further develops expressive sign language skills, with a continuing emphasis on vocabulary building within context (spoken and signed) and appropriate sign production. Prerequisite: EIP 150 or consent of instructor. This course may not transfer to any other VCCS institutions in ASL or INT programs. Lecture 1 hour per week.

EIP 160 Receptive Vocabulary Building and Receptive Text Analysis for Interpreters I (1 cr.)
Expands and improves receptive sign language skills necessary for effective communication and interpreting. Includes vocabulary building within context (signed), receptive sign analysis and visual memory training. This course may not transfer to any other VCCS institutions in ASL or INT programs. Lecture 1 hour per week.

EIP 161 Receptive Vocabulary Building and Receptive Text Analysis for Interpreters II (1 cr.)
Further develops receptive sign language skills, with a continuing emphasis on vocabulary building within context (signed) and receptive sign analysis. Prerequisite: EIP 160 or consent of instructor. This course may not transfer to any other VCCS institutions in ASL or INT programs. Lecture 1 hour per week.

EIP 181 Pre-Interpreting Skills I (1 cr.)
Develops fundamental skills towards the task of interpreting, specifically building memory and processing skills (both auditory and visual). This course may not transfer to any other VCCS institutions in ASL or INT programs. Lecture 1 hour per week.

EIP 182 Pre-Interpreting Skills II (1 cr.)
Further develops fundamental skills towards the task of interpreting, including review of the Models of Interpreting, English skills and text analysis of spoken English and signed source messages. Prerequisite: EIP 181 or consent of instructor. This course may not transfer to any other VCCS institutions in ASL or INT programs. Lecture 1 hour per week.

EIP 200 Linguistics of American Sign Language: An Overview (1 cr.)
Reviews linguistic aspects of ASL, including ASL phonology and ASL morphology. Introduces ASL syntax, including topicalization and question forms. Includes classifiers and locatives and time references and time sequencing. Lecture 1 hour per week.

EIP 201 Linguistics of American Sign Language for Interpreters I (1 cr.)
Emphasizes linguistic aspects of ASL, including ASL phonology, time references and time sequencing, pronominalization, directional placement, and an introduction to classifiers and locatives. This course may not transfer to any other VCCS institutions in ASL or INT programs. Lecture 1 hour per week.

EIP 202 Linguistics of American Sign Language for Interpreters II (1 cr.)
Review and expands linguistic aspects taught in EIP 201, including more intensive practice with classifiers and locatives, and emphasizes additional linguistic features of ASL (e.g., pluralization, numbers in ASL, and unique morphological characteristics, such as loan signs and noun-verb pairs). Prerequisite: EIP 201 or consent of instructor. This course may not transfer to any other VCCS institutions in ASL or INT programs. Lecture 1 hour per week.

EIP 203 Linguistics of American Sign Language for Interpreters III (1 cr.)
Emphasizes ASL syntax, including ASL sentence types and grammatical features as well as additional morphological characteristics (e.g., temporal aspect and distributional aspect). Prerequisite: EIP 201 or consent of instructor. This course may not transfer to any other VCCS institutions in ASL or INT programs. Lecture 1 hour per week.

EIP 211 Sign-to-Voice Transliterating I (1 cr.)
Introduces skill development techniques for consecutive sign-to-voice transliterating. Incorporates use of visual memory and visual processing skills in reading sign language (e.g., contact signing/Pidgin Signed English). Develops fluency, accuracy and speed through extensive practice with a variety of consecutive sign-to-voice materials. Emphasizes incorporation of appropriate English grammar and vocal intonation. Prerequisites: EIP 181, EIP 202 or consent of instructor. This course may not transfer to any other VCCS institutions in ASL or INT programs. Lecture 1 hour per week.

EIP 212 Sign-to-Voice Transliterating II (1 cr.)
Further develops consecutive sign-to-voice transliterating skills through extensive practice. Continues to develop and refine fluency, accuracy and speed. Additional enhancement of appropriate English grammar skills and appropriate vocal intonation. Prerequisite: EIP 211 or consent of instructor. This course may not transfer to any other VCCS institutions in ASL or INT programs. Lecture 1 hour per week.

EIP 213 Sign-to-Voice Transliterating III (1 cr.)
Introduces skill development techniques for simultaneous sign-to-voice transliterating skills. Develops fluency, accuracy and speed through extensive practice with a variety of simultaneous sign-to-voice materials. Emphasizes use of appropriate English grammar and vocal intonation. Prerequisite: EIP 212 or consent of instructor. This course may not transfer to any other VCCS institutions in ASL or INT programs. Lecture 1 hour per week.

EIP 214 Sign-to-Voice Transliterating IV (1 cr.)
Further develops simultaneous sign-to-voice transliterating skills through extensive practice. Continues to develop and refine fluency, accuracy and speed with a variety of simultaneous sign-to-voice materials. Accentuates use of appropriate English grammar and vocal intonation. Prerequisite: EIP 213 or consent of instructor. This course may not transfer to any other VCCS institutions in ASL or INT programs. Lecture 1 hour per week.

EIP 215 Advanced Sign-to-Voice Interpreting I (1 cr.)
Provides instruction on refining and enhancing sign-to-voice skills, specifically sign-to-voice transliterating and interpreting. Students will self-identify strengths (in voicing) and areas of weakness as the springboard for individual improvement through group work and feedback. Group work will entail student self-analysis and giving and receiving feedback. Prerequisites: EIP 214 and EIP 203, or consent of instructor. This course may not transfer to any other VCCS institutions in ASL or INT programs. Lecture 1 hour per week.

EIP 216 Advanced Sign-to-Voice Interpreting II (1 cr.)
Further refines and enhances simultaneous sign-to-voice skills. Continued emphasis on student self-analysis and group feedback. Prerequisites: EIP 215 or consent of instructor. This course may not transfer to any other VCCS institutions in ASL or INT programs. Lecture 1 hour per week.

EIP 231 Expressive Transliterating I (1 cr.)
Introduces the skills required to transmit spoken English into a manual code of English consecutively. While a variety of manual codes and their relationships to ASL will be identified, concentration will be on the use of contact signing/Pidgin Signed English (PSE) and the incorporation of conceptually accurate signs. Incorporates use of auditory memory and auditory processing skills in listening to spoken English. Develops fluency and accuracy through extensive practice with a variety of simultaneous voice-to-sign materials. Prerequisites: EIP 181, EIP 202 or consent of instructor. This course may not transfer to any other VCCS institutions in ASL or INT programs. Lecture 1 hour per week.

EIP 232 Expressive Transliterating II (1 cr.)
Further develops consecutive voice-to-sign transliterating skills through extensive practice. Continued emphasis on contact signing/Pidgin Signed English (PSE) and conceptually accurate sign choices. Prerequisite: EIP 231 or consent of instructor. This course may not transfer to any other VCCS institutions in ASL or INT programs. Lecture 1 hour per week.

EIP 233 Expressive Transliterating III (1 cr.)
Introduces skill development techniques for simultaneous voice-to-sign transliterating. Emphasis is on use of contact signing/Pidgin Signed English (PSE) and the incorporation of conceptually accurate signs. Develops fluency and accuracy through extensive practice with a variety of simultaneous voice-to-sign materials. Prerequisite: EIP 232 or consent of instructor. This course may not transfer to any other VCCS institutions in ASL or INT programs. Lecture 1 hour per week.

EIP 234 Expressive Transliterating IV (1 cr.)
Further develops simultaneous voice-to-sign transliterating skills through extensive practice. Continued emphasis on contact signing/Pidgin Signed English (PSE) and conceptually accurate sign choices. Prerequisite: EIP 233 or consent of instructor. This course may not transfer to any other VCCS institutions in ASL or INT programs. Lecture 1 hour per week.
EIP 235 Advanced Expressive Transliterating I (1 cr.)
Provides instruction on refining and enhancing simultaneous voice-to-sign transliterating skills. Students will self-identify strengths (in signing) and areas of weakness as the springboard for individual improvement through group work and feedback. Group work will entail student self-analysis and giving and receiving feedback. Prerequisite: EIP 234 or consent of instructor. This course may not transfer to any other VCCS institutions in ASL or INT programs. Lecture 1 hour per week.

EIP 236 Advanced Expressive Transliterating II (1 cr.)
Further refines and enhances simultaneous voice-to-sign transliterating skills. Continued emphasis on student self-assessment and group feedback. Prerequisite: EIP 235 or consent of instructor. This course may not transfer to any other VCCS institutions in ASL or INT programs. Lecture 1 hour per week.

EIP 240 Interpreting in the Educational Setting (1 cr.)
Examines roles, responsibilities, and communication techniques of the Educational Interpreter. Provides information on the needs of the Deaf student and methods used in teaching students who are Deaf and Hard-of-Hearing. Emphasizes skill development using conceptually accurate signs. Prerequisites: EIP 214 and EIP 234 or consent of instructor. This course may not transfer to any other VCCS institutions in ASL or INT programs. Lecture 1 hour per week.

EIP 242 Interpreting in Special Situations (1 cr.)
Presents techniques and vocabulary involved in interpreting in specific contexts (e.g., medical, legal, platform, artistic, etc.). Prerequisites: EIP 214 and EIP 234 or consent of instructor. This course may not transfer to any other VCCS institutions in ASL or INT programs. Lecture 1 hour per week.

EIP 245 Interpreter Ethics and Responsibilities (1 cr.)
Reviews the basic principles and practices of interpreting, including the logistics of interpreting situations, regulatory and legislative issues, resources, review of the Code of Ethics, professional appearance, and interpreter responsibilities. This course may not transfer to any other VCCS institutions in ASL or INT programs. Lecture 1 hour per week.

EIP 261 Introduction to English-to-ASL Interpreting I (1 cr.)
Develops consecutive interpreting skills from English to ASL. Review of ASL structure and linguistic features and text analysis of English sources into ASL. Incorporates use of auditory memory and auditory processing skills. Emphasis on appropriate incorporation of "restructuring" between English and ASL. Prerequisites: EIP 181 and EIP 203 or consent of instructor. This course may not transfer to any other VCCS institutions in ASL or INT programs. Lecture 1 hr. per week.

EIP 262 English-to-ASL Interpreting II (1 cr.)
Builds on consecutive voice-to-sign interpreting skills. Continued review of ASL structure and linguistic features, text analysis of English sources into ASL and appropriate "restructuring". Prerequisite: EIP 261 or consent of instructor. This course may not transfer to any other VCCS institutions in ASL or INT programs. Lecture 1 hour per week.

EIP 263 English-to-ASL Interpreting III (1 cr.)
Introduces skills needed for simultaneous voice-to-sign interpreting. Emphasis on appropriate processing time needed for simultaneous "restructuring" into ASL. Prerequisite: EIP 262 or consent of instructor. This course may not transfer to any other VCCS institutions in ASL or INT programs. Lecture 1 hour per week.

EIP 264 English-to-ASL Interpreting IV (1 cr.)
Further refines and enhances simultaneous voice-to-sign interpreting skills. Continued emphasis on appropriate processing time needed for simultaneous "restructuring" into ASL. Prerequisite: EIP 263 or consent of instructor. This course may not transfer to any other VCCS institutions in ASL or INT programs. Lecture 1 hour per week.

EIP 280 Interactive Transliterating (1 cr.)
Provides instruction on transliterating in interactive situations. Prerequisites: EIP 214 and EIP 234 or consent of instructor. This course may not transfer to any other VCCS institutions in ASL or INT programs. Lecture 1 hour per week.

EIP 281 Interactive Interpreting (1 cr.)
Provides instruction on interpreting in interactive situations. Prerequisites: EIP 216 and EIP 284 or consent of instructor. This course may not transfer to any other VCCS institutions in ASL or INT programs. Lecture 1 hour per week.

EIP 289 Preparation for Performance Evaluations: Transliterating (1 cr.)
Provides a "mock" performance evaluation with a focus on transliterating. Students will receive feedback as well perform self-analyses in order to better prepare them to take the Transliterating component of the Virginia Quality Assurance Screening (VQAS). Prerequisites: EIP 214, EIP 280 or consent of instructor. This course may not transfer to any other VCCS institutions in ASL or INT programs. Lecture 1 hour per week.

EIP 291 Preparation for Performance Evaluations: Interpreting (1 cr.)
Provides a "mock" performance evaluation with a focus on interpreting. Students will receive feedback as well perform self-analyses in order to better prepare them to take the Interpreting component of the Virginia Quality Assurance Screening (VQAS). Prerequisites: EIP 216, EIP 264, EIP 261 or consent of instructor. This course may not transfer to any other VCCS institutions in ASL or INT programs. Lecture 1 hour per week.

(EGR) Engineering

EGR 100 Engineering Technology Orientation (1 cr.)
Focuses on the roles and responsibilities of the engineering team, professional ethics, problem solving with hand calculator and computer applications. Laboratory 2 hours per week.

EGR 115 Engineering Graphics (2 cr.)
Applies principles of orthographic projection and multi-view drawings. Teaches descriptive geometry, including relationships of points, lines, planes, and solids. Introduces sectioning, dimensioning, and computer graphic techniques. Includes instruction in Computer Aided Drafting. Lecture 1 hour. Laboratory 0.5 hours. Total 2.5 hours per week.

EGR 120 Introduction to Engineering (1-2 cr.)
Introduces the engineering profession, professional concepts, ethics, and responsibility. Reviews hand calculators, number systems, and unit conversions. Introduces the personal computer and operating systems. Includes engineering problem solving techniques using computer software. Lecture 0-2 hours. Laboratory 0-3 hours. Total 1-5 hours per week. Requires MTH 163 or higher as a co-requisite.

EGR 126 Computer Programming for Engineers (3 cr.)
Introduces computers, their architecture and software. Teaches program development using flowcharts. Solves engineering problems involving programming in languages such as FORTRAN, PASCAL, or C++. Requires MTH 163 or higher as a co-requisite. Lecture 2-3 hours. Laboratory 0-2 hours. Total 3-5 hours per week.

EGR 140 Engineering Mechanics - Statics (3 cr.)
Introduces mechanics of vector forces and space, scalar mass and time, including S.I. and U.S. customary units. Teaches equilibrium, free-body diagrams, moments, couples, distributed forces, centroids, moments of inertia analysis of two- force and multi-force members and friction and internal forces. Requires MTH 174 or higher and PHY 241 as pre-requisites. Lecture 3 hours per week.

EGR 235 Material and Energy Balances (3 cr.)
Covers fundamental chemical engineering topics including engineering problem solving, stoichiometric and composition relationships, material balances, energy balances, chemical operations and processes, reactive and non-reactive systems (batch, continuous, single-phase and multi-phase). Introduces thermodynamics and physical chemistry. Lecture 3 hours, Lab 0; Total 3 hours per week.

EGR 245 Engineering Mechanics - Dynamics (3 cr.)
Presents approach to kinematics of particles in linear and curvilinear motion. Includes kinematics of rigid bodies in plane motion. Teaches Newton's second law, work-energy and power, impulse and momentum, and problem solving using computers. Requires MTH 174, EGR 140, and PHY 241 as pre-requisites. Lecture 3 hours per week.

EGR 246 Mechanics of Materials (3 cr.)
Teaches concepts of stress, strain, deformation, internal equilibrium, and basic properties of engineering materials. Analyzes axial loads, torsion, bending, shear and combined loading. Studies stress transformation and principle stresses, column analysis and energy principles. Requires EGR 140, MTH 174 and PHY 241 as pre-requisites. Lecture 3 hours per week.

EGR 248 Thermodynamics for Engineering (3 cr.)
Studies formulation of the first and second law of thermodynamics. Presents energy conversion, concepts of energy, temperature, entropy, and enthalpy, equations of state of fluids. Covers reversibility and irreversibility in processes, closed and open systems, cyclical processes and problem solving using computers. Requires MTH174 and PHY 242 as pre-requisites. Lecture 3 hours per week.

(ELE) Electrical Technology

ELE 90-190-290 Coordinated Internship (1-5 cr.)
Supervised on-the-job training in selected business, industrial or service firms coordinated by the College. Credit/ practice ratio maximum 1:5 hours. May be repeated for credit. Variable hours.

222 • Danville Community College • Course Descriptions
ELE 95-195-295 Topics in: (1-5 cr.)
Provides an opportunity to explore topical areas of interest to or needed by students. May be used also for special honors courses. May be repeated for credit. Variable hours.

ELE 98-198-298 Seminar and Project in: (1-5 cr.)
Requires completion of a project or research report related to the student's occupational objective and a study of approaches to the selection and pursuit of career opportunities in the field. May be repeated for credit. Variable hours.

ELE 99-199-299 Supervised Study in: (1-5 cr.)
Assigns problems for independent study incorporating previous instruction and supervised by the instructor. May be repeated for credit. Variable hours.

ELE 110 Home Electric Power (3 cr.)
Covers the fundamentals of residential power distribution, circuits, panels, fuse boxes, breakers, transformers. Includes study of the national electrical code, purpose and interpretation. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

ELE 113-114 Electricity I-II (3 cr. each)
Teaches principles of electricity covering fundamentals, devices and components in both DC and AC circuits. Lecture 3 hours per week.

ELE 115 Basic Electricity (2-3 cr.)
Covers basic circuits and theory of fundamental concepts of electricity. Presents a practical approach through discussion of components and devices. Prerequisite: MTE 3 or equivalent. Lecture 2-3 hours per week.

ELE 123-124 Electrical Applications I-II (2 cr. each)
Provides laboratory and shop assignments/jobs as applied to fundamental principles of electricity with emphasis on measurements and evaluation of electrical components, devices and circuits. May require preparation of a report as an out-of-class activity. Lecture 1 hour. Laboratory 2 hours. Total 3 hours per week.

ELE 131-132 National Electrical Code I-II (3 cr. each)
Provides comprehensive study of the purpose and interpretations of the National Electric Code as well as familiarization and implementation of various charts, code rulings and wiring methods including state and local regulations. Lecture 3 hours per week.

ELE 133-134 Practical Electricity I-II (3 cr. each)
Teaches the fundamentals of electricity, terminology, symbols, and diagrams. Includes the principles essential to the understanding of general practices, safely and the practical aspects of residential and non-residential wiring and electrical installation, including fundamentals of motors and controls. Pre/Co requisite MTE 2 or equivalent. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

ELE 134 Programmable Controllers I (4 cr.)
Studies operating characteristics, programming techniques, interfacing, and networking capabilities of programmable logic controllers. Studies controllers with analog and/or digital interfacing, hand-held and/or software programming. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

ELE 147 Electrical Power and Control Systems (2-3 cr.)
Reviews basic DC and AC circuits. Covers single-phase and three-phase AC power distribution systems, and protection devices, including types of AC motors. Presents analyzing and troubleshooting electrical control systems and motor protection devices. Prerequisite ELE 134 or equivalent. Lecture 2-3 hours. Laboratory 0-2 hours. Total 2-4 hours per week.

ELE 152 Electrical-Electronic Calculations I (3 cr.)
Includes general math, scale readings, conversions between units of measure and algebra with exponents and radicals as it applies to DC circuits. (First of a three-course sequence). Lecture 3 hours. Total 3 hours per week.

ELE 153 Electrical-Electronic Calculations II (3 cr.)
Includes a review of DC applications, angular measurements, right triangle ratios, vector and vector algebra as it applies to AC circuits. (Second of a three-course sequence). Prerequisite: ELE 152. Lecture 3 hours per week.

ELE 154 Electrical-Electronic Calculations III (3 cr.)
Includes a review of DC and AC applications and includes exponential equations and logarithms as it applies to electrical-electronic circuits. (Third of a three-course sequence). Prerequisite: ELE 153. Lecture 3 hours per week.

ELE 156 Electrical Control Systems (3 cr.)
Includes troubleshooting and servicing electrical controls, electric motors, motor controls, motor starters, relays, overload, instruments and control circuits. May include preparation of a report as an out-of-class activity. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

ELE 158 Surface Mount Soldering (1 cr.)
Emphasizes high reliability soldering concepts and soldering standards as applied to surface mount soldering and rework, covering identification, installation and removal of components, using various equipment including hot air and soldering iron. Provides an introduction to IPC-A-610 soldering standards. Laboratory 3 hours per week.

ELE 195 Mechatronics (Control Panel Navigation/System Integration) (3 cr.)
Studies current flow in direct and alternating current circuits with emphasis upon practical problems. Reviews mathematics used in circuit calculations. Introduces concepts of resistance, capacitance, inductance and magnetism. Focuses on basic electrical / electronics / circuits application.

ELE 201 Applications and Instruments I (1 cr.)
Provides laboratory and shop assignments/jobs as applied to fundamental principles of electricity with emphasis on measurements and evaluation of electrical components, devices and circuits. May require preparation of a report as an out-of-class activity. Lecture 1 hour. Laboratory 2 hours. Total 3 hours per week.

ELE 205-215-225 Supervised Study in: (1-5 cr.)
Requires formal reports to demonstrate state-of-the-art techniques. Laboratory 3 hours.

ELE 216 Industrial Electricity (3 cr.)
Studies rotating devices, single phase and polyphase distribution, magnetic devices, circuits and systems for industrial applications. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

ELE 217 Electric Power Utilities (2-3 cr.)
Provides an introduction to the electric power utilities field. Examines the generation, transmission and distribution of electrical energy. Lecture 2-3 hours per week.

ELE 233 Programmable Logic Controller Systems I (3-4 cr.)
Teaches operating and programming of programmable logic controllers. Covers analog and digital interfacing and communication schemes as they apply to system. Prerequisites: ETR 156 and ETR 211 or equivalent. Part I of II. Lecture 2-3 hours. Laboratory 3 hours. Total 5-6 hours per week.

ELE 234 Programmable Logic Controller Systems II (3-4 cr.)
Teaches operating and programming of programmable logic controllers. Covers analog and digital interfacing and communication schemes as they apply to system. Prerequisites: ETR 156 and ETR 211 or equivalent. Part II of II. Lecture 2-3 hours. Laboratory 3 hours. Total 5-6 hours per week.

ELE 237 Human Machine Interface Systems (2 cr.)
Introduces operation of human machine interface devices (HMI), hardware configuration, software programming and programmable logic controller network configuration of HMI devices. Offers troubleshooting practices concerning HMI devices used in industrial machine applications. Lecture 0 hours. Lab 2 hour. Total 2 hours per week.

ELE 239 Programmable Controllers (3 cr.)
Deals with installation, programming, interfacing, and concepts of troubleshooting programmable controllers. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

ELE 240 Advanced Programmable Logic Controllers (3 cr.)
Advances further study of Programmable Logic Controllers that was initiated in ELE 239. Students will learn to use more advanced program instructions, including data manipulation, sequences and program control, and advanced PLC features, including timers, counters. Covers connectivity and use of a variety of real world I/O devices. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

ELE 248 Microcontroller Interfacing & Programming (3 cr.)
Explores issues and concerns related to the programming and interfacing of microcontrollers. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.
(EMS) Emergency Medical Services

EMS 112 Emergency Medical Technician - Basic I (4 cr.)
Prepares student for certification as a Virginia and/or National Registry EMT-Basic. Focuses on all aspects of pre-hospital basic life support as defined by the Virginia Office of Emergency Medical Services curriculum for Emergency Medicine Technician Basic Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

EMS 113 Emergency Medical Technician - Basic II (3 cr.)
Continues preparation of student for certification as a Virginia and/or National Registry EMT-Basic. Includes all aspects of pre-hospital basic life support as defined by the Virginia Office of Emergency Medical Services curriculum for Emergency Medicine Technician Basic. Lecture 2 hours per week. Laboratory 2 hours per week. Total 4 hours per week.

EMS 120 Emergency Medical Technician - Basic Clinical (1 cr.)
Observes in a program approved clinical/field setting. Includes topics for both EMS 111 and EMS 113, dependent upon the program in which the student is participating and is a co-requisite to both EMS 111 and EMS 113. Laboratory 2 hours; Total 2 hours per week.

EMS 151 Introduction to Advanced Life Support (4 cr.)
Prepares the student for Virginia Enhanced certification eligibility and begins the sequence for National Registry Intermediate and/or Paramedic certification. Includes the theory and application of the following: foundations, human systems, pharmacology, overview of shock, venous access, airway management, patient assessment, respiratory emergencies, allergic reaction, and assessment based management. Conforms at a minimum to the Virginia Office of Emergency Medical Services curriculum. Co-requisite: EMS 170. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

EMS 153 Basic ECG Recognition (2 cr.)
Focuses on the interpretation of basic electrocardiograms (ECG) and their significance. Includes an overview of anatomy and physiology of the cardiovascular system including structure, function and electrical conduction in the heart. Covers advanced concepts that build on the knowledge and skills of basic dysrhythmia determination and introduction to 12 lead ECG. Lecture 2 hours per week.

EMS 155 ALS-Medical Care (4 cr.)
Continues the Virginia Office of Emergency Medical Services Intermediate and/or Paramedic curricula. Includes ALS pharmacology, drug and fluid administration with emphasis on patient assessment, differential diagnosis and management of multiple medical complaints. Includes, but are not limited to conditions relating to cardiac, diabetic, neurological, non-traumatic abdominal pain, environmental, behavioral, gynecology, and toxicological disease conditions. Prerequisites: Current EMT-B certification, EMS 151 and EMS 153. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

EMS 157 ALS-Trauma Care (3 cr.)
Continues the Virginia Office of Emergency Medical Services Intermediate and/or Paramedic curricula. Utilizes techniques which will allow the student to utilize the assessment findings to formulate a field impression and implement the treatment plan for the trauma patient. Prerequisites: Current EMT-B certification and EMS 151. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

EMS 159 ALS-Special Populations (2 cr.)
Continues the Virginia Office of Emergency Medical Services Intermediate and/or Paramedic curricula. Focuses on the assessment and management of specialty patients including obstetrical, neonates, pediatric, and geriatrics. Prerequisites: EMS 151 and EMS 153. Pre or co-requisite: EMS 155. Lecture 1 hour. Laboratory 2 hours. Total 3 hours per week.

EMS 170 ALS Internship I (1-2 crs.)
 Begins the first in a series of clinical experiences providing supervised direct patient contact in appropriate patient care facilities in and out of hospitals. Includes but not limited to patient care units such as the Emergency Department, Critical Care units, Pediatric, Labor and Delivery, Operating Room, Trauma centers and various advanced life support units. Laboratory 3-6 hours per week.

EMS 172 ALS Clinical Internship II (1-2 crs.)
Continues with the second in a series of clinical experiences providing supervised direct patient contact in appropriate patient care facilities in and out of hospitals. Includes but not limited to patient care units such as the Emergency Department, Critical Care units, Pediatric, Labor and Delivery, Operating Room and Trauma Centers. Co-requisite: EMS 151. Laboratory 3-6 hours per week.

EMS 173 ALS Field Internship II (1 cr.)
Continues with the second in a series of field experiences providing supervised direct patient care in out-of-hospital advanced life support units. Laboratory 3 hours per week.

EMS 213 ALS Skills Development (1-2 cr.)
Utilizes reinforcement and remediation of additional advanced life support skills, as needed. Laboratory 2-4 hours per week.

(ENE) Energy Technology

ENE 100 Conventional and Alternate Energy Applications (4 cr.)
Provides an overview of hydroelectric, coal, and nuclear energy production methods and renewable solar, geothermal, wind, and fuel cell technology. A complete system breakdown of conventional power production methods, efficiency, and sustainability when compared with solar, geothermal, wind, and fuel cell applications. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

ENE 110 Solar Power Installations (4 cr.)
Covers wiring, control, conversion, and ties to established power systems. Studies use of inverters, batteries, and charging systems. Prerequisite: ELE 115 or equivalent. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

ENE 195 Intro to Battery Technologies (3 cr.)
Provides lectures and hands-on exercises in the theory and applications of modern battery chemistries, including Lithium Iron Phosphate. Prepares students for work in the modern battery assembly, solar, electric vehicle and other alternative energy related industries. Topics include battery chemistry, battery management systems, communication systems and electric vehicle, solar and other applications. Students will conduct hands-on exercises to gain skills in advanced assembly techniques of LiFePO4 batteries, as well as quality testing, charging/discharging, wiring and troubleshooting of these high technology battery systems.

ENE 105 Solar Thermal Active and Passive Technology (4 cr.)
Provides a comprehensive study of thermal technology as it applies to collector types and ratings, open-loop versus closed-loop and system sizing. Introduces hydronics, hot water, and pool heating applications. Provides an introduction to fluid dynamics and chemistry as it applies to system installation and maintenance. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

(ENF) English Fundamentals

ENF 1 Preparing for College English I (8 cr.)
Provides integrated reading and writing instruction for students who require extensive preparation to succeed in college-level English courses. Students will place into this course based on placement test score. Upon successful completion and faculty recommendation, students will move into Preparing for College English II (if they require additional preparation) or into college-level English (if they require no additional preparation). Credit is not applicable toward graduation. Lecture 8 hours per week. Contact Hours 8. Qualifying placement test score.

ENF 2 Preparing for College English II (4 cr.)
Provides integrated reading and writing instruction for students who require intermediate preparation to succeed in college-level English courses. Students will place into this course based on placement test score. Upon successful completion and faculty recommendation, students will move into Preparing for College Level III (if they require additional preparation) or into college-level English (if they require no additional preparation). Credit is not applicable toward graduation. Four (4) lecture and four (4) contact hours. Qualifying placement test score.

ENF 3 Preparing for College English III (2 cr.)
Provides integrated reading and writing instruction for students who require minimal preparation for college-level English but still need some preparation to succeed. Students in this course will be co-enrolled in college-level English. Students will place into this course based on placement test score. Credit is not applicable toward graduation. Two (2) lecture and two (2) contact hours. Qualifying placement score. Co-Enrollment in a college-level English course.

(ENG) English

ENG 111 College Composition I (3 cr.)
Introduces students to critical thinking and the fundamentals of academic writing. Through the writing process, students refine topics: develop and support ideas; investigate, evaluate, and incorporate appropriate resources; edit for effective style and usage; and determine appropriate approaches for a variety of contexts, audiences, and purposes. Writing activities will include exposition and argumentation with at least one researched essay. Lecture 3 hours per week.
ENG 112  College Composition II (3 cr.)
Continues to develop college writing with increased emphasis on critical essays, argumentation, and research, developing these competencies through the examination of a range of texts about the human experience. Requires students to locate, evaluate, integrate, and document sources and effectively edit for style and usage. Prerequisite: Students must successfully complete ENG 111 or its equivalent, and must be able to use word processing software. Lecture 3 hours per week.

ENG 115  Technical Writing (3 cr.)
Develops ability in technical writing through extensive practice in composing technical reports and other documents. Guides students in achieving voice, tone, style, and content in formatting, editing, and graphics. Introduces students to technical discourse through selected reading. Prerequisite: ENG 131 or ENG 111. Lecture 3 hours per week.

ENG 121-122  Introduction to Journalism I-II (3 cr. each)
Introduces students to all news media, especially news gathering and preparation for print. Prerequisite: ENG 111 or ENG 112, or divisional approval. Lecture 3 hours per week.

ENG 123  Writing for the World Wide Web (3 cr.)
Teaches students how to outline, compose, organize, and edit written materials for publication on the World Wide Web. Teaches students how to design basic web pages, compose website content, design web site layout and develop website navigation for a variety of possible audiences. Prerequisite: ENG 111 or approval. Lecture 3 hours per week.

ENG 131  Technical Report Writing I (3 cr.)
Offers a review of organizational skills including paragraph writing and basic forms of technical communications, various forms of business correspondence, and basic procedures for research writing. Includes instruction and practice in oral communication skills. Lecture 3 hours per week.

ENG 134  Grammar for Writing and Speaking (3 cr.)
Studies the various parts of speech with application to both writing and speaking. Includes significant assignments to demonstrate skills in a variety of written and verbal communication, and emphasizes the skills necessary for correct everyday usage of the English language. Lecture 3 hours per week.

ENG 135  Applied Grammar (3 cr.)
Develops ability to edit and proofread correspondence and other documents typically produced in business and industry. Instructs the student in applying conventions of grammar, usage, punctuation, spelling, and mechanics. Prerequisite: ENG 134 or divisional approval. Lecture 3 hours per week.

ENG 210  Advanced Composition (3 cr.)
Helps students refine skills in writing non-fiction prose. Guides development of individual voice and style. Introduces procedures for publication. Prerequisite: ENG 112 or divisional approval. Lecture 3 hours per week.

ENG 211-212  Creative Writing I-II (3 cr. each)
Introduces the student to the fundamentals of writing imaginatively. Students write in forms to be selected from poetry, fiction, drama, and essays. Prerequisite: ENG 112 or divisional approval. Lecture 3 hours per week.

ENG 217  Creative Writing - Poetry I (3 cr.)
Introduces the fundamentals and techniques of writing poetry. Part I of II. Lecture 3 hours per week.

ENG 241, ENG 242  Survey of American Literature I-II (3 cr. each)
Examines American literary works from colonial times to the present, emphasizing the ideas and characteristics of our national literature. Involves critical reading and writing. Prerequisite: ENG 112 or divisional approval. Lecture 3 hours per week.

ENG 243, ENG 244  Survey of English Literature I-II (3 cr. each)
Studies major English works from the Anglo-Saxon period to the present, emphasizing ideas and characteristics of the British literary tradition. Involves critical reading and writing. Prerequisite: ENG 112 or divisional approval. Lecture 3 hours per week.

ENG 250  Children's Literature (3 cr.)
Surveys the history of children's literature, considers learning theory and developmental factors influencing reading interests. Introduces the forms, themes, history, and uses of literature written for children ages three to fourteen. Students learn to evaluate and select literature critically and understand its use in preschool, elementary, and middle school classrooms. Genres to be studied include traditional fiction / folktales, contemporary realistic fiction, picture books, fantasy / science fiction, historical fiction, biography, nonfiction, and poetry / verse. Prerequisites: ENG 111 and ENG 112. Lecture 3 hours per week.

ENG 251  Survey of World Literature I (3 cr.)
Examines major works of world literature. Involves critical reading and writing. Prerequisite ENG 112 or divisional approval. Part I of II. Lecture 3 hours per week.

ENG 255  Major Writers in World Literature (3 cr.)
Examines major writers selected from a variety of literary traditions. Involves critical reading and writing. Prerequisite: ENG 112 or divisional approval. Lecture 3 hours per week.

ENG 257  Mythology (3 cr.)
Studies selected mythologies of the world, emphasizing their common origins and subsequent influence on human thought and expression. Involves critical reading and writing. Prerequisite ENG 112 or divisional approval. Lecture 3 hours per week.

(ENV) Environmental Science

ENV 170  Fundamentals of Energy Technology (2 cr.)
Gives the student an overview of the field of energy conservation and use and provides descriptions of job functions typical to energy technicians. Lecture 2 hours per week.

(ESL) English as a Second Language

ESL 05  English as a Second Language: Reading I (3-6 cr.)
Helps students improve their reading comprehension and vocabulary. Improves students' reading proficiency to a level which would allow the students to function adequately in ESL 06 and other college classes. Variable hours per week.

ESL 06  English as a Second Language: Reading II (3-6 cr.)
Helps students improve their reading comprehension and vocabulary. Improves students' reading proficiency to a level which would allow the students to function adequately in ESL 06 and other college classes. Variable hours per week.

ESL 07  Oral Communication I (3-6 cr.)
Helps students practice and improve listening and speaking skills as needed for functioning successfully in academic, professional, and personal settings. Assesses students' oral skills and includes, as needed, practice with pronunciation, rhythm, stress, and intonation. Provides exercises, practices, small and large group activities, and oral presentations to help students overcome problems in oral communication. Variable hours per week.

ESL 08  Oral Communication II (3-6 cr.)
Provides further instruction and practice in helping students to improve listening and speaking skills. Assesses students' oral skills and includes, as needed, practice with pronunciation, rhythm, stress, and intonation. Emphasizes the development of fluency through exercises, practices, small and large group activities, and formal and informal presentations. Variable hours per week.

(ETR) Electronics Technology

ETR 90-190-290  Coordinated Internship (1-5 cr.)
Supervised on-the-job training in selected business, industrial or service firms coordinated by the College. Credit/ practice ratio maximum 1:5 hours. May be repeated for credit. Variable hours.

ETR 95-195-295  Topics in: (1-5 cr.)
Provides an opportunity to explore topical areas of interest to or needed by students. May be used also for special honors courses. May be repeated for credit. Variable hours.

ETR 98-198-298  Seminar and Project in: (1-5 cr.)
Requires completion of a project or research report related to the student's occupational objective and a study of approaches to the selection and pursuit of career opportunities in the field. May be repeated for credit. Variable hours.

ETR 99-199-299  Supervised Study in: (1-5 cr.)
Assigns problems for independent study incorporating previous instruction and supervised by the instructor. May be repeated for credit. Variable hours.
ETR 115 D.C. and A.C. Fundamentals (3 cr.)  
Studies current flow in direct and alternating current circuits with emphasis upon practical problems. Reviews the mathematics used in circuit calculations. Introduces concepts of resistance, capacitance, inductance, and magnetism. Lecture 3 hours per week.

ETR 123-124 Electronic Applications I-II (2 cr. each)  
Provides laboratory and shop experience as applied to basic electronic devices, circuits, and systems with emphasis on practical measurements. Lecture 1 hour. Laboratory 2 hours. Total 3 hours per week.

ETR 136 General Industrial Electronic Systems (3 cr.)  
Studies devices, circuits, power modules, analog and digital, open and closed loop control and servo systems. May include laboratory projects and modular troubleshooting. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

ETR 141-142 Electronics I-II (3 cr. each)  
Introduces electronic devices as applied to basic electronic circuits and systems. Lecture 3 hours per week.

ETR 149 PC Repair (3 cr.)  
Teaches the maintenance, troubleshooting and repair of personal computer systems. Uses IBM or compatible computer systems to provide fault isolation drill and practice. Lecture 3 hours. Total 3 hours per week.

ETR 151-152 Electronic Circuits and Troubleshooting I-II (2 cr. each)  
Studies analog and digital circuits and systems with standard circuit test and troubleshooting procedure. Lecture 2 hours. Total 3 hours per week.

ETR 177 Industrial Robotics and Robotics Programming (2-3 cr.)  
Prepares the student to safely operate and maintain a robot and develop and maintain basic robot programs. Lecture 1-2 hours. Laboratory 2-3 hours. Total 3-5 hours per week.

ETR 180 Industrial Ethernet Networking (2-3 cr.)  
Examines the theory and implementation of digital and communications systems. Features OSI model and plant floor networks. May include optical, wireless, satellite and other communications systems. Lecture 1-2 hours. Laboratory 2-3 hours. Total 3-5 hours per week.

ETR 241-242 Electronic Communications I-II (3-4 cr. each)  
Studies noise, information and bandwidth, modulation and demodulation, transmitters and receivers, wave propagation, antennas and transmission lines. May include broad band communication systems, microwave, both terrestrial and satellite, fiber optics, multiplexing and associated hardware. Prerequisite: Knowledge of DC/AC Theory and devices. Lecture 2-3 hours. Laboratory 3 hours. Total 5-6 hours per week.

ETR 243 Digital, Analog, and Data Communications Systems I (4 cr.)  
Teaches theory and implementation of digital and analog circuits in communication systems. Includes PCM, multiplexing, analog modulation, analysis and performance of transmitters and receivers. Includes optical satellite and other communications systems. Prerequisite: Knowledge of D.C./A.C. theory and devices. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

ETR 255 Active Devices and Circuits (3 cr.)  
Teaches theory of active devices and circuits, devices and circuit parameters, semiconductor characteristics and the application of circuits to active systems. Includes testing and analysis of active devices and circuits. Prerequisite: Knowledge of DC/AC Theory. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

ETR 282-283 Digital Systems I-II (3 cr. each)  
Includes fundamental definition, programming, circuitry, logic, operation/interfacing of computer and microprocessor systems. May include pulse circuits and pulse logic systems as applied to computer and microprocessor technology. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

ETR 286 Principles and Applications of Robotics (2-3 cr.)  
Provides an overview of terminology, principles, practices, and applications of robotics. Studies development, programming; hydraulic, pneumatic, electronic controls; sensors, and system troubleshooting. Lecture 1-2 hours. Laboratory 2 hours. Total 3-4 hours per week.

(FIN) Financial Services  
FIN 215 Financial Management (3 cr.)  
Introduces basic financial management topics, including statement analysis, working capital, capital budgeting, and long-term financing. Focuses on Net Present Value and Internal Rate of Return Techniques, lease verses buy analysis, and Cost of Capital computations. Uses problems and cases to enhance skills in financial planning and decision making. Prerequisite: ACC 111 or ACC 211. Lecture 3 hours per week.

(FRE) French  
FRE 203-204 Intermediate French I-II (3 cr. each)  
Continues to develop understanding, speaking, reading, and writing skills. Prerequisite French 102 or equivalent. Lecture 3 hours per week.

(FUR) Furniture  
FUR 127 Furniture Plant Maintenance (3 cr.)  
Introduces need for and methodology for establishing a systemic preventive maintenance schedule on production and auxiliary equipment. Includes lubrication, filter changes, tool sharpening, fixture maintenance, sanding belt replacements and finish sprayer.

FUR 129 Furniture Finishing & Repair (3 cr.)  
Utilizes hands on training to learn the proper finishing and repair of furniture. Presents the processes and systems for finishing wood products to meet changing environment regulations. Stresses tool and equipment use and safety. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

FUR 298 Seminar and Project (1-5 cr.)  
Requires completion of a project or research report related to the student’s occupational objectives and a study of approaches to the selection and pursuit of career opportunities in the field. Variable hours.

(GEO) Geography  
GEO 210 People and the Land: An Introduction to Cultural Geography (3 cr.)  
Focuses on the relationship between culture and geography. Presents a survey of modern demographics, landscape modification, material and non-material culture, language, race and ethnicity, religion, politics, and economic activities. Introduces the student to types and uses of maps. Lecture 3 hours per week.

GEO 220 World Regional Geography (3 cr.)  
Studies physical and cultural characteristics of selected geographical regions of the world. Focuses upon significant problems within each of the regions, and examines the geographical background of those problems. Introduces the student to types and uses of maps. Lecture 3 hours per week.

(GOL) Geology  
GOL 105 Physical Geology (4 cr.)  
Introduces the composition and structure of the earth and modifying agents and processes. Investigates the formation of minerals and rocks, weathering, erosion, earthquakes, and crustal deformation. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

GOL 106 Historical Geology (4 cr.)  
Traces the evolution of the earth and life through time. Presents scientific theories of the origin of the earth and life and interprets rock and fossil record. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

(HIM) Health Information Management  
HIM 105 Current Procedural Terminology (2 cr.)  
Develops skills in coding a diagnosis and/or procedure according to the principles of CPT Coding. Not intended for HIM majors. Prerequisite: HLT 143. Lecture 2 hours per week.

HIM 106 International Classification of Diseases I (2 cr.)  
HIM 107 International Classification of Diseases II (3 cr.)
Stresses advanced International Classification of Diseases Clinical Modification Coding II (ICD-9-CM) coding skills through practical exercises. Not intended for HIM majors. Prerequisite: HIT 106 or HIM 106. Lecture 2-3 hours per week.

HIM 130 Healthcare Information Systems (3 cr.)
Teaches basic concepts of microcomputer software (to include operating systems, word processing, spreadsheets, and database applications). Focuses on microcomputer applications and information systems in the Healthcare environment. Provides a working introduction to electronic health information systems for allied health, teaching students how the adoption of electronic health records affects them as future healthcare professionals. Lecture 3 hours per week.

HIM 143 Managing Electronic Billing in a Medical Practice (2-3 cr.)
Presents practical knowledge on use of computer technology in medical practice management. Develops basic skills in preparation of universal billing claim. Explores insurance claim processing issues. Lecture 2-3 hours per week.

HIM 226 Legal Aspects of Health Record Documentation (2 cr.)
Presents the legal requirements associated with health record documentation. Emphasizes the policies and procedures concerning the protection of the confidentiality of patient’s health records. Lecture 2 hours per week.

HIM 253 Health Records Coding (3-5 cr.)
Examines the development of coding classification systems. Introduces ICD-9-CM coding classification system, its format and conventions. Stresses basic coding steps and guidelines according to body systems. Provides actual coding exercises in relation to each system covered. Lecture 3-4 hours per week.

(HIS) History

HIS 101, HIS 102 History of Western Civilization I-II (3 cr. each)
Examines the development of western civilization from ancient times to the present. The first semester ends with the seventeenth century; the second semester continues through modern times. Lecture 3 hours per week.

HIS 111, HIS 112 History of World Civilizations (3 cr. each)
Surveys Asian, African, Latin American, and European Civilizations from the ancient period to the present.

HIS 121, HIS 122 United States History I-II (3 cr. each)
Surveys United States history from its beginning to the present. Lecture 3 hours per week.

HIS 266 Military History of the Civil War (3 cr.)
Analyzes military campaigns of the Civil War, including factors contributing to the defeat of the Confederacy and problems created by the war. May include field trips to Civil War sites in the region. Lecture 3 hours per week.

HIS 268 The American Constitution (3 cr.)
Analyzes the origin and development of the United States Constitution. Includes the evolution of civil liberties, property rights, contracts, due process, judicial review, federal, state relationships, and corporate-government relations. Lecture 3 hours per week.

(HLT) Health

HLT 100 First Aid and Cardiopulmonary Resuscitation (2 - 3 cr.)
Focuses on the principles and techniques of safety, first aid and cardiopulmonary resuscitation. Lecture 2-3 hours per week.

HLT 105 Cardiopulmonary Resuscitation (1 cr.)
Provides training in coordinated mouth-to-mouth artificial ventilation and chest compression, choking, life-threatening emergencies, and sudden illness. Lecture 1 hour per week.

HLT 106 First Aid and Safety (2 cr.)
Focuses on the principles and techniques of safety and first aid. Lecture 2 hours per week.

HLT 110 Concepts of Personal and Community Health (2-3 cr.)
Studies the concepts related to the maintenance of health, safety, and the prevention of illness at the personal and community level. Lecture 2-3 hours per week.

HLT 116 Personal Wellness (2-3 cr.)
Explores the relationship between personal health and physical fitness as they apply to individuals in today’s society. Includes nutrition, weight control, stress, conditioning, and drugs. Lecture 3 hours per week.

HLT 121 Introduction to Drug Use and Abuse (3 cr.)
Explores the use and abuse of drugs in contemporary society with emphasis upon sociological, physiological, and psychological effects of drugs. Lecture 3 hours per week.

HLT 123 Understanding Cancer (2-3 cr.)

HLT 130 Nutrition and Diet Therapy (1 cr.)
Studies nutrients, sources, functions, and requirements with an introduction to diet therapy. Lecture 1 hour per week.

HLT 135 Child Health and Nutrition (3 cr.)
Focuses on the physical needs of the preschool child and the methods by which these are met. Emphasizes health routines, hygiene, nutrition, feeding and clothing habits, childhood diseases, and safety as related to health growth and development. Lecture 3 hours per week.

HLT 141 Intro to Medical Terminology (1-2 crs.)
Focuses on medical terminology for students preparing for careers in the health professions. Lecture 1-2 hours per week.

HLT 143-144 Medical Terminology I-II (3 cr. each)
Provides an understanding of medical abbreviations and terms. Includes the study of prefixes, suffixes, word stems, and technical terms with emphasis on proper spelling, pronunciation, and usage. Emphasizes more complex skills and techniques in understanding medical terminology. Lecture 3 hours per week.

HLT 160 Personal Health and Fitness (3 cr.)
Studies the relationships between health and fitness. Topics include nutrition, disease prevention, weight control, smoking and health, medical care, aerobic and anaerobic conditioning, and the relationship between physical and mental health. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

HLT 195 Topics in: (1-5 cr.)
Provides an opportunity to explore topical areas of interest to or needed by students. May be repeated for credit. Variable hours.

HLT 200 Human Sexuality (3 cr.)
Provides a basic understanding of human sexuality. Includes anatomy, physiology, pregnancy, family planning, venereal diseases, and sexual variations. Lecture 3 hours per week.

HLT 204 Women’s Health (3 cr.)
Explores current issues related to women’s health and wellness with an emphasis upon prevention of disease and optimum well being. Takes a multi-ethnic approach to exploring the most up-to-date findings, diagnostic tools, and treatments for breast cancer, reproductive tract illness, heart, and other common diseases faced by women from puberty through menopause. Lecture 3 hours per week.

HLT 215 Personal Stress and Stress Management (3 cr.)
Provides a basic understanding of stress and its physical, psychological, and social effects. Includes the relationships between stress and change, self-evaluation, sources of stress, and current coping skills for handling stress. Lecture 3 hours per week.

HLT 230 Principles of Nutrition and Human Development (3 cr.)
Teaches the relationship between nutrition and human development. Emphasizes nutrients, balanced diet, weight control, and the nutritional needs of an individual. Lecture 3 hours per week.

HLT 250 General Pharmacology (2-3 cr.)
Emphasizes general pharmacology for the health related professions covering general principles of drug actions/reactions, major drug classes, specific agent within each class, and routine mathematical calculations needed to determine desired dosages. Lecture 2-3 hours per week.
IND 195 Introduction to Automation and Robotics (2-4 cr.)
Introduces the student to the world of factory automation through study of networking, mechanical systems, sensors, pneumatics and Programmable Logic Controllers, and robotics. Provides an overview of topics needed to function as a factory automation technician. Lecture 2 - 4 hours per week.

IND 195 Interpreting Engineering Drawings/Math/Metrology (GDT) (2 cr.)
Teaches how to interpret engineering drawings, reads machine schematics and prints. This course will also cover the use of measurements, technical math and the metric system in a manufacturing environment.

HRI 134 Food & Beverage Service Management (3 cr.)
This class prepares a conceptual and technical framework for managing the service of meals in a variety of commercial settings. Students will learn the integration of production and service delivery, guest contact dynamics, reservation management, and point of sale systems.

HRI 265 Hotel Front Office Operations (3 cr.)
This class analyzes hotel front office positions and the procedures involved in reservation registration, accounting for and checking out guests and principles and practices of night auditing. The class also covers the complete guest operation in both traditional and computerized operations.

HMS 142 Group Dynamics II (3 cr.)
Examines group dynamics, group leadership, group cohesion, transference and group helping through experiential involvement in group facilitating and leadership. Increases group skills through active classroom participation in group experiences. Lecture 3 hours per week.

HMS 143 Group Dynamics III (3 cr.)
Examines the stages of group development, group dynamics, the role of the leader in a group, and recognition of the various types of group processes. Discusses models of group dynamics that occur as a result of group membership dynamics. Lecture 3 hours per week.

HMS 240 Human Services (3 cr.)
Provides a technical experience to supplement instruction in HLT 261-262. Should be taken concurrently with HLT 261-262, in appropriate curricula, as identified by the college. Part I of II. Laboratory 3 hours per week.

HLR 490 Coordinated Internship (1-5 cr.)
Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.

HUM 260 Survey of Twentieth-Century Culture (3 cr.)
Explores literature, visual arts, philosophy, music, and history of our time from an interdisciplinary perspective. Lecture 3 hours per week.

(IND) Industrial Engineering Technology

IND 103 Industrial Methods (2 cr.)
Covers theoretical knowledge necessary for familiarization with common hand tools, common power tools, measuring tools and techniques, fastening components and procedures, grinding operations, metal cutting operations, and other miscellaneous tasks.

IND 116 Applied Technology (3 cr.)
Introduces basic information and problem solving techniques in liquids, gases, solids, metrics, mechanics, forces, simple machines, heat, light, sound and nuclear energy as applied in industrial engineering technologies. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

IND 125 Installation and Preventive Maintenance (3 cr.)
Studies practices in the installation of machinery, including mounting, grouting, leveling, and alignment. Examines methods of preventive maintenance, including inspection, scheduled maintenance, controls, record keeping, repair parts stocking, and safety considerations. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

IND 137 Teamwork and Problem Solving (3 cr.)
Studies team concepts and problem solving techniques to assist project teams in improving quality and productivity. Provides knowledge of how to work as a team, plan and conduct good meetings, manage logistics and details, gather useful data, communicate the results and implement changes. Lecture 3 hours per week.

IND 145 Introduction to Metrology (3 cr.)
Studies principles of measurement and control calibration, application of statistics to measurement processes, and standards of measurements in calibration. May include the use of gauges and instruments in modern production and dimensional control concepts. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

IND 161 Product Design and Development I (5 cr.)
Introduces the student to foundational concepts and tools in the design and development of products utilizing wood or an alternative design material.

IND 162 Product Design and Development II (5 cr.)
Advancement of the foundational concepts and tools in the design and development of products utilizing wood or an alternative design material.

IND 163 Manufacturing Applications and Design I (3 cr.)
Introduces the basic concepts of operating, programming and autonomous maintenance techniques of a vacuum pod or nest-based CNC router used in the wood products industry. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

IND 164 Manufacturing Applications and Design II (3 cr.)
Introduces intermediate programming of the vacuum pod or nest-based CNC router used in the wood products industry and the basic concepts of operating, programming and autonomous maintenance techniques of panel saws and edge banding equipment used in a work cell configuration. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

IND 181 World Class Manufacturing (3 cr.)
Studies the principles and applications of the globalization of industry. Emphasizes the fundamentals of interpersonal/ team process, organization skills, total quality tools for continuous improvement, statistical process control, manufacturing resource planning and just- in-time. Lecture 3 hours per week.

IND 200 - 290 Coordinated Internship (3 cr. each)
Supervised on-the-job training in selected business, industrial or service firms coordinated by the College.
IND 195 Systematic Problem Solving (1 cr.)
Provides experience in applying a systematic approach to solving problems for individuals or small groups working in problem solving teams. Teaches either 6 or 8 step methods, 5-Whys or other techniques.

IND 195 KeyTrain Remediation (1 cr.)
Provides online remediation for the Reading for Understanding, Locating Information, Applied Math, & Applied Technology. These are the components of the CRC + Manufacturing certification.

IND 199 Supervised Study (1-5 cr.)
Assigns problems for independent study incorporating previous instruction and supervised by the instructor. Lecture 1-2 hours. Laboratory 2 hours. Total 3-4 hours per week.

IND 216 Plant Layout and Materials Handling (3 cr.)
Examines arrangement and layout of physical facilities. Explains material handling and modern techniques for efficient utilization of space. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

IND 230 Applied Quality Control (3 cr.)
Studies principles of inspection and quality assurance with emphasis on statistical process control. May include the setting up, maintaining, and interpreting of control charts, and review of basic metrology. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

IND 235 Statistical Quality Control (3 cr.)
Gives overview of the quality control function within industry. May include the organization, cost, and techniques of quality control. Emphasizes essentials and applications of statistics in the quality control function. Lecture 3 hours per week.

IND 243 Principles and Applications of Mechatronics (3 cr.)
Introduces terminology and principles related to Mechatronic system design and application. Integrates concepts of electrical/electronic, mechanical and computer technologies in the development, setup, operation and troubleshooting of automated products and systems. Covers breakdown of various automated manufacturing operations with emphasis on system planning, development and troubleshooting processes.

IND 264 Manufacturing Applications and Design III (3 cr.)
Introduces advanced operations and programming of the vacuum pod and nested-based CNC router, panel saw and edge banding equipment used in a work cell configuration found in the wood products industry. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

IND 298 Capstone Project (1-3 cr.)
A hands-on application of Lean Manufacturing, Quality and Problem Solving methods in the workplace. Laboratory 2-6 hours per week.

(INS) Instrumentation

INS 121 Introduction to Measurement and Control (3-4 cr.)
Introduces applications of modern sensors, measurement equipment, and control systems, including operation and functions of components. Includes computer data acquisition and control with programming languages. Prerequisite: Divisional approval. Lecture 2-3 hours. Laboratory 2 hours. Total 4-5 hours per week.

INS 210 Principles of Instrumentation (3 cr.)
Introduces the basic concepts and terminology of process control systems. Presents types of control systems, applicable component elements, basic control analysis, and documentation requirements for measuring instruments and signal conditioning. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

INS 230 Instrumentation I (3 cr.)
Presents the fundamental scientific principles of process control including temperature, pressure, level, and flow measurements. Topics include transducers, thermometers, and gauges are introduced along with calibration. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

(ITD) Information Technology Database

ITD 110 Web Page Design I (3 cr.)
Stresses a working knowledge of web site designs, construction, and management using HTML or XHTML. Course content includes headings, lists, links, images, image maps, tables, forms, and frames. Recommended prerequisite is ITE 115. Lecture 3 hours. Total 3 hours per week.

ITD 112 Designing Web Page Graphics (3 cr.)
Explores the creation of digital graphics for web design. Basic design elements such as color and layout will be explored utilizing a computer graphics program(s). Recommended prerequisite is ITD 110. Lecture 3 hours. Total 3 hours per week.

ITD 115 Web Page Design and Site Management (3 cr.)
Explores fundamentals of creating web pages and site management with web editing software. Students will learn techniques of web page design as well as managing the resources required to author and maintain a web site. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

ITD 120 Design Concepts for Mobile Applications (3-4 cr.)
Provides skills for designing both Web-based and stand-alone applications for wireless devices. Details discussions of the needs for applications including mobile phones and a range of rich hand-held devices such as PDA’s. Emphasizes the importance of usability, accessibility, optimization and performance to create fast-loading business enterprise applications and games. Lecture 3-4 hours per week.

ITD 134 PL/SQL Programming (4 cr.)
Incorporates a working introduction to commands, functions and operators used in SQL for extracting data from standard databases. Provides students with a hands-on experience for developing code, functions, triggers, and stored procedures for SQL Server. Prerequisite ITE 115 or equivalent. Class requires internet access and Oracle account. Class format online tutorials. Lecture 4 hours. Total 4 hours per week.

ITD 195 Topics In PHP Programming for Web Development (1-5 cr.)
Provides an opportunity to explore topical areas of interest to or needed by students. May be used also for special honors courses. May be repeated for credit. Variable hours.

ITD 210 Web Page Design II (3-4 cr.)
Incorporates advanced techniques in web site planning, design, usability, accessibility, advanced site management, and maintenance utilizing web editor software(s). Recommended prerequisite is ITD 110. Lecture 3 hours. Total 3 hours per week.

ITD 212 Interactive Web Design (3-4 cr.)
Provides techniques in interactive design concepts to create cross-platform, low-bandwidth animations utilizing a vector-based application. This course emphasizes the importance of usability, accessibility, optimization and performance. Recommended prerequisite is ITD 110. Lecture 3 hours. Total 3 hours per week.

(ITE) Information Technology Essentials

ITE 100 Introduction to Information Systems (3-4 cr.)
Covers the fundamentals of computers and computing and topics which include impact of computers on society, ethical issues, and terminology. Provides discussion about available hardware and software as well as their application. Lecture 3-4 hours. Laboratory 0-2 hours. Total 2-5 hours per week.

ITE 101 Introduction to Microcomputers (1-2 cr.)
Examines concepts and terminology related to microcomputers and introduces specific uses of microcomputers.

ITE 102 Computers and Information Systems (1-2 cr.)
Introduces terminology, concepts, and methods of using computers in information systems. This course teaches computer literacy, not intended for Information Technology Systems majors.

ITE 115 Introduction to Computer Applications and Concepts (3 cr.)
Covers computer concepts and Internet skills and uses a software suite which includes word processing, spreadsheet, database, and presentation software to demonstrate skills required for computer literacy. Recommended prerequisite keyboarding skills. Lecture 3 hours. Laboratory 0 hours. Total 3 hours per week.

ITE 116 Survey of Computer Software Applications (1-2 cr.)
Reviews current business software applications for microcomputers emphasizing comparison of a variety of software packages. This course provides experience with multiple operating system commands, database, spreadsheet, and word processing programs. Lecture: 2 hours per week.

ITE 120 Design Concepts for Mobile Applications (3-4 cr.)
Provides skills for designing both Web-based and stand-alone applications for wireless devices. Details discussions of the needs for applications including mobile phones and a range of rich hand-held devices such as PDA’s. Emphasizes the importance of usability, accessibility, optimization and performance to create fast-loading business enterprise applications and games. Lecture 3-4 hours per week.
ITE 131 Survey of Internet Services (1-2 cr.)
Introduces students to basic Internet terminology and services including e-mail, WWW browsing, search engines, ftp, telnet, and other services. Lecture 1-2 hours per week.

ITE 140 Spreadsheet Software (3 cr.)
Covers the use spreadsheet software to create spreadsheets with formatted cells and cell ranges, control pages, multiple sheets, charts, and macros. Topics will include type and edit text in a cell, enter data on multiple worksheets, work with formulas and functions, create charts, pivot tables, and styles, insert headers and footers, and filter data. This course covers MOS Excel objectives. Prerequisite: ITE 115. Lecture 3 hours. Total 3 hours per week.

ITE 150 Desktop Database Software (4 cr.)
Incorporates instruction in planning, defining, and using a database; performing queries; producing reports; working with multiple files; and concepts of database programming. Course topics include database concepts, principles of table design and table relationships, entering data, creating and using forms, using data from different sources, filtering, creating mailing labels. This course covers MOS Access certification objectives. Prerequisite: ITE 115. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

ITE 151 Microcomputer Software: Database Management (1-2 cr.)
Presents first-time users with sufficient information to make practical use of database management software using the basics of building databases. Covers specific business applications. Lecture 1-2 hours per week.

ITE 182 User Support/Help Desk Principles (3 cr.)
Introduces a variety of tools and techniques that are used to provide user support in help desk operations. This course includes help desk concepts, customer service skills, troubleshooting problems, writing for end users, help desk operations, and software needs analysis, facilities management, and other topics related to end user support. Prerequisite: ITE 115. Lecture 3 hours. Total 3 hours per week.

ITE 215 Advanced Computer Applications and Integration (4 cr.)
Incorporates advanced computer concepts including the integration of a software suite. Prerequisite: ITE 115 Introduction to Computer Applications and Concepts. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

ITE 221 PC Hardware and OS Architecture (3 cr.)
Covers instruction about processors, internal functions, peripheral devices, computer organization, memory management, architecture, instruction format, and basic OS architecture. Prerequisite: ITE 115 Introduction to Computer Applications and Concepts. Lecture 3 hours. Total 3 hours per week.

(ITN) Information Technology Networking

ITN 102 Introduction to Networked Client Operating Systems (LANs) (4 cr.)
Provides instruction on the installation, configuration, administration, and troubleshooting of client operating systems. These systems currently include Windows/Vista/XP and Linux Platforms in a networked data communication environment. Prerequisite: ITE-115. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

ITN 103 Administration of Networked Servers (4 cr.)
Provides instruction on how to install server operating systems, including virtual environments, and how to configure its services. The server platforms that will be utilized include windows 2008 Server and Linux operating systems. Prerequisite: ITN-102. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

ITN 104 Maintaining Servers in the Networked Infrastructure (4 cr.)
Provides instruction on how to implement, manage, and maintain a server environment. Also included in this instruction will be the installation and configuration of email servers, virtual server systems and server farms, along with secured communications across local and wide area networks. Server platforms currently supported include Windows 2008 Server and Linux platforms. Prerequisite: ITN-103. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

ITN 154 Networking Fundamentals-Cisco (4 cr.)
Provides introduction to networking using the OSI reference model. Course content includes data encapsulation, TCP/IP suite, routing, IP addressing, and structured cabling design and implementation. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

ITN 155 Introductory Routing-Cisco (4 cr.)
Features an introduction to basic router configuration using Cisco IOS software. Course content includes system components, interface configuration, IP network design, troubleshooting techniques, configuration and verification of IP addresses, and router protocols. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

ITN 156 Basic Switching and Routing - Cisco (4 cr.)
Centers instruction in LAN segmentation using bridges, routers, and switches. Course content includes fast Ethernet, access lists, routing protocols, spanning tree protocol, virtual LANs, and network management. Prerequisite: ITN 155 or instructor approval. Lecture 4 hours per week.

ITN 157 WAN Technologies-Cisco (4 cr.)
Concentrates on an introduction to Wide Area Networking (WANs). Course content includes WAN design, LAPB, Frame Relay, ISDN, HDLC, and PPP. Prerequisite: ITN 156 or instructor approval. Lecture 4 hours per week.

ITN 209 Introduction to Voice Over IP/Digital Communications (4 cr.)
Provides hands-on exercises in the utilization of voice over IP equipment including digital phones, Cisco Call Manager Express, Cisco Unity Express, and Plain Old Telephone Systems (POTS). This course also examines VOIP Quality of Service (QOS) and various other telephony services. Prerequisite: ITN 156. Lecture 4 hours. Total 4 hours per week.

ITN 250 Advanced Routing-Cisco (4 cr.)
Includes instruction focusing on the characteristics of various Routing Protocols used in the TCP/IP networking environment, static routing, OSPF, IGRP, EIGRP, BGP, advanced IP addressing, and security. Course content also examines various strategies for optimizing network routing performance. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

ITN 251 Remote Access Networking-Cisco (4 cr.)
Focuses on in-depth instruction to a variety of wide area networking technologies and their implementation. Course content includes POTS and analog network connectivity, ISDN (both BRI and PRI), PPP, Cisco, AAA Security System, and Frame Relay. Prerequisite: ITN 250. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

ITN 252 Advanced Switching-Cisco (4 cr.)
Provides in-depth instruction in switching as a core technology in today’s networking environment. Course content includes VLAN, trunking protocols, spanning-tree protocol, HSRP, and multi-layer switching. Prerequisite: ITN 251. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

ITN 253 Network Troubleshooting-Cisco (4 cr.)
Centers on instruction in troubleshooting tools and techniques appropriate to the network communications environment. Course content includes workstation troubleshooting software, communication equipment troubleshooting options, and typical problems related to Switching, WAN, and routing technologies. Prerequisite: ITN 252. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

ITN 254 Virtual Infrastructure: Installation and Configuration (4 cr.)
Explores concepts and capabilities of virtual architecture with a focus on the installation, configuration, and management of a virtual infrastructure, ESX Server, and Virtual Center. Covers fundamentals of virtual network design and implementation, fundamentals of storage area networks, virtual switching, virtual system management, and engineering for high availability. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

ITN 260 Network Security Basics (3-4 cr.)
Provides instruction in the basics of network security in depth. Includes security objectives, security architecture, security models and security layers; risk management, network security policy, and security training. Includes the give security keys, confidentiality integrity, availability, accountability and auditability. Lecture 3-4 hours per week.

ITN 262 Network Communication, Security and Authentication (4 cr.)
Covers an in-depth exploration of various communication protocols with a concentration on TCP/IP. Explores communication protocols from the point of view of the hacker in order to highlight protocol weaknesses. Includes Internet architecture, routing, addressing, topology, fragmentation and protocol analysis, and the use of various utilities to explore TCP/IP. Prerequisite: Cisco CCNA Certification or completion of ITN 157. Lecture 4 hours per week. Total 4 hours per week.

ITN 276 Computer Forensics I (3-4 cr.)
Teaches computer forensic investigation techniques for collecting computer-related evidence at the physical layer from a variety of digital media (hard drives, compact flash and PDAs) and performing analysis at the file system layer. Prerequisite: ITN 106, ITN 107. Co-requisite: ITN 260. Credit will be given to ITN 275 or ITN 276 and ITN 277, but not all three courses. Lecture 3-4 hours per week.

ITN 277 Computer Forensics II (3-4 cr.)
Develops skills in the forensic extraction of computer evidence at a logical level using a variety of operating systems and applications (i.e., e-mail) and learn techniques for recovering data from virtual memory, temporary Internet files, and intentionally hidden files. Prerequisite: ITN 276. Computer Forensics I. Credit will be given to ITN 275 or ITN 276 and ITN 277, but not all three courses. Lecture 3-4 hours per week.
(ITP) Information Technology Programming

**ITP 100 Software Design (3 cr.)**
Introduces principles and practices of software development. Course content includes instruction in critical thinking, problem solving skills, and essential programming logic in structured and object-oriented design using contemporary tools. Recommended prerequisites or co requisites: high school algebra or ITE 115. Lecture 3 hours. Total 3 hours per week.

**ITP 112 Visual Basic.NET I (4 cr.)**
Concentrates instruction in fundamentals of object-oriented programming using Visual Basic.NET and the .NET framework. Course content emphasizes program construction, algorithm development, coding, debugging, and documentation of graphical user interface applications. Recommended prerequisite: ITP 100. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

**ITP 120 Java Programming I (4 cr.)**
Enterts instruction in fundamentals of object-oriented programming using Java. This course emphasizes program construction, algorithm development, coding, debugging, and documentation of console and graphical user interface applications. Recommended prerequisite: ITP 100. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

**ITP 136 C# Programming I (4 cr.)**
Provides instruction in fundamentals of object-oriented programming and design using C#. Course content emphasizes program construction, algorithm development, coding, debugging, and documentation of applications within the .NET Framework. Recommended prerequisite: ITP 100. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

**ITP 140 Client Side Scripting (3 cr.)**
Provides instruction in fundamentals of Internet application design, development, and deployment using client side scripting language(s). Recommended prerequisites: ITP 100, and a programming language or equivalent experience. Lecture 3 hours. Total 3 hours per week.

**ITP 160 Introduction to Game Design and Development (3-4 cr.)**
Introduces object-oriented game design and development. Provides overview of the electronic game design and development process and underlines the historical contest, content creation strategies, game careers, and future trends in the industry. Utilizes a game language environment to introduce game design, object-oriented paradigms, software design, software development and product testing. Teaches skills of writing a game design document and creating a game with several levels and objects. Integrates 2D animations, 3D models, sound effects, and background music as well as graphic backgrounds. Lecture 3-4 hours per week.

**ITP 165 Gaming and Simulation (3-4 cr.)**
Introduces students to the concepts and applications of gaming and simulation through the use of gaming and simulation tools, as well as through basic programming skills. Lecture 3-4 hours per week.

**ITP 212 Visual Basic.NET II (4 cr.)**
Includes instruction in application of advanced object-oriented techniques to application development. Course content emphasizes database connectivity, advanced controls, web forms, and web services using Visual Basic.NET. Prerequisite: ITP 112. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

**ITP 214 Windows Mobile Development (3-4 cr.)**
Provides skills for creating mobile enterprise solutions by using the Smart Device Extensions for Microsoft Visual Studio .NET and the Microsoft .NET Compact Framework for wireless devices. Develops systems including mobile phones and a range of rich hand-held devices such as PDAs using applications utilizing the .NET Compact Framework. Covers Enterprise business applications and game applications. Lecture 3-4 hours per week.

**ITP 220 Java Programming II (3-4 cr.)**
Imparts instruction in application of advanced object-oriented techniques to application development using Java. Emphasizes database connectivity, inner classes, collection classes, networking, and threads. Lecture 3-4 hours per week.

**ITP 224 Mobile Java ME (3-4 cr.)**
Provides skills for creating Java ME applications for wireless devices. Systems will be developed for mobile phones and a range of rich hand-held devices such as PDAs with applications utilizing the Java ME architecture and Java Specification Requests (JSRs). Lecture 3-4 hours per week.

**ITP 236 C# Programming II (3-4 cr.)**
Focuses instruction in advanced object-oriented techniques using C# for application development. Emphasizes database connectivity and networking using the .NET Framework. Prerequisite: ITP 136. Lecture 3-4 hours per week.

**ITP 265 Applications of Modeling and Simulation (3-4 cr.)**
Expands understanding of Modeling and Simulation via the implementation of a capstone project. Continues to develop object oriented programming skills. Expands three dimensional visualization skills. Examines all aspects of the project lifecycle. Develops workplace readiness for the Modeling and Simulation industry. Lecture 3-4 hours per week.

(MAC) Machine Technology

**MAC 101 Machine Shop I (7-8 cr.)**
Introduces the machinist to identification, care, and use of precision tools and instruments. Emphasizes the operation of the drill press, lathe, power saw, grinder, and milling machine. Covers the sharpening of lathe curving tools, safety, and good housekeeping. Includes operation and setup on the various types of precision grinders, milling machines, and drill presses. Part I of II. Lecture 4-5 hours. Laboratory 9 hours. Total 13-14 hours per week.

**MAC 102 Machine Shop II (7-8 cr.)**
Introduces the machinist to identification, care, and use of precision tools and instruments. Emphasizes the operation of the drill press, lathe, power saw, grinder, and milling machine. Covers the sharpening of lathe curving tools, safety, and good housekeeping. Includes operation and setup on the various types of precision grinders, milling machines, and drill presses. Part II of II. Lecture 4-5 hours. Laboratory 9 hours. Total 13-14 hours per week.

**MAC 121 Numerical Control I (2-3 cr.)**
Focuses on numerical control techniques in metal forming and machine processes. Includes theory and practice in lathe and milling machine computer numerical control program writing, setup and operation. Part I of II. Prerequisite: MAC 101. Lecture 1-2 hours. Laboratory 2-3 hours. Total 3-5 hours per week.

**MAC 122 Numerical Control II (2-3 cr.)**
Focuses on numerical control techniques in metal forming and machine processes. Includes theory and practice in lathe and milling machine computer numerical control program writing, setup and operation. Part II of II. Prerequisites: MAC 121 and MAC 127. Lecture 1-2 hours. Laboratory 2-3 hours. Total 3-5 hours per week.

**MAC 123 Computer Numerical Control III (2 -3 cr.)**
Focuses on numerical control techniques in metal forming and machine processes. Includes theory and practice in lathe and milling machine computer numerical control program writing, setup and operation. Prerequisite: MAC 122. Lecture 1-2 hours. Laboratory 2-3 hours. Total 3-5 hours per week.

**MAC 126 Introductory CNC Programming (3 cr.)**
Introduces programming of computerized numerical control machines with hands-on programming and operation of CNC machines. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

**MAC 127 Advanced CNC Programming (3 cr.)**
Provides in-depth study of programming computerized numerical control machines. Prerequisite: MAC 121. Lecture 3 hours per week.

**MAC 128 CNC Programming (1-2 cr.)**
Teaches programming of computerized numerical control machines. Focuses on CNC machining processes. Prerequisites: MAC 122 and MAC 127. Lecture 1-2 hours per week.

**MAC 131 Machine Lab I (2 cr.)**
Teaches fundamental machine shop operations, bench work, layout, measuring tools, and safety. Lecture 1 hour. Laboratory 3 hours. Total 4 hours per week.

**MAC 134 CMM Operation and Programming (2 cr.)**
Focuses on inspection using a Coordinate Measuring Machine. Includes hands-on demonstration of CMM setup, initialization and operation. Covers the essential aspects of the software and CMM operation, using a sample part for hands-on practice. Lecture 1 hour. Lab 2 hours. Total 3 hours per week. Prerequisites: Determined by College.
MAC 150 Introduction to Computer-Aided Manufacturing (3 cr.)
Introduces computer-aided manufacturing (CAM) with an emphasis on programming of numerical control machinery. Teaches program writing procedures using proper language and logic and Smart Cam programming software to produce numerical control code for machines. Teaches basic computer usage, 2-D and 3-D CAM-CAM integration, and code-to-machine transfer. Prerequisites: MAC 122 and MAC 222. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

MAC 161-162 Machine Shop Practices I-II (3 cr. each)
Introduces safety procedures, bench work, hand tools, precision measuring instruments, drill presses, cut-off saws, engine lathes, manual surface grinders, and milling machines. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

MAC 163-164 Machine Shop Practices III-IV (3 cr. each)
Offers practice in the operation of the drill press, engine lathe, vertical milling machine, horizontal milling machine, and the surface grinder. Introduces practical heat treatment of directly hardenable steels commonly used in machine shops. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

MAC 209 Standards, Measurements and Calculations (2-3 cr.)
Presents typical mathematical and mechanical problems requiring the use of reference standards such as the Machinery's Handbook for solution. Presents use of the Coordinate Measuring Machine for solution. Prerequisite: MAC 221. Lecture 2-3 hours per week.

MAC 221-222-223 Advanced Machine Tool Operations I-II-III (7 cr. each)
Focuses on advanced lathe and millwork with concentration on fits, finishes, inspection, quality control, and basic heat-treating. Includes design and construction of specific projects to determine the student's operational knowledge of all equipment. Lecture 4 hours. Laboratory 9 hours. Total 13 hours per week.

(MDL) Medical Laboratory

MDL 105 Phlebotomy (3-4 cr.)
Introduces basic medical terminology, anatomy, physiology, components of health care delivery and clinical laboratory structure. Teaches techniques of specimen collection, specimen handling, and patient interactions. Lecture 2 hours. Laboratory 3-6 hours. Total 5-8 hours per week.

MDL 106 Clinical Phlebotomy (4 cr.)
Focuses on obtaining blood specimens, processing specimens, managing assignments, assisting with and/or performing specified tests, performing clerical duties and maintaining professional communication. Provides supervised learning in college laboratory and/or cooperating agencies. Lecture 2 hours. Laboratory 6 hours. Total 8 hours per week.

MDL 195 Topics in Clinical Training (1-5 cr.)
Provides an opportunity to explore topical areas of interest to or needed by students. May be repeated for credit. Variable hours.

(MEC) Mechanical Engineering Technology

MEC 100 Introduction to Engineering Technology (2 cr.)
Introduces professional fields of engineering technology. Covers the work of the engineering technologist, professional ethics, division of industrial practice, and engineering problem solving with hand calculator and computer applications. Lecture 1 hour. Laboratory 2 hours. Total 3 hours per week.

MEC 111 Materials for Industry (3 cr.)
Studies the nature, structure, properties, and typical applications of metallic, polymeric, ceramic, and composite materials. Promotes job entry understanding of basic material concepts. Focuses on applications of materials as well as the behavior of materials subjected to external stresses. Addresses as required the earth's limited material resources, energy efficient materials, dependence on foreign sources of materials, mechanical properties, thermal processing, and electronic-related materials. Lecture 3 hours per week.

MEC 126 Computer Programming for Technologists (2 cr.)
Introduces computer software and programming. Covers programming for the microcomputer using high level languages. Teaches computer solutions of mathematical problems in applications such as circuit analysis and static equilibrium. Lecture 1 hour. Laboratory 2 hours. Total 3 hours per week.

MEC 131 Mechanics I-Statics for Engineering Technology (3 cr.)
Teaches Newton's laws, resultant and equilibrium of force systems, trusses and frames, determination of centroids, and distributed loads and moments of inertia. Introduces dry friction and force systems in space. Prerequisite: MTH 114. Lecture 3 hours per week.

MEC 132 Mechanics II (2-3 cr.)
Teaches the concepts of stress and strain. Provides an analysis of stresses and deformations in loaded members, connectors, shafts, beams, columns, and combined stress. Lecture 2-3 hours per week.

MEC 134 Mechanical Maintenance I. (3 cr.)
Provides an overview of basic maintenance techniques and processes for industrial mechanics and technicians who are installing and maintaining industrial mechanical and power transmission components. Lecture 2-3 hours. Laboratory 0-2 hours. Total 3-4 hours per week.

MEC 161 Basic Fluid Mechanics: Hydraulics/Pneumatics (3-4 cr.)
Introduces theory, operation and maintenance of hydraulic/pneumatic systems and devices. Emphasizes the properties of fluids, fluid flow, fluid statics, and Bernoulli's equation. Lecture 2-3 hours. Laboratory 2-3 hours. Total 4-6 hours per week.

MEC 162 Applied Hydraulics and Pneumatics (2-3 cr.)
Introduces hydraulic and pneumatic systems found in construction equipment, road vehicles, and farm equipment. Includes the basic theory, construction, maintenance and repair of hydraulic and pneumatic power systems. Lecture 1-3 hours. Laboratory 0-3 hours. Total 2-5 hours per week.

MEC 195 Topics In (1-5 cr.)
Provides an opportunity to explore topical areas of interest to or needed by students. May be used also for special honors courses. May be repeated for credit. Variable hours.

MEC 210 Machine Design (3 cr.)
Studies the design of machine elements for producing and transmitting power. Includes additional material in statics, strength of materials, dynamics, engineering materials and industrial processes, including lubrication and friction. Emphasizes graphical kinematics of mechanisms, and discusses analytical design of machine components. Requires preparation of weekly laboratory reports. Lecture 3 hours. Total 3 hours per week.

MEC 211-212 Machine Design I-II (4 cr. each)
Introduces analytical design of bearings, clutches, coupling, brakes, springs, gearing systems, and power shafting. Emphasizes methods of construction, machine parts and specifications of materials, and manufacturing processes. Prerequisite: MEC 133 or department approval. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

MEC 226 Practical Metallurgy (3 cr.)
Studies metals and their structure. Focuses on effects of hardening, tempering, and annealing upon the structure and physical properties of ferrous and non-ferrous metals. Covers the equipment and processes in heat-treating. Lecture 3 hours. Total 3 hours per week.

MEC 254 Mechanical Maintenance II (3 cr.)
Covers advanced maintenance techniques and processes for industrial mechanics and technicians who are installing and maintaining industrial mechanical and power transmission components. Lecture 2-3 hours. Laboratory 0-2 hours. Total 3-4 hours per week.

MEC 265 Fluid Mechanics (3 cr.)
Studies properties of fluids and fluid flow. Bernoulli's theorem, measuring devices, viscosity and dimensional analysis. Emphasizes fluid statics, flow in pipes and channels, and pumps. Lecture 3 hours per week.

MEC 266 Applications of Fluid Mechanics (3-4 cr.)
Teaches theory of hydraulic and pneumatic circuits including motors, controls, actuators, valves, plumbing, accumulators, reservoirs, pumps, compressors, and filters. Lecture 3-4 hours per week.

MEC 295 Topics In (1-5 cr.)
Provides an opportunity to explore topical areas of interest to or needed by students. May be used also for special honors courses. May be repeated for credit. Variable hours.
(MKT) Marketing

MKT 100 Principles of Marketing (3 cr.)
 Presents principles, methods and problems involved in the distribution and marketing of goods, services, and ideas to consumers and organizational buyers. Discusses present-day problems and policies connected with distribution and sale of products, pricing, promotion, and buyer motivation. Examines variations of the marketing mix and market research, plus legal, social and ethical considerations in marketing. Lecture 3 hours per week.

MKT 110 Principles of Selling (3 cr.)
 Presents fundamental aspects of personal selling, sales, and selling methods. Emphasizes professional sales techniques and ethics. Examines organization necessary for a well-coordinated sales effort, including the training of sales personnel for maximum efficiency in selling and organization of the sales division within the business enterprise. Introduces sales management in planning, organizing, directing, and controlling the total sales effort. Lecture 3 hours per week.

MKT 170 Customer Service (1 cr.)
 Introduces students to the concepts of marketing as they relate to customer service. Teaches development of customer service training and implementation of strategies to improve customer relations and service. Includes lecture, role-playing and case studies. Lecture 1-2 hours per week.

MKT 216 Retail Organization and Management (3 cr.)
 Examines the organization of the retail establishment to accomplish its goals in an effective and efficient manner. Includes study of site location, internal layout, store operations, and security. Examines the retailing mix, the buying or procurement process, pricing, and selling. Studies retail advertising, promotion and publicity as a coordinated effort to increase store traffic. Lecture 3 hours per week.

MKT 227 Merchandise Buying and Control (3 cr.)
 Studies the merchandising cycle. Explores techniques used in the development of buying resources, merchandising plans, model stock, unit control, and inventory systems. Highlights merchandise selection, pricing strategies, and inventory control methods. Prerequisite: BUS 121, and MKT 100 or 216 or departmental approval. Lecture 3 hours per week.

MKT 228 Promotion (3 cr.)
 Presents an overview of integrated marketing communications through advertising, public relations, personal selling and sales promotion. Focuses on coordinating these activities into an effective campaign to promote a particular product, business, institution or industry. Lecture 3 hours per week.

MKT 281 Principles of Internet Marketing (3 cr.)
 Introduces students to Internet marketing. Discusses how to implement marketing programs strategically and tactically using online communications tools. Teaches e-marketing strategies. Lecture 3 hours per week.

MKT 297 Cooperative Education in Marketing (1-5 cr.)
 Provides on-the-job training in approved business, industrial and service firms. Credit/ work ratio not to exceed 1:5 hours. Variable hours per week.

MKT 298 Seminar & Project in Marketing (3 cr.)
 Requires completion of a project or research report related to the student's occupational objectives and a study of approaches to the selection and pursuit of career opportunities in the field. May be repeated for credit. Prerequisite: Sophomore standing in the marketing curriculum, plus ACC 111 (or departmental approval). Lecture 3 hours per week.

(MTE) Mathematics Essentials

MTE 1 Operations with Positive Fractions (1 cr.)
 Includes operations and problem solving with proper fractions, improper fractions, and mixed numbers without use of a calculator. Emphasizes applications and includes U.S. customary units of measure. Credit is not applicable toward graduation. Prerequisite: Qualifying placement score. Lecture 1 hour per week.

MTE 2 Operations With Positive Decimals and Percents (1 cr.)
 Includes operations and problem solving with positive decimals and percents. Emphasizes applications and includes U.S. customary and metric units of measure. Credit is not applicable toward graduation. Prerequisite: MTE 1 or qualifying placement score. Lecture 1 hour per week.

MTE 3 Algebra Basics (1 cr.)
 Includes basic operations with algebraic expressions and solving simple algebraic equations using signed numbers with emphasis on applications. Credit is not applicable toward graduation. Prerequisite: MTE 2 or qualifying placement score. Lecture 1 hour per week.

MTE 4 First Degree Equations and Inequalities in One Variable (1 cr.)
 Includes solving first degree equations and inequalities containing one variable, and using them to solve application problems. Emphasizes applications and problem solving. Credit is not applicable toward graduation. Prerequisite: MTE 3 or qualifying placement score. Lecture 1 hour per week.

MTE 5 Linear Equations, Inequalities and Systems of Linear Equations in Two Variables (1 cr.)
 Includes finding the equation of a line, graphing linear equations and inequalities in two variables and solving systems of two linear equations. Emphasizes writing and graphing equations using the slope of the line and points on the line, and applications. Credit is not applicable toward graduation. Prerequisite: MTE 4 or qualifying placement score. Lecture 1 hour per week.

MTE 6 Exponents, Factoring and Polynomial Equations (1 cr.)
 Teaches operations on exponential expressions and polynomials. Focuses on techniques to factor polynomials and solve polynomial equations. Emphasis is on learning different factoring methods and solving application problems using polynomial equations. Credit is not applicable toward graduation. Prerequisite: MTE 5 or qualifying placement score. Lecture 1 hour per week.

MTE 7 Rational Expressions and Equations (1 cr.)
 Includes simplifying rational algebraic expressions, solving rational algebraic equations and solving applications that use rational algebraic equations. Credit is not applicable toward graduation. Prerequisite: MTE 6 or qualifying placement score. Lecture 1 hour per week.

MTE 8 Radical Exponents and Radicals (1 cr.)
 Includes simplifying radical expressions, using rational exponents, solving radical equations and solving applications using radical equations. Credit is not applicable toward graduation. Prerequisite: MTE 7 or qualifying placement score. Lecture 1 hour per week.

MTE 9 Functions, Quadratic Equations and Parabolas (1 cr.)
 Includes an introduction to functions in ordered pair, graph, and equation form. Introduces quadratic functions, their properties and their graphs. Credit is not applicable toward graduation. Prerequisite: MTE 8 or qualifying placement score. Lecture 1 hour per week.

(MTH) Mathematics

MTH 103-104 Applied Technical Mathematics I-II (3 cr. each)
 Presents a review of arithmetic, elements of algebra, geometry, and trigonometry. Directs applications to specialty areas. Prerequisites: a placement recommendation for MTH 103 and one unit of high school mathematics or equivalent. Lecture 3 hours per week.

MTH 115 Technical Mathematics I (3 cr.)
 Presents algebra through exponential and logarithmic functions, trigonometry, vectors, analytic geometry, and complex numbers. Lecture 3 hours per week.

MTH 116 Technical Mathematics II (3 cr.)
 Presents algebra through exponential and logarithmic functions, trigonometry, vectors, analytic geometry, and complex numbers. Lecture 3 hours per week.

MTH 120 Introduction to Mathematics (3 cr.)
 Introduces number systems, logic, basic algebra, and descriptive statistics. Prerequisites: a placement recommendation for MTH 120 and one unit of high school mathematics or equivalent. (Intended for occupational/technical programs.) Lecture 3 hours per week.
MTH 121-122 Fundamentals of Mathematics I-II (3 cr. each)
Covers concepts of numbers, fundamental operations with numbers, formulas and equations, graphical analysis, binary numbers, Boolean and matrix algebra, linear programming, and elementary concepts of statistics. Prerequisites: placement recommendation for MTH 121 and one unit of high school mathematics or equivalent. (Intended for occupational/technical programs.) Lecture 3 hours per week.

MTH 126 Mathematics for Allied Health (2-3 cr.)
Presents scientific notation, precision and accuracy, decimals and percents, ratio and proportion, variation, simple equations, techniques of graphing, use of charts and tables, logarithms, and the metric system. Prerequisites: a placement recommendation for MTH 126 and one unit of high school mathematics or equivalent. Lecture 2-3 hours per week.

MTH 151 Mathematics for the Liberal Arts I (3 cr.)
Presents topics in sets, logic, number systems, geometric systems, and elementary computer concepts. Lecture 3 hours per week.

MTH 157 Elementary Statistics (3 cr.)
Presents elementary statistical methods and concepts including descriptive statistics, estimation, hypothesis testing, linear regression, and categorical data analysis. (Credit will not be awarded for both MTH 157 and MTH 240 or MTH 157). Lecture 3 hours per week.

MTH 158 College Algebra (3 cr.)
Covers the structure of complex number systems, polynomials, rational expressions, graphing, systems of equations and inequalities and functions, quadratic and rational equations and inequalities. Lecture 3 hours per week.

MTH 163 Precalculus I (3 cr.)
Presents college algebra, matrices, and algebraic, exponential, and logarithmic functions. Prerequisites: a placement recommendation for MTH 163. (Credit will not be awarded for both MTH 163 and MTH 166.) Lecture 3 hours per week.

MTH 164 Precalculus II (3 cr.)
Presents trigonometry, analytic geometry, and sequences and series. Prerequisite: MTH 163 or equivalent. (Credit will not be awarded for both MTH 164 and MTH 168.) Lecture 3 hours per week.

MTH 166 Precalculus with Trigonometry (4-5 cr.)
Presents college algebra, analytic geometry, trigonometry, and algebraic exponential and logarithmic functions. Prerequisite: a placement recommendation for MTH 166. (Credit will not be awarded for both MTH 163 and MTH 166). Lecture 4-5 hours per week.

MTH 173 Calculus with Analytic Geometry I (5 cr.)
Presents analytic geometry and the calculus of algebraic transcendental functions including the study of limits, derivatives, differentials, and introduction to integration along with their applications. Designed for mathematical, physical, and engineering science programs. Prerequisites: a placement recommendation for MTH 173 and four units of high school mathematics including Algebra I, Algebra II, Geometry and Trigonometry or equivalent. Completion of MTH 163 or MTH 166 is highly recommended. (Credit will not be awarded for more than one of MTH 173, MTH 175, or MTH 273.) Lecture 5 hours per week.

MTH 174 Calculus with Analytic Geometry II (5 cr.)
Continues the study of analytic geometry and the calculus of algebraic and transcendental functions including rectangular, polar, and parametric graphing, indefinite and definite integrals, methods of integration, and power series along with applications. Designed for mathematical, physical, and engineering science programs. Prerequisite: MTH 173 or equivalent. (Credit will not be awarded for more than one of MTH 174, MTH 176, or MTH 274.) Lecture 5 hours per week.

MTH 175 Calculus of One Variable I (3 cr.)
Presents differential calculus of one variable including the theory of limits, derivatives, anti-derivatives and applications to algebraic and transcendental functions. Designed for mathematical, physical, and engineering science programs. Prerequisites: a placement recommendation for MTH 175 and four units of high school mathematics including Algebra I, Algebra II, Geometry and Trigonometry or equivalent. Completion of MTH 163 or MTH 166 is highly recommended. (Credit will not be awarded for more than one of MTH 173, MTH 175 or MTH 273.) Lecture 3 hours per week.

MTH 176 Calculus of One Variable II (3 cr.)
Continues the study of integral calculus of one variable including the theory of limits, derivatives, differentials and anti-derivatives and applications to algebraic and transcendental functions. Designed for mathematical, physical, and engineering science programs. Prerequisite: MTH 175 or equivalent. (Credit will not be awarded for more than one of MTH 174, MTH 176 or MTH 274.) Lecture 3 hours per week.

MTH 177 Introductory Linear Algebra (2 cr.)
Covers matrices, vector spaces, determinants, solutions of systems of linear equations, and eigen values. Designed for mathematical, physical, and engineering science programs. Co-requisite: MTH 175. Completion of MTH 163 or MTH 166 is required. Lecture 2 hours per week.

MTH 240 Statistics (3 cr.)
Presents an overview of statistics, including descriptive statistics, elementary probability, probability distributions, estimation, hypothesis testing, and correlation and regression. Prerequisite: Completion of MTH 163 or equivalent. Lecture 3 hours per week.

MTH 241 Statistics I (3 cr.)
Covers descriptive statistics, elementary probability, probability distributions, estimation, and hypothesis testing. Prerequisites: Completion of MTH 163 or equivalent. Lecture 3 hours per week.

MTH 242 Statistics II (3 cr.)
Continues the study of estimation and hypothesis testing with emphasis on correlation and regression, analysis of variance, chi-square tests, and non-parametric methods. Prerequisite: MTH 241 or equivalent. Lecture 3 hours per week.

MTH 271 Applied Calculus I (3 cr.)
Presents limits, continuity, differentiation of algebraic and transcendental functions with applications, and an introduction to integration. Prerequisite: MTH 163 or MTH 166 or equivalent. (Credit will not be awarded for both MTH 270 and MTH 271.) Lecture 3 hours per week.

MTH 272 Applied Calculus II (3 cr.)
Covers techniques of integration, multivariable calculus, and an introduction to differential equations. Prerequisite: MTH 271 or equivalent. Lecture 3 hours per week.

MTH 273 Calculus I (4 cr.)
Presents topics in differential calculus of one variable including the theory of limits, derivatives, differentials, definite and indefinite integrals and applications to algebraic and transcendental functions. Designed for mathematical, physical, and engineering science programs. Prerequisites: a placement recommendation for MTH 273. Completion of MTH 163 or MTH 166 is highly recommended. (Credit will not be awarded for more than one of the MTH 173, MTH 175 or MTH 273.) Lecture 4 hours per week.

MTH 274 Calculus II (4 cr.)
Covers vectors in three dimensions, definite integrals, methods of integration, indeterminate forms, partial differentiation, and multiple integrals. Designed for mathematical, physical, and engineering science programs. Prerequisite: MTH 273 or equivalent. (Credit will not be awarded for more than one of MTH 174, MTH 176 or MTH 274.) Lecture 4 hours per week.

MTH 277 Vector Calculus (4 cr.)
Presents vector valued functions, partial derivatives, multiple integrals, and topics from the calculus of vectors. Designed for mathematical, physical, and engineering science programs. Prerequisite: MTH 174 or equivalent. Lecture 4 hours per week.

MTH 279 Ordinary Differential Equations (4 cr.)
Introduces ordinary differential equations. Includes first order differential equations, second and higher order ordinary differential equations with application. Designed for mathematical, physical, and engineering science programs. Prerequisite: MTH 174 or equivalent. Lecture 4 hours per week.

MTH 285 Linear Algebra (3 cr.)
Covers matrices, vector spaces, determinants, solutions of systems of linear equations, basis and dimension, eigen values, and eigen vectors. Designed for mathematical, physical and engineering science programs. Prerequisite: MTH 174 or equivalent. Lecture 3 hours per week.

MTH 295 Topics in: (1-5 cr.)
Provides an opportunity to explore topical areas of interest to or needed by students. May be also used for special honors courses. May be repeated for credit. Variable hours.

(MTS) Motorsports Management and Technology

MTS 105 Fundamentals of Motorsports Technology (3 cr.)
Introduces manual transmissions and differentials used in stock car racing. Demonstrates and performs installation, repair, and maintenance of stock car manual gearboxes and final drive units. Prerequisites: ENG 03, ENG 05. Lecture 1 hour. Laboratory 4 hours. Total 5 hours per week.
MTS 120 Introduction to Motorsports Technology (3 cr.)
Introduces the student to the Motorsports Industry. Explores the student to a broad overview of the industry, terminology and technology associated with developing a competition racecar. Lecture 3 hours per week.

MTS 125 Motorsports Technology I (3 cr.)
Introduces the student to the various systems of the racecar. Focuses on the inter-related functions and the theoretical concepts of the high performance race engine. Emphasizes hands-on skills with identification and installation of component parts of a race engine. Prerequisite: MTS 120. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

MTS 126 Motorsports Technology II (3 cr.)
Introduces the student to charging, ignition systems and fuel systems of Stock car racing. Provides hands-on experience with specialized ignition systems, charging systems, fuel cells, fuel delivery, carburation, and backup systems. Prerequisite: MTS 125. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

MTS 130 Motorsports Structural Technology I (3 cr.)
Introduces the student to the basic design and fabrication of a racecar. Develops skills for use of the tools, equipment, and materials in the production of a racecar. Emphasizes safety, accuracy, and aesthetics of the racecar and the work environment. Prerequisite(s): MTS 125 and WEL 130. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

MTS 135 Sheet Metal Fabrication (3 cr.)
Introduces sheet metal terminology, fabrication, and installation for covering structural framework of race cars. Provides project oriented, problem-based experiences with equipment and machinery used in the Motorsports industry. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

(MUS) Music
MUS 121-122 Music Appreciation I-II (3 cr. each)
Increases the variety and depth of the student’s interest, knowledge, and involvement in music and related cultural activities. Acquaints the student with traditional and twentieth century music literature, emphasizing the relationship music has as an art form with man and society. Increases the student’s awareness of the composers and performers of all eras through listening and concert experiences. Lecture 3 hours per week.

MUS 131-132 Class Voice I-II (2 cr. each)
Introduces the many aspects of singing from the physical act through the aesthetic experience. The course is designed for the beginning singer who desires vocal improvement, and for the voice major as an addition to and extension of skills and knowledge necessary for artistic development. Introduces appropriate repertoire. Lecture 1 hour per week. Laboratory 2 hours per week. Total 3 hours per week.

(NAN) Nanotechnology
NAN 100 Applied Physics and Chemistry for Technicians in Nanotechnology Industry (3 cr.)
Introduces the principles of the physics and the chemistry associated with the fabrication of nanomaterials. Prepares students to study nanomaterials at the level of technician in the nanotechnology industry. Lecture 3 hours per week.

NAN 101 - Introduction to Nanomaterials and Processes (3 cr.)
Introduces students to the scientific concepts associated with nanomaterials and fabrication. Provides an overview of the equipment, materials, and safety protocols of a standard nanomaterials laboratory. Lecture 3 hours per week.

NAN 200 Fundamentals of Nanotechnology (4 cr.)
Focuses on nanotechnology imaging and fabrication. Develops proficiency in using nanomaterials laboratory equipment to investigate nanotechnology. Prerequisite: NAN 101. Lecture 2 hours per week. Laboratory 2 hours. Total: 4 hours per week.

NAN 205 Measurement and Characterization of Nanotechnology (4 cr.)
Introduces students to the precision equipment of a nanomaterials laboratory. Develops proficiency in using precision equipment in a nanomaterials laboratory. Prerequisite: NAN 200. Lecture 2 hours. Laboratory 2 hours. Total: 4 hours per week.

NAN 208 Applications of Nanotechnology (3 cr.)
Examines the practical applications of nanotechnology in solving real-world problems in biomedicine, energy, polymer science, optics, environmental conservation, and engineering. Prepares students for professional communication with future employers and provides links to internship opportunities with companies in the nanotechnology industry. Prerequisite: NAN 205. Lecture 3 hours per week.

(NAS) Natural Sciences
NAS 105 Natural Science Topics for Modern Society (3 cr.)
Emphasizes method of the scientific disciplines as applied to selected topics pertinent to modern society. Lecture 3 hours per week.

NAS 110 Elementary Physical Science (3 cr.)
Introduces physical concepts such as measurements, mechanics, heat, light, and electricity and magnetism. Lecture 2 hours per week. Recitation and laboratory 2 hours per week. Total 4 hours per week.

NAS 185 Microbiology (4 cr.)
Surveys microorganisms, presenting their characteristics and activities as related to health and disease. Lecture 3 hours. Recitation and laboratory 2-3 hours. Total 5-6 hours per week. Prerequisites: a passing grade in either high school biology or BIO 101, or divisional approval.

(NUR) Nursing
NUR 25 Nursing Assistant (3 cr.)
Teaches fundamentals of patient care with laboratory experience in foods and fluids, elimination, moving patients, morning, afternoon and evening care, care of hospital equipment, means of providing special comforts and safety, and admission and discharge procedures. Lecture 2 hours. Laboratory 4 hours. Total 6 hours per week.

NUR 27 Nurse Aide I (3 cr.)
A course providing theory in basic nursing care of the resident in the long-term care facility or home setting. This course will follow the Virginia State Health Department and Virginia Board of Nursing Curriculum. It is offered in conjunction with NUR 25 and NUR 98.

NUR 98 Seminar & Project (3 cr.)
A course providing theory, demonstration and practical clinical experience in measuring vital signs. It is offered concurrently in conjunction with NUR 27 and NUR 25.

NUR 100 Introduction to Nursing and Health (1-2 cr.)
Introduces concepts of nursing and health. Includes historical and cultural aspects, legal, and ethical responsibilities and an overview of health and the healthcare delivery system. Lecture 1-2 hours per week.

NUR 111 Nursing I (1 cr.)
Introduces nursing principles including concepts of health and wellness and the nursing process. Develops nursing skills to meet the biopsychosocial needs of individuals across the lifespan. Includes math computational skills, basic computer instruction related to the delivery of nursing care, communication skills, introduction to nursing, health, the health care system, legal aspects of nursing care, diagnostic testing, assessment, teaching and learning, asepsis, body mechanics and safety, personal care, activity/rest, wound care, nutrition, elimination, oxygenation, fluid and electrolytes, pain control, medication administration, aging populations and pre/post-operative care. Provides supervised learning experiences. Lecture 1-7 hours. Laboratory 2-21 hours. Total 9-22 hours per week.

NUR 112 Nursing II (8 cr.)
Focuses on the nursing care of adults experiencing changes along the health/illness continuum that are common, well-defined, and have predictable outcomes. Includes math computational skills, basic computer instruction related to the delivery of nursing care; acid-base balance, gastrointestinal, genitourinary, musculoskeletal; immunology, oncology, sensorineural, infectious diseases, endocrine, respiratory and blood disorders and care of the dying client. Provides supervised learning experiences in college nursing laboratories and/or cooperating agencies. Lecture 1-7 hours. Laboratory 3-21 hours. Total: 9-22 hours per week.

NUR 114 Geriatric Nursing (3-4 cr.)
Presents theoretical and clinical nursing aspects of the aging population. Includes the aging process, psychological aspects, common age-related disorders, pharmacologic aspects, care facilities, and relationships between elders and caregivers. Lecture 1-4 hours. Laboratory 0-9 hours. Total 3-15 hours per week.

NUR 135 Drug Dosage Calculations (1 cr.)
Focuses on apothecary, metric, household conversion in medication dosage calculation for adult and pediatric clients. Provides a practical approach to learning to calculate and prepare medications and solutions. Includes calculating intravenous flow rates. Lecture 1-2 hours per week.
NUR 202 Medical/Surgical Nursing I (4 cr.)
Focuses on the care of individuals/families requiring complex or surgical treatment. Uses all components of the nursing process with increasing degrees of skill. Includes math computational skills and basic computer instruction related to the delivery of nursing care; cardiacc, neurological, renal, burn disorders and clients experiencing shock. Provides supervised learning experiences in college nursing laboratories and/or cooperating agencies. Lecture 1-3 hours. Laboratory 2-9 hours. Total 5-10 hours per week.

NUR 208 Acute Medical-Surgical Nursing (5 cr.)
Focuses on the use of nursing process to provide care to individuals/families with acute medical or surgical problems or to prevent such problems. Includes math computational skills and basic computer instruction related to the delivery of nursing care. Provides supervised learning experiences in cooperating agencies. Lecture 1-5 hours. Laboratory 2-15 hours. Total 7-16 hours per week.

NUR 226 Health Assessment (3 cr.)
Introduces the systematic approach to obtaining a health history and performing a physical assessment. Lecture 0-2 hours. Laboratory 2-9 hours. Total 3-9 hours per week.

NUR 230 Pharmacology (3 cr.)
Introduces general principles of drug action, pharmacology of the major drug classes, and specific agents within each class. Includes math calculations necessary to adapt dosages to the multidimensional needs of individuals across the lifespan. Lecture 3 hours per week.

NUR 245 Maternal/Newborn Nursing (3 cr.)
Develops nursing skills in caring for families in the antepartum, intrapartum, and postpartum periods. Lecture 1-3 hours. Laboratory 0-9 hours. Total 3-9 hours per week.

NUR 246 Parent/Child Nursing (3 cr.)
Develops nursing skills in caring for both well and ill children in a variety of settings. Emphasizes theories of growth and development and the family as a unit. Lecture 1-3 hours. Laboratory 0-9 hours. Total 3-9 hours per week.

NUR 247 Psychiatric/Mental Health Nursing (3 cr.)
Develops nursing skills in caring for individuals, families, and/or groups with mental health needs. Explores various treatment models, diagnostic categories, and rehabilitative measures. Lecture 1-3 hours. Laboratory 0-9 hours. Total 3-9 hours per week.

NUR 254 Dimensions of Professional Nursing (2 cr.)
Explores the role of the professional nurse. Emphasizes nursing organizations, legal and ethical implications, and addresses trends in management and organizational skills. Explores group dynamics, relationships, conflicts, and leadership styles. Lecture 1-2 hours per week.

(PBS) Public Service

PBS 120 Introduction to Community and Social Service (3 cr.)
Examines the basic principles, scope and functions of community and social service work including practices and current trends. Examines institutions to determine why they change, or fail to change. Introduces students to careers in community and social service work at federal, state, and municipal levels. Lecture 3 hours per week.

PBS 265 Interviewing (3 cr.)
Analyses the principles and techniques of interviewing in various organizational settings. Examines reliability and validity of information gained through information interviewing, employment and selection interviewing, performance appraisal and disciplinary interviewing, as well as counseling interviewing. Lecture 3 hours per week.

(PED) Physical Education and Recreation

PED 103-104 Aerobic Fitness I-II (1-2 cr. each)
Develops cardiovascular fitness through activities designed to elevate and sustain heart rates appropriate to age and physical conditions. Variable hours per week.

PED 107-108 Exercise and Nutrition I-II (1-2 cr.)
Provides for the study and application of fitness and wellness and their relationship to a healthy lifestyle. Defines fitness and wellness, evaluates the student's level of fitness and wellness. Students will incorporate physical fitness and wellness into the course and daily living. A personal fitness/wellness plan is required for the 2 credit course. Lecture 0-1 hours. Laboratory 2-4 hours. Total 2-4 hours per week.

PED 109 Yoga (1-2 cr.)
Focuses on the forms of yoga training emphasizing flexibility. Lecture 1-2 hours. Laboratory 0-2 hours. Total 1-3 hours per week.

PED 110 Zumba 1-2 cr.
Focuses on Latin rhythms, dance moves and techniques in Zumba. Utilizes physical activity, cardiovascular endurance, balance, coordination and flexibility as related to dance. Lecture 0-1 hours. Laboratory 1-2 hours. 2-3 hours per week.

PED 111-112 Weight Training I-II (1-2 cr. each)
Focuses on muscular strength and endurance training through individualized workout programs. Teaches appropriate use of weight training equipment. Variable hours per week.

PED 117 Fitness Walking (1 cr.)
Teaches content and skills needed to design, implement, and evaluate an individualized program of walking, based upon fitness level. Laboratory 2 hours per week.

PED 118 Baseball Fundamentals I (1-2 cr.)
Enhances the mental and physical ability of students for playing the sport of baseball. Introduces skills of weight training, flexibility, fielding, throwing, hitting, pitching, and position play. Examines the history of the sport and provides students an understanding of and respect for the game and its role in society. Lecture 0-1 hours. Laboratory 2-4 hours. Total 2-4 hours per week.

PED 119 Baseball Fundamentals II (1-2 cr.)
Continues to enhance the mental and physical ability of students for playing the sport of baseball. Continues to teach the skills necessary to play the sport. Provides students with the opportunity to evaluate, train, and coach players in order to enhance others' playing abilities. Provides an understanding of the multiple processes involved in forming a baseball team. Lecture 0-1 hours. Laboratory 2-4 hours. Total 2-4 hours per week.

PED 123-124 Tennis I-II (1-2 cr. each)
Teaches tennis skills with emphasis on stroke development and strategies for individual and team play. Includes rules, scoring, terminology, and etiquette. Variable hours per week.

PED 133 Golf I (1-2 cr.)
Teaches basic skills of golf, rules, etiquette, scoring, terminology, equipment selection and use, and strategy. Part I of II. Lecture 0-1 hours. Laboratory 2-4 hours. Total 2-4 hours per week.

PED 135-136 Bowling I-II (1-2 cr. each)
Teaches basic bowling skills and techniques, scoring, rules, etiquette, and terminology. Variable hours per week.

PED 141-142 Swimming I-II (1-2 cr. each)
Introduces skills and methods of swimming strokes. Focuses on safety and physical conditioning. Variable hours per week.

PED 149 Cardio Sculpt I (1-2 cr.)
Combines strength training and cardiovascular workouts that strengthen the major muscle groups as well as developing endurance. Utilizes the use of weights, balls and bands, fitness equipment or a combination thereof that promote cardiovascular endurance and develops muscle strength. Benefits all levels of participation. Lecture 0-2 hours. Laboratory 2-4 hours. Total 2-4 hours per week.

PED 160 Modern Dance (1-2 cr.)
Teaches the basic techniques of creative dance. Skills include self-expression, contemporary routines, dance forms, and basic choreography. Lecture 1-2 hours. Laboratory 0-2 hours. Total 1-3 hours per week.

PED 170 Tai Chi I (1-2 cr.)
Develops an understanding of the Theories and practices of Tai Chi. Explores the energy of exercise that will tone muscles, improve circulation and increase flexibility and balance. Discusses history and philosophy of exercise and relaxation techniques for stress reduction. Lecture 0-1 hours. Laboratory 2-4 hours. Total 2-4 hours per week.

PED 195 Topics in (1-5 cr.)
Provides an opportunity to explore topical areas of interest to or needed by students. May be also used for special honors courses. May be repeated for credit. Variable hours.

PED 206 Sports Appreciation (2 cr.)
Focuses on the history, trends, rules, methods, strategy, and terminology of selected sports activities. Provides student awareness as a spectator and/or participant. Lecture 2 hours per week.
PED 245 Lifeguard Training (2 cr.)
Introduces basic swimming and non-swimming rescues, swimming approaches and carries, water survival, first aid and safety. Focuses on preparation for the American Red Cross Lifeguard Certificate. Prerequisite: Ability to swim continuously for 500 yards for a minimum of 100 yards each of crawl/freestyle, breaststroke, and sidestroke; submerge to a minimum of 7 feet, retrieve a 10 pound object and return it to the surface; tread water for 2 minutes using legs only; and be 15 years of age by the first class. Lecture 1 hour. Laboratory 2 hours. Total 3 hours per week.

PED 270 Tai Chi II (1 cr.)
Develops an understanding of the Theories and practices of Tai Chi. Explores the energy of exercise that will tone muscles, improve circulation and increase flexibility and balance. Discusses history and philosophy of exercise and relaxation techniques for stress reduction. Lecture 0-1 hours. Laboratory 2-4 hours. Total 2-4 hours per week.

(PHI) Philosophy

PHI 100 Introduction to Philosophy (3 cr.)
Provides an introduction to philosophical problems and perspectives with emphasis on the systematic questioning of basic assumptions about meaning, knowledge, reality, and values. Requires ENG 111 eligibility. Lecture 3 hours/week.

PHI 115 Practical Reasoning (3 cr.)
Studies informal logic and language techniques as they relate to reasoning and argument. Provides practice in analyzing arguments and constructing sound arguments. Requires ENG 111 eligibility. Lecture 3 hours per week.

PHI 220 Ethics (3 cr.)
Provides a systematic study of representative ethical systems. Requires ENG 111 as a co-requisite. Lecture 3 hours per week.

PHI 226 Social Ethics (3 cr.)
Provides a critical examination of moral problems and studies the application of ethical concepts and principles to decision-making. Topics may include abortion, capital punishment, euthanasia, man and the state, sexuality, war and peace, and selected issues of personal concern. Requires ENG 111 as a co-requisite. Lecture 3 hours per week.

(PHT) Photography

PHT 100 Introduction to Photography (3 cr.)
Introduces principles of photography with outside shooting assignments related to lecture topics. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

PHT 101 Photography I (3 cr.)
Teaches principles of photography and fundamental camera techniques. Requires outside shooting and lab work. Lecture 1 hour. Laboratory 4 hours. Total 5 hours per week.

PHT 195 Topics In (1-5 cr.)
Provides an opportunity to explore topical areas of interest to or needed by students. May be used also for special honors courses. May be repeated for credit. Variable hours.

PHT 295 Topics In (1-5 cr.)
Provides an opportunity to explore topical areas of interest to or needed by students. May be used also for special honors courses. May be repeated for credit. Variable hours.

PHT 298 Seminar and Project (1-5 cr.)
Requires completion of a project or research report related to the student’s occupational objectives and a study of approaches to the selection and pursuit of career opportunities in the field. May be repeated for credit. Variable hours.

(PHY) Physics

PHY 130 Survey of Applied Physics (3 cr.)
Surveys topics such as heat, electricity, and light with emphasis on practical applications. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

PHY 201-202 General College Physics I-II (4 cr. each)
Teaches fundamental principles of physics. Covers mechanics, thermodynamics, wave phenomena, electricity and magnetism, and selected topics in modern physics. Prerequisites: MTH 163 or MTH166 equivalent. Lecture 3 hours. Laboratory 3 hours. Total 6 hours/week.

PHY 241-242 University Physics I-II (4 cr. each)
Teaches principles of classical and modern physics. Includes mechanisms, wave phenomena, heat, electricity, magnetism, relativity, and nuclear physics. Prerequisite for PHY 241: MTH 173 or MTH 273 or divisional approval. Prerequisite for PHY 242: MTH 174 or MTH 274 or divisional approval. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

(PLS) Political Science

PLS 211, PLS 212 U.S. Government I-II (3 cr. each)
Teaches structure, operation, and process of national, state, and local governments. Includes in-depth study of the three branches of the government and of public policy. Lecture 3 hours per week.

PLS 241 International Relations I (3 cr.)
Teaches geographic, demographic, economic, ideological, and other factors conditioning the policies of countries and discusses conflicts and their adjustment. Lecture 3 hours per week.

PLS 242 International Relations II (3 cr.)
Teaches foreign policies of the major powers in the world community with an emphasis on the role of the United States in international politics. Lecture 3 hours per week.

(PNE) Practical Nursing

PNE 135 Maternal and Child Health Nursing (5 cr.)
Examines pregnancy, childbirth, and postpartum and newborn care from a family centered approach. Covers complications related to childbirthing. Emphasizes growth and development and exploration of common childhood disorders at various stages. Lecture 4 hours. Laboratory 3 hours. Total 7 hours per week.

PNE 145 Trends in Practical Nursing (1 cr.)
Studies the role of the Licensed Practical Nurse. Covers legal aspects, organizations, and opportunities in practical nursing. Assists students in preparation for employment. Lecture 1 hour per week.

PNE 146 Fundamentals of Practical Nursing (6 cr.)
Introduces students to practical nursing history, legal and ethical aspects, and current trends. Teaches nursing knowledge and skills with emphasis on meeting basic patient needs. Utilizes nursing process. Provides learning experiences through classroom instruction, laboratory practices, and supervised clinical experience. Lecture 2 hours. Laboratory 12 hours. Total 14 hours per week.

PNE 151 Medical-Surgical Nursing II (4 cr.)
Studies etiology, symptoms, prescribed treatment, and experiences in the nursing care of patients with selected disorders. Selects learning experiences to correlate related patient care with classroom instruction whenever possible. Provides observational experiences when available. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

PNE 152 Medical-Surgical Nursing II (4-5 cr.)
Studies etiology, symptoms, prescribed treatment, and experiences in the nursing care of patients with selected disorders. Lecture 3-4 hours. Laboratory 3-6 hours. Total 6-9 hours per week.

PNE 155 Body Structure and Function (3-4 cr.)
Studies the structure and function of the body. Lecture 3-4 hours per week.

PNE 158 Mental Health and Psychiatric Nursing (1-2 cr.)
Recognizes emotional needs of patients. Provides knowledge of the role that emotions play. Enables students to understand their own behavior as well as patient behavior. Lecture 1-2 hours per week.

PNE 161 Nursing in Health Changes I (6-7 cr.)
Focuses on nursing situations and procedures necessary to assist individuals in meeting special needs related to human functions. Lecture 2-4 hours. Laboratory 6-15 hours. Total 10-17 hours per week.

PNE 162 Nursing in Health Changes II (10-11 cr.)
Continues the focus on nursing situations and procedures necessary to assist individuals in meeting special needs related to human functions. Lecture 4-6 hours. Laboratory 12-21 hours. Total 18-25 hours per week.
### PNT 110 Survey of Reproduction Processes (3 cr.)
Provides an opportunity to explore topical areas of interest to or needed by students. Variable hours.

### PNT 131 Principles of Lithography I (4 cr.)
Introduces study of color theories and principles as they apply to process color printing. Lecture: 2 hours.

### PNT 132 Principles of Lithography II (4 cr.)
Studies lithographic process including more complex types of production techniques and operations. Covers close register work, 2-color printing, types of imposition, ruled forms, scribing, stripping multiple page flats. Prerequisite: PNT 131 or department approval. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

### PNT 135 Print Imaging (2 cr.)
This course is designed to introduce the student of graphic imaging as it relates to the printing industry. Specific topics will include capturing and reproduction of line art, line copy and continuous tone by conventional and electronic methods. Co-requisite: PNT 131 or departmental approval. Lecture 1 hour. Laboratory 3 hours. Total 4 hours per week.

### PNT 141 Printing Applications I (3 cr.)
Provides instruction in the production of college-related publications and print shop management. Provides classroom and laboratory experiences in photography, layout and design, copy preparation, presswork, inventory control and production management. Lecture 1 hour. Laboratory 4 hours. Total 4 hours per week.

### PNT 142 Printing Applications II (3 cr.)
Provides instruction in the production of college-related publications and print shop management. Provides classroom and laboratory experiences in photography, layout and design, copy preparation, presswork, inventory control and production management. Lecture 1-2 hours. Laboratory 2-4 hours. Total 3-6 hours per week.

### PNT 210 Electronic Publishing I (3 cr.)
Teaches principles of typography and graphics, word processing and page layout. Survey of electronic publishing, hardware systems, peripherals, laser printers and image setters. Concentrated use of application software utilizing Macintosh microcomputers to achieve a high degree of proficiency in completing a variety of laboratory projects. Prerequisite: PNT 132; Co-requisite: PNT 221 or department approval. Lecture 2 hours, laboratory 2 hours. Total 4 hours per week.

### PNT 211 Electronic Publishing II (3 cr.)
Teaches principles of typography and graphics, word processing and page layout. Survey of electronic publishing, hardware systems, peripherals, laser printers and image setters. Concentrated use of application software utilizing Macintosh microcomputers to achieve a high degree of proficiency in completing a variety of laboratory projects. Prerequisite: PNT 211; Co-requisite: PNT 222 or department approval. Lecture 2 hours, laboratory 2 hours. Total 4 hours per week.

### PNT 212 Electronic Publishing III (3 cr.)
Teaches principles of typography and graphics, word processing and page layout. Survey of electronic publishing, hardware systems, peripherals, laser printers and image setters. Concentrated use of application software utilizing Macintosh microcomputers to achieve a high degree of proficiency in completing a variety of laboratory projects. Prerequisite: PNT 211; Co-requisite: PNT 222 or department approval. Lecture 2 hours, laboratory 2 hours. Total 4 hours per week.

### PNT 213 Electronic Publishing IV (3 cr.)
Teaches principles of typography and graphics, word processing and page layout. Survey of electronic publishing, hardware systems, peripherals, laser printers and image setters. Concentrated use of application software utilizing Macintosh microcomputers to achieve a high degree of proficiency in completing a variety of laboratory projects. Prerequisite: PNT 211, Co-requisite: PNT 223 or department approval. Lecture 2 hours, laboratory 2 hours. Total 4 hours per week.

### PNT 221 Layout and Design I (3 cr.)
Analyzes production art necessary to prepare camera-ready copy for photomechanical printing. Teaches basic drawing concepts and techniques with emphasis on design principles, and care and use of instruments. Studies production methods to prepare ruled forms, overlays, bendays, bleeds, two and multicolor forms for advertising and publication work. Co-requisite: PNT 211. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

### PNT 222 Layout and Design II (3 cr.)
Analyzes production art necessary to prepare camera-ready copy for photomechanical printing. Teaches basic drawing concepts and techniques with emphasis on design principles, and care and use of instruments. Studies production methods to prepare ruled forms, overlays, bendays, bleeds, two and multicolor forms for advertising and publication work. Prerequisite: PNT 221; Co-requisite: PNT 212. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

### PNT 223 Layout and Design III (3 cr.)
Analyzes production art necessary to prepare camera-ready copy for photomechanical printing. Teaches basic drawing concepts and techniques with emphasis on design principles, and care and use of instruments. Studies production methods to prepare ruled forms, overlays, bendays, bleeds, two and multicolor forms for advertising and publication work. Prerequisite: PNT 222; Co-requisite: PNT 213. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

### PNT 231 Lithographic Chemistry I (2 cr.)
Introduces chemistry and how it involves the printer. Covers the role of water in lithography, pH of solutions, plate coatings and film emulsions. Studies relationship of paper and ink, emulsification, water logging, effect of humidity, and causes and control of static electricity. Prerequisite: PNT 132 or department approval. Lecture 2 hours per week.

### PNT 241 Advanced Printing Applications (3 cr. each)
Continues PNT 141 and 142 to provide additional experience in production and shop management. Lecture 1 hour per week. Laboratory 4 hours per week. Total 5 hours per week.

### PNT 245 Production Planning and Estimating (4 cr.)
Teaches theory and gives experience in planning and quality control for printing production. Includes printing plant supervision and management techniques, organization, maintenance and inventory control systems. Discusses estimating for printing, including job layout, purchasing, pricing and trade customs. Prerequisite: PNT 260, 264 and BUS 121, or department approval. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

### PNT 251 Offset Press Operations I-II (4 cr.)
Explains procedures for practical operation of offset equipment including adjustments, setup make-ready, and imposition for single-color and multi-color production jobs. Studies feeder registration, printing and delivery systems, roller and blanket problems, ink and dampening problems, and quality control. Prerequisite: PNT 132. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

### PNT 260 Color Separation (3 cr.)
Introduces study of color theories and principles as they apply to process color printing. Provides classroom and laboratory experiences in dot gain, densitometry, creation and manipulation of color images and electronic color separation. Lecture: 2 hours. Laboratory: 3 hours. Total: 5 hours per week.
PNT 264 Color Image Assembly (4 cr.)
Teaches principles of color image assembly. Includes types of mechanical art; stripping materials, register systems; process color stripping; spot color stripping; complementary flats; use of color charts and butt screening tints. Prerequisite: PNT 260 or department approval. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

PNT 295 Topics In (1-5 cr.)
Provides an opportunity to explore topical areas of interest to or needed by students. May be used also for special honors courses. May be repeated for credit. Variable hours.

PNT 298 Seminar and Project (1-5 cr.)
Requires completion of a project or research report related to the student's occupational objectives and a study of approaches to the selection and pursuit of career opportunities in the field. May be repeated for credit. Variable hours.

PNT 299 Supervised Study (1-5 cr.)
Assigns problems for independent study incorporating previous instruction and supervised by the instructor. May be repeated for credit. Variable hours.

(PSY) Psychology

PSY 126 Psychology for Business and Industry (3 cr.)
Focuses on the application of psychology to interpersonal relations and the working environment. Includes topics such as group dynamics, motivation, employee-employer relationship, interpersonal communications, and techniques for selection and supervision of personnel. Lecture 3 hours per week.

PSY 200 Principles of Psychology (3 cr.)
Surveys the basic concepts of psychology. Covers the scientific study of behavior, behavioral research methods and analysis, and theoretical interpretations. Includes topics such as: physiological mechanisms, sensation/perception, motivation, learning, personality, psychopathology, therapy, and social psychology. Lecture 3 hours per week.

PSY 201-202 Introduction to Psychology I-II (3 cr. each)
Examines human and animal behavior, relating experimental studies to practical problems. Includes topics such as sensation/ perception, learning, memory, motivation, emotion, stress, development, intelligence, personality, psychopathology, therapy, and social psychology. Lecture 3 hours per week.

PSY 215 Abnormal Psychology (3 cr.)
Explores historical views and current perspectives of abnormal behavior. Emphasizes major diagnostic categories and criteria, individual and social factors of maladaptive behavior, and types of therapy. Includes methods of clinical assessment and research strategies. Prerequisite: PSY 200 or PSY 201. Lecture 3 hours per week.

PSY 230 Developmental Psychology (3 cr.)
Studies the development of the individual from conception to death. Follows a life-span perspective on the development of the person's physical, cognitive, and psychosocial growth. Lecture 3 hours per week.

PSY 231 Life Span Human Development I (3 cr.)
Investigates human behavior through the life cycle. Describes physical, cognitive, and psycho-social aspects of human development from conception to death. Lecture 3 hours per week.

PSY 235 Child Psychology (3 cr.)
Studies development of the child from conception to adolescence. Investigates physical, intellectual, social, and emotional factors involved in the child's growth. Lecture 3 hours per week.

PSY 236 Adolescent Psychology (3 cr.)
Studies development of the adolescent. Investigates physical, intellectual, social, and emotional factors of the individual from late childhood to early adulthood. Lecture 3 hours per week.

PSY 255 Psychological Aspects of Criminal Behavior (3 cr.)
Studies psychology of criminal behavior. Includes topics such as violent and non-violent crime, sexual offenses, insanity, addiction, white collar crime, and other deviant behaviors. Provides a background for law enforcement occupations. Prerequisites: PSY 125, 200, 201, 202 or divisional approval. Lecture 3 hours per week.

PSY 295 Topics in: (1-5 cr.)
Provides an opportunity to explore topical areas of interest to or needed by students. May be also used for special honors courses. May be repeated for credit. Variable hours.

(RAD) Radiography

RAD 105 Introduction to Radiology, Protection and Patient Care (2-3 cr.)
Presents brief history of radiologic profession, code of ethics, conduct for radiologic students, and basic fundamentals of radiation projection. Teaches the care and handling of the sick and injured patient in the Radiology Department. Introduces the use of contrast media necessary in the investigation of the internal organs. Lecture 2-3 hours per week.

RAD 111 Radiologic Science I (4 cr.)
Teaches concepts of radiation, radiography physics, fundamentals of electromagnetic radiation, electricity and magnetism, and application of these principles to radiography. Focuses on X-ray production, emission, and X-ray interaction with matter. Part I of II. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

RAD 112 Radiologic Science II (4 cr.)
Teaches concepts of radiation, radiography physics, fundamentals of electromagnetic radiation, electricity and magnetism, and application of these principles to radiography. Focuses on X-ray production, emission, and X-ray interaction with matter. Part II of II. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

RAD 121 Radiographic Procedures I (4 cr.)
Introduces procedures for positioning the patient's anatomical structures relative to X-ray beam and image receptor. Emphasizes procedures for routine examination of the chest, abdomen, extremities, and axial skeleton. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

RAD 131 Elementary Clinical Procedures I (3 cr.)
Develops advanced technical skills in fundamental radiographic procedures. Focuses on manipulation of equipment, patient care, osseous studies, skull procedures, and contrast studies. Provides clinical experience in cooperating health agencies. Part I of II. Clinical 15 hours per week.

RAD 132 Elementary Clinical Procedures II (3 cr.)
Develops advanced technical skills in fundamental radiographic procedures. Focuses on manipulation of equipment, patient care, osseous studies, skull procedures, and contrast studies. Provides clinical experience in cooperating health agencies. Part II of II. Clinical 15 hours per week.

RAD 141 Principles of Radiographic Quality I (4 cr.)
Presents factors that control and influence radiographic quality, as well as various technical conversion factors useful in radiography. Discusses automatic film processing, sensitometry, and quality assurance testing. Prerequisite: Admission to Program. Part I of II. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

RAD 142 Principles of Radiographic Quality II (4 cr.)
Presents factors that control and influence radiographic quality, as well as various technical conversion factors useful in radiography. Discusses automatic film processing, sensitometry, and quality assurance testing. Prerequisite: Admission to Program. Part II of II. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

RAD 190 Coordinated Internship (1-5 cr.)
Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1.5 hours. May be repeated for credit. Variable hours.

RAD 205 Radiation Protection and Radiobiology (3 cr.)
Studies methods and devices used for protection from ionizing radiation. Teaches theories of biological effects, cell and organism sensitivity, and the somatic and genetic effects of ionizing radiation. Presents current radiation protection philosophy for protecting the patient and technologist. Lecture 3 hours per week.

RAD 215 Correlated Radiographic Theory (1-2)
Presents intensive correlation of all major radiologic technology subject areas. Studies interrelationships of biology, physics, principles of exposure, radiologic procedures, patient care, and radiation protection. Lecture 1-2 hours per week.

RAD 221 Radiographic Procedures II (4 cr.)
Continues procedures for positioning the patient's anatomical structures relative to X-ray beam and image receptor. Emphasizes procedures for routine examination of the skull, contrast studies of internal organs, and special procedures employed in the more complicated investigation of the human body. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.
RAD 231 Advanced Clinical Procedures I (4-5 cr.)
Reinforces technical skills in fundamental radiographic procedures. Introduces more intricate contrast media procedures. Focuses on technical proficiency, application of radiation, protection, nursing skills, and exposure principles. Teaches advanced technical procedures and principles of imaging modalities, correlating previous radiographic theory, focusing on full responsibility for patients in technical areas, perfecting technical skills, and developing awareness of related areas utilizing ionizing radiation. Provides clinical experience in cooperating health agencies. Part I of II. Clinical 20-25 hours per week.

RAD 232 Advanced Clinical Procedures II (5 cr.)
Reinforces technical skills in fundamental radiographic procedures. Introduces more intricate contrast media procedures. Focuses on technical proficiency, application of radiation, protection, nursing skills, and exposure principles. Teaches advanced technical procedures and principles of imaging modalities, correlating previous radiographic theory, focusing on full responsibility for patients in technical areas, perfecting technical skills, and developing awareness of related areas utilizing ionizing radiation. Provides clinical experience in cooperating health agencies. Part II of II. Clinical 20-25 hours per week.

RAD 240 Radiographic Pathology (3 cr.)
Presents a survey of common medical and surgical disorders that affect radiographic image. Discusses conditions related to different systems of the human body. Studies the correlation of these conditions with radiographs. Lecture 3 hours per week.

RAD 246 Special Procedures (1-2 cr.)
Studies special radiographic and surgical procedures and equipment employed in the more complicated investigation of internal conditions of the human body. Lecture 1-2 hours per week.

RAD 290 Coordinated Internship (1-5 cr.)
Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.

(REA) Real Estate

REA 100 Principles of Real Estate (4 cr.)
Examines practical applications of real estate principles. Includes a study of titles, estates, land descriptions, contracts, legal instruments and concepts, real estate mathematics, financing, agency, appraisal, fair housing, and management of real estate. Lecture 4 hours per week.

(REL) Religion

REL 200 Survey of the Old Testament (3 cr.)
Studies books of the Old Testament, with emphasis on prophetic historical books. Examines the historical and geographical setting and place of the Israelites in the ancient Middle East as background to the writings. Lecture 3 hours per week.

REL 210 Survey of the New Testament (3 cr.)
Surveys books of the New Testament, with special attention upon placing the writings within their historical and geographical setting. Lecture 3 hours per week.

REL 230 Religions of the World (3 cr.)
Introduces the religions of the world with attention to origin, history, and doctrine. Lecture 3 hours per week.

REL 235 Major Religious Thinkers (3 cr.)
Examines the works of one or more important people in religious thought. Lecture: 3 hours per week.

REL 240 Religions in America (3 cr.)
Surveys various manifestations of religion in the American experience. Emphasizes concepts, problems, and issues of religious pluralism and character of American religious life. Lecture 3 hours per week.

REL 255 Selected Problems and Issues in Religion (3 cr.)
Examines selected problems and issues of current interest in religion. May be repeated for credit. Lecture 3 hours per week.

(RVH) RV/Motorcycle Maintenance

RVH 130 Motorcycle Rider Safety – Beginner (1-2 cr.)
Studies principles and basic skills of motorcycle riding with an emphasis on safety. Includes street strategies, protective gear, and selection and care/maintenance of motorcycles. Lecture 1-2 hours. Laboratory 0-2 hours. Total 2-3 hours per week.

(SAF) Safety

SAF 126 Principles of Industrial Safety (3 cr.)
Teaches principles and practices of accident prevention, analysis of accident causes, mechanical safeguards, fire prevention, housekeeping, occupational diseases, first aid, safety organization, protection equipment and general safety principles and promotion. Lecture 3 hours per week.

SAF 130 Industrial Safety - OSHA 10 (1 cr.)
Presents an introduction to occupational health and safety and its application in the workplace. Emphasizes safety standards and the Occupational Safety and Health Act (OSHA), its rules and regulations (OSHA 10). Lecture 1 hour per week.

SAF 195 Shop Safety (1 cr.)
This course will teach general shop safety (correct clothing, eye protection, hair protection, foot protection, etc.) and government guidelines (MSDA sheets, hazardous material, OSHA guidelines and confined spaces). Lecture 1 hour per week.

SAF 246 Hazardous Chemicals, Materials, and Waste in the Workplace (3 cr.)
Introduces the rules and regulations governing use, exposure to, and disposal of hazardous chemicals, materials and waste by-products. Discusses OSHA “Right to Know Laws,” EPA and RCRA regulations. Provides the techniques to interpret and understand the code of Federal Regulations. Emphasis on management mandates, strategies, and options to comply with these regulations. Lecture 3 hours per week.

(SOC) Sociology

SOC 200 Principles of Sociology (3 cr.)
Introduces fundamentals of social life. Presents significant research ad theory in areas such as culture, social structure, socialization, deviance, social stratification, and social institutions. A student taking SOC 200 may not enroll in SOC 201 or 202. Lecture 3 hours per week.

SOC 201-202 Introduction to Sociology I-II (3 cr. each)
Introduces basic concepts and methods of sociology. Presents significant research and theory in areas such as socialization, group dynamics, gender roles, minority group relations, stratification, deviance, culture, community studies. Includes population, social change, and social institutions (family, education, religion, political system, economic system). SOC 201 is a prerequisite for SOC 202. Lecture 3 hours per week.

SOC 215 Sociology of the Family (3 cr.)
Studies topics such as marriage and family in social and cultural context. Addresses the single scene, dating and marriage styles, child-rearing, husband and wife interaction, single parent families, alternative lifestyles. Prerequisites: SOC 200, SOC 201, or permission of instructor. Lecture 3 hours per week.

SOC 235 Juvenile Delinquency (3 cr.)
Studies demographic trends, causal theories, and control of juvenile delinquency. Presents juveniles’ interaction with family, schools, police, courts, treatment programs, and facilities. Prerequisite: SOC 200, SOC 201, or permission of instructor. Lecture 3 hours per week.

SOC 236 Criminology (3 cr.)
Studies research and causal theories of criminal behavior. Examines crime statistics, crime victims, and types of criminal offenses. Introduces role of police, judicial and correctional system in treatment and punishment of offenders. Is also approved for ADJ Criminology. Prerequisites: SOC 200, SOC 201 or permission of instructor. Lecture 3 hours per week.

SOC 268 Social Problems (3 cr.)
Applies sociological concepts and methods to analysis of current social problems. Includes delinquency and crime, mental illness, drug addiction, alcoholism, sexual behavior, population crisis, race relations, family and community disorganization, poverty, automation, wars, and disarmament. Prerequisites: SOC 200, SOC 201 or permission of instructor. Lecture 3 hours per week.

(SPA) Spanish

SPA 101-102 Beginning Spanish I-II (4 cr. each)
Introduces understanding, speaking, reading, and writing skills and emphasizes basic Spanish sentence structure. May be also used for special honors classes. May include an additional hour of oral drill and practice per week. Lecture 4 hours per week.
Study skills, career and life planning.

SDV 104 Study Skills (1-3 cr.)
Assists students in planning strategies to overcome nonproductive study habits and in implementing positive study behaviors. Includes management, memory improvement, note taking, and test taking. Lecture 1-3 hours per week.

SDV 106 Job Search Strategies (1 cr.)
Provides experience in resume writing, preparation of applications, letters of application, and successfully preparing for and completing the job interview. Assists students in identifying their marketable skills and aptitudes. Develops strategies for successful employment search. Assists students in understanding effective human relations techniques and communication skills in job search. Prerequisite: ENG 134, ENG 135, and ITE 115 or departmental approval. Lecture 1 hour per week.

SDV 108 College Survival Skills (1-2 cr.)
Provides an orientation to the college. Introduces study skills, career and life planning. Offers an opportunity to engage in activities aimed at self-discovery. Emphasizes development of “coping skills” such as listening, interpersonal relations, competence, and improved self-concept. Recommended for students enrolled in developmental courses. Lecture 1-2 hours per week.

SDV 110 Orientation to Teaching As a Profession (3 cr.)
Introduces students to a career in teaching and education by allowing students to experience the components of the learner, the school environment and the classroom teaching environment. Utilizes the Virginia Teachers for Tomorrow/Teacher Cadet curriculum. Students participate in a 15-hour student teaching internship in a classroom at one of the levels between Kindergarten and grade 9. Lecture 3 hours per week.

SDV 109 Topics In (1-5 cr.)
Provides an opportunity to explore topical areas of interest to or needed by students. May be used also for special honors courses. May be repeated for credit. Variable hours.

SDV 203-204 Intermediate Spanish I-II (3 cr. each)
Continues to develop understanding, speaking, reading, and writing skills. Classes conducted in Spanish. Prerequisite: SPA 102 or equivalent. May include oral drill and practice. Lecture 3 hours per week.

SDV 211 Intermediate Spanish Conversation I-II (3 cr.)
Continues to develop fluency through emphasis on idioms and other complex sentence structures. Prerequisite SPA 202 or equivalent. Part I or II. Lecture 3-4 hours per week.

SDV 212 Intermediate Spanish Conversation I-II (3 cr.)
Continues to develop fluency through emphasis on idioms and other complex sentence structures. Prerequisite SPA 202 or equivalent. Part II of II. Lecture 3-4 hours per week.

WEL 116 Welding I (Oxyacetylene) (2 cr.)
Teaches oxygen/acetylene welding and cutting including safety of equipment, welding, brazing and soldering procedures and cutting procedures. Lecture 1 hour. Laboratory 3 hours. Total 4 hours per week.

WEL 120 Fundamentals of Welding (2 cr.)
Introduces history of welding processes. Covers types of equipment, and assembly of units. Stresses welding procedures such as fusion, non-fusion, and cutting oxyacetylene. Introduces arc welding. Emphasizes procedures in the use of tools and equipment. Lecture 1 hour. Laboratory 3 hours. Total 4 hours per week.

WEL 121 Arc Welding (2 cr.)
Studies the operation of AC and DC power sources, weld heat, polarities, and electrodes for use in joining various alloys by the SMAW process. Covers welds in different types of joints and different welding positions. Emphasizes safety procedures. Lecture 1 hour. Laboratory 3 hours. Total 4 hours per week.

WEL 122 Welding II (Electric Arc) (2 cr.)
Teaches electric arc welding, including types of equipment, selection of electrodes, safety equipment and procedures, and principles and practices of welding. Lecture 1 hour. Laboratory 3 hours. Total 4 hours per week.

WEL 126 Pipe Welding I (3 cr.)
Teaches metal arc welding processes including the welding of pressure piping in the horizontal, vertical, and horizontal-fixed positions in accordance with section IX of the ASME code. Prerequisites: WEL 120, WEL 121 and WEL 122. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

WEL 135 Inert Gas Welding (2 cr.)
Introduces practical operations in use of inert gas shielded arc welding. Studies equipment operation, setup, safety and practice of GMAW (MIG) and GTAW (TIG). Lecture 1 hour. Laboratory 3 hours. Total 4 hours per week.

WEL 136 Welding Ill (Inert Gas) (2 cr.)
Studies Tungsten and metallic inert gas procedures and practices including principles of operation, shielding gasses, filler rods, process variations and applications, manual and automatic welding, equipment and safety. Lecture 1 hour. Laboratory 3 hours. Total 4 hours per week.

WEL 145 Welding Metallurgy (3 cr.)
Studies steel classifications, heat treatment procedures, properties of ferrous and non-ferrous metals. Discusses techniques and practices of testing welded joints and destructive/nondestructive, visual magnetic and fluorescent testing. Lecture 3 hours. Total 3 hours per week.

WEL 150 Welding Drawing and Interpretation (2-3 cr.)
Teaches fundamentals required for successful drafting as applied to the welding industry. Includes blueprint reading, geometric principles of drafting and freehand sketching, basic principles of orthographic projection, preparation of drawings and interpretation of symbols. Lecture 2-3 hours per week.

Teaches oral communications and introduces cultural mores and customs to students with no prior instruction in the language. Lecture: 3 hours per week.

SPA 150 Spanish for Law Enforcement (3 cr.)
Introduces Spanish to those in the criminal justice field. Emphasizes oral communication and practical first-hand police and justice vocabulary. May include oral drill and practice. Lecture 3 hours per week.

SPA 163 Spanish for Health Professionals I (3 cr.)
Introduces Spanish to those in the health sciences. Emphasizes oral communication and practical medical vocabulary. May include oral drill and practice. Part I of II. Lecture 3 hours per week.

SPA 195 Topics In (1-5 cr.)
Provides an opportunity to explore topical areas of interest to or needed by students. May be used also for special honors courses. May be repeated for credit. Variable hours.

SPA 203-204 Intermediate Spanish I-II (3 cr. each)
Continues to develop understanding, speaking, reading, and writing skills. Classes conducted in Spanish. Prerequisite: SPA 102 or equivalent. May include oral drill and practice. Lecture 3 hours per week.

SPA 211 Intermediate Spanish Conversation I-II (3 cr.)
Continues to develop fluency through emphasis on idioms and other complex sentence structures. Prerequisite SPA 202 or equivalent. Part I or II. Lecture 3-4 hours per week.

SPA 212 Intermediate Spanish Conversation I-II (3 cr.)
Continues to develop fluency through emphasis on idioms and other complex sentence structures. Prerequisite SPA 202 or equivalent. Part II of II. Lecture 3-4 hours per week.

SPA 213-214 Basic Spoken Spanish I-II (3 cr. each)
Teaches oral communications and introduces cultural mores and customs to students with no prior instruction in the language. Lecture: 3 hours per week.

SPA 203-204 Intermediate Spanish I-II (3 cr. each)
Continues to develop understanding, speaking, reading, and writing skills. Classes conducted in Spanish. Prerequisite: SPA 102 or equivalent. May include oral drill and practice. Lecture 3 hours per week.

SPA 211 Intermediate Spanish Conversation I-II (3 cr.)
Continues to develop fluency through emphasis on idioms and other complex sentence structures. Prerequisite SPA 202 or equivalent. Part I or II. Lecture 3-4 hours per week.

SPA 212 Intermediate Spanish Conversation I-II (3 cr.)
Continues to develop fluency through emphasis on idioms and other complex sentence structures. Prerequisite SPA 202 or equivalent. Part II of II. Lecture 3-4 hours per week.

Course Descriptions - Danville Community College - 141
The People of DCC

State Board For Community Colleges
July 1, 2013 - June 30, 2014

Bruce J. Meyer, Chair
Dorcas Helfant-Browning, Vice Chair
Dr. Glenn DuBois, Secretary and Chancellor
of the Virginia Community College System

Benita Thompson Byas
Darren Conner
James Cuthbertson
LaVonne P. Ellis
Idalia P. Fernandez
Admiral Robert R. Fountain
Stephen T. Gannon
Sasha Gong
Mirta M. Martin
David Nutter
Robin Sullenberger
Michael E. Thomas
Michael Zajur

Danville Community College Board

Eliza S. Spainhour, City of Danville, Chair
Cathy Liles, Pittsylvania County, Vice Chair
Dr. Bruce R. Scism, Secretary and President
of Danville Community College

Carrie P. Ashe, City of Danville
Chris Eastwood, Pittsylvania County
Lillian P. Fitzgerald, Pittsylvania County
Frank T. Grogan III, D.D.S., City of Danville
Ricky Hutcherson, Halifax County
Valdivia T. Marshall, Halifax County
Glenn C. Ratliff, Halifax County

Danville Community College Educational Foundation Board

Eddie Herndon, Chair
Scott Batson, Vice Chair
Gene Hayes, Secretary
Nan Freed, Treasurer
Sandie Currie, Immediate Past Chair
Shannon L. Hair, Executive Director
and Director of Development

Shahnaz M. Ahmed
Rick Barker
John W. Collins
Darren Conner
Patrick L. Daly
Denise H. Derham
Michael Duncan
Dan Farmer
Ed Fitzgerald, IV
Dr. Paul Fox
John B. Hall, Jr.
Edwin J. Harvie Jr., M.D.

H. F. Haymore, Jr.
Ted Hodges, Jr.
Harry Johnson
Kevin Keys
Dr. Harry T. Kolendrianos
Albert L. Payne, D.D.S.
Brooks Powell, III
Tommy Pruett
Rodney Reynolds
LaTisha Royal
Saria Saccocio, M.D.
Harry Sakellaris
Dr. Bruce R. Scism
Joan Tarpley-Robinson
Mary H. Wertz
Steve Wilkinson
Bobbye Raye Womack
Sheila G. Wright
Landon R. Wyatt, Jr.
John H. Zechman, Jr.

Directors Emeriti

B. R. Ashby, M.D.
Mildred W. Barkhouser
Carrington Bidgood
John Boyd
Inara Dodson
Roy Gignac
Charles Harris
James Kent
Rebecca L. McGovern
Clyde Midkiff
Frank Mobley
Virginia Roberts
Ralph Stanford
Eileen M. Stendig
James Sutherland
Melvin Vernon
Hazel York

College Management Team

Dr. Bruce R. Scism
Jeffrey D. Arnold
Scott J. Barnes
Dr. Christopher C. Ezell
Dr. Vince Decker
Dr. Paul C. Fox
Robert Huffman
Cheryl B. Terry
Andrea J. Burney
William L. Dey
Shannon L. Hair
Dr. Sherri H. Huffman

President
Vice President of Workforce Services
Vice President of Financial and Administrative Services
Vice President of Academic and Student Services
Interim Dean, Business Division
Dean, Arts and Sciences Division
Interim Dean, Engineering Technologies Division
Dean, Student Success and Academic Advancement Division
Director of Public Relations & Minority Concerns
Director of Learning Resources & Distance Learning
Director of Development
Director of Planning, Effectiveness & Research

As of 3/1/14
Faculty and Administrators

Adkins, James R., Jr.
Instructor of General Engineering/Drafting & Design
Diploma - Danville Community College, 1984
A.A.S. - Danville Community College, 1996
B.S. - Old Dominion University, 1997
Chief Architect Certified Instructor, 2003

Amos, Carl L., Jr.
Professor and ADA Coordinator
B.A. - Frostburg State University, 1973
M.A. - New York University, 1980
Ed.D. - Lamar University, 2000

Arnold, Jeffrey D.
Associate Professor and Vice President of Workforce Services
B.S. - North Carolina State University, 1978
M.B.A. - Averett College, 1992

Balfour, David
Professor of Biology
B.S. - Virginia Commonwealth University, 1992
M.S. - Virginia Commonwealth University, 1994
Ph.D. - Virginia Tech, 2000

Barnes, Scott J.
Assistant Professor and Vice President of Financial and Administrative Services
B.S.E.E. - Virginia Tech, 1978

Barrett, Cathy Y.
Associate Professor of Nursing
R.N. - The Memorial Hospital School of Nursing, 1986
B.S.N. - University of Virginia, 1998
M.S.N. - Old Dominion University, 2004

Bonebright, David
Professor of Marketing and Business Management
B.S. - University of Nebraska - Lincoln, 1977
M.B.A. - Georgia Southern University, 2002

Bryant, Mark W.
Associate Professor of Air Conditioning and Refrigeration
A.S. - Danville Community College, 1974
Diploma - Danville Community College, 1974

Burney, Andrea J.
Associate Professor and Director of Public Relations and Minority Concerns
B.S. - Boston University, 1975
M.B.A. - Averett College, 1995
APR - Accredited in Public Relations, 2005

Carlson, Angela
Instructor of Developmental Mathematics
B.S. - Averett University, 1993
M.A. - Virginia Tech, 1998

Carrigan, Steven L.
Associate Professor of Information Systems Technology
A.A.S. - Danville Community College, 1995
B.S. - Old Dominion University, 1999
A.A.S. - Danville Community College, 2000
M.S. - Old Dominion University, 2009
Microsoft Certified Professional (MCP), 2000
Microsoft Certified Systems Engineer/Windows NT 4.0 (MCSE), 2000
Microsoft Certified Systems Engineer/Windows 2000 (MCSE), 2001
Cisco Certified Network Associate (CCNA), 2001
Cisco Certified Academy Instructor (CCAI), 2001
CompTIA Network+ Certified, 2001

Carter, Frances H.
Assistant Professor of Administrative Support Technology
A.S. - Danville Community College, 1979
B.S. - Averett College, 1981
M.S. - Longwood College, 1992

Chhajer, Mukesh
Professor of Physics & Mathematics
B.S. - Birla Institute of Technology and Science, 1983
M.S. - University of Cincinnati, 1992
Ph.D - University of Akron, 1998

Cornell, Pamela
Instructor of Nursing/Lab Coordinator
RN - Danville Regional Medical Center School of Nursing, 1996
B.S.N. - Liberty University, 2013

Dabney, Robin M.
Director, TRiO Upward Bound Program
A.A.S. - Danville Community College, 1997
A.A.S. - Danville Community College, 2001
B.S. - Old Dominion University, 2006
M.B.A. - Liberty University, 2008
Ed.S. - Liberty University, 2009
Ed.D. - Liberty University, 2012

Decker, Vincent A.
Professor of Business Management and Interim Dean, Business Division
B.S.B.A - Longwood College, 1985
M.B.A. - Lynchburg College, 1997
Ph.D. - Northcentral University, 2011

Derr, Robert E.
Assistant Professor of English
B.A. - East Carolina University, 2005
M.A. - East Carolina University, 2007

Dey, William L.
Associate Professor and Director of Learning Resources and Distance Learning
A.A. - Santa Fe Community College, 1973
B.A. - University of Florida, 1976
M.Ed. - University of Florida, 1981
M.S.L.S. - Florida State University, 1988

Drinkard, Dewitt T.
Associate Professor of Psychology
B.A. - Emory & Henry College, 1974
M.Ed. - East Tennessee State University, 1993
M.S. - Virginia Commonwealth University, 2000

Dunlap, JoLene
Instructor and Counselor
A.S. - Danville Community College, 1975
B.S. - Averett College, 1977
M.Ed. - Lynchburg College, 1988

Emerson, James W.
Assistant Professor of Nursing
R.N. - Danville Regional Medical Center School of Nursing, 2005
B.S.N. - Virginia Commonwealth University, 2009
M.S.N. - University of Virginia, 2011

Exzell, Christopher C.
Professor and Vice President of Academic and Student Services
B.S. - Austin Peay State University, 1976
M.A. -Vanderbilt University, 1979
Ph.D. - Vanderbilt University, 1987
Fox, Paul C.
Professor and Dean, Arts and Sciences Division
B.S. - University of Bath, 1980
Ph.D. - University of Leeds, 1984

Franklin, Jerry
Instructor and Director of Manufacturing and Technical Services
A.S. - Danville Community College, 1970
B.S. - Virginia Polytechnic Institute and State University, 1972

Garneau, Lisa
Associate Professor of Information Systems Technology
B.S. - University of Florida
M.S. - University of Florida
M.Div. - Southeastern Baptist Theological Seminary

Giles, Michael O.
Associate Professor of Graphic Imaging Technology
A.S. - West Virginia Institute of Technology, 1995
B.S. - West Virginia Institute of Technology, 1996

Goble, Rosanne
Assistant Professor of Biology
A.A. - Southeastern Community College, 1996
B.S. - Western Illinois University, 1998
M.S. - Western Illinois University, 2004

Gore, Mary F.
Instructor and Assistant Coordinator of Financial Aid Certificate - Danville Community College, 1975
A.A.S.-Danville Community College, 2000
B.B.A. - Averett University, 2002
M.A. - Liberty University, 2010

Gott, Sherry Fraser
Associate Professor of English
B.A. - Virginia Polytechnic Institute & State University, 1973
M.A. - Virginia Polytechnic Institute & State University, 1976

Graves, Howard A.
Assistant Professor and Coordinator of Counseling, Financial Aid Services and Student Activities
B.S. - Norfolk State College, 1976
M.Ed. - Coppin State College, 1977

Grether, Barbara M.
Assistant Professor and Librarian
B.S. - Valparaiso University, 1974
M.L.S. - Indiana University, 1984

Guffey, Rita J.
Instructor of Developmental English
B.S. - Bob Jones University, 1994
M.Ed. - Georgia Southern University, 2009

Hair, Shannon L.
Instructor and Director of Development
A.A.S. - Danville Community College, 1998
B.S. - Old Dominion University, 2005
Virginia Industrial Development Authority Institute - Va. Tech, 2006
Economic Development Institute (EDI) - Oklahoma University, 2007

Hall, Lester
Associate Professor of Accounting
B.A. - Averett University, 1992
B.A. - Washington and Lee University, 1985
C.P.A. - Virginia, 1995
M.A.C.I.S. - Virginia Polytechnic Institute and State University, 2008

Harris, Sharon
Interim Director, Southern Piedmont Educational Opportunity Center
B.B.A. - James Madison University, 1991
M.B.A. - Virginia Tech, 2005

Hatcher, Christy S.
Assistant Professor of Developmental Mathematics
B.S. - Averett University 1997
M.S. - Longwood University, 2002
M.ED - Averett University, 2003

Heldreth, Larry A.
Associate Professor of Accounting
B.S. - Averett College, 1973
M.B.A. - University of North Carolina at Greensboro, 1976
C.P.A. - Virginia, 1994

Henderson, Deborah H.
Assistant Professor of Nursing
B.S.N. - University of Virginia, 1978
M.S.N. - Duke University, 2000

Huffman, Robert
Professor of Drafting and Design and Interim Dean, Engineering Technologies Division
B.S. - Morehead State University, 1982
M.S. - Old Dominion University, 2004

Huffman, Sherri H.
Associate Professor and Director of Planning, Effectiveness & Research
A.A.S. - Patrick Henry Community College, 1981
B.S. - Radford University, 1983
M.S. - University of Virginia, 1987
Ed.D - NOVA University, 1999

Kiger, Cynthia
Professor of Electrical/Electronics
A.A.S. - Nash Community College, 1984
B.S. - University of North Carolina-Charlotte, 1992
M.S. - East Carolina University, 2004

Lindley, James
Instructor and Counselor
A.A.S. - Danville Community College, 1991
B.S. - Old Dominion University, 1996
M.S. - Longwood University, 2000

Maior, Theodore J.
Professor of English
B.S. - SUNY College at Brockport, 1984
M.A. - SUNY College at Brockport, 1989
Ph.D. - Miami University of Ohio, 2001

McDaniel, Earl
Director of Community College Programs, Southern Virginia Higher Education Center
B.A. - University of Richmond, 1973
M.S. Ed - Longwood University, 1975

McKinney, Tammy
Professor of Practical Nursing
R.N. - Danville Regional Medical School of Nursing, 1991
B.S.N. - Virginia Commonwealth University, 2000
M.S.N -University of Virginia, 2005
Certification - Family Nurse Practitioner, 2005

Meadors, Helen
Assistant Professor of English
B.S. - Radford College, 1968
M.A. - Radford College, 1973
<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Education</th>
</tr>
</thead>
</table>
| Motley, Mary W.       | Instructor, Developmental Mathematics         | A.A.S. - Danville Community College, 1989  
B.S. - Averett College, 1994  
M.Ed. - Averett University, 2003 |
| Nidiffer, Matt        | Assistant Professor of Business Management     | B.S. - The University of Virginia-Wise, 2002  
M.S. - Clemson University, 2006 |
| Pantazis, Christopher J. | Instructor of Biology                         | B.A. - University of Virginia, 2001  
M.S. - University of North Carolina at Greensboro, 2009 |
| Perkins, Barbara      | Associate Professor and Counselor, Southern Virginia Higher Education Center | M.S. - Radford University, 1994  
B.S. - Radford University, 1983  
C.A.G.S. - Virginia Polytechnic Institute and State University, 1995 |
| Pippin, Donald R.     | Director, Middle College                      | B.S. - Lynchburg College, 1980  
Developmental Education Specialist - Appalachian State University, 2007  
M.Ed. - Cambridge College, 2012 |
| Poole, Kevin D.       | Assistant Professor of Precision Machining Technology | Diploma - Danville Community College, 2003 |
| Poole, P. Douglas     | Associate Professor of Precision Machining Technology | Diploma - Danville Community College, 1973  
A.S. - Pennsylvania Center for Degree Studies, 1984  
B.B.A. - Averett College, 1998 |
| Prillaman, Bradley    | Instructor of Developmental Mathematics       | B.S. - Averett University, 2005  
M.Ed. - Averett University, 2011 |
| Pulliam, Cathy D.     | Instructor and Coordinator of Admissions, Enrollment Management and Student Outreach | Certificate - Danville Community College, 1999  
B.S. - Averett University, 2002  
M.S. - Capella University, 2007 |
| Riddle, Tamra         | Assistant Professor of Nursing                | RN - Danville Regional School of Nursing, 1989  
B.S.N. - Old Dominion University, 1997  
M.S.N. - Liberty University, 2012 |
| Robertson, Richie Jones | Associate Professor of Administrative Support Technology | Certificate - Danville Community College, 1980  
B.B.A. - Averett College, 1986  
M.B.A. - Averett University, 2009 |
| Roche, William J., Jr. | Professor of Automotive Analysis and Repair   | Diploma - Blue Ridge Community College, 1976  
B.S. - University of Maryland, 1981  
M.S. - Old Dominion University, 2001 |
| Ruiz-Fodor, Ana       | Associate Professor of History                | B.S. - Universidad Centroamericana, 1979  
M.A. - West Virginia University, 1999  
M.A. - West Virginia University, 2006 |
| Sanders, Todd         | Assistant Professor of Precision Machining Technology | Diploma - Danville Community College, 1985 |
| Satterfield, Cassandra Anderson | Associate Professor of Information Systems Technology | A.A.S. - Danville Community College, 1996  
B.S. - Longwood College, 1998  
M.S. - Radford University, 2008 |
| Scism, Bruce R.       | President                                     | B.A. - Eastern Illinois University, 1980  
M.A. - Eastern Illinois University, 1994  
Ed.D - University of Illinois, 2006 |
| Setliff, Glenda       | Associate Instructor I, Nurse Aide             | Certificate - Danville Community College, 1972  
R.N. - The Memorial Hospital School of Nursing, 1974 |
| Sexton, A. Gerald     | Instructor of Wood Products Technology        | A.S. - Gadsden State Junior College, 1975  
B.T. - Jacksonville State University, 1990  
Certificate - Alabama A&M University, 1991 |
| Shelton, Sammy E.     | Associate Professor of Auto Body Mechanics    | Certificate - Danville Community College, 1973 |
| Simpson, Troy M.      | Associate Professor of Precision Machining Technology | Diploma - Danville Community College, 1989  
B.B.A. - Averett College, 1993 |
| Smith, Debra          | Assistant Professor of Welding                | Diploma - Danville Community College, 1995 |
| Smith, Jeffrey F.     | Associate Professor of Nursing                | A.S. - Danville Community College, 1976  
A.A.S. - Patrick Henry Community College, 1985  
B.S.N. - Averett College, 1989  
M.S.N. - University of Virginia, 1995 |
| Stoddard, Jonathan    | Associate Professor of Chemistry              | B.S. - San Jose State University, 1995  
PhD - University of California, 2003 |
| Tai, Jue-Ling         | Assistant Professor of Mathematics            | B.S. - National Chengehi University, 1968  
M.S. - University of Cincinnati, 1982 |
| Taylor, Vickie Holland| Assistant Professor of Sociology              | B.S. - Appalachian State University, 1970  
M.A. - Appalachian State University, 1971 |
| Terry, Cheryl Barksdale | Assistant Professor and Dean of Student Success and Academic Advancement Division | B.S. - DeVry University, 1988  
M.B.A. - University of Dallas, 2001 |
Terzopoulos, Constantine  
Associate Professor of Mathematics  
B.S. - Empire State College - SUNY, 1988  
M.S. - The City College - CUNY, 1989  
M.A. - Hunter College - CUNY, 1994

Toler, Teresa  
Assistant Professor of Electrical Electronics  
Diploma - Electrical/Electronics, 1984, 1985

Tucker, Martha Boswell  
Associate Professor of Early Childhood and Reading  
B.S. - James Madison University, 1984  
M.S. - Longwood College, 1994

Turnbull, George M.  
Associate Professor of Electrical/Electronics  
Diploma - Danville Community College, 1975  
A.A. - Danville Community College, 1978  
B.A. - University of Virginia, 1980

Turner, Lynn D.  
Assistant Professor and Site Coordinator/Dental Hygiene Program  
A.A.S. - Virginia Western Community College, 1993  
B.S. - Old Dominion University, 2006  
Registered Dental Hygienist

Vicks, Frederick “Derick” II  
Assistant Professor of Air Conditioning & Refrigeration  
Diploma - Danville Community College, 1995  
Certificate - Service Experts Technical School, 1999

von Karowsky-Nelson, Kristin  
Assistant Professor of English  
B.A. - College of Charleston, 1989  
M.A. - University of South Carolina, 1998  
M.A. - University of South Carolina, 2002

Wallace, Mark C.  
Associate Professor of History  
B.A. - College of William & Mary, 1999  
M.A. - George Mason University, 2001  
PhD - University of St. Andrews, 2007

Wang, Yiheng  
Associate Professor of Engineering  
B.A. - South China University of Technology, 2001  
Ph.D. - University of California, Riverside, 2008

Wilborne, China N.  
Assistant Professor of Business Management  
A.A.S. - Danville Community College, 2002  
B.B.A. - Averett University, 2004  
M.B.A. - Averett University, 2006

Wilson, Rosa  
Associate Instructor II, Nurse Aide  
Certificate - Danville Community College, 1986  
A.A.S. - Patrick Henry Community College, 1994  
B.S.N. - Old Dominion University, 2005

Wilt, John  
Associate Professor of Administration of Justice  
A.A. - University of Alaska, 1973  
B.A. - University of Alaska, 1980  
B.A. - Kansas State University, 1968  
M.A. - Kansas State University, 1970  
C.P.P. - American Society for Industrial Security, 1985  
C.S.T. - Academy of Security Educators and Trainers, 1998

Wray, Stephen  
Director of Business and Industry Services  
A.A.S. - Wake Technical Community College, 2002  
B.A. - Virginia Military Institute, 1990  
M.B.A. - East Carolina University, 1995

Wright, Sheila G.  
Professor of Graphic Imaging Technology  
Diploma - Danville Community College, 1978  
B.S. - Averett College, 1992  
M.S. - North Carolina A&T State University, 1994

Staff

Abbott, Amy  
Trainer Instructor III  
B.A. - Averett College, 1976 and 1980  
M.L.I.S. - University of North Carolina at Greensboro, 1995

Agee, Donna H.  
Administrative and Office Specialist III, Workforce Services  
Certificate - Danville Community College, 1973

Astin, Elizabeth C.  
Library Specialist I  
A.S. - Danville Community College, 1978

Branch, Dale R.  
Administrative & Office Specialist III, Business Office  
A.A.S. - Danville Community College, 1977

Burton, Joyce  
Administrative and Office Specialist III, Business and Engineering Technologies  
A.A.S. - Danville Community College, 2002

Canupp, James T. Jr.  
Information Technology Manager I  
A.A.S. - Danville Community College, 1996  
A.A.S. - Danville Community College, 1998

Carter, Rhonda O.  
Administrative and Office Specialist III, Maintenance  
A.A.S. - Danville Community College, 1997

Combs, Nancy  
Administrative Assistant to the VP of Academic and Student Services  
B.B.A - Averett University, 2009

Conner, Kathy H.  
Experiential Learning/Job Placement Coordinator  
Certificate - Danville Community College, 1976  
A.A.S. - Danville Community College, 1983  
B. S. - Averett College, 1987  
M.B.A. - Averett University, 2002

Conner, Earl T.  
Trades Technician IV  
Certificate - Southside Virginia Community College, 1977
Custer, Susan  
Library Specialist I  
B.S. - Liberty University, 2011

DeMarcus, Judy B.  
Administrative Assistant to the VP of Workforce Services  
Certificate - Danville Community College, 1969

Easley, Walter  
Trainer Instructor II  
B.S. - Averett University, 2005

Evans, Kathy P.  
Administrative and Office Specialist III, Southern Virginia Higher Education Center  
Certificate - Danville Community College, 1978  
A.A.S. - Danville Community College, 2009

Falls, Edward Lee  
Trades Technician III

Finley, Lisa  
SIS/IR Specialist  
A.A.S. - Patrick Henry Community College, 1997  
B.B.A. - Averett University, 2001  
M.A.L.S. - Hollins University, 2006  
Graduate Certificate in Applied Statistics, Penn State University, 2012

Fitzgerald, Ronald L.  
Trades Technician III

Ford, Christopher  
Library Specialist II  
B.A. - Averett University, 1999  
M.A. - Old Dominion University, 2002  
M.S. - Clarion University, 2008

George, Mary  
Administrative and Office Specialist III, Financial Aid Office  
A.A.S. - Danville Community College, 2006

Goode, Lisa  
Education Support Specialist III  
A.A.S. - Danville Community College, 2004  
B.S. - Averett University, 2010

Graves, Haywood McKenly  
Information Technology Specialist I  
A.A.S. - Danville Community College, 2001

Hill, Cheryl M.  
Administrative and Office Specialist III, Development Office  
A.A.S. - Danville Community College, 2002  
B.S. - Bluefield College, 2004  
M.B.A. - Averett University, 2008

Jackson, Tammy C.  
Administrative and Office Specialist III, Southern Virginia Higher Education Center  
A.A.S. - Danville Community College, 2002  
B.S. - Bluefield College, 2004  
M.B.A. - Averett University, 2008

Johnson, CarSheena Cain  
Education Support Specialist II, Upward Bound  
B.S. - Saint Augustine's University, 1990

Johnson-Knight, Lisa  
General Administration Manager I, Business Office  
B.B.A. - North Carolina Central University, 1984  
M.B.A. - Averett College, 1992

Jones, C. Bracken  
Information Technology Specialist II  
A.A.S. - Danville Community College, 1993  
B.S. - Longwood University, 1995

Jones, Gail R.  
Administrative and Office Specialist III, Middle College and Great Expectations  
A.A.S. - Danville Community College, 2012

Jones-Cross, Melissa  
Administrative and Office Specialist III, Workforce Services  
Certificate - Danville Community College, 1997

Jordan, André W.  
Retail Manager I, Bookstore  
Diploma - Computer Learning Center, 1982

Lewis, Marie  
Administrative and Office Specialist II, Learning Resources Center

Ludwick, Anna C.  
Administrative and Office Specialist III, Division of Arts and Sciences  
A.A.S. - Danville Community College, 1998

Lunsford, Letitia  
Library Specialist I  
B.S. - Averett University, 1980  
A.A.S - Danville Community College, 2001  
M.Ed. - Averett University, 2007

Lutz, Christie S.  
Administrative and Office Specialist III, Division of Student Success and Academic Advancement  
A.A.S. - Danville Community College, 2004  
B.B.A. - Averett University, 2009

Marshall, Christopher  
Information Technology Specialist I  
A.A.S. - Danville Community College, 1998

McAdams, Angela R.  
Trainer and Instructor II, Director of Career Pathways & Placement  
B.S. - Radford University, 1993  
M.S. - Longwood College, 2002

Morant, Belvie  
Adult Career Coach  
B.S. - City College of New York, 1974  
M.S. - City College of New York, 1976  
Certificate - Piedmont Community College, 1982

Oakes, Richard A.  
Trades Technician III

Poole, Bridgett  
Administrative and Office Specialist III, Business Office  
A.A.S. - Danville Community College, 2004

Reliford, Stephyenia  
Administrative and Office Specialist III, Public Relations Office  
Certificate - Danville Community College, 1998  
A.A.S. - Danville Community College, 2008  
B.A. - University of Richmond, 2011

Reynolds, Nancy Taylor  
Administrative Assistant to the Vice President of Financial and Administrative Services  
Certificate - Danville Community College, 1970

Rutledge, Mark R.  
Information Technology Specialist I  
A.A.S. - Danville Community College, 2012  
Cisco Certified Network Associate (CCNA), 2012
Sawyers, Teresa
Education Support Specialist II, Southern Piedmont Educational Opportunity Center
B.S. - Radford University, 1981
M.S. - Radford University, 1983

Sims-Cole, Michele D.
Administrative and Office Specialist II, Upward Bound
A.A.S. - Danville Community College, 2004
B.A. - Mary Baldwin College, 2011

Sizemore, Sue S.
Administrative and Office Specialist III, Division of Business and Engineering Technologies
A.A.S. - Danville Community College, 2006

Snead, Mona
Administrative and Office Specialist III, Financial Aid Office
A.A.S. - Danville Community College, 2013

Tarpley, Ola M.
Administrative and Office Specialist III, Business Office
A.A.S. - Danville Community College, 2007

Taylor, Ann H.
Human Resource Analyst I
Certificate - Danville Community College, 1977
B.B.A. - Averett College, 1996
PHR - Professional in Human Resources, 2006

Thomas, E. Carol
Administrative and Office Specialist III, Business Office
B.A. - Greensboro College, 1977

Thornton, Brittney L.
Education Support Specialist III, Admissions Office
A.A.S. - Danville Community College, 2007
B.S. - Averett University, 2009

Thornton, Evonda W.
Education Support Specialist III, Admissions Office
A.A.S. - Danville Community College, 1996

Turner, Angela B.
Administrative and Office Specialist III, Financial Aid Office
A.A.S. - Danville Community College, 1996
B.A. - Averett College, 2001

Walker, Alice C.
Financial Services Specialist I, Business Office
B.B.A. - Averett College, 1996

Walker, David C.
Store and Warehouse Specialist III

Wann, Connie P.
Executive Assistant to the President
Certificate - Danville Community College, 1971
A.A.S. - Danville Community College, 2003

Warren, Jakita S.
Administrative & Office Specialist III, Bookstore
A.A.S. - Danville Community College, 2008

White, Patricia D.
Administrative and Office Specialist II, Engineering Technologies
Certificate - Danville Community College, 2003
A.A.S. - Danville Community College, 2004
B.A. - University of Richmond, 2009

Whitt, Kathryn
Administrative and Office Specialist III, Southern Virginia Higher Education Center
A.A.S. - Southside Virginia Community College, 2002
Microsoft Certified Professional (MCP), 2002

Whitt, Ruth L.
Procurement Officer I
Certificate - Danville Community College, 1979
A.A.S. - Danville Community College, 2003
Certified Purchasing Manager, 2001
Certified Virginia Contracting Officer, 2004

Williams, Tracy
Administrative and Office Specialist III, Southern Piedmont EOC
A.A.S. - Piedmont Community College, 2007
B.B.A. - Averett University, 2013

Wyatt, Teresa
Administrative and Office Specialist III, Arts and Sciences Division
Certificate - Danville Community College, 1983
A.A.S. - Danville Community College, 2001

Yancey, Tia L.
Administrative & Office Specialist II, Counseling
A.A.S. - Danville Community College, 2010
VCCS Computer Ethics Guidelines

Thousands of users share VCCNet computing resources. Everyone must use these resources responsibly since misuse by even a few individuals has the potential to disrupt VCCS business or the works of others. Therefore you must exercise ethical behavior when using VCCNet resources. State Law (Article 7.1 of Title 18.2 of the Code of Virginia) classifies damage to computer hardware or software (18.2-152.4), unauthorized examination (18.2-152.5), or unauthorized use (18.2-152.6) of computer systems as (misdemeanor) crimes. Computer fraud (18.2-152.3) and use of a computer as an instrument of forgery (18.2-152.14) can be felonies. The VCCS’s internal procedures for enforcement of its policy are independent of possible prosecution under the law.

Definition

VCCNet resources include mainframe computers, minicomputers, microcomputers, networks, software, data, facilities and related supplies.

Guidelines

The following guidelines shall govern the use of all VCCNet resources:

1. You must use only those computer resources that you have the authority to use. You must not provide false or misleading information to gain access to computing resources. The VCCS may regard these actions as criminal acts and may treat them accordingly. You must not use the VCCNet resources to gain unauthorized access to computing resources of other institutions, organizations or individuals.

2. You must not authorize anyone to use your computer accounts for any reason. You are responsible for all use of your accounts. You must take all reasonable precautions, including password maintenance and file protection measures, to prevent use of your account by unauthorized persons. You must not, for example, share your password with anyone.

3. You must use your computer resources only for authorized purposes. Students or staff, for example, may not use their accounts for private consulting. You must not use your computer resources for unlawful purposes, such as the installation of fraudulently or illegally obtained software. Use of external networks connected to the VCCNet must comply with the policies of acceptable use promulgated by the organizations responsible for those networks.

4. Other than material known to be in the public domain, you must not access, alter, copy, move or remove information, proprietary software or other files (including programs, members of sub-routine libraries, data and electronic mail) without prior authorization. The college or VCCNet data trustee, security officer, appropriate college official or other responsible party may grant authorization to use electronically stored materials in accordance with policies, copyright laws and procedures. You must not copy, distribute, or disclose third party proprietary software without prior authorization from the licensor. You must not install proprietary software on systems not properly licensed for its use.

5. You must not use any computing facility irresponsibly or needlessly affect the work of others. This includes transmitting or making accessible offensive, annoying or harassing material. This includes intentionally, recklessly, or negligently damaging systems, intentionally damaging or violating the privacy of information not belonging to you. This includes the intentional misuse of resources or allowing misuse of resources by others. This includes loading software or data from untrustworthy sources, such as free-ware, onto official systems without prior approval.

6. You should report any violation of these regulations by another individual and any information relating to a flaw or bypass of computing facility security to the Information Security Officer or the Internal Audit department.

Enforcement Procedure

1. Faculty, staff and students at the college or VCCNet facility should immediately report violations of information security policies to the local Chief Information Officer (CIO).

2. If the accused is an employee, the CIO will collect the facts of the case and identify the offender. If, in the opinion of the CIO, the alleged violation is of a serious nature, the CIO will notify the offender’s supervisor. The supervisor, in conjunction with the College or System Office Human Resources Office and the CIO, will determine the appropriate disciplinary action. Disciplinary actions may include but are not limited to:
   A. Temporary restriction of the violator’s computing resource access for a fixed period of time, generally not more than six months.
   B. Restitution for damages, materials consumed, machine time, etc. on an actual cost basis. Such restitution may include the costs associated with determining the case facts.
   C. Disciplinary action for faculty and classified staff in accordance with the guidelines established in the State Standards of Conduct Policy.

3. In the event that a student is the offender, the accuser should notify the Vice President of Academic and Student Services. The Vice President, in cooperation with the CIO, will determine the appropriate disciplinary actions which may include but are not limited to:
   A. Temporary restriction of the violator’s computing resource access for a fixed period of time, generally not more than six months.
   B. Restitution for damages, materials consumed, machine time, etc. on an actual cost basis. Restitution may include the costs associated with determining the case facts.
   C. Disciplinary action for student offenders shall be in accordance with the college student standards of conduct.

4. The College President will report any violation of state and federal law to the appropriate authorities.

5. All formal disciplinary actions taken under this policy are grievable and the accused may pursue findings through the appropriate grievance procedure.

Approval

This guideline shall remain in effect, until superseded or suspended.
Index

A
Abbott – Michael Abbott Memorial Scholarship ........................................... 25
Academic Dismissal .................................................................................... 20
Academic Excellence Scholarships ................................................................ 26
Academic Calendars .................................................................................... 7
Academic Honesty ....................................................................................... 21
Academic Honors ......................................................................................... 20
Academic Load ............................................................................................ 19
Academic Probation ...................................................................................... 21
Academic Renewal ........................................................................................ 20
Academic Residency Requirements – Active Duty Service Members ......... 15
Academic Standing ....................................................................................... 20
Academic Suspension .................................................................................. 20
Academic Warning ....................................................................................... 20
Acceptance to the College ......................................................................... 11
Accreditation ............................................................................................... 10
Accounting.................................................................................................... 48
ACC Courses ................................................................................................ 111
Accounts, Student ...................................................................................... 15
Activity Fee, Student .................................................................................. 15
Administration of Justice ............................................................................. 111
Associate in Applied Science Degree Program ........................................ 49
Correctional Services Specialization .......................................................... 50
Law Enforcement Specialization ................................................................ 50
Protective Services Specialization (Private Security) ................................. 51
ADJ Courses ............................................................................................... 114
Administrative Support Technology ............................................................ 111
Associate of Applied Science Degree Program ........................................ 51
General Office Specialization ..................................................................... 52
Medical Office Specialization ..................................................................... 52
AST Courses ............................................................................................... 114
Admission Denied/Revoked ....................................................................... 12
Admission Procedures ................................................................................. 11
Admission Requirements .......................................................................... 13
Admissions to Specific Curricula ................................................................. 13
Advanced Standing ...................................................................................... 14
Advanced Manufacturing Engineering Technology .................................... 70
Associate of Applied Science Degree Program ........................................ 70
Advanced Nurse Aide .................................................................................. 96
Career Studies Program ............................................................................. 96
Advanced Placement .................................................................................. 14
Advanced Product Design & Development ................................................ 96
Career Studies Program ............................................................................. 96
Affirmative Action Policy .......................................................................... 9
Ahmed Children Scholarship ....................................................................... 25
Air Conditioning & Refrigeration Diploma Program ................................... 75
AIR Courses ................................................................................................ 112
Air Conditioning & Refrigeration Servicing Certificate Program .............. 83
Night Program ......................................................................................... 83
Day Program ............................................................................................. 84
Alliance for Excellence .............................................................................. 24
Alliance One International Endowed Scholarship ....................................... 25
Alternative Energy Technology I Career Studies Program ......................... 97
Alumni Scholarship .................................................................................... 25
American National Bank & Trust Company Scholarship ......................... 25
American Sign Language Career Studies Program .................................... 97
Andrews – Wayne Andrews Scholarship .................................................. 25
Animals (Pets) on Campus ........................................................................ 37
Appeal Process for Revoked Admission .................................................... 12
Apprenticeship ............................................................................................ 22
ARC (Architecture) Courses ....................................................................... 113
ART (Arts) Courses ................................................................................... 113
Articulation Agreements ............................................................................ 39
Ashby-Pryor Endowed Scholarship ............................................................ 25
ASL (American Sign Language) Courses ................................................. 114
Assessment Requirements ......................................................................... 18
Associate of Applied Science Degree Requirements ............................... 19
Associate of Arts and Science Degree Requirements ............................... 19
Programs of Study ..................................................................................... 47
Associate of Science Degree Requirements .............................................. 19
Programs of Study ..................................................................................... 46
Attendance .................................................................................................. 21
Audio Visual Services ................................................................................ 23
Auditing a Course ....................................................................................... 14
Auto Body Mechanics .................................................................................. 14
Certificate Program .................................................................................... 84
AUB Courses ............................................................................................. 115
Automotive Analysis and Repair Diploma Program .................................... 75
AUT Courses ............................................................................................. 115
Automotive Management Specialization ................................................... 55

B
Baggerly Administration of Justice Scholarship ........................................... 25
Barkhouser Endowed Scholarship ............................................................... 25
Barksdale Honors Scholarship .................................................................... 25
Barksdale-Rommer Study Abroad Endowed Scholarship ........................... 26
Basic Dental Assisting Career Studies Program .......................................... 97
Bell — Amy Jo Murray Bell Memorial Scholarship ................................... 26
Bidgood – Carrington & Happy Bidgood Scholarship for Business and Marketing .................................................................................. 26
BIO (Biology) Courses ............................................................................... 116
BLD (Building) Courses .......................................................................... 116
Bonner — O.T. Bonner Memorial Scholarship .......................................... 26
Bookstore .................................................................................................... 36
Books and Materials ................................................................................... 36
Bucknam Scholarship .................................................................................. 26
Building Construction Trades Career Studies Program ............................ 98
Building Trades Technology Certificate Program ...................................... 85
BUS (Business Management) Courses ....................................................... 117
Business Administration ........................................................................... 117
Associate of Arts and Science Degree/Transfer Program ......................... 40
Business Management Associate of Applied Science Degree Program .... 53
Bustard — Elizabeth Bustard Endowed Scholarship .................................... 26
Bustard — James Bustard Endowed Scholarship ........................................ 26

150 • Danville Community College • Index
Commercial Art
Career Studies Program .......................................................98
Commonwealth Grant (COMA) ..............................................25
Commonwealth Legacy Scholarship Program ..................27
Computer Ethics Guidelines ..............................................149
Computer Programming Associate of Applied Science Degree Program .................................61
Computer-Aided Drafting & Design
Diploma Program..............................................................76
Certificate Program..........................................................87
Conduct, Student ...............................................................36
Consumer Information ......................................................22
Continuing Education ........................................................9
Cook – Roger Cook Memorial Scholarship ....................27
Corrections Specialization
Associate of Applied Science Degree ...............................51
Certificate Program.........................................................85
Cost (See Tuition) ..............................................................15
Course Acceptance Policy ................................................15
Credit for Military Training ..............................................14
CRF (Crafts) Courses .........................................................119
CSC (Computer Science) Courses ....................................119
CST (Communications Studies & Theatre) Courses ............119
Curricula (See Programs of Study) ...................................38
Cybercrime Investigation
Certificate Program .........................................................86

D
Daly, P. Niles and Carol Daly Endowed Scholarship ..............27
Daly, Philip and Frances Daly Annual Scholarships ..........27
Daly, Philip and Frances Daly Memorial Scholarship ...........27
Dan River Inc. Endowed Scholarship ................................27
Danville Community College
Accreditation ..................................................................10
Administration ...............................................................142
Description ......................................................................9
Educational Foundation ..................................................10
Location ..........................................................................9
Mission Statement ............................................................9
Off-Campus Locations .....................................................3
Organization .....................................................................142
People of .........................................................................142
Security and Crime Awareness Report ............................37
Vision Statement ..............................................................9
Danville Kiwanis Club Scholarship .........................................27
Danville Lions Foundation Endowed Scholarship ................27
Danville Regional Medical Center Retiree Scholarship for Nursing .........................................................27
Danville Regional Medical Center (DMRC) Scholar Award .................................................................27
Danville Va. Tech Alumni Scholarship ................................28
Davenport Scholarship ......................................................28
Davis – D. Randolph “Randy” Davis Memorial Scholarship ..................28
Degree Program Requirements
Dental Hygiene
Associate of Applied Science Degree Program .........................56
Developmental Studies .....................................................109
Grading System .................................................................17
Prerequisites ..................................................................109
Dewberry Endowed Scholarship ........................................28
Digital Art & Design
Career Studies Program .....................................................98
Digital Imaging and Photography
Career Studies Program .....................................................99
Diploma
Program Requirements .....................................................19
Programs of Study ............................................................74
Disability Services .............................................................24
Distance Learning .............................................................23
Domicile Appeals Process ................................................13
DNA (Dental Assisting) Courses ........................................119
Drafting and Design ........................................................76
DRF Courses ..................................................................120

C
CAD (Computer-Aided Drafting and Design) Courses ..................118
Calendars, Academic ..........................................................7
Campus Maps ...................................................................2
Capital Fee .......................................................................16
Career Coaches ..................................................................35
Career Pathways ................................................................22
Career Services ..................................................................35
Career Studies Certificate Programs .....................................95
Advanced Nurse Aide .........................................................96
Advanced Product Design & Development .........................96
Alternative Energy Technology I .........................................97
American Sign Language ...................................................97
Basic Dental Assisting ......................................................97
Building Construction Trades ..........................................98
Commercial Art ...............................................................98
Digital Art & Design ........................................................98
Digital Imaging & Photography ..........................................99
Early Childhood Development ..........................................99
Educational Interpreter Training .......................................100
Electrical Concepts .........................................................100
Electronic Concepts .......................................................100
Emergency Medical Services - Basic ................................101
Emergency Medical Services - Intermediate ....................101
Emergency Medical Technician - Intermediate .................101
Factory Automation & Robotics ..........................................102
Graphic Communications ...............................................102
Health Information Technology .........................................102
Logistics Management .....................................................103
Manufacturing Technician ...............................................103
Medical Coding ................................................................104
Medical Terminology ......................................................104
Metal Processing .............................................................104
Microcomputer Software ................................................104
Network Technology .......................................................105
Networking with CISCO/CCNA .........................................105
Nurse Aide .....................................................................105
PC Upgrade and Repair ....................................................106
Pharmacy Technician ........................................................106
Polymer Processing Technician .........................................106
Printing Technology ........................................................107
Product Design & Development .......................................107
Programming ....................................................................107
Web Site Design .............................................................108
Welding ..........................................................................108
Carrington Charitable Trust Scholarships ............................26
Catalog Year Determination ...............................................19
Callin, James T. - Kiwanis Scholarship ...............................26
Certificate Program Requirements .......................................19
Programs of Study ............................................................82
Chatham Rotary Club Scholarship .....................................26
CHM (Chemistry) Courses .................................................119
CHD (Childhood Development) Courses .........................118
CIT Group/Factoring Scholarship .....................................26
CIV (Civil Engineering Technology) Courses ..................119
CLEP ...............................................................................14
Climate Control, Inc. Endowed Scholarship .........................26
College Administration .....................................................142
College Board ..................................................................142
College Board Academic Excellence Scholarships ............26
College Board Recognition of Achievement Scholarships.........26
College Goals ...................................................................9
College Management Team ..............................................142
College Scholarships ......................................................25
College Work Study Program ...........................................24
Drafting Technology Certificate Program .................................................. 87
Drug & Alcohol Abuse Policy .................................................................... 37
Dual Enrollment ......................................................................................... 11
Dunaway - Robert S. and Jim Dunaway Scholarship .................................. 28

E
Early Childhood Education
Certificate Program .................................................................................. 87
Early Childhood Development Career Studies Program .......................... 99
EGO (Economics) Courses ........................................................................ 120
EDU (Educational) Courses ........................................................................ 120
Educational Foundation, Danville Community College ......................... 10
Educational Foundation Board .................................................................. 11
Educational Interpreter Training
Certificate Program .................................................................................. 87
ELE Courses ............................................................................................. 122
Electronic-Commerce Specialization
Certificate Program .................................................................................. 101
ENE (Energy Technology) Courses ......................................................... 124
ENG (English) Courses ................................................................................ 124
Engineering
Certificate Program .................................................................................. 101
Enrollment Information ............................................................................. 11
Regular Admissions .................................................................................. 11
Special Admissions ................................................................................... 11
ENV (Environmental Science) Courses ..................................................... 125
Equal Opportunity/Affirmative Action Policy ............................................. 9
E-Rate ........................................................................................................ 16
ESL (English as a Second Language) Courses ............................................ 125
ETR Courses ............................................................................................. 126
Exams ......................................................................................................... 19
Excelis Research Scholarship ................................................................. 28
Expenses .................................................................................................... 15

F
Faculty ....................................................................................................... 143
Factory Automation & Robotics
Certificate Program .................................................................................. 102
Federal Family Educational Loan Program .............................................. 24
Federal & State Financial Aid Programs .................................................. 24
Fees ............................................................................................................ 15
Ferguson – Stephanie Ferguson Memorial Scholarship .............................. 28
Financial Aid ............................................................................................. 24
FIN (Financial Services) Courses ............................................................ 126
First Year Studies
Certificate Program .................................................................................. 87

G
Gaming & Mobile Application Development Specialization
Certificate Program .................................................................................. 87
General Education...................................................................................... 9
General Education Certificate Program ................................................... 88
General Education Goals and Student Learning Outcomes ..................... 10
General Engineering Technology
Certificate Program .................................................................................. 87
General Office Specialization
Certificate Program .................................................................................. 87
GEO (Geography) Courses ......................................................................... 126
Geyer - Henrietta G. Geyer Dental Hygiene Scholarship ............................ 29
Geyer - Mickey D. Geyer Nursing Scholarship ........................................... 29
Gignac - Roy and Joan Gignac Endowed Scholarship ............................... 29
Goals ........................................................................................................... 9
GOL (Geology) Courses ............................................................................. 126
Grading System ........................................................................................ 16
Graduation Requirements .......................................................................... 19
Graduation Honors .................................................................................... 19
Grant - Walter L. and E. Stuart James Grant Memorial Endowed Scholarships 29
Grants ........................................................................................................ 24
Graphic Communications
Certificate Program .................................................................................. 102
Graphic Imaging Management Specialization
Certificate Program .................................................................................. 54
Graphic Imaging Technology
Certificate Program .................................................................................. 80
Graphic Imaging Excellence Scholarship ................................................... 29
Grasty – Robert Wayne Grasty Memorial/High Street Baptist Church Scholarship 29

H
Haar-Norman D. Haar Scholarship ............................................................ 29
Hancock-Dees-Murray-Sacred Heart Scholarship ...................................... 29
Handbook, Student ................................................................................... 36
Health Information Technology
Certificate Program .................................................................................. 102
Health Science
Practical Nursing Specialization ............................................................... 59
Heldreth - Rebekah L. Heldreth Memorial Scholarship .............................. 29
Henry – Dr. Harold Henry – Educational Foundation Scholarship ............ 29
HLT (Health) Courses ................................................................................ 127
High School Students ............................................................................... 11
History, College ......................................................................................... 9
HIM (Health Information Technology) Courses ........................................ 126
HIS (History) Courses ................................................................................ 127
Homeschooled Student ............................................................................ 11
Honors Institute ......................................................................................... 20
HMS (Human Services) Courses .............................................................. 128
HRI (Hotel-Restaurant-Institutional Management) Courses ..................... 128
HUM (Humanities) Courses ...................................................................... 128
Humanities Specialization
Certificate Program .................................................................................. 42

I
IBO .............................................................................................................. 14
Industrial Electrical Principles
Certificate Program .................................................................................. 89
Industrial Electronic Principles
Certificate Program .................................................................................. 89
IND (Industrial Engineering Technology) Courses .................................... 128
Integrated Systems Technology
Certificate Program .................................................................................. 70
Information Systems Technology
Associate of Applied Science Degree Program .............................................. 60
Information Technology Resources ............................................................ 37
Ingram – Bobbie R. Ingram Educational Fund for Women .......................... 29
INS (Instrumentation) ................................................................................. 129
Institutional Effectiveness Days ................................................................. 19
International Students,
Special Admission Requirements ............................................................. 12
Intertape Polymer Group Scholarship ....................................................... 29
ITD (Information Technology Database) Courses ...................................... 129
ITE (Information Technology Essentials) Courses ................................... 129
ITN (Information Technology Networking) Courses .................................. 130
ITP (Information Technology Programming) Courses ............................... 131

J
Jiranek – Ms. Nancy Flesham Jiranek Memorial Scholarship ....................... 30
Johnson - Thelma Swann Johnson Memorial Endowed Scholarship .......... 30

K
Kania – Vincent P. Kania Scholarship ......................................................... 30
Kames - Kolton Brim Kames Memorial Scholarship ................................. 30
Kent – E. Budge and Carolyn Kent Scholarship ......................................... 30
Kiwani (Danville) Scholarship ................................................................. 30
Kolendrianos – Dr. Harry T. Kolendrianos Endowed Scholarship .......... 30

L
Law Enforcement Specialization
Associate of Applied Science Degree Program ......................................... 50
Certification Program ................................................................................. 90
Learning Assistance Center ....................................................................... 23
Learning Resources Center ....................................................................... 23
Legislation Regarding Admissions ............................................................ 12
Lester - Nathan Lester Excellence Scholarship ........................................ 30
Liberal Arts
Associate of Arts and Science Degree/Transfer Program ......................... 40
Educational Interpreter Training Specialization ......................................... 41
Humanities Specialization .......................................................................... 42
Social Science Specialization .................................................................... 43
Library Services ........................................................................................ 23
Lions (Danville) Club Scholarship ............................................................. 27
Lloyd - Fred A. Lloyd Memorial Scholarship ............................................. 30
Location, College ....................................................................................... 9
Off-Campus Locations ............................................................................... 3
Logistics Management
Career Studies Program ........................................................................... 103

M
MAC (Precision Machining Technology) Courses ..................................... 131
Maintenance Fee ......................................................................................... 24
Maintenance Mechanics
Certificate Program ..................................................................................... 91
Management Specialization
Associate of Applied Science Degree Program ....................................... 54
Manufacturing Technician
Career Studies Program ........................................................................... 103
Map of the Campus .................................................................................. 2
Marketing
Associate of Applied Science Degree Program ....................................... 63
MKT (Marketing) Courses .......................................................................... 133
MTE (Mathematics Essentials) courses ................................................... 133
MTH (Mathematics) Courses .................................................................... 134
McCall-Mildred Smoot McCall/SHS Class of
Memorial Endowed Scholarship ............................................................... 30
McGovern Endowed General Excellency Award ....................................... 30
MDL (Medical Laboratory) Courses ......................................................... 132
MEC (Mechanical Engineering Technology) Courses ............................ 132
Medical Coding
Career Studies Program ........................................................................... 104
Medical Laboratory Technology
Associate of Applied Science Degree Program ....................................... 66
Medical Terminology
Career Studies Program ........................................................................... 104
Medical Office Specialization
Associate of Applied Science Degree Program ....................................... 53
Meissner - James R. Meissner II Memorial Scholarship ........................... 30
Metal Processing
Career Studies Program ........................................................................... 104
Microcomputer Software
Career Studies Program ........................................................................... 104
Middle College .......................................................................................... 22
Midkiff - Clyde and Joyce Midkiff Endowed Scholarship ......................... 30
Military Training (Credit) .......................................................................... 14
Mission Statement .................................................................................... 9
Mitchell-Ethel C. and Henry A. Mitchell Memorial Foundation Scholarship 30
Mobley - Ann and Frank Mobley Endowed Scholarship ........................ 31
Morgan - Robert E. Morgan Memorial Endowed Scholarship ................. 31
Motley - Lyle Carter Motley, Sr. Endowed Scholarship ............................ 31
MTS (Motorsports Management & Technology) Courses ....................... 134
Murphy - Vera B. Murphy/John M. Langston High School Reunion Committee Scholarship 31
Murray - Shauna William Murray Memorial Scholarship ......................... 31
MUS (Music) Courses ............................................................................... 135

N
NAN (Nanotechnology) Courses ................................................................. 135
Nanotechnology Technician
Associate of Applied Science Degree Program ....................................... 72
NAS (Natural Sciences) Courses ............................................................... 135
Neathery - Kenneth L. Neathery Memorial Endowed Scholarship .......... 31
Networking Specialization
Associate of Applied Science Degree Program ....................................... 62
Network Technology
Career Studies Program ........................................................................... 105
Networking with CISCO/CCNA
Career Studies Program ........................................................................... 105
Non-Curricula Admission ......................................................................... 13
Nodvedt - Don Nodvedt Boys and Girls Club Scholarship ....................... 31
NUR (Nursing) Courses ............................................................................ 135
Nurse Aide
Career Studies Program ........................................................................... 105
Advanced Nurse Aide
Career Studies Program ........................................................................... 96
Nursing
Associate of Applied Science Degree Program ....................................... 67

O
Oaks - Wayne and Nancy Oaks Scholarship ............................................... 31
Occupational-Technical Education ............................................................ 9
Office Information Processing
Certificate Program ................................................................................... 91
Olds - Lawrence Olds Memorial Endowed Scholarship ............................ 31
O’Neil - Rexford O’Neil Endowed Scholarship .......................................... 31
Outcomes Assessment ............................................................................... 10

Index • Danville Community College • 153
Danville Community College promotes and maintains educational and employment opportunities without regard to race, color, sex, ethnicity, religion, gender, age (except when age is a bona fide occupational qualification), disability, national origin, or other non-merit factors. Danville Community College prohibits sexual harassment including sexual violence.

Member, Virginia's Community Colleges.