Welcome to Blue Ridge Community College

The Blue Ridge Community College Catalog and Student Handbook is a source of valuable information concerning academic programs, courses, student services, and college policies and procedures. Please take time to review this document and refer to it throughout your career at the College.

Note especially our Mission, Vision, Values Statements, and General Education Outcomes. These are our commitments to you.

Please let us know how we may assist you in meeting your educational and career goals. We wish you the very best for a successful and rewarding experience at BRCC.

Sincerely,

Dr. John A. Downey
President
State and Local Boards

Blue Ridge Community College Board (2013-2015)

The BRCC College Board acts in an advisory capacity to the State Board for Community Colleges and is responsible for assuring that the community college is responsive to the needs within its service region.

**Officers:**

Mr. Carl Rosberg, Chair, Waynesboro  
Ms. Joyce Coleman, Vice-Chair, Waynesboro  
Dr. John Downey, Secretary

**Members**

Mr. Rodney Alderfer, Rockingham County  
Dr. Bruce Bowman, Augusta County  
Ms. Lynn Diveley, Augusta County  
Ms. Pam Huggins, Staunton  
Ms. Beverly McGowen, Harrisonburg  
Ms. Linda Reviea, Staunton  
Ms. Caroline Sponaugle, Highland County  
Mr. Matt Sunderlin, Rockingham County  
Mr. Frank Tamberrino, Harrisonburg

For the most up-to-date information on the College Board, please visit the BRCC website at [www.brcc.edu](http://www.brcc.edu)

Virginia Community College System State Board for Community Colleges (2014-2015)*

The State Board for Community Colleges is the state agency responsible for the establishment, control, administration, and supervision of all community colleges in the Commonwealth of Virginia. It is the governing board for the Virginia Community College System and Blue Ridge Community College.

**Officers:**

Bruce Meyer, Chair  
Dorcas Helfant-Browning, Vice-Chair  
Dr. Glenn DuBois, Secretary

**Members:**

Benita T. Byas  
Darren Conner  
James Cuthbertson  
LaVonne P. Ellis  
Idalia P. Fernandez  
Robert R. Fountain  
Stephen T. Gannon  
Sasha Gong  
Mirta M. Martin  
Dave Nutter  
Don «Robin» Sullenberger  
Michael E. Thomas  
Michel Zajur

* The 2014-2015 State Board for Community Colleges will be appointed Summer 2014. For the most up-to-date information on the State Board, please visit the VCCS website at [www.vccs.edu](http://www.vccs.edu).
Educational Foundation Board of Directors

The Blue Ridge Community College Educational Foundation, Inc., is a tax exempt (501 (c) (3)) non-profit organization designed to build community relationships and secure resources to strengthen the programs and services of Blue Ridge Community College. Toward this end, the BRCC Educational Foundation provides:

1. scholarships to students;
2. equipment for specialized training and education of students;
3. professional development opportunities for faculty and staff; and
4. for the development and enhancement of physical facilities.

The Blue Ridge Community College Educational Foundation, Inc., is governed by a twenty-five member board of directors.

Members:

Dr. Robert S. Baldygo, VP of Finance and Administration, Blue Ridge Community College, Weyers Cave
Mr. Tony E. Biller, President, Nielsen Builders, Inc., Harrisonburg
Mr. Alphonso P. Boxley III, President, APB Management, Harrisonburg
Mr. Dennis O. Burnett, CEO, Shenandoah Valley Partnership, Harrisonburg
Ms. Debra S. Callison, SVP - Area Executive, First Citizens Bank, Staunton
Mr. Stephen W. Claffey, General Store Manager, K-Mart, Waynesboro
Ms. Denise E. Dawson, Director of Finance, Harrisonburg City Schools, Harrisonburg
Dr. John A. Downey, President, Blue Ridge Community College, Weyers Cave
Mr. Lawrence H. Hoover Jr., Of Counsel, Hoover Penrod PLC, Harrisonburg
Ms. Nancy Hulings, Community Volunteer, Elkton
Ms. Camala B. Kite, Assistant Director, Massanutten Technical Center, Harrisonburg
Ms. Martha Livick, Administrative and Office Specialist, Blue Ridge Community College, Weyers Cave
Ms. Mary N. Mannix, President and CEO, Augusta Health, Fishersville
Mr. John L. Matherly, Owner/Certified Public Accountant, John L. Matherly CPA, Waynesboro
Ms. Mary McDermott, Senior Vice President of Legal and Regulatory Affairs, Lumos Networks, Waynesboro
Ms. Beverly McGowan, Community Volunteer, Harrisonburg
Mr. Thomas C. Mendez, Vice President, BB&T Insurance Services, Harrisonburg
Dr. Karen E. Santos, Faculty Emeritus, James Madison University, Staunton
Ms. Stacey D. Strawn, President, Silver Gallery, Waynesboro
Mr. Steven E. Stroop, Partner/CPA, Elmore, Hupp and Company PLC, Staunton
Mr. Alan J. Sweet, President and CEO, Frontier Community Bank, Waynesboro
Mr. Travis J. Tysinger, Senior Development Officer, Retired, Woodberry Forest School, Staunton
Ms. Cynthia Weidner, Vice President, High Roads, Inc., Waynesboro
Ms. Cathleen P. Welsh, Attorney, Lenhart Obenshain PC, Harrisonburg

Directors Emeriti

The Directors Emeriti program was developed in 2003-04 as a way to recognize those members of the BRCC Educational Foundation Board of Directors who have demonstrated extraordinary service and generous philanthropic leadership to the College and the BRCC Educational Foundation. The honorees are:

Mr. Michael B. Beahm
Mrs. Carolyn L. Beam
Dr. Bruce Bowman
Mr. Woodrow W. Carr
Mr. Peter F. deVaux
Mr. David W. Didawick
Ms. Lynn M. Diveley
Mr. E. Grant Doyle, Jr.
Ms. Joan D. Eiland
Mr. John W. Flora
Mrs. Sallie E. Funkhouser
Mrs. Jean F. Gearing
Mrs. Julia N. Grandle
Ms. Pamela Huggins
Mr. Timothy Hulings
Mr. Kevin D. Humphries
Mr. Robert G. Knowles
Ms. Laurel L. Landes
Mr. Martin F. Lightsey
Mr. Richard L. Manor
Ms. Deborah T. Metz
Ms. Beverly S. “Cheri” Moran
Mr. Richard R. J. Morin
Mr. John N. Neff
Dr. James R. Perkins
Mr. William L. Pfost, Jr.
Dr. Stuart L. Porter
Mr. Carl A. Rosberg
Mr. Art Schlappi
Mr. L. Ronald Smith
Mr. Frank L. Summers, Jr.
Mrs. Lynn K. Suter
Dr. Daniel M. Woodworth
Mr. Edward S. “Chip” Yates
College Calendar 2014-2015

The calendar is subject to change at any time due to emergencies or causes beyond the reasonable control of the institution, including severe weather, loss of utility services, or orders by federal or state agencies. Students are encouraged to refer to the calendar in the Schedule of Classes to determine if there are any variances for a given semester.

<table>
<thead>
<tr>
<th></th>
<th>Summer 2014**</th>
<th>Fall 2014</th>
<th>Spring 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classes Begin</td>
<td>May 19</td>
<td>Aug. 25</td>
<td>Jan. 8</td>
</tr>
<tr>
<td>Martin Luther King, Jr. Day</td>
<td></td>
<td></td>
<td>Jan. 19</td>
</tr>
<tr>
<td>Semester Break*</td>
<td></td>
<td>Oct. 6-7</td>
<td>Mar. 9-13</td>
</tr>
<tr>
<td>Thanksgiving Holiday</td>
<td></td>
<td>Nov. 26-28</td>
<td>April 29</td>
</tr>
<tr>
<td>Classes End</td>
<td>July 29</td>
<td>Dec. 13</td>
<td>April 30-May 6</td>
</tr>
<tr>
<td>Final Exams</td>
<td></td>
<td>Dec. 15-20</td>
<td>May 9</td>
</tr>
<tr>
<td>Graduation</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*semester break or make-up days as necessary
**10-week summer session

Accreditation

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

The associate degree curricula of the College have also been approved by the State Council of Higher Education for Virginia (SCHEV). The Veterinary Technology program's veterinary clinic holds a permit issued by the Virginia Board of Veterinary Medicine of the Department of Health Professions and the program is accredited by the American Veterinary Medical Association. The Nursing program is approved by the State Board of Nursing and accredited by the ACEN (Accreditation Commission for Education in Nursing), 3343 Peachtree Road NE, Suite 850, Atlanta, Georgia 30326; telephone 404-975-5000. The Automotive Analysis and Repair program is certified by the National Automotive Technicians Education Foundation.

All degree and diploma programs offered at the College are approved by the State Department of Education for payment of veteran's educational benefits.

Equal Opportunity/Affirmative Action Policy Statement

It is the policy of the Virginia Community College System and Blue Ridge Community College to maintain and promote equal opportunity without regard to race, sex, color, national origin, religion, age, political affiliation, veteran's status, or sexual orientation. The College is committed to providing equal educational opportunities to students within the BRCC service region. Inquiries concerning the equal opportunity policy should be addressed to the Director of Human Resources, whose office is located in M-103 and can be reached at (540) 453-2371, VA Relay 711, or nicelyt@brcc.edu.

Notice

Blue Ridge Community College does not discriminate on the basis of race, color, national origin, sex, or disability in its programs or activities. BRCC offers programs in the following vocational areas: Accounting, Administration of Justice, Automotive Analysis and Repair, Aviation Maintenance Technology, Business Management, Commercial Driving, Computer and Electronics Technology, Human Services, Information Systems Technology, Mechanical Engineering Technology, Medical Coding-Hospital, and Technical Studies. Some of the vocational programs offer admission based on selective criteria through a separate application process that is non-discriminatory. These programs include: Nursing and Veterinary Technology. For more information about the application process, contact the admissions office at (540) 453-2580. Inquiries related to the college's non-discrimination policies should be directed to Tim Nicely, Director of Human Resources, PO Box 80, One College Lane, Weyers Cave, VA 24486, Office M103; nicelyt@brcc.edu, (540) 453-2371.
Curriculum Advisory Committees

Curriculum advisory committees are integrally involved with the development and improvement of occupational/technical and continuing education programs at Blue Ridge Community College. These volunteers from local and regional businesses, industries, educational institutions and government agencies provide valued expertise and advisement in curriculum development, curriculum assessment and modification, internship opportunities, marketing, and graduate placement. To see a list of current members, please go to www.brcc.edu/brcc/advisory/.

Administration, Faculty and Staff

From Harrisonburg 540-234-9261 • From Staunton 540-213-7002 • From Waynesboro 540-943-7002

Other Areas in Virginia 1-888-750-BRCC (2722) • TYY 540-234-0848

For a complete listing of all full-time employees, please go to www.brcc.edu/directory/

In addition to the full-time faculty and staff members, Blue Ridge Community College is fortunate to have part-time staff who provide instructional and student support. Due to their significant talents, these individuals make significant contributions to the College. A list of the names of the College’s part-time staff members is available in the Human Resources Office. A list of the names of the College’s adjunct faculty members is available in the Dean’s Office, E109.

Disclaimer

Blue Ridge Community College provides its website, catalog, handbooks, and any other printed materials or electronic media for your general guidance. The College does not guarantee that the information contained within them, including, but not limited to, the contents of any page that resides under the DNS registrations of brcc.edu is up-to-date, complete and accurate, and individuals assume any risks associated with relying upon such information without checking other credible sources, such as a student’s academic advisor. In addition, a student’s or prospective student’s reliance upon information contained within these sources, or individual program catalogs or handbooks, when making academic decisions does not constitute, and should not be construed as, a contract with the College. Further, the College reserves the right to make changes to any provision or requirement within these sources, as well as changes to any curriculum or program, whether during a student’s enrollment or otherwise.

Links or references to other materials and websites provided in the above-referenced sources are also for information purposes only and do not constitute the College’s endorsement of products or services referenced.

This Catalog is an Official Publication of Blue Ridge Community College

Editor: Kelly Jones, Executive Assistant to the President
Design and Production: Lance Foster, Graphic Design Supervisor; Elizabeth Tucker, Graphic Artist
Photography: Lance Foster, Bridget Baylor, Cathy Sliwoski
Blue Ridge Community College Locations

Classrooms, laboratories, offices, and other College facilities are located on the main campus near Weyers Cave, Virginia, on U.S. Route 11, Exit 235 off Interstate 81. The College’s Harrisonburg Center is located at 160-C North Mason Street, Harrisonburg. The BRCC Augusta Center is located on the campus of Augusta Health in Fishersville. In addition, the College offers classes at various high schools and other off-campus locations in the service area.

Directions

Weyers Cave Campus
The Weyers Cave Campus is located halfway between Harrisonburg and Staunton on Interstate 81. Take Exit 235 off Interstate 81. Turn west at the top of the exit ramp (Route 256). In a very short distance, Route 256 terminates in a junction with U.S. Route 11. Turn left (South) on U.S. Route 11. BRCC Weyers Cave Campus is about a half-mile on the left.

Harrisonburg Center
The Harrisonburg Center is located in downtown Harrisonburg. From Interstate 81, take Exit 247B onto Market Street (Route 33 West). Proceed into downtown. Turn right (North) on Mason Street. The Harrisonburg Center is located on the right—directly across from the parking deck—at the corner of North Mason and Wolfe Streets.

BRCC Augusta Center at Augusta Health
The Augusta Center is located on the campus of Augusta Health in Fishersville, between Interstate 64 and Route 250. From I-64, go north on Tinkling Spring Road (608) and turn left on Mule Academy Road. From Route 250, go south on Tinkling Spring Road (608) and turn right on Mule Academy Road. The BRCC Augusta Center is located at the corner of Mule Academy Road and Sports Medicine Drive.
## BRCC Buildings

<table>
<thead>
<tr>
<th>Building</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>A Building</td>
<td>Commonwealth Classroom, ODU, The CAVE, &amp; Multipurpose Classrooms</td>
</tr>
<tr>
<td>B Building</td>
<td>Automotive, Veterinary Technology Labs, &amp; Faculty Offices</td>
</tr>
<tr>
<td>Bookstore</td>
<td>BRCC Bookstore &amp; Student Activities Office</td>
</tr>
<tr>
<td>C Building (Armstrong Hall)</td>
<td>Administration and Business Offices</td>
</tr>
<tr>
<td>D Building</td>
<td>Multipurpose Classrooms, Computer Lab, &amp; Faculty Offices</td>
</tr>
<tr>
<td>E Building</td>
<td>Academic Deans’ Offices, Geology, Multipurpose Classrooms, Faculty Offices &amp; The Transfer Center (Bridgewater; EMU; JMU; &amp; Mary Baldwin College)</td>
</tr>
<tr>
<td>F Building</td>
<td>Multipurpose Classrooms, Computer Labs, &amp; Faculty Offices</td>
</tr>
<tr>
<td>G Building (Houff Student Center)</td>
<td>First Floor: Admissions &amp; Records, Cashier, Student Financial Services, Academic Advising, Career Services, Financial Aid, Cafeteria, Veteran’s Services, &amp; Student Lounge Second Floor: Houff Library, Disability Services, The Testing Center</td>
</tr>
<tr>
<td>J Building</td>
<td>Biology and Chemistry Labs, Multipurpose Classrooms, Nursing Lab, &amp; Faculty Offices</td>
</tr>
<tr>
<td>M Building</td>
<td>Buildings and Grounds &amp; Human Resources</td>
</tr>
<tr>
<td>P Building (Robert E. Plecker Workforce Center)</td>
<td>Continuing Education</td>
</tr>
<tr>
<td>R Building</td>
<td>Recreation Center</td>
</tr>
<tr>
<td>T Building (Advanced Technology Center)</td>
<td>CAD, Electronics, Engineering, Manufacturing, Physics Lab, &amp; Faculty Offices</td>
</tr>
<tr>
<td>V Building (Fine Arts Center)</td>
<td>Art Gallery, Black Box Theatre, Box Office, Computer Lab, Multipurpose Classrooms, Studios, &amp; Faculty Offices</td>
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The College
The College

Founded in 1967, Blue Ridge Community College is one of 23 community colleges within the Virginia Community College System. The College offers credit courses and programs through the associate degree level, as well as non-credit, workforce development, and continuing education opportunities.

Mission

Blue Ridge Community College anticipates the educational needs of the central Shenandoah Valley, providing access to comprehensive programs and services, within an environment of academic excellence.

Vision

Blue Ridge Community College—a model educational institution recognized for:
- excellence and innovation in programs and services;
- leadership contributions at the local, state, national, and international levels;
- a supportive environment for learning and working; and
- students, alumni, and employees who make a positive difference in our community and beyond.

Values

In fulfilling our mission, the College is guided by the following values:

Learning
- promoting outstanding teaching and learning;
- delivering challenging and rigorous academic programs;
- encouraging life-long learning, including scholarly activity and professional development;
- emphasizing general education that is broad-based and not bound by discipline;
- advocating free exchange of ideas and beliefs; and
- providing educational access.

Excellence
- encouraging initiative and innovation;
- rewarding exemplary achievement;
- expecting personal responsibility;
- evaluating and improving effectiveness; and
- creating innovative support services.

Community Relationships
- anticipating and responding to community needs;
- enhancing educational programs through community partnerships;
- collaborating with other educational institutions and organizations;
- providing opportunities for the intellectual growth and enrichment of the community; and
- expecting active participation in community service.

Culture
- embracing the challenge of change;
- encouraging a welcoming atmosphere that nurtures inclusion and respect;
- maintaining a governance structure that ensures shared decision-making;
- promoting transparent and effective communication at all levels;
- fostering the development and practice of leadership;
- modeling integrity and ethical behavior; and
- providing an attractive, accessible, and functional environment for learning and working.

What Faculty Expect of Students

Enrolling in classes at Blue Ridge Community College is a serious investment of money, time, and effort. To be successful, students must be aware of the challenges ahead of them and be willing and able to work toward meeting those challenges. Knowing what faculty expect helps students get the most out of the learning experience in the classroom and online.

Students should demonstrate:

1. Desire to learn
   Display a positive attitude by viewing each class as an opportunity to learn something new.
Actively engage in gaining knowledge and skills from each class and online assignment. Structure time to make classes and studying a priority. Be responsible for your own success.

2. Responsibility for Learning
   - Attend class.
   - Stay informed about course requirements.
   - Develop effective study strategies.
   - Use time and other resources wisely.
   - Complete and submit assignments on time.
   - Communicate with the instructor when you have questions.
   - Give the instructor and fellow students your complete attention during class.
   - Seek help in a timely manner.

3. Honesty/Integrity
   - Do your own work, without compromise.
   - Be honest in all communications, oral and written.
   - Cite sources appropriately.
   - Comply with the BRCC Honor Code.

4. Respect
   - Respect diverse opinions, backgrounds, and life experiences of others.
   - Show respect for the instructors' knowledge, experience, and education.
   - Be punctual. Arrive on time and stay for the entire class.
   - Be collegial in the classroom.
   - Refrain from behaviors that may distract others.
   - Communicate with instructors outside of class at appropriate times and places.

5. Appropriate Use of Technology
   - Refrain from using during class ALL personal electronic devices, including, but not limited to, cell phones, iPods, laptops, and A/V recorders, unless specifically authorized by the instructor.
   - Comply with BRCC policies for computer use.

What Students May Expect of Faculty

College instructors have encountered most of the challenges, frustrations, stresses, and triumphs that students will face. Faculty members know what students need to do to succeed in their courses and will work with students to that end.

Instructors will provide:

1. Opportunities to learn
   - Select course content that is appropriate, important and current.
   - Communicate the course content at the college level.
   - Assign work that enhances student understanding of course content.

2. Professionalism
   - Remain knowledgeable and current in field of specialization.
   - Arrive at class prepared and on time.
   - Grade and return assignments in a timely manner.

3. Fairness
   - Expect and enforce academic honesty.
   - Determine grades by the established criteria set forth in the course syllabus.
   - Write test questions that are representative of course content.
   - Grade assignments carefully and objectively.
   - Assign students the grade they have earned.

4. Accessibility
   - Treat each student respectfully and courteously.
   - Be available and welcoming during scheduled office hours.
   - Make reasonable accommodations for students with documented disabilities.

5. Communication
   - Distribute a syllabus outlining content, objectives of the course, grading, attendance, and other important policies that affect student success.
   - Establish and follow a procedure for communicating important class and/or college information.
   - Respond to questions within a reasonable timeframe.
Programs

As a comprehensive institution of higher education, Blue Ridge offers diverse programs of instruction generally extending not more than two years of full-time study.

1. Occupational-Technical—Programs to meet the increasing demands for technicians, paraprofessional workers, and skilled craftspeople for employment in industry, business, the professions, and public service.
2. College Transfer—Programs to meet standards acceptable for transfer to baccalaureate degree programs in four-year colleges and universities.
3. General Education—The portion of the collegiate experience which addresses the knowledge, skills, attitudes, and values characteristic of educated persons. It is unbound by disciplines and honors the connections among bodies of knowledge.
4. Developmental Studies—Courses (MTE 1-9; ENF 1-3; and ESL courses) to help individuals obtain knowledge and skills to succeed in curriculum courses in occupational-technical or college transfer programs, to meet current and future job requirements, or to meet personal goals. Developmental course credits are not applicable toward graduation or college transfer credit.
5. Continuing Education—Programs and courses for adults who wish to continue their education part-time. Continuing education units (CEUs) may be earned.
6. Community Service—Cultural and non-credit educational services for citizens and groups in the region.
7. Workforce Services—Specialized training and retraining programs custom-tailored by the Continuing Education Division to meet the workforce development needs of area employers.

Computer Competency Requirements

Blue Ridge Community College believes that all students should experience a teaching-learning environment that promotes computer and information literacy in accessing electronic resources and applying knowledge through technology. In accordance with Virginia Community College System (VCCS) policy, students must be able to demonstrate the entry-level computer skills necessary for academic success and discipline-specific skills necessary for successful transfer or employment.
Admissions, Tuition and Fees, and Financial Aid Information
Admissions, Tuition and Fees, and Financial Aid Information

General Admission to the College

Any person who has a high school diploma, its equivalent, OR who is 18 years of age and able to benefit from a program of study at Blue Ridge Community College may be admitted. The College reserves the right to evaluate special cases and to refuse admission to applicants when considered advisable in the best interest of the College. Students also may be denied admission if there is reason to believe that they present a danger to themselves, other students, and/or college employees. Blue Ridge Community College has the right to deny or revoke the admission of convicted sex offenders, www.brcc.edu/student/right/so/.

Admission Requirements

Curricular Students
Curricular students are those who wish to work full or part-time toward the completion of a degree, diploma, or certificate offered by the College. To be officially admitted to a curriculum, the following items are required:

1. completed application for admission;
2. demonstrated proficiency in reading, writing and mathematics. Students may demonstrate this proficiency in one of three ways:
   - Take the English and Math portions of the Virginia Placement Test (VPT)
   or
   - Submit Scholastic Aptitude Test (SAT) scores of 500/Reading, 500/Writing, and 520/Math or ACT scores of 21 or higher in English, 21 or higher in Reading and 22 or higher in Math. Placement testing, in addition to SAT or ACT scores, is required for enrollment in higher level math courses including MTH 173 and higher.
   or
   - Submit proof of successful completion of developmental or college-level English or mathematics classes.
3. official transcripts from all colleges and universities attended if transfer credit is requested by the student.

Admission to the College or a curriculum does not necessarily guarantee admission to a particular program. Additional qualifications may be required for admission to a specific program, such as Aviation Maintenance Technology, Nursing, or Veterinary Technology.

In addition to the general admission requirements listed above, specific requirements are usually prescribed for each curriculum of the College. Among the items generally considered in determining the eligibility of a student for admission to a curriculum are educational and occupational experiences and the application of reasonable standards to ensure that the student possesses the potential to meet program requirements. The College offers a comprehensive program in Developmental Studies to correct academic deficiencies.

Persons entering associate degree (Associate of Arts & Sciences, Associate of Science, or Associate of Applied Science) programs must be high school graduates or the equivalent.

Non-Curricular Students
Non-curricular students are those who do not currently intend to apply credits toward completion of a degree, diploma, or certificate offered by the College. A non-curricular student is, therefore, not formally admitted to the curricula of the College, but attends classes on a part-time or full-time basis under special conditions.

To take courses at the College, the following are required:

1. completed application for admission;
2. demonstrated proficiency in reading, writing and mathematics. Students may demonstrate this proficiency in one of three ways:
   - Take the English and Math portions of the Virginia Placement Test (VPT)
   or
   - Submit Scholastic Aptitude Test (SAT) scores of 500/Reading, 500/Writing, and 520/Math or ACT scores of 21 or higher in English, 21 or higher in Reading and 22 or higher in Math. Placement testing, in addition to SAT or ACT scores, is required for enrollment in higher level math courses including MTH...
173 and higher.
or
- Submit proof of successful completion of developmental or college-level English or mathematics classes.

High School Student Enrollment

Based on the guidelines developed and approved by the State Department of Education and the Virginia Community College System, BRCC provides opportunities for qualified high school students to enroll in college-level courses.

The purpose of enrolling high school students in college-level classes is to provide a wider range of course options for high school students and to avoid unnecessary duplication of programs. In order to be eligible, students must be high school juniors and seniors who are prepared for the demands of college-level work and who can benefit from the opportunity. Because enrolling freshman and sophomore students is considered an exception to VCCS policy, the college-ready status of each prospective freshman and sophomore student will be evaluated on a case-by-case basis by the College. Formal approval by the College president is required and final. Documentation of parental permission is also required for enrollment.

BRCC has developed the following programs and procedures in order to accommodate qualified high school students in college-level classes.

Admissions Requirements for High School Students

To qualify for admission as a high school student, a student must complete or submit the following prior to registration:

1. Application for admission
2. Official high school transcript
3. Approval letter signed by the high school principal or guidance counselor which indicates the course(s) for which the student wishes to enroll (not needed for Dual Enrollment or Home School Students),
4. Written parental permission supporting enrollment, and
5. Completion of Virginia Placement Tests (VPT) or submission of appropriate SAT/ACT scores. See information under Admission Requirements for Curricular Students on page 6.

Concurrent High School Student
(BRCC courses taken on-campus)

Concurrent high school student admission is designed for high school students who are juniors or seniors who wish to take a course at BRCC based on their special interest or ability area. Students are part-time and remain as full-time students in their high school.

Home School Student
(BRCC courses taken on-campus or online)

In lieu of the high school principal or guidance counselor approval letter, home-schooled students must provide a copy of a home school agreement approved by the school district, a letter from the local school board or a copy of the letter filed by the parent/legal guardian declaring home schooling for religious exemption.

Dual Enrollment High School Student
(BRCC courses taken at high school)

Dual enrollment is designed for qualified high school juniors and seniors who are enrolled in special BRCC courses offered at the high school during the regular school day. The school system and the College must approve courses within this program.

Senior Citizens

Policies of the Commonwealth of Virginia (Virginia State Code 23-38.56) and the Virginia Community College System (VCCS Policy 4.3.0.2) encourage senior citizens to take college-level classes at Blue Ridge Community College. On the first day of class, senior citizens may enroll tuition-free (except for fees for course materials or lab fees) in credit classes on a space-available basis after all tuition-paying students have been accommodated.
To be eligible for free tuition and comprehensive fees for credit courses you must:
1. be 60 years of age or older prior to the semester of enrollment,
2. have been legally domiciled in Virginia for the last 12 months,
3. had a taxable individual income that did not exceed $15,000 for Virginia income tax purposes for the year preceding the semester you wish to enroll, (documentation of taxable income will be required), and
4. be admitted to the College as a student.

To be eligible for free tuition for audit of credit courses, you must:
1. be 60 years of age or older prior to the semester you wish to enroll,
2. be a legal resident of Virginia,
3. be admitted to the College as a student.

Interested senior citizens should contact the Admissions and Records Office for information and registration materials.

International Students
Blue Ridge Community College is authorized by the United States Department of Homeland Security to enroll non-immigrant international students who meet academic, financial, and language requirements. The Admissions and Records Office must comply fully with federal and state laws and regulations regarding admission of non-immigrant students.

Further information about applying as an international student may be obtained by contacting the Admissions and Records Office or by referring to www.brcc.edu/admissions/international-admissions/. International students with questions or issues should contact Admissions and Records at 540-453-2360 or mathiasc@brcc.edu.

It is the policy of the College to admit qualified resident alien students already legally residing in the service area. VCCS policy permits the admission of 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 unable to document their legal presence. Applicants who are undocumented will pay tuition at the out-of-state rate.

Students Transferring from Other Colleges
Students must be officially enrolled in a curriculum in order to be eligible for transfer credit.

An official transcript from each previously attended institution (excluding VCCS schools) is required for an official evaluation of credits to be completed. Students seeking transfer credit from another college or university should send official transcripts and the Transcript Evaluation Request form to the Office of Admissions and Records at least one month prior to the semester of enrollment. Students should not submit a request for transcript evaluation or request official transcripts from previously attended institutions until all courses are complete and grades are posted.

Generally, no credit will be given for courses with a grade lower than a grade of “C” or courses taken as Pass/Fail (P/F). Students are required to complete 25% of their curricular requirements at BRCC. Transfer students may be advised to repeat courses if it is clearly to their advantage to do so in order to make satisfactory progress in the curricula.

Transcript evaluations will be completed within 45 days of the request.

Enrollment Priorities
When enrollments must be limited for any curriculum, first priority will be given to all qualified students who are residents of the political subdivisions supporting the College, provided such students apply for admission to the program by the scheduled deadline. The priority list is as follows:

1. residents of the political subdivisions supporting the College, (the counties of Augusta, Highland, and Rockingham and the cities of Harrisonburg, Staunton, and Waynesboro)
2. other Virginia residents,
3. out-of-state and resident alien students.

Student Level
Freshman: Fewer than 30 credits completed in the designated curriculum.
Sophomore: 30 or more credits completed in the designated curriculum, including relevant transfer credits.
Student Status

Full-time: 12 or more credits

Part-time: Fewer than 12 credits; the financial aid award for students taking fewer than 12 credits will be reduced. Contact the Financial Aid office for additional information.

Transcripts

Students may request that a copy of their permanent record (transcript) from Blue Ridge Community College be forwarded to other educational institutions, state or federal agencies, employers, or any person(s) designated by the student. The request must be authorized by the individual student. The most efficient way a student can make a request is through www.docufide.com. After the student creates an account, he/she can begin to place transcript requests through Docufide®. There is a fee of $3.00 per transcript. The request may also be made as an electronic request through the MY BRCC link on the BRCC website or completing and signing a “Transcript Request Form” available in the Admissions and Records Office or on our website at www.brcc.edu/services/forms/.

Due to limitations on access to student information under the Family Educational Rights and Privacy Act of 1974 (Public Law 93-380), telephone and third party requests for transcripts cannot be honored without appropriate documentation. Normally, transcripts from other educational institutions which have become part of the student’s academic record at Blue Ridge may not be duplicated or released, although such records are available for inspection by the individual student.

Records Disposal

The academic records of a student are maintained in the Admissions and Records Office. At the end of three years from the date of the student’s separation from the College, those records, with the exception of the BRCC permanent academic record or transcript, are destroyed (for students enrolled prior to January 2014). Records for students enrolled January 2014 and beyond will be stored electronically for an indefinite period of time. For a more detailed written policy on the disposal of academic records, contact the Dean of Student Services.

Tuition and Fees (Note: Subject to Change)

Tuition rates are established each year by the State Board for Community Colleges. Payment is due at the time of registration or by specified deadlines. Failure to pay for courses by posted deadlines will result in administrative removal of courses. The current tuition rates, payment deadlines, and refund dates are published on the BRCC web site. The College no longer issues tuition bills. Students are responsible for financial obligations posted in SIS. Tuition and fees at the time of this catalog printing were:

- Virginia Domicile ........................................................................................................ $122.50 per credit
- Out-of-State Domicile ................................................................................................... $299.10 per credit
- Technology Fee ......................................................................................................... $7.50 per credit
- Comprehensive Student Fee ..................................................................................... $6.80 per credit
- Capital Fee (Out-of-State Students only) .................................................................... $18.00 per credit
- Business Contract Rate .............................................................................................. $182.50 per credit
- Military Contract Rate ............................................................................................... $122.50 per credit
- Auxiliary Capital Fee ................................................................................................. $16.00 per credit

Special Note: Rates are subject to change without notice as mandated by the State Board for Community Colleges. An increase in tuition and/or fees is expected for the 2014-2015 academic year. Please refer to the college website at www.brcc.edu/tuition/tuition Rates/ for current term rates.

Registration is not complete until payment for all tuition and fees has been received. Payment can be made by cash, check or credit card (VISA®, MasterCard®, Discover® or American Express®). There will be a $35.00 charge for all returned checks.

Dishonored checks received from the bank must be made good within ten (10) business days after notification from the Student Financial Services Office. If payment is not received, the student will be administratively withdrawn from classes.

Comprehensive Student Fee

Students will be charged a $6.80 per credit hour comprehensive fee each semester. The funds support the Blue Ridge Community College Student Activities program and the maintenance and construction of campus parking facilities. The fee is refunded if the student withdraws from classes within the appropriate refund periods.
Technology Fee
All students in the Virginia Community College System will be charged a $7.50 per credit hour technology fee. The funds are used to implement major improvements in information technology for the 23 community colleges in Virginia. The fee is refunded if the student withdraws from classes within the appropriate refund periods.

Auxiliary Capital Fee
All students will be charged a $16.00 per credit hour auxiliary capital fee each semester. The funds support the design, construction, and operation of college construction project(s) that are not state-funded. The fee is refundable if the student withdraws from classes within the appropriate refund periods.

Tuition Refunds
Students will be eligible for a full refund of fees for classes dropped during the specified add/drop periods as listed on the College’s website. It is the student’s responsibility to know the appropriate refund dates. There will be NO REFUNDS after the add/drop period has passed, unless written documentation is submitted to support the existence of one of the following special circumstances:

• Unanticipated medical emergency, resulting in extended incapacitation/hospitalization of the student.
• Extreme, sudden and unforeseen financial hardship.
• Death of an immediate family member.
• Institutional errors by BRCC personnel that cause the delay of administrative processes related to registration or withdrawal. The request for refund in these instances must be initiated through the BRCC office responsible for the error.
• A national emergency or mobilization declared by the President of the United States and in accordance with Section 23-9.6.2 of the Code of Virginia.

More detailed information about the Tuition Refund Appeals process can be obtained from the Office of Admissions and Records or the BRCC website www.brcc.edu/services/forms/.

Note: Special session courses (less than a term in length) have shorter add/drop dates. Consult the Academic Calendar listing at www.brcc.edu/academics/academic_calendar/ for exact dates.

Refunds in the amount of $1.00 or less will not be processed.

Eligibility for In-State Tuition Rates
The Office of Admissions and Records is responsible for making an initial determination of eligibility for in-state tuition rates, based on information provided by the student on the “Application for Virginia In-State Tuition Rates,” included with college application materials. Eligibility is determined by using State Council for Higher Education guidelines pertaining to Section 23.7-4 of the Code of Virginia.

An individual must demonstrate, with clear and convincing evidence, residence in Virginia and the intent to remain in Virginia indefinitely to establish domicile in Virginia. After meeting the requirements to establish domicile, a person must continue to be domiciled in Virginia for at least 12 months prior to the first day of classes.

Domicile is a technical legal concept, which means more than simple “residency” in the state of Virginia. A legal domicile must demonstrate the intention of remaining in Virginia indefinitely. Demonstration of intent is usually accomplished through objective evidence. For a listing of acceptable documents for demonstrating legal residency, please visit www.scbev.edu/students/adomicile.asp.

A student under the age of 24 generally assumes the domicile of the parent(s), unless the student’s parents have surrendered the right to the student’s care, custody, and earnings, do not claim the student as a dependent on federal or state income tax returns, and have ceased to provide the student with substantial financial support.

Applications for reclassification of domicile status and all supporting documents must be submitted prior to the first day of the semester. The domicile status in effect on the first day of the semester determines the tuition rate for that semester. Additional information about eligibility can be obtained in the Admissions and Records Office.

Students who disagree with an initial determination of eligibility made by the Office of Admissions and Records may appeal the decision following the “Domicile Appeals Process” outlined in the Student Handbook on page 155.

Books, Tools, and Supplies
Students are expected to obtain their own books, tools, supplies, and consumable materials needed for their studies. The estimated cost of these items will average $1,000.00 per semester for a full-time student.
Indirect Costs

In addition to tuition, fees, books, and supplies, the following are estimated costs based on full-time attendance for one academic year: transportation $2,800; room and board off-campus $6,000; miscellaneous $1,900. These are only estimates and vary greatly with student needs and lifestyle.

Non-Payment of Financial Obligations

When a student fails to satisfy bad checks, library fines, parking tickets, or other financial obligations, the student is not issued transcripts or allowed to register for classes until the obligation is satisfied.

Tuition-Free Education for Certain Children

Section 23-7.1:01 of the Code of Virginia provides free tuition and required fees for children of law-enforcement officers, fire fighters, and members of a rescue squad. Any child between the ages of 16 and 25 whose parent has been killed in the line of duty while employed or serving as a law-enforcement officer, fire fighter, or member of a rescue squad in Virginia is entitled to receive free tuition and fees. Contact Student Financial Services at 540-453-2296.

Financial Aid

The student financial aid program at Blue Ridge Community College assists students who are eligible for financial aid, and who may not be able to attend BRCC without it. During the 2012-2013 academic year, BRCC awarded over $14 million to students seeking financial assistance. Most financial aid awards are based upon financial eligibility (the difference between the amount the student and the student’s family can contribute and the cost of attending BRCC). The expected family contribution (EFC) is determined by an analysis of the information on the Free Application for Federal Student Aid (FAFSA). The expected family contribution amount will be the same at most schools because eligibility is determined by the same method (Federal Need Analysis Methodology). Although paying for a college education is primarily the responsibility of students and their families, assistance is available through a variety of federal, state, and institutional programs for those who demonstrate a financial need.

How and When to Apply

The best time for students to apply for financial aid are the months of January or February preceding the academic year in which students plan to enroll. BRCC’s priority deadline for submission of the financial aid application is March 15. Since most aid programs have limited funding, it is critical that students file as early as possible. Students may apply for financial aid by completing and submitting the Free Application for Federal Student Aid (FAFSA). The FAFSA form may be submitted several ways by:

- Completing the FAFSA on-line form on the Web at www.fafsa.ed.gov (the preferred method); or
- Mailing the FAFSA form to the federal processing center

*Note: A new financial aid application must be submitted for each academic year of enrollment.

General Eligibility Requirements

In order to qualify for financial aid at BRCC, a student must:

- demonstrate financial need, except for some loan programs.
- have a high school diploma or a General Education Development (GED) Certificate or complete a high school education in a home-school setting.
- be enrolled or accepted for enrollment as a regular student working toward a degree or certificate in an eligible program consisting of at least 16 semester credit hours.
- be a U.S. citizen or eligible non-citizen.
- have a valid Social Security Number.
- meet satisfactory academic progress standards set by the College.
- certify that federal student aid will be used only for educational purposes.
- certify that you are not in default on a federal student loan and that you do not owe money on a federal student grant.
- comply with the Selective Service registration, if required. If you’re a male age 18 through 25, and you haven’t yet registered, you can give the Selective Service permission to register you by checking a box on the FAFSA. You can also register through the Internet at www.sss.gov.
Types of Aid Available

The following list represents the major federal and state financial aid programs at BRCC. Some students may qualify for more than one program depending on need. Please note that state grants are only awarded to qualifying domiciliary residents of Virginia.

Federal Pell Grant is a federal grant entitlement program, which means that the federal government will pay all applicants who meet all program eligibility criteria. Students who have previously earned a baccalaureate degree are not eligible for grant aid. Awards are for both direct and indirect educational expenses. In some cases, an eligible student may receive a Pell Grant if enrolled for less than 6 credits.

Federal Supplemental Educational Opportunity Grant (SEOG) is a federal grant program that is awarded to the “neediest” students. Preference is given to Federal Pell Grant recipients with the greatest financial need. There are limited SEOG funds and students should meet the March 15 priority application deadline to ensure consideration. Students must be enrolled on at least a half-time basis.

Federal Work-Study Program (FWS) is an award from federal funds that enables students to earn money to help meet their educational expenses. A student must have “financial need” to qualify. A work-study award does not guarantee a job, as the placement of a student into a job will be based upon the available jobs and the student’s qualifications to meet the requirements for these available jobs. Work-study employees are usually assigned an average of 15 to 20 hours of work per week and will receive a paycheck every two weeks.

Commonwealth Award (COMA) is a state-funded grant program under which students may receive support up to the average full cost of tuition. To qualify, a student must be a domiciliary resident of Virginia, demonstrate financial need, and be enrolled on at least a half-time basis.

Virginia Guaranteed Assistance Program (VGAP) is a state-funded grant program under which first time freshmen with financial need can receive up to the average full-time tuition and an allowance for textbooks. In order to be considered, a student must be a: first-time freshman, dependent, high school graduate with a high school GPA of at least a 2.5, Virginia resident, and demonstrate financial need. Recipients must be enrolled as a full-time student to qualify. Recipients must maintain a 2.0 GPA 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) is a state grant program funded by the Virginia Community College System. These grants are based on need and are awarded to eligible students who are enrolled for one to eight credits per semester.

Federal Direct Loans provide students with the option to receive long-term, low-interest educational loans. Students must be enrolled on at least a half-time basis to be considered. All Stafford Loans are either subsidized (the government pays the interest while the student is in school) or unsubsidized (the student pays all the interest, although payments can be deferred until after graduation). To receive a subsidized Stafford Loan, financial need must be demonstrated. With the unsubsidized Stafford loan, payments can be deferred until after graduation by capitalizing the interest. This adds the interest payments to the loan balance, increasing the size and cost of the loan. All students, regardless of need, are eligible for the unsubsidized Stafford Loan.

Federal Direct Parent Loan for Undergraduate Students (PLUS) enables parents of dependent undergraduate students to borrow funds to supplement their children’s aid packages. Repayment normally begins 60 days from the date of disbursement and can continue over a ten-year period. Students must be enrolled on at least a half-time basis.

Financial Aid Program Refund Policy

All students receiving financial aid may be required to repay all or part of any aid received to the appropriate federal program(s) if they withdraw from all classes.

The amount that the student may be required to return to the program(s) will be determined by the amount disbursed, the amount which could have been disbursed, and the percentage of the enrollment period the student has completed.

If a student withdraws on or before the 60% point in time of the period of enrollment, calculated using calendar days, a portion of the total of financial aid funds awarded a student (excluding federal work-study) must be returned according to the provisions of the Higher Education Amendments of 1998. The calculation of the return of these funds may result in the student owing a balance to the College and/or the federal government.

Sample refund calculations are available in the Office of Student Financial Aid and Scholarships.
Institutional Aid Programs

BRCC Scholarship Assistance

The BRCC Educational Foundation, Inc. assists the College in providing academic as well as need-based scholarships. The Foundation is a charitable, non-profit corporation that provides a venue for individuals, organizations, business, and industry to contribute to the College. Active scholarships supported by the Foundation are listed on the web at http://www.brcc.edu/financial_aid/scholarships. You may apply for scholarship assistance by completing the Institutional Scholarship Application. We strongly recommend that you also complete and submit the Free Application for Federal Student Aid (FAFSA), since many of the scholarships offered are based in part on financial need. A FAFSA may be submitted on-line at www.fafsa.ed.gov. For more information call the Scholarship Coordinator at 540-234-9261, ext 2223.

Scholarship Applications

Scholarship applications for the 2014-2015 award year must be submitted to the Financial Aid Office by March 17, 2014. The Office of Student Financial Aid & Scholarships reviews scholarship applications on the basis of a completed Institutional Scholarship Application (incomplete or faxed applications will not be considered), Free Application for Federal Student Aid (FAFSA) data, specific scholarship criteria, academic achievement, financial need, extracurricular activities, and community involvement. A minimum 2.0 GPA is required to receive and maintain a scholarship award, unless otherwise specified in the scholarship agreement. Blue Ridge Community College reserves the right to adjust scholarship award amounts, as well as to revise the number of scholarships offered each year, without notice. The most current scholarship information may be found at www.brcc.edu/financial_aid. Additional tips for creating competitive scholarship applications can be found at www.brcc.edu/financial_aid/scholarships.htm.

Veterans Educational Benefits

Application forms and assistance with veterans’ educational benefits are available in the Admissions and Records Office or at www.brcc.edu/admissions/veterans/. Most programs at the College are approved by the State Department of Education for the payment of veterans’ educational benefits. Students using their benefits for the first time must complete an “Application for Educational Benefits” (22-1990) and provide an original or court certified copy of their discharge papers (DD-214), plus documentation on dependents, if any. Veterans who are new to BRCC but who have used their educational benefits at another school must complete a “Request for Change of Program or Place of Training” (22-1995).

In order to receive veterans’ educational benefits, classes must be applicable to the veteran’s program of study as outlined in this catalog and student handbook. The student is responsible for notifying the Admissions and Records Office of any changes in enrollment or curriculum.

Active Duty Service Benefits

Active duty personnel may qualify for either VA assistance (contact the Admissions and Records Office) or for the tuition assistance programs of the Armed Forces. For information about the Armed Forces Tuition Assistance program, students should contact their education service officer.

Virginia Military Survivors and Dependents Education Program

Section 23-7.1 of the Code of Virginia provides for free tuition and fees to attend state-supported institutions of higher education for children of persons deceased, disabled, prisoners of war, or missing in action as a result of any armed conflict after December 6, 1941, involving the Armed Forces of the United States. For more information, contact Admissions and Records at 540-453-2360 or mathiasc@brcc.edu.

Notification of Rights Under FERPA

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. They are:

1. The right to inspect and review the student’s education records within 45 days of the day Blue Ridge Community College receives a request for access. Students should submit to the Dean of Student Services, Vice President, Dean or other appropriate official, written requests that identify the record(s) they wish to inspect. The College official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the College official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.
2. The right to request the amendment of the student's education records that the student believes are inaccurate or misleading. Students may ask the College to amend a record that they believe is inaccurate or misleading. They should write the College official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading. If the College decides not to amend the record as requested by the student, the College will notify the student of the decision and advise the student of the student's right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent. One exception which permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by Blue Ridge Community College in an administrative, supervisory, academic, research, or support staff position; a person or company with whom the College has contracted (such as an attorney, auditor, or collection agent); a person serving on the Blue Ridge Community College Board; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility. Upon request, the College discloses education records without consent to officials of another school in which a student seeks or intends to enroll.

4. The right to withhold the disclosure of any and all categories of "directory information." Blue Ridge Community College defines directory information to include: name, address, telephone listing, electronic mail listing; student identification number; major field(s) of study; degrees, awards and honors; date(s) of attendance; enrollment status; participation in officially recognized activities and sports, course credit load, photographs, and the most recent previous educational agency or institution attended by the student. Students who wish to prevent disclosure of directory information to persons outside the College may do so by completing the Request For Non-Disclosure of Information form in the Admissions & Records office within the first three weeks of each semester.

5. Parents or legal guardians who can document through their federal tax return from the previous year that a student is claimed as a dependent may request the release of academic information. The student will be notified in writing of the parent’s request before information is released. Please contact the Dean of Student Services for additional information.

6. The right to file a complaint with the U.S. Department of Education concerning alleged failures by Blue Ridge Community College to comply with the requirements of FERPA. The name and address of the Office that administers FERPA is:

Family Policy Compliance Office
U.S. Department of Education
400 Maryland Avenue, SW
Washington, DC 20202-4605
Academic Information
Academic Information

Academic Advising

Blue Ridge Community College believes that a timely, appropriate, and interactive academic advising process is vital for providing our students with the tools they need for success. The College is committed to providing students with the guidance necessary to make appropriate academic and career decisions. Therefore, the goals of academic advising are to provide students with:

- the information and guidance needed to complete course requirements in degree, diploma, and certificate programs;
- an individual, professional point of contact for issues and concerns related to their success at the College;
- information and guidance on transfer to four-year colleges and universities and to the work place.

New students are advised initially by an academic advisor in the Student Services division. Students who complete the process for being placed in a curriculum may also contact any full-time faculty member for academic guidance. Students are strongly encouraged to communicate on a regular basis with academic advisors. Academic advisors help students develop realistic goals, plan their programs of study, and make connections with appropriate resources. While academic advisors can provide students with valuable assistance throughout their academic careers at Blue Ridge Community College, the responsibility for knowing and fulfilling all requirements for graduation lies with the student.

Advanced Standing Information

Students may be eligible for advanced standing when previous studies, training, or work experience has provided them with the knowledge and skills required in a course. Each student is responsible for contacting the Academic Advising Center to determine the appropriate procedure for evaluation before registering for classes. Students must be officially enrolled in a curriculum in order to be eligible for advanced standing credit.

Blue Ridge Community College has a time limit for accepting credit for technical courses taken previously at BRCC or other institutions. The Dean of Student Services, in consultation with the appropriate faculty, will determine if courses taken more than five years before the student was accepted in the program at BRCC can be used in the student’s current program of study. The student may be encouraged to take credit-by-exam or credit for life experience, if deemed appropriate.

Please refer to the publication, College Credit Through Advanced Standing, available at www.brcc.edu/services/advising/advanced-standing, for specific advanced standing guidelines and procedures.

Attendance

While individual instructors’ policies may vary, punctual and regular attendance is required. When absence from a class becomes necessary, the student is responsible for informing the instructor prior to the absence whenever possible. The student also is responsible for the subsequent completion of all work missed during an absence. Instruction missed may affect the student’s grade, regardless of the reason for the absence. Frequent absences may result in the termination of veterans’ educational benefits and other programs of financial assistance. Failure to attend the first and second class sessions may result in administrative withdrawal from the course.

Auditing a Course

Students may register for a course on an audit basis, which means they are exempt from taking the examinations and do not receive college credit. Changes from audit to credit or from credit to audit must be made by the official last day to add a course.

Change of Registration

The guidelines listed below are for courses which meet throughout the course of an entire sixteen-week semester. Courses of other lengths have unique deadlines which are listed in the Academic Calendar, found at www.brcc.edu/academics/academic_calendar/. Students are responsible for knowing the deadline dates for add, drop, and withdrawal each semester.

1. Addition of a course: usually students may add a new course during the first five class days of a semester.
2. Dropping a course with a tuition refund: usually students may drop a course and receive a tuition refund during the first eleven class days of a semester.
3. Withdrawal from a course: usually students may withdraw from a course and receive a “W” grade from the twelfth class day through the ninth week of a semester, which represents 60% of the semester. A withdrawal after 60% of the semester has passed will result in an “F” grade except under mitigating circumstances; this requires the documented approval of an Academic Dean. Students who wish to request withdrawal under mitigating circumstances must meet with a College academic advisor to initiate the process. The request for withdrawal under mitigating circumstances and all supporting documentation must be submitted no later than 10 days after the start of the subsequent semester.

Class Cancellation Policy

The College reserves the right to cancel individual classes due to low enrollment or various other factors.

If a class is cancelled, an attempt is made to notify students and the tuition refund process will be initiated automatically. If students wish to add another class, they must complete the add/drop process within the specified time frame to add a course.

Course Repeat Policy

Enrollment in a course is limited to two times. Grades of “W”, “X”, “U”, “R”, and “I” shall count as first or subsequent attempts (enrollments). Students who wish to enroll in a course for a third time must have written approval from the Vice President of Instruction and Student Services. If a student elects to repeat a course, all grades, credits attempted, and quality points for previous enrollments are no longer applicable, but all attempts of graded courses will appear on the student’s official transcript. This means that if a class is repeated, the last grade earned (lower or higher) will be the course grade used in the computation of the cumulative grade point average (GPA).

Credits

A credit hour is defined as the objectives and amount of work a student could reasonably accomplish in three hours of academically engaged time per week in a 15-week semester, verified by achievement of intended student outcomes. In a seated lecture class, each credit hour would represent one 50 minute “hour” of formal instruction and approximately two hours of independent student work per week over a 15-week semester, and a final examination. Distance learning or hybrid courses may not include the same amount of synchronous instruction, but will include equivalent objectives and intended student outcomes.

One laboratory credit hour can be the equivalent of two to five contact hours, depending on the discipline (An expanded definition is included in the Virginia Community College System Policy Manual 5.3.0.1 – 5.3.0.2)

1 Credit Hour: Also referred to as a Carnegie Unit
2 Contact Hour: One 50 minute “hour” of formal instruction

Academic Load

A full-time academic course load consists of 12-18 credit hours per semester. A student who wishes to carry an academic load of more than 18 credits must have a minimum grade point average of 3.0 and must have the approval of the Dean of Student Services. For courses taken during any special sessions, such as the abbreviated summer sessions, the maximum full-time load is 15 credits.

Any student enrolled in fewer than 12 credits is classified as a part-time student.

The minimum course load required to receive veterans' benefits is determined by the current regulations of the Veterans Administration. The rate of progress is generally expected to equal that required to graduate within the established training time.

Developmental Course Credits

Developmental courses (MTE 1-9; ENF 1-3; and ESL courses) will not count toward meeting graduation requirements and will not transfer to four-year institutions. Each developmental course carries one to eight credits for the purpose of tuition payment.

Grades for Developmental Courses

Developmental course grades are not included in a student’s semester or cumulative grade point average (GPA). The state limits enrollment in any one developmental course to two semesters (see Course Repeat Policy on p. 24).
S - Satisfactory - Awarded for satisfactory completion of each developmental course (MTE 1-9; ENF 1-3; and ESL courses).

U - Unsatisfactory - Awarded for unsatisfactory progress in a developmental course (MTE 1-9; ENF 1-3; and ESL courses). Students who receive a grade of “U” should consult with their instructor and an academic advisor prior to re-enrolling in the same developmental course.

R - Re-test - Student must re-take Virginia Placement Test (VPT).

W - Withdrawal: No grade point credit (a grade of withdrawal implies that the student was making satisfactory progress in the course at the time of the student’s withdrawal).

Final Examinations

All students are expected to take their final examinations at the regularly scheduled times. No exceptions will be made without the approval of the course instructor.

Grades for College-Level Courses

<table>
<thead>
<tr>
<th>Letter Grades</th>
<th>Grade Points per Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>A - Excellent</td>
<td>Four grade points per credit</td>
</tr>
<tr>
<td>B - Good</td>
<td>Three grade points per credit</td>
</tr>
<tr>
<td>C - Average</td>
<td>Two grade points per credit</td>
</tr>
<tr>
<td>D - Poor</td>
<td>One grade point per credit</td>
</tr>
<tr>
<td>F - Failure</td>
<td>Zero grade points per credit</td>
</tr>
<tr>
<td>W - Withdrawal</td>
<td>No grade point credit (a grade of withdrawal implies that the student was making satisfactory progress in the course at the time of the student’s withdrawal).</td>
</tr>
<tr>
<td>I - Incomplete</td>
<td>No credit; used for verifiable, unavoidable reasons. 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 reasons 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 (deadlines: May 1 for Fall; August 1 for Spring and December 1 for Summer) and; (4) identifies the default (B, C, D, F, P, R, S, 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 from the Vice President of Instruction and Student Services. The student will be provided a copy of the documentation. An “I” grade will be changed to a “W” grade only under documented mitigating circumstances which must be approved by an Academic Dean.</td>
</tr>
<tr>
<td>P - Pass</td>
<td>No grade point credit; applies only to selected non-developmental studies courses.</td>
</tr>
<tr>
<td>X - Audit</td>
<td>No grade point credit. 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.”</td>
</tr>
</tbody>
</table>

Final Grades

Final grades are made available to students at the official end of each semester. If a student has reason to believe that an error has been made in calculating or recording any grade, he/she should bring it to the attention of the instructor for that class pursuant to the guidelines indicated in the Grade Appeal Procedure (below). Official transcripts of grades for each semester will not be available for distribution to prospective employers or other colleges for approximately two weeks after the end of the semester.

Grade Appeal Procedure

The faculty of Blue Ridge Community College is unequivocally committed to the principle that evaluation of student work and assignment of grades is a responsibility and a prerogative to be exercised solely by the
faculty. Therefore, at no point may an administrator change a grade assigned by an instructor. When a student believes that a final grade has been determined incorrectly, the student must file a written report with the instructor, (with a copy to the instructor’s Dean) identifying specifically the reason(s) for the appeal and including any supporting documentation. This written report must be filed with the instructor as soon as possible and no later than ten calendar days after the first day of class of the next regular (fall/spring) semester. If the matter is not mutually resolved at this level, the student may appeal to the appropriate Academic Dean and subsequently to the Vice President of Instruction and Student Services.

At each level of appeal, each response to the appeal and subsequent appeal must be made in writing within ten calendar days. No new matter may be appealed at any higher level which was not identified by the student in the original written appeal to the instructor. If appropriate, at the sole discretion of the Vice President of Instruction and Student Services, the Vice President may appoint a faculty committee to review the case. If the Vice President does not appoint a committee, the grade assigned by the faculty member will remain unchanged. The decision of the Vice President as to whether or not to appoint a committee cannot be appealed by either party.

If the Vice President appoints a committee, it will consist of three instructional faculty members, at least one of whom instructs in the same or similar discipline as the faculty member who assigned the grade. The student should be aware that the committee review process may result in the grade being raised, lowered, or unchanged. The committee will meet and report its findings within fifteen calendar days from its appointment by the Vice President. The decision of the committee is final and binding and will be reported to the Vice President of Instruction and Student Services with copies to the Academic Dean and the Dean of Student Services, who will record the grade. A copy of the finding of the committee will be placed in the student’s academic record in the Admissions and Records Office.

Students enrolled in courses through Northern Virginia Community College’s (NVCC) Extended Learning Institute should contact Devon Genus at genusd@brcc.edu and refer to pages 81-85 of the NVCC Student Handbook at www.nvcc.edu/resources/stuhandbook/.

Grade Point Average

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. Courses which do not generate grade points are not included in credits attempted.

Semester Grade Point Average—Semester GPA is determined by dividing the total number of grade points earned in courses attempted for the semester by the total number of credits attempted.

Cumulative Grade Point Average—Cumulative GPA, which includes all courses attempted, is computed each semester and is maintained on a continuing basis as a record of a student’s academic standing. (See page 17 for Course Repeat Policy).

Curriculum Grade Point Average—A curriculum GPA, which includes only those courses applicable to a student’s curriculum, is computed in order to ensure that a student satisfies the graduation requirements for that curriculum. When a student repeats a course, only the last grade earned is counted in the computation of the curriculum GPA.

Academic Renewal

Students who return to the College after a separation of five years or more (at the end of the last enrolled semester) may petition for academic renewal. The request must be made by completing the Academic Renewal Application form with an Academic Advisor and submitting it to the Admissions and Records Office.

For students who are found eligible for academic renewal, values for “D” and “F” grades earned prior to re-enrollment will be deleted from the cumulative and curriculum grade point average (GPA), subject to the following conditions:

• Prior to petitioning for academic renewal, students must demonstrate a renewed academic interest and effort by earning at least a 2.5 GPA in the first twelve (12) semester hours completed after re-enrollment.
• All grades received at the College will be a part of the student’s official transcript.
• 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.
• Total hours for graduation will be based on all coursework taken at the College after re-enrollment, as well as former coursework for which a grade of “C” or better was earned, and credits transferred from other colleges or universities.
• The academic renewal policy may be used only once and cannot be revoked once approved.
Academic Standing

President’s List
A student who achieves a semester grade point average of 3.8 or higher and earns a minimum of 12 credit hours will be placed on the President’s List.

Vice President’s List
A student who achieves a semester grade point average of 3.5 or higher and earns a minimum of 12 credit hours will be placed on the Vice President’s List.

Merit List
A student who achieves a semester grade point average of 3.5 or higher and earns 11 or fewer credit hours will be placed on the Merit List.

Good Standing
A student who achieves a semester grade point average between 2.00 and 3.49, who is eligible to re-enroll at the College, and who is not on academic suspension or dismissal, is considered to be in good academic standing.

Academic Warning
Any student who fails to attain a minimum grade point average of 2.0 for any semester will be placed on Academic Warning. A student on Academic Warning is strongly encouraged to meet with an academic advisor to receive assistance toward remediating barriers to academic success.

Academic Probation
(minimum of 12 credit hours attempted)
Students who fail to maintain a cumulative GPA 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 Dean of Student Services or another appropriate College administrator. Students may be required to carry less than a normal load the following semester and are required to consult with an academic advisor.

Academic Suspension
(minimum of 24 credit hours attempted)
Students on academic probation who fail to attain a semester GPA 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 (excluding summer 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 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 will be required to carry less than a normal course load the following semester and are required to consult with the Dean of Student Services. The College will make additional academic support available to students who have been reinstated following academic suspension.

Academic Dismissal
(minimum of 24 credit hours attempted)
Students who do not attain at least a 2.00 GPA 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. 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 will be required to carry less than a normal course load the following semester and are required to consult with the Dean of Student Services.

Academic Dismissal from the College is permanent. A student whose circumstances have changed significantly following a substantial period of time may make a written request for reinstatement to the Dean
of Student Services. Requests for reinstatement are considered on an individual basis by an ad-hoc
Admissions Committee that is convened by the Dean of Student Services. The student will be notified
in writing of the Admissions Committee’s decision. A student who wishes to appeal the Admissions
Committee’s decision may do so in writing to the Vice President of Instruction and Student Services within
ten days of notification of the Admission Committee’s decision. The decision of the Vice President is final
and may not be appealed further.

Graduation

Benefits of Graduation
1. Personal growth and self-satisfaction
2. Wider variety of job and career opportunities
3. Comprehensive educational experience
4. Achievement of technical skills for work
5. Higher probability of admission to a four-year college or university
6. In the case of the A.A.&S. degree, satisfaction of lower-division general education requirements at
   most public four-year colleges and universities in Virginia

Catalog Used for Graduation
Each new catalog becomes effective with the summer session of the year in which it is published.
The catalog to be used to determine graduation requirements shall be either of the following:
1. The catalog in effect at the time of the student’s placement in the curriculum from which the
   student intends to graduate or
2. Any subsequent catalog which came into effect while the student was enrolled in that curriculum
   at BRCC. The catalog on the College’s website (www.brcc.edu) is the most current catalog.
   If a student is discontinued because of absence of enrollment, graduation requirements will
   be determined by the catalog in effect during the semester in which the student re-applies for
   admission OR any catalog issued subsequent to the re-enrollment. Students who have not
   attended for three consecutive years must re-apply for admission. Please note: the catalog to be
   used to certify graduation requirements shall have been in effect no more than seven years prior
   to the time of graduation.
   Nursing A.A.S. degree candidates: Students must satisfy the graduation requirements listed in the
   catalog in effect at the time they began the clinical component of the Nursing program.

Requirements for Graduation
The responsibility for knowing and fulfilling all graduation requirements lies with the student. To
receive an associate degree, diploma, certificate, or career studies certificate from the College, a student
must:
1. file an application for graduation with the Admissions and Records Office by the publicized
deadline. Please see www.brcc.edu/services/advising/advising-graduation/;
2. fulfill all of the course and credit hour requirements as specified in the appropriate College
catalog, according to the Catalog Used for Graduation policy stated on page 21;
3. complete at the College a minimum of:
   a. 25% of the total credit hours for the Associate Degree;
   b. 25% of the total credit hours for the Diploma; Certificate; Career Studies Certificate
4. have a grade point average of at least 2.0:
   a. in all courses attempted toward graduation in the curriculum (Associate of Arts & Sciences
      and Associate of Science candidates);
   b. in specialized or major field courses applicable toward graduation in the curriculum
      (Certificate, Diploma, and Associate of Applied Science candidates);
5. resolve all financial obligations to the College and return all library books and other materials.
6. complete a general education assessment instrument(s) provided by the College (Associate degree
   candidates only). Test results are used to assess and improve the effectiveness of programs and
   services.

Graduation Honors
Appropriate honors are awarded for degrees, diplomas and certificates based upon the student’s
cumulative grade point average as follows:
3.8 Grade Point Average—Summa Cum Laude (with highest honors)
3.5 Grade Point Average—Magna Cum Laude (with high honors)
3.2 Grade Point Average—Cum Laude (with honors)
Honor Code

The functioning of an academic community depends on the integrity of all of its members. Blue Ridge Community College values truthfulness, respect for the property of others, and honesty in academic work. Violations of these values may result in permanent dismissal from the College. The Statement on Student Rights and Responsibilities, located in the Catalog and Student Handbook, and the Statement on Academic Honesty below, provide specific guidelines which encompass this code.

Academic Honesty

When College officials award credit, degrees, diplomas, and certificates, they must assume the absolute integrity of the work done by students; therefore, it is important that each student maintains the highest standard of honor in his or her scholastic work. Academic dishonesty cannot be condoned. When such misconduct is established as having occurred, students are subject to possible disciplinary actions ranging from admonition to dismissal, along with any grade penalty the instructor may impose in accord with his/her syllabus and College policies. Procedural safeguards of limited due process and appeal are available to students in disciplinary matters. Grade disputes about a grade assigned as a result of academic dishonesty can only be resolved through the grade appeal procedure. No withdrawal policy outlined in the College Catalog and Student Handbook can supersede a grade penalty assigned as a consequence of an academic honesty violation.

Academic dishonesty includes, but is not limited to, any of the following acts:

1. Cheating on an examination or quiz, including the giving, receiving, or soliciting of information, the unauthorized use of notes, digital technology, and other materials during the examination or quiz.
2. Buying, selling, stealing, or soliciting any material purported to be the unreleased contents of a forthcoming examination, or the use of such material.
3. Substituting for another person during an examination and/or quiz, including online exams or quizzes, or allowing such substitution for one's self.
4. Plagiarism. This is the act of using content and/or ideas from the work of another individual, either word-for-word or in substance, and representing them as one's own work. This includes any submission of written work other than one's own. There are three types of plagiarism as listed in Donald A. Sears’ book Harbrace Guide to the Library and Research Paper, 3rd Edition (New York: Harcourt, 1972, p. 45). They are:
   a. Word-for-word plagiarism: The submission of the work of another source without proper acknowledgment of that source by footnote, bibliography, or reference in the paper.
   b. Patchwork plagiarism: Submitting a work that is stitched together from a variety of sources that does not indicate direct quotes or acknowledgment of those sources.
   c. Unacknowledged paraphrase: Restatement or rewording of another author’s original thought or idea must be acknowledged. Restatement by means of paraphrase does not remove the necessity of giving credit to original sources. Refer to the Library website for more information on plagiarism. (www.brcc.edu/library/)
5. Collaboration with another person in the preparation or editing of assignments submitted for credit without advance approval from the instructor.
6. Knowingly furnishing false information to the College including, but not limited to, forgery, alteration, or use of College documents, or instruments of identification with intent to defraud.

Alpha Beta Gamma Honor Society

Alpha Beta Gamma is an International Business Honor Society established in 1970 to recognize and encourage scholarship among two-year college students in business curricula. The society's purpose is to nurture academic excellence among community, junior, and technical college students enrolled in a business program, to provide opportunity for leadership training, to foster an intellectual climate for ideas and ideals, and to imbue scholars with a desire for continuing education.

The requirements for membership in Blue Ridge’s Nu Alpha Chapter of Alpha Beta Gamma are:
1. have a cumulative grade point average of 3.0 or above;
2. be enrolled in a business or business-related program;
3. have completed at least 15 semester hours in a business or business-related program at BRCC. Qualified students receive a letter of invitation to join the honor society at the beginning of the fall and spring semesters.

Phi Theta Kappa Honor Society

Phi Theta Kappa is an international honor society for community colleges. The purpose of Phi Theta Kappa is to recognize and to encourage scholarship among associate degree students.
The requirements for membership in Blue Ridge’s Alpha Xi Xi Chapter of Phi Theta Kappa are:

1. have a cumulative grade point average of 3.5 or above for induction, and must maintain a
   minimum cumulative grade point average of 3.25 thereafter;
2. be enrolled in a degree program;
3. have completed at least 12 semester hours in a degree program at BRCC.

Qualified students receive a letter of invitation to join the honor society at the beginning of the fall
and spring semesters.

Career Pathways Consortium

The Blue Ridge Career Pathways Consortium supports students in preparing for successful careers
by building partnerships between the school systems of Augusta, Highland, and Rockingham counties,
and Harrisonburg, Staunton, and Waynesboro cities; Virginia School for the Deaf and Blind; Blue
Ridge Community College; and area employers and providing career coaches. BRCC Career Coaches
are community college employees housed in local high schools. Coaching helps the “middle majority”
students—the mainstay of the emerging workforce—prepare for college and careers. Career coaches offer
unique benefits to students that traditional guidance counseling may not, such as direct access to college
programs and services, postsecondary faculty, and business and industry.

The consortium accomplishes its mission

1. by building a unified curriculum which relies on the input of employers, provides career
development opportunities, and offers secondary/post-secondary career paths that provide a
seamless transition for students from secondary to post-secondary education and/or the world of
work, and
2. by initiating and supporting educational improvement at the secondary and postsecondary levels
by enhancing the academic and technical competence of educators.

For more information about the Blue Ridge Career Pathways Consortium, contact Lester Smith at (540)
453-2346 or visit the Consortium’s website at community.brcc.edu/careerpathways/.

Distance Learning

Blue Ridge Community College values the opportunities for access that distance learning provides
for its students and it views distance education as an important aspect of educational access. The College
offers distance learning courses in a variety of disciplines, and many classroom-based courses incorporate
distance learning technology to enhance student learning.

Distance education is identified as any formal education process in which the majority (50% or more)
of instruction in a course occurs when students and instructors are not in the same place. To meet the
needs of students, BRCC offers students the option to enroll in courses entirely online (except for one
or more proctored assessments), as well as hybrid and seated courses. These courses are a great option
for students who want the flexibility to complete courses at home, work, or even at the College, but on
their own schedule. Students should expect to use electronic mail, word processing, and Web browsing
software in these courses.

In the course schedule,

- Courses coded with a “V” meet entirely online except for one or more proctored assessments.
- Courses coded with an “H” meet online MORE THAN 50% of the time with some face-to-face
meetings.
- Courses coded with an “S” meet online LESS THAN OR EQUAL TO 50% of the time, but meet
face-to-face less than 100% of the time. These courses are NOT considered Distance Learning
courses.

Interactive video is a technology that uses live, two-way video connections to send and receive
courses and programs between Blue Ridge Community College and other educational institutions. Although
students attend interactive video classes on campus in the Commonwealth Classroom, courses received
by the College are actually offered by other colleges in the state. Therefore, students access these courses
using the admission and registration procedures of the sending institution. This program allows students to
access courses and programs not normally offered at Blue Ridge Community College.

Additional information about distance learning classes, including a listing of computer skills required for
successful completion of Internet-based courses, can be found online at www.community.brcc.edu/dl/.
Bachelor’s Degree Opportunities

Blue Ridge Community College values the educational partnerships that have been developed with many of Virginia’s four-year colleges and universities. As a result of these partnerships, BRCC graduates have a variety of options which allow them to transfer college credits earned at BRCC while working toward their associate degrees and apply them to a baccalaureate degree.

Virtually all Virginia public four-year colleges and universities are in compliance with the State Policy on Transfer. This policy states that “students who have earned an associate degree based upon a baccalaureate-oriented sequence of courses should be considered to have met the lower-division general-education requirements of senior institutions. These students will be considered to have attained junior standing (typically defined by credits completed at the senior institution). It may, however, take transfer students longer than two years to complete the baccalaureate because of prerequisites in the major or other requirements or circumstances.” At Blue Ridge Community College, this policy applies to graduates of the Associate of Arts and Sciences (A.A.&S.) degree in the College/University Transfer Program and the Associate in Science (A.S.) degree (including the Associate in Science, Engineering specialization). For additional information on the State Policy on Transfer visit myfuture.vccs.edu/Transfer. Blue Ridge Community College also has more specific guaranteed admission and articulation agreements with a number of Virginia’s senior institutions. Details about these agreements may be found at www.brcc.edu/services/advising/transfer/agreements. Visit the College Advising Center or the Student Services website at www.brcc.edu/services/advising/transfer/ for further information about these agreements.

Education Partnership with Mary Baldwin College

For more than twenty years, MBC has been helping BRCC students earn their Bachelor’s degree in an economical and efficient way. With an office on the BRCC campus, MBC advisors help students select courses at BRCC and MBC to build their degree in the manner that fits their background, present circumstances, and academic goals.

Blue Ridge students can pursue their B.A. or B.S. degrees through one of Mary Baldwin’s programs. Men and women who have earned their associate degree or are 21 years of age or older may transfer up to 90 credits from BRCC and other accredited colleges, attend full- or part-time, and/or receive credit for prior learning and work experience. Because the Adult Degree Program (ADP) recognizes that many students are juggling work, family, and community responsibilities, ADP offers many online courses in addition to traditional on-campus classes. Young women are encouraged to apply to Mary Baldwin’s traditional residential program, which accepts up to 66 transfer credits from BRCC and offers scholarship opportunities depending on grade point average. Financial aid is available. Mary Baldwin offers over thirty majors including business, criminal justice, social work, and health care administration, as well as the opportunity to earn teacher certification.

For additional information, contact Susie Schmeissing or Marion Ward at 540-234-9261, ext. 2345 or toll free at 1-888-750-2722, ext. 2345; TDD 234-0848; or visit the Transfer Suite E112 on the Weyers Cave campus. E-mail address: wcadp@mbc.edu. Visit www.mbc.edu or www.mbc.edu/adult_degree/brcc/index.php.

Old Dominion University Distance Learning Program

In partnership with Blue Ridge Community College, Old Dominion University offers students opportunities to earn Bachelor’s, Master’s, and Doctoral degrees by taking courses at the Blue Ridge Community College campus without having to leave the Shenandoah Valley.

Eligible students seeking a Bachelor’s degree typically complete the first two years of college course work at Blue Ridge Community College. ODU offers guaranteed and immediate on-site admission to qualified BRCC students. To assist students in the transition, a detailed academic advising guide has been created for students transferring into ODU programs.

Among the Bachelor’s degrees offered are Accounting, Finance, Information Systems, Management, Marketing, Computer Science, Criminal Justice (online), Dental Hygiene (Degree Completion), Health Sciences, Human Services (online), Nursing (RN-BSN on-site and online options available), Communications, Professional Writing, Medical Technology (MLT TO BSMT), Occupational and Technical Studies, Mechanical, Civil, and Electrical Engineering Technologies (Electrical Systems or Computer option), Psychology (online), and Teacher Education (Pre-K-6 or Special Education). Master’s degrees offered are Business Administration (MBA), Public Health, Counseling, Nursing, Elementary Education (PK-6), Special Education, Systems Engineering, Sports Management, School Librarianship, Modeling and Simulation, and Occupational and Technical Studies. Doctoral degrees offered are Community College Leadership, Instructional Design and Technology, English, Nursing, and Occupational and Technical Studies.

For more information, call 540-234-9345, or contact the ODU office located at BRCC in rooms A108 and A110A. E-mail address: brcc@odu.edu. Visit ODU’s website at dl.odu.edu/brcc.
Services for Students

[Image of a student studying]
Services for Students

Advising

The Advising Center offers educational support services to enrolled students. These services help students acquire skills and access resources and information that are necessary for academic success. Trained academic advisors are available to help students establish their occupational and educational goals, and to identify and address obstacles to academic achievement. In compliance with VCCS policy, BRCC does not provide counseling for mental health issues; therefore, academic advisors will provide appropriate referrals for students needing assistance related to mental health. A mental health resource page is available online at community.brcc.edu/mental_health.

Academic advisement services include, but are not limited to:

Academic Advising and Support

Academic advisors work with degree and non-degree seeking students to help them select courses and programs that meet their occupational and educational goals. Academic advisors also provide information and resources on the transfer requirements of four-year colleges and universities. Students are strongly encouraged to schedule appointments when seeking assistance for academic advising, but walk-in services are available.

Through course offerings, workshops, and advising sessions, students may learn how to manage time, study more effectively, and minimize test anxiety. Academic advisors will also refer students to appropriate professionals and community support services if personal problems are inhibiting the learning process.

Career Services

The Office of Career Services provides resources and services to assist students and graduates in creating career plans that will allow students to obtain rewarding and stable careers, as well as preparing students and alumni for the job search process. Comprehensive career resources, advising sessions, and classroom presentations help students learn how to acquire self-knowledge, knowledge of careers and employers, and the lifelong ability to conduct an effective job search. Graduates and current students also are notified of job listings through the electronic job postings on the Career Services web page at http://community.brcc.edu/communityjobpostings/. Students should contact Career Services at 540-453-2237 for additional information.

Placement Testing

Students who wish to enroll in a curriculum or in English or mathematics classes are required to take an adaptive, computerized, untimed test, unless they are exempt. The testing helps to ensure that students either possess at the time of admission, or acquire through appropriate developmental studies, the basic skills of reading, writing, and mathematics. Students may be required to meet minimum levels of reading proficiency in order to enroll in most college-level courses. Students who have scores of 500/Reading, 500/Writing, and/or 520/Math on the Scholastic Aptitude Test (SAT) or ACT scores of 21 or higher English/Reading and 22 or higher in Math, or who have successfully completed developmental or college-level English and mathematics are exempt from taking the English and math Virginia Placement Tests (VPT), except for students interested in taking math courses at the MTH 173 level or above. Students with baccalaureate degrees may also be exempt from placement testing, although they are strongly encouraged to test in order to ensure success in college-level English and mathematics courses. The Virginia Placement Tests (VPT) are administered Monday - Saturday during the academic semesters in the Testing Center. For testing hours, please go to www.brcc.edu/services/testingcenter/ (During breaks and holidays, hours may vary and are posted on the website.)

The Testing Center

The Testing Center provides instructional resources in a variety of disciplines for students. Placement testing and make-up testing are also scheduled in the Testing Center. The Testing Center is equipped with calculators and microcomputers. The center located on the second floor of the Houff Student Center is open Monday through Saturday. For placement testing and proctored testing hours, please go to www.brcc.edu/services/testingcenter/ (During breaks and holidays, hours may vary and are posted on the website.)

Disability Services

The mission of Office of Disability Services is to provide students with disabilities the support services needed to access the College and its programs. Any individual who has a documented physical or mental disability that substantially limits one or more major life activities is eligible for services. Relevant, qualifying documentation of the disability is required in order to obtain requested services. Students must contact the Disability Services Coordinator to be considered for any accommodation. For contact information, please visit the web at www.brcc.edu/services/disability/.
Special Note: All students registered with Disability Services are required to regularly monitor their student email accounts for Disability Services notifications. All students are also required to make appointments with Disability Services staff using the Student Services Scheduler, www.brcc.edu/services/scheduler/.

Peer Mentoring

The Peer Mentoring Program matches students who have successfully completed two or more semesters at BRCC with students who are at risk academically or struggling to adjust to college life. Mentors and mentees meet one hour per week to discuss issues such as time management, study skills, and life balance. Mentors also provide information regarding college and community resources that may aid in mentee success at BRCC. Interested students should contact the Peer Mentoring Coordinator at 540-453-2414 or boydc@brcc.edu.

Recreation Center

The Rec Center includes two gymnasiums, three cardio areas, a strength training area, two racquetball courts, locker rooms, game area, and a large group fitness room. A valid BRCC ID card is required to enter. See the web site for membership information and hours of operation.

Shuttle Service

The BRCC Shuttle offers free transportation for students from Rockingham and Augusta Counties, as well as the cities of Harrisonburg, Staunton, and Waynesboro. The shuttle schedule is located at www.brcc.edu/services/shuttle/.

Student Activities

The College offers a variety of student activities that cater to student interests in educational, cultural, and social experiences. Student government, intramural athletics, honor societies, clubs, and special interest groups operate with the approval of the Student Government Association and/or the College administration. The procedures and policies necessary for official recognition can be obtained from the Student Activities Coordinator. For more information, please see www.brcc.edu/services/clubs/.

A student activities fund is established to support the program. The fund consists of a portion of the comprehensive student fee, receipts from student activities, and other local contributions. These funds support only student activities which have been authorized by the duly-elected student government, its advisors, the College administration, and the College Board. The College Board is responsible for the control of these funds under the procedures established by the Virginia Community College System. Accounts for returning official student organizations are maintained by the clubs themselves with assigned account numbers, while newly organized student organizations are maintained through the Student Activities Office. All funds are overseen and dispersed by the Vice President of Finance and Administration. Off-campus accounts are prohibited.

Student Outreach and Resource Center (SOAR)

The Student Outreach and Resource Center (SOAR) helps students with temporary financial assistance and helps connect students with appropriate BRCC and community resources to deal with issues outside the classroom. The SOAR Center’s resources are aimed at helping current BRCC students continue their education.

Services include:

- A resource library, located in the Plecker Workforce Center, with more than 800 books on personal growth, relationships, parenting, finances, career strategies, and other “real life” topics. Area residents are welcome to borrow library materials for short-term use.
- Connection to community resources to support student needs that extend beyond the academic environment.
- Temporary emergency financial assistance for BRCC students who meet defined eligibility requirements and demonstrate need through supporting documentation.

For more information, please call 540-453-2224 or email staubuse@brcc.edu.

The CAVE

Located in A110, The Center for Academic Vision and Excellence (The CAVE) engages students with academic resources outside the classroom. In The CAVE, students can meet with professors, receive peer tutoring, study with a group, and use The CAVE’s laptops and Mediascape collaborative work stations.
For additional information about The CAVE, call 540-453-2289 or visit the web at www.brcc.edu/academics/thecave/.

Peer Tutoring
The College offers one-on-one and small group academic support to students. The concept of students tutoring students has proven to be a successful, enriching endeavor for participants. This service is coordinated through the Academic Division office and involves no cost for those who participate. The Peer Tutoring schedule and Appointment Scheduler can be found at www.brcc.edu/services/peer/.

The Houff Library
The Houff Library provides access to a broad range of print and digital resources that support courses offered at the College. The current collection includes over 55,000 volumes, 10,000 print and online journal subscriptions, and over 150 periodical indexes and research databases. The library maintains a sizable children’s book section and a local Virginia Collection. The library participates in resource sharing through memberships in VIVA (Virtual Library of Virginia), Lyrasis, and the VCCS (Virginia Community College System).

Resources
Students have access to LINC (the library’s online catalog) and PRIMO (the library’s way to simultaneously search for books and articles) from networked computers on campus. All electronic content, including databases, electronic journals, e-books, and streaming videos, is free and accessible at the Harrisonburg and Augusta Centers, as well as from off-campus computers, 24-hour-a-day, seven days a week. Information regarding remote access of our materials can be found at www.brcc.edu/library/remote.

Services
The library staff provides research and instructional services to support the general curriculum and specific courses. For books and articles that are not available in the Houff Library collection, Interlibrary Loan is available. A free delivery service to the Harrisonburg and Augusta Health (Fishersville) sites is available for our library books, magazines, and journals. Individual research help or questions related to any of our services is available by calling the library (540-453-2247), “Emailing a Librarian” from our library homepage (www.brcc.edu/library), or chatting with a librarian via LRC Live, our 24/7 chat reference service. Houff Library is open to the public free of charge.

Information
Hours: Monday-Thursday.................................................................7:45 a.m. to 9:00 p.m.
          Friday..................................................................................7:45 a.m. to 5:00 p.m.
          Saturday..............................................................................10:00 a.m. to 4:00 p.m.
          Sunday.................................................................................1:00 p.m. to 7:00 p.m.

During breaks and holidays, hours may vary and are posted in the library and on the library’s web site at www.brcc.edu/library.
Continuing Education

Personal Enrichment

In support of College values encouraging lifelong learning and providing resources for the intellectual growth and enrichment of the community, BRCC offers an array of personal enrichment courses, leisure activities, and cultural events, as well as an extensive youth program. From banjo, motorcycle riding and computers to digital photography, pottery, watercolors and Zumba, BRCC personal enrichment courses instruct, entertain, and enhance quality of life.

Fine Arts Center

The Fine Arts Center features two unique art galleries and an intimate black box theatre. The goal of the Fine Arts Center is to provide a rewarding experience for visitors of all ages interested in art, music, dance, and drama. Seven art exhibits are featured throughout the year, each launched with an opening reception providing an opportunity to meet the artist(s). Fall and spring event lineups include professional theatre groups, musicians, dance troupes, historical presentations, and student productions. Visit www.brcc.edu/fac for details on current exhibits and performances. Tickets for Fine Arts Center events are available at 540-453-2215.

Youth Programs

The “Learning Can Be Fun” (LCBF) summer youth program offers a “hands-on” approach to a variety of fascinating topics for students preparing to enter grades K-12. Children are grouped appropriately by grade level; class size is kept to a minimum to allow for flexibility and individual instruction. Classes begin in June and typically consist of 15 hours of instruction within a one-week period. Topics range from art, theatre, and music to computer, science, and outdoor sports.

During the school year, BRCC offers Saturday morning art, music, and theatre workshops for upper elementary, middle and high school students. Hands-on learning, culminating in an art exhibit or live performance, offers students a chance to explore and share their creativity.

Workforce Training

Continuing Education provides a dynamic program of workforce development services, supporting community and economic development initiatives to promote an excellent quality of life and prosperous business climate for the region.

Programs and services include customized training to meet the workforce development needs of employers, and a wide range of professional development opportunities, including some that lead to licensure and/or certification. While non-credit instruction is its primary focus, Continuing Education also coordinates specialized credit initiatives, manages the operations of two off-campus centers, and handles event planning and facility rentals for the Robert E. Plecker Workforce Center on the Weyers Cave campus. In addition, we have a warehouse facility in Mt. Crawford that is used exclusively for non-credit classes, such as welding and machining.

Workforce Training for Individuals

Continuing Education offers a number of courses to prepare individuals to enter new career fields or enhance their current job performance, with topics ranging from management, supervision and human resources to teamwork, writing skills, customer service and Command Spanish® for the workplace. Industry-specific training opportunities include welding, machining, electronics soldering, Basic Contractor Business Licensing, license renewal courses for HVAC, plumbing, electrical, and gas fitter tradesmen, as well as a Motor Vehicle Dealer Operator license course. Additionally, Continuing Education hosts online courses and career certificate opportunities from nationally recognized vendors.

The College offers other open enrollment workforce programs, among them:

Career Switchers—The Virginia Community College Career Switcher Program offers a Department of Education-approved alternate route to teaching licensure in high-need subject areas. For details, visit educateva.com or contact Michael Bedwell (540-468-2316, mbedwell@ccwa.vccs.edu).

Commercial Driving School—BRCC’s Commercial Driving School provides instruction to equip beginning or experienced drivers with the skills they need to earn a Class A or Class B Commercial Driver’s License (CDL). A full-time, five-week tractor-trailer driving (Class A) program is offered for 12 hours of college credit. Continuing Education also offers a part-time, non-credit Class A CDL program customized to meet individual needs and schedules. Customized training for companies is also available. All programs feature classroom, practice range, and extensive hands-on over-the-road training. Students
apply what they have learned and gain real industry experience by hauling loads throughout Virginia under the supervision and guidance of professional trainers.

**Computer Training Center**—BRCC’s Computer Training Center provides high-quality, hands-on computer training to individuals and businesses throughout the central Shenandoah Valley. Training is offered in state-of-the-art computer labs on the Weyers Cave campus, Harrisonburg Center, or Augusta Center on the Augusta Health campus. Customized computer training courses can also be offered on-site at area businesses.

**Healthcare Training**—BRCC offers an expanding number of short-term training opportunities in growing healthcare fields, many of which can lead to certifications. Among current offerings are Clinical Medical Assistant, Massage Therapist, Pharmacy Technician, Personal Fitness Training, Medical Office Courses, Medical Coding, and Phlebotomy training.

**Workforce Services for Employers**

In addition to meeting the needs of individuals, BRCC’s Continuing Education team provides top quality educational and training services to address the existing and emerging workforce development needs of area employers.

**Needs Assessment:** Using comprehensive needs assessments, we help area employers identify their immediate and long-range training goals.

**Customized Training:** Continuing Education specializes in providing customized training tailored to meet the specific needs of employers. Training programs feature flexible scheduling and convenient locations. Employers may choose to have customized training programs offered at their own facility, the College’s Plecker Workforce Center on the Weyers Cave Campus, the Harrisonburg Center, or the Augusta Center at Augusta Health. Topics include: communication skills (technical reading, writing, listening, speaking, and conflict resolution); problem-solving/decision-making skills; customer service; employee relations; computer skills; supervisory and management skills (including team-building and time management); leadership skills; and other specialized topics, such as ISO9001 and safety training. Continuing Education also offers pre-employment training and assessment services for area employers. BRCC recently added a certified AchieveGlobal Corporate Trainer, increasing the availability of training options for employers.

**Job Analysis and Skills Assessment:** We use the WorkKeys® system to help employers determine “job fit” between their positions and their employees. Companies that use validated assessments typically achieve substantial benefits, including: improved employee selection and advancement procedures; reductions in overtime, training time, and turnover; increased productivity and employee morale; and fewer legal challenges to hiring processes.

For additional details on Continuing Education programs and services, please visit [www.brcc.edu/continuinged](http://www.brcc.edu/continuinged) or call 540-453-2215.

**Senior Citizen Registration**

The Code of Virginia (Section 23-38.56) and Virginia Community College System policies permit senior citizens who meet the qualifying criteria listed below to take non-credit courses at Blue Ridge Community College without having to pay course tuition. If you are a senior citizen and you wish to take a non-credit course, you may qualify for free tuition (except fees established for the purpose of paying for course materials, such as laboratory fees), subject to a determination by the institution of its ability to offer the course or courses for which the senior citizen registers, if you meet the following criteria:

1. Completed and have on file in the Continuing Education division a current “Senior Citizen Application for Non-Credit Enrollment.” The form must be completed and filed annually. Forms are available in the Continuing Education office.
2. Be 60 years of age or older prior to the semester of enrollment.
3. Have been legally domiciled in Virginia for the last 12 months.
4. Had a taxable individual income that did not exceed $15,000 for Virginia income tax purposes for the year preceding the semester you wish to enroll, (documentation for taxable income will be required).

In accordance with State and VCCS policies, senior citizen enrollment is processed on a space-available basis, and by law, registration is completed after all tuition-paying students have been accommodated. If space is available on the day before the course begins, the senior citizen may apply for admission to the course. All individuals must have completed registration in order to attend a non-credit course.
Programs of Study

Degrees, Diplomas and Certificates

The College offers the following degrees, diplomas, certificates and career studies certificates for students who successfully complete approved programs at the College:

1. An Associate of Arts & Sciences (A.A.&S.) or Associate of Science (A.S.) degree is awarded to students who plan to transfer to a baccalaureate degree program at a four-year college or university.
2. An Associate of Applied Science (A.A.S.) degree is awarded to students who major in one of the career and technical curricula and who plan to obtain employment immediately upon graduation from the College.
3. A Diploma is awarded to students who complete a non-degree career and technical curriculum.
4. A Certificate is awarded to students who complete a non-degree curriculum of at least 30 credits.
5. A Career Studies Certificate (CSC) is awarded to students who complete a non-degree career and technical program of 9 to 29 credits.

Associate of Arts and Sciences

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Powerplant Maintenance - Certificate ..................................................................................................... 60
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Business Management ............................................................................................................................. 61
Administrative Assistant and Business Specialist Specialization .......................................................... 62
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Information Systems Technology .............................................................................................................. 71
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Multimedia Development and Integration - CSC ................................................................................. 75
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### Technical Studies
- Manufacturing Engineering Technology Specialization
- Mechatronics Specialization
- Automation in Manufacturing Engineering - CSC
- Business Management and Productivity - CSC
- Electrical Controls Fundamentals - CSC
- Electrical Fundamentals - CSC
- Mechanical Maintenance Technology - CSC
- Mechatronics I - CSC
- Mechatronics II - CSC
- Mechatronics III - CSC
- Mechatronics IV - CSC
- Process Technology - CSC
- Veterinary Technology
  - Veterinary Assisting - CSC

### Diploma
- Automotive Analysis & Repair

### Certificate
- General Education
- Health Sciences

### Career Studies Certificate (not part of A.A.G.S., A.S. or A.A.S.)
- Alternative Energy
- American Sign Language
- Art: Introduction to Two-Dimensional Art
- Art: Introduction to Three-Dimensional Art
- Commercial Driving (CDL)
- Commercial Driving (CDL) Enhanced
- Graphic Design
- Medical Coding–Hospital

### Partnership Programs
- Culinary Arts & Management (Dabney S. Lancaster Community College)
- Funeral Services (John Tyler Community College)
- Radiologic Technology (Sentara RMH Medical Center)
- Respiratory Therapy (J. Sargeant Reynolds Community College)
General Education

The collegiate experience nurtures a yearning for knowledge that lasts a lifetime, and is more than the sum of its parts. A liberal arts education teaches students how to reason and learn through studies that are intended to provide knowledge and foster intellectual abilities, rather than more specialized occupational or professional skills. This happens both inside and outside the classroom, as students meet and learn with a diverse array of peers and teachers. The liberal arts provide the foundation for future academic experiences, and help develop the skills, aptitudes and perspectives characteristic of an educated person.

Blue Ridge Community College’s general education offerings intentionally strive to develop this liberal arts perspective. The program exposes students to a broad body of knowledge of the major social, cultural, historical, and scientific forces that have shaped human identity and the world. General education enables students to integrate knowledge to address fundamental questions about the nature of the world and its inhabitants. Blue Ridge Community College believes general education is an important component for all students whether they are going immediately into the workforce or continuing their education.

The implementation of general education differs depending upon the type of associate degree or diploma program that students are interested in pursuing. In diploma and associate of applied science degree programs, faculty employ general education courses to introduce students to the concept of a liberal education while simultaneously striving to help students integrate knowledge and apply broad academic concepts in a practical manner in the world of work. In comprehensive transfer degree programs (A.A.&S. and A.S. degrees) faculty not only introduce the liberal arts perspective but also strive to provide a depth to general knowledge that prepares students for upper level educational experiences at the bachelor’s degree level and beyond. In transfer programs, faculty strive to help students integrate the interdisciplinary nature of theoretical concepts and reveal how historical, philosophical, cultural and other academic concepts influence human interactions.

General Education Outcomes

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. Blue Ridge Community College degree graduates will demonstrate competency in the following general education areas:

**Communication:** A competent communicator can interact with others using all forms of communication, resulting in understanding and being understood.

**Critical Thinking:** A competent critical thinker evaluates evidence carefully and applies reasoning to decide what to believe and how to act.

**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.

**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. (adapted from the American Library Association definition)

**Personal Development:** An individual engaged in personal development strives for physical well-being and emotional maturity.

**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.

**Scientific Reasoning:** A person who 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.

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We Require | Rationale for General Education Courses in the Associate of Arts and Sciences Degree Programs
---|---
ENG 111-112 (6 Credits) | ...develop exceptional writing skills, understand the importance and correct procedures for citing sources, develop a depth of writing ability, and be able to develop a persuasive argument in written form.
CST 110 (3 Credits) | ...develop exceptional oral communication skills, increase knowledge of verbal and non-verbal language, become effective communicators in interpersonal situations for both small group and dyadic communication, orally articulate arguments for persuasive speaking and ideas for informative occasions.
General Mathematics (6 credits) | ...demonstrate effective quantitative methodology skills, develop quantitative reasoning ability, and expand computational proficiency. General education mathematics courses also provide students with a foundation for understanding the mathematical aspects of scientific methodology.
General Science (8 credits) | ...understand scientific methodology and critical inquiry. Students must also learn to apply those concepts in the laboratory setting.
Student Development- SDV (1 credit) HLT/PED (2 credits) | ...understand concepts of personal development, health, and wellness.
ITE 119 or CSC 200 or ITE 120 (3 Credits) | ...understand the fundamental concepts and methodologies associated with information literacy, especially those necessary for the ethical and safe use of modern technology.
Social and Behavioral Sciences (6 credits) | ...develop an understanding of scientific methodology in social science disciplines and expand the understanding of the breadth and depth of personal, interpersonal, social, economic, and cultural behaviors.
History (6 credits) | ...to understand the connections between and progress of human thought, culture, and historical events spanning generations, and to establish a methodology for critical inquiry.
Literature/Humanities/Fine Arts (6 credits - at least 3 credits must be literature) | ...to increase understanding and mastery of historical and modern human thought and reasoning.

Course content represents a broad body of general knowledge about one or more of the major social, cultural, historical, or scientific forces that have shaped human identity and the world. Content is not focused upon a particular occupation or on professional skills. While most courses transfer readily to senior institutions, it is the student’s responsibility to determine if particular courses transfer to a given school.
Rationale for General Education Courses in the Associate of Science Degree Programs

Responding to local industry and student transfer needs, Blue Ridge Community College introduced the first Associate of Science degree offered at the College in the Fall of 2009. The degree has been designed specifically for students transferring to four-year universities and pursuing majors related to Science, Technology, Engineering or Mathematics, the so-called STEM disciplines. Students who major in STEM disciplines require a greater depth of mathematics and science education, both at the community college and university levels. In developing our Associate of Science degree, BRCC faculty and administrators worked closely with university officials to ensure that general education standards were met in accordance with Virginia Community College System policy, but also that transferring students are well prepared for their chosen STEM major when admitted to baccalaureate level studies with junior level standing. As a result, specific general education requirements differ for A.S. degree graduates and A.A.&S. degree graduates. However, Blue Ridge Community College expects that both A.S. and A.A.&S. graduates will demonstrate similar general education outcomes, regardless of the specific required general education courses in which they are enrolled. For AS degree graduates, general education outcomes are taught in both STEM major courses and general education courses at the freshman and sophomore level.

In the general education portion of the Associate of Science Degree program, Blue Ridge Community College requires the following courses:

<table>
<thead>
<tr>
<th>We Require</th>
<th>Because We Expect Students To</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111-112 (6 Credits)</td>
<td>…develop exceptional writing skills, understand the importance and correct procedures for citing sources, develop a depth of writing ability, and be able to develop a persuasive argument in written form.</td>
</tr>
<tr>
<td>General Mathematics (6 credits)</td>
<td>…demonstrate effective quantitative methodology skills, develop quantitative reasoning ability, and expand computational proficiency. General education mathematics courses also provide students with a foundation for understanding the mathematical aspects of scientific methodology.</td>
</tr>
<tr>
<td>General Science (8 credits)</td>
<td>…understand scientific methodology and critical inquiry. Students must also learn to apply those concepts in the laboratory setting.</td>
</tr>
<tr>
<td>Student Development- SDV (1 credit)</td>
<td>…understand concepts of personal development, health, and wellness.</td>
</tr>
<tr>
<td>HLT/PED (1 credit)</td>
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</tr>
<tr>
<td>Social and Behavioral Sciences (3 credits)</td>
<td>…develop an understanding of scientific methodology in social science disciplines and expand the understanding of the breadth and depth of personal, interpersonal, social, economic, and cultural behaviors.</td>
</tr>
<tr>
<td>History (3 credits)</td>
<td>…to understand the connections between and progress of human thought, culture, and historical events spanning generations, and to establish a methodology for critical inquiry.</td>
</tr>
<tr>
<td>Literature/Humanities/Fine Arts (6 credits - at least 3 credits must be literature)</td>
<td>…to increase understanding and mastery of historical and modern human thought and reasoning.</td>
</tr>
</tbody>
</table>

Course content represents a broad body of general knowledge about one or more of the major social, cultural, historical, or scientific forces that have shaped human identity and the world. Content is not focused upon a particular occupation or on professional skills. While most courses transfer readily to senior institutions, it is the student’s responsibility to determine if particular courses transfer to a given school.
Rationale for General Education Courses in the Associate of Applied Science Programs

<table>
<thead>
<tr>
<th>We Require</th>
<th>Because We Expect Students To</th>
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</thead>
<tbody>
<tr>
<td>ENG 111 or ENG 116 (3 credits)</td>
<td>...develop proficiency in communicating ideas, thoughts, and persuasive arguments.</td>
</tr>
<tr>
<td>*some A.A.S. programs may require completion of ENG 112 (3 credits)</td>
<td></td>
</tr>
<tr>
<td>Mathematics or Science (3 credits)</td>
<td>...develop quantitative or scientific reasoning for use in critical inquiry.</td>
</tr>
<tr>
<td>Student Development SDV (1 credit)</td>
<td>...understand concepts of personal development, health, and wellness.</td>
</tr>
<tr>
<td>HLT/PED (2 credits)</td>
<td></td>
</tr>
<tr>
<td>Social and Behavioral Sciences (3 credits)</td>
<td>...develop an awareness of historical or scientific methodologies and how those methods are applied to understand and affect individual and social behaviors.</td>
</tr>
<tr>
<td>Literature/Humanities/Fine Arts (3 credits)</td>
<td>...to deepen understanding of historical and modern human thought and reasoning.</td>
</tr>
</tbody>
</table>

Student Development (SDV) Courses

A one-credit student development course is required for graduation in all degree programs and in some certificate programs. The purpose of student development courses is to help new students be successful in college and to acquire practical information about career exploration, college resources and services, study skills, time and stress management, and educational opportunities. Students who have completed a two-year or four-year academic degree program or the equivalent of 60 credit hours or more at another regionally accredited college or university may request a waiver of the required student development course.

All students who are enrolled in a curricular program, for which SDV is a requirement, must take the SDV course within their first 15 credit hours. Students placing into developmental courses must take SDV during their first semester of enrollment.
College/University Transfer

Award: Associate of Arts & Sciences Degree

Major: College/University Transfer

The College/University Transfer program offers a core of college-level general education courses equivalent in content to those taken by freshmen and sophomores at four-year colleges and universities. The goal of this program is to provide students with a broad introduction to some of the major fields of study in the liberal arts, as well as to provide the foundation for upper-level college courses. The program is flexible enough to allow students to begin to fulfill the basic transfer requirements for a variety of majors offered at senior institutions. Full-time students can complete this program in two years (excluding the time needed to complete developmental studies, if required). Part-time students determine their own pace.

In order to prepare for transfer to a four-year college or university, students are encouraged to discuss their educational plans with the admissions officers at their chosen four-year college or university. Students should request a community college transfer guide directly from the college or university in which they plan to enroll or consult that institution’s website. The Academic Advising link on the BRCC website has very useful academic advising guides for the most popular transfer majors. Students may consult this guide to assist them in planning which courses to enroll in if they plan to transfer to a specific major.

Nearly all four-year colleges and universities in Virginia, as well as some private institutions in the state, now abide by the Virginia State Policy on Transfer. The policy states that students who complete the Blue Ridge Community College A.A.&S. degree in College/University Transfer will have met all lower division general education requirements at participating institutions. The policy does not guarantee admission to these institutions, nor does it imply that each individual community college course will transfer. A copy of the Virginia State Policy on Transfer and additional information on articulation agreements with Virginia four-year colleges and universities is available in the College Advising Center.

Admission Requirements: A high school diploma or the equivalent is required for entry into this program. High school graduates who enroll in the College/University Transfer Program are encouraged to have completed a college preparatory program of study in high school (or the equivalent) which included English, mathematics (algebra I & II minimum), laboratory sciences, social sciences, and foreign languages.

Students may be eligible to receive credit for some courses in this curriculum through the College’s advanced standing process. Please consult an academic advisor for additional information.

The following certificates or career studies certificates may be applied towards the College/University Transfer degree: Fine Arts and Information Technology.

Admission Requirements: A high school diploma or the equivalent is required for entry into this program. High school graduates who enroll in the College/University Transfer Program are encouraged to have completed a college preparatory program of study in high school (or the equivalent) which included English, mathematics (algebra I & II minimum), laboratory sciences, social sciences, and foreign languages.

Students may be eligible to receive credit for some courses in this curriculum through the College’s advanced standing process. Please consult an academic advisor for additional information.

Curriculum

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>HIS 101</td>
<td>History of Western Civilization I</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIS 111</td>
<td>History of World Civilization I</td>
<td>(3)</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIS 121</td>
<td>United States History I</td>
<td>(3)</td>
</tr>
<tr>
<td>HLT/PED</td>
<td>Health/Physical Education Elective a</td>
<td>1</td>
</tr>
<tr>
<td>MTH</td>
<td>Mathematics I b</td>
<td>3</td>
</tr>
<tr>
<td>SDV</td>
<td>Student Development</td>
<td>1</td>
</tr>
<tr>
<td>ITE 119</td>
<td>Information Literacy</td>
<td>3</td>
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<tr>
<td>or</td>
<td></td>
<td></td>
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<tr>
<td>ITE 120</td>
<td>Principles of Information Systems</td>
<td>(3)</td>
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<td>or</td>
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<tr>
<td>Course</td>
<td>Title</td>
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<tr>
<td>CSC 200</td>
<td>Introduction to Computer Science</td>
<td>(3)</td>
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</table>

**Second Semester**

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENG 112</td>
<td>College Composition II</td>
<td>3</td>
</tr>
<tr>
<td>HIS 102</td>
<td>History of Western Civilization II</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>HIS 112</td>
<td></td>
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<tr>
<td>or</td>
<td>HIS 122</td>
<td></td>
</tr>
<tr>
<td>HLT/PED</td>
<td>Health/Physical Education Elective</td>
<td>1</td>
</tr>
<tr>
<td>MTH</td>
<td>Mathematics II</td>
<td>3</td>
</tr>
<tr>
<td>CST 110</td>
<td>Introduction to Communication</td>
<td>3</td>
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<tr>
<td>Approved Elective</td>
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</table>

**Third Semester**

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Literature</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Social and Behavioral Science Elective</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Approved Electives f</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Science with Laboratory c</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Fourth Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literature/Humanities/Fine Arts g</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Social and Behavioral Science Elective e</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Approved Electives f</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Science with Laboratory c</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total credits required** 61

---

a Total of two HLT/PED credits required in the program (excluding HLT 143-144)

b Minimum of six credits in Mathematics electives. Choose from approved Mathematics electives listed under Required General Education Courses. Any of the following math sequences are recommended, depending on major at four-year college or university: MTH 151-157, 163-270, 163-164, or 173-174.

c Minimum of eight credits required in Natural Science with Laboratory electives (biology, chemistry, geology, astronomy, or physics courses). Choose from approved Natural Science/Lab electives listed under Required General Education Courses. Sequences preferred but not required.

d Students may choose from ENG 241, 242, 243, 244, 251, 252.

e Minimum of six credits required in Social and Behavioral Science electives (economics, geography, political science, psychology, or sociology courses). Choose from approved Social and Behavioral Sciences listed under Required General Education Courses.

f 14 credits in approved electives required. Requirements of four-year institutions may vary. Students should consult an academic advisor or their faculty advisor to select electives and certain required courses that will satisfy baccalaureate major requirements. In addition, they should confirm with the college or university to which they plan to transfer that they will receive credit at the four-year institution. Approved electives may be selected from the list of courses provided on pages 46-47.

g Minimum of three credits required in Literature/Humanities/Fine Arts electives required in addition to the three credits of Literature specified in (d). Choose from approved Literature/Humanities/Fine Arts electives listed under Required General Education Courses.
College/University Transfer

Award: Associate of Arts & Sciences Degree

Major: College/University Transfer — Specialization: Business Administration

The A. A. & S. degree program with a major in College/University Transfer and a Business Administration specialization is designed for students who wish to pursue a four year degree in a business related area and a career in business.

The specialization in Business Administration prepares students with core knowledge and skills needed for entry into baccalaureate schools of business. Students should be knowledgeable about the specific requirements of the four-year school to which they wish to transfer so that they may make appropriate course choices.

Curriculum

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENG 111</td>
<td>College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>HIS 101</td>
<td>History of Western Civilization I</td>
<td>3</td>
</tr>
<tr>
<td>HIS 111</td>
<td>History of World Civilization I</td>
<td>(3)</td>
</tr>
<tr>
<td>HIS 121</td>
<td>United States History I</td>
<td>(3)</td>
</tr>
<tr>
<td>ITE 119</td>
<td>Information Literacy</td>
<td>3</td>
</tr>
<tr>
<td>ITE 120</td>
<td>Principles of Information Systems</td>
<td>(3)</td>
</tr>
<tr>
<td>CSC 200</td>
<td>Introduction to Computer Science</td>
<td>(3)</td>
</tr>
<tr>
<td>MTH</td>
<td>Mathematics I a</td>
<td>3</td>
</tr>
<tr>
<td>BUS 241</td>
<td>Business Law I</td>
<td>3</td>
</tr>
<tr>
<td>SDV</td>
<td>Student Development</td>
<td></td>
</tr>
</tbody>
</table>

| **Second Semester** | | |
| ENG 112    | College Composition II                      | 3       |
| HIS 102    | History of Western Civilization II          | 3       |
| HIS 112    | History of World Civilization II           | (3)     |
| HIS 122    | United States History II                    | (3)     |
| MTH        | Mathematics II a                           | 3       |
| BUS 221    | Business Statistics f                       | 3       |
| MTH 157    | Elementary Statistics f                     | (3)     |
|            | Approved Business Elective g                |         |
|            | **Total**                                  | **16** |

| **Third Semester** | | |
| ACC 211    | Principles of Accounting I                  | 3       |
|            | Science with Laboratory c                   | 4       |
|            | Social and Behavioral Science Elective b    | 3       |
|            | Literature d                                | 3       |
| HLT/PED    | Health/Physical Education Electives h       |         |

| **Fourth Semester** | | |
|                     | Science with Laboratory c                   | 4       |
|                     | Literature/Humanities/Fine Arts e           | 3       |
| ACC 212    | Principles of Accounting II                 | 3       |
| CST 110    | Introduction to Communication               | 3       |
Social and Behavioral Science Elective  

<table>
<thead>
<tr>
<th>Total credits required</th>
<th>61</th>
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</thead>
<tbody>
<tr>
<td>MTH 163 and MTH 270 are highly recommended for this specialization</td>
<td></td>
</tr>
<tr>
<td>ECO 201 and ECO 202 are highly recommended for this specialization</td>
<td></td>
</tr>
<tr>
<td>Minimum of eight credits required in Natural Science with Laboratory electives (biology, chemistry, geology, astronomy, or physics courses). Choose from approved Natural Science/Lab electives listed under Required General Education Courses. Sequences preferred but not required.</td>
<td></td>
</tr>
<tr>
<td>Students may choose from ENG 241, 242, 243, 244, 251, 252.</td>
<td></td>
</tr>
<tr>
<td>Minimum of three credits required in Literature/Humanities/Fine Arts electives in addition to the three credits of Literature specified in (d). Choose from approved Literature/Humanities/Fine Arts electives listed under Required General Education Courses.</td>
<td></td>
</tr>
<tr>
<td>Students may not receive credit for both BUS 221 and MTH 157</td>
<td></td>
</tr>
<tr>
<td>A minimum of two additional Business Elective credits are required; BUS 100, 200, 227, 270, MKT 100, or ACC 215. It is strongly recommended that students take BUS 270 to fulfill this requirement.</td>
<td></td>
</tr>
<tr>
<td>Total of two HLT/PED credits required in the program (excluding HLT 143-144)</td>
<td></td>
</tr>
</tbody>
</table>

Special Note for Transfers: Admission to Business Majors at four-year institutions may be very competitive. Please refer to individual college catalogs for specific requirements for admission to the college of your choice.
**College/University Transfer**

**Award:** Associate of Arts and Sciences Degree  
**Major:** College/University Transfer—Specialization: Elementary Teacher Education

The A.A. & S. degree program with a major in College/University Transfer and a Teacher Education specialization is designed for students who wish to pursue a career in elementary education.

The specialization in Elementary Teacher Education prepares students with core knowledge and skills needed for entry into baccalaureate schools of education. Students should be knowledgeable about the specific requirements of the four year school of education to which they wish to transfer so that they may make appropriate course choices. Math, English and other course requirements may differ from what is listed on the curriculum plan.

### Curriculum

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENG 111</td>
<td>College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>HIS 101</td>
<td>History of Western Civilization I</td>
<td>3</td>
</tr>
<tr>
<td>or HIS 111</td>
<td>History of World Civilization I</td>
<td>(3)</td>
</tr>
<tr>
<td>ITE 119</td>
<td>Information Literacy</td>
<td>3</td>
</tr>
<tr>
<td>or ITE 120</td>
<td>Principles of Information Systems</td>
<td>(3)</td>
</tr>
<tr>
<td>or CSC 200</td>
<td>Introduction to Computer Science</td>
<td></td>
</tr>
<tr>
<td>or MTH 151</td>
<td>Mathematics for the Liberal Arts I</td>
<td>3</td>
</tr>
<tr>
<td>or SDV</td>
<td>Student Development</td>
<td>1</td>
</tr>
<tr>
<td>MTH 151</td>
<td>Mathematics for the Liberal Arts I</td>
<td>3</td>
</tr>
<tr>
<td>or SDV</td>
<td>Student Development</td>
<td>1</td>
</tr>
<tr>
<td><strong>Second Semester</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENG 112</td>
<td>College Composition II</td>
<td>3</td>
</tr>
<tr>
<td>or MTH 157</td>
<td>Elementary Statistics</td>
<td>3</td>
</tr>
<tr>
<td>or MTH 163</td>
<td>Precalculus I</td>
<td>(3)</td>
</tr>
<tr>
<td>or SDV</td>
<td>Student Development</td>
<td>1</td>
</tr>
<tr>
<td>or SDV</td>
<td>Student Development</td>
<td>1</td>
</tr>
<tr>
<td><strong>Third Semester</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLS 135</td>
<td>American National Politics</td>
<td>3</td>
</tr>
<tr>
<td>or CST 110</td>
<td>Introduction to Communication</td>
<td>3</td>
</tr>
<tr>
<td>or EDU 200</td>
<td>Introduction to the Teaching Profession</td>
<td>3</td>
</tr>
<tr>
<td>or HIS 121</td>
<td>U.S. History I</td>
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<tr>
<td>or SDV</td>
<td>Student Development</td>
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</tr>
<tr>
<td>or SDV</td>
<td>Student Development</td>
<td>1</td>
</tr>
<tr>
<td><strong>Fourth Semester</strong></td>
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<td></td>
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<tr>
<td>or SDV</td>
<td>Student Development</td>
<td>1</td>
</tr>
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<td>or SDV</td>
<td>Student Development</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total credits required</strong></td>
<td></td>
<td>61</td>
</tr>
</tbody>
</table>

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*a* Minimum of eight credits required in Natural Science with Laboratory electives (biology, chemistry, geology, astronomy, or physics). Choose from approved Natural Science/Lab electives listed under Required General Education Courses. Required General Education courses appear on page 46 of the current BRCC catalog.
2 credits in approved electives required. Requirements of four-year institutions may vary. Students should consult an academic advisor or their faculty advisor to select electives and certain required courses that will satisfy baccalaureate major requirements. In addition, they should confirm with the college or university to which they plan to transfer, that they will receive credit at the four-year institution. Approved electives may be selected from the list of courses provided on pages 46-47.

Choose from list of approved Social and Behavioral Sciences listed under Required General Education Courses.

Students may choose from ENG 241, 242, 243, 244, 251, 252.

Minimum of three credits required in Literature/Humanities/Fine Arts electives required in addition to the three credits of Literature specified in (d). Choose from Literature/Humanities/Fine Arts electives listed under Required General Education Courses.

Total of two HLT/PED credits required in the program (excluding HLT 143-144)
Courses that Fulfill the Requirements for the AA&S Degree in College/University Transfer

1. All BRCC requirements and electives must be selected from the courses listed below. Any course taken that is not listed will not count toward graduation requirements unless students complete and have approved in advance a "Program Adjustment Form."

2. PLEASE NOTE: BRCC’s degree requirements do not necessarily fulfill the general education requirements of the college to which you wish to transfer unless there is a specific articulation agreement to that effect. Currently BRCC has such agreements for its graduates with many state-assisted and some private four-year colleges and universities. Many of the courses listed below do not transfer to every four-year college or university. It is the student’s responsibility to a) Check with a BRCC counselor or advisor, b) Consult the transfer guides of four-year colleges and universities, c) Look up transfer requirements on the college website and/or d) Check directly with the four-year institution to which one intends to transfer, in order to determine if particular courses transfer.

3. Students are responsible for ensuring that prerequisites have been met before registering for any course. Consult the course descriptions in this document for further information.

Required General Education Courses

<table>
<thead>
<tr>
<th>Category</th>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication (3 credits required)</td>
<td>CST 100</td>
<td>Principles of Public Speaking</td>
</tr>
<tr>
<td></td>
<td>CST 110</td>
<td>Introduction to Communications</td>
</tr>
<tr>
<td>English (6 credits required)</td>
<td>ENG 111</td>
<td>College Composition I</td>
</tr>
<tr>
<td></td>
<td>ENG 112</td>
<td>College Composition II</td>
</tr>
<tr>
<td>Health/Physical Education (2 credits required)</td>
<td>HIS 101</td>
<td>History of Western Civilization I</td>
</tr>
<tr>
<td>History (6 credits required)</td>
<td>HIS 102</td>
<td>History of Western Civilization II</td>
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<td></td>
<td>HIS 111</td>
<td>History of World Civilizations I</td>
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<td>HIS 112</td>
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<td></td>
<td>HIS 121</td>
<td>United States History I</td>
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<tr>
<td></td>
<td>HIS 122</td>
<td>United States History II</td>
</tr>
<tr>
<td>Information Systems Technology (3 credits required)</td>
<td>ITE 119</td>
<td>Information Literacy</td>
</tr>
<tr>
<td></td>
<td>ITE 120</td>
<td>Principles of Computer Information Systems or</td>
</tr>
<tr>
<td></td>
<td>CSC 200</td>
<td>Introduction to Computer Science</td>
</tr>
<tr>
<td>(students may receive credit for ITE 119, ITE 120, and CSC 200)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Literature /Humanities /Fine Arts (6 credits required; 3 credits must be in Literature)</td>
<td>ART 101</td>
<td>History and Appreciation of Art I</td>
</tr>
<tr>
<td></td>
<td>ART 102</td>
<td>History and Appreciation of Art II</td>
</tr>
<tr>
<td></td>
<td>CST 130</td>
<td>Introduction to Theatre</td>
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<td></td>
<td>CST 151</td>
<td>Film Appreciation I</td>
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<tr>
<td></td>
<td>ENG 241</td>
<td>Survey of American Literature I</td>
</tr>
<tr>
<td></td>
<td>ENG 242</td>
<td>Survey of American Literature II</td>
</tr>
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<td></td>
<td>ENG 243</td>
<td>Survey of English Literature I</td>
</tr>
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<td></td>
<td>ENG 244</td>
<td>Survey of English Literature II</td>
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<td>ENG 251</td>
<td>Survey of World Literature I</td>
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<td>ENG 252</td>
<td>Survey of World Literature II</td>
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<td>HUM 260</td>
<td>Survey of 20th Century Culture</td>
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<td>MUS 121</td>
<td>Music Appreciation I</td>
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<td>Music Appreciation II</td>
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<td>PHI 101</td>
<td>Introduction to Philosophy I</td>
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<td></td>
<td>PHI 102</td>
<td>Introduction to Philosophy II</td>
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<td></td>
<td>PHI 115</td>
<td>Practical Reasoning</td>
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<td></td>
<td>PHI 211</td>
<td>The History of Western Philosophy I</td>
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<td></td>
<td>PHI 212</td>
<td>The History of Western Philosophy II</td>
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<tr>
<td></td>
<td>PHI 225</td>
<td>Selected Problems in Applied Ethics</td>
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<td></td>
<td>REL 231</td>
<td>Religions of the World I</td>
</tr>
<tr>
<td>Mathematics (6 credits required)</td>
<td>MTH 151</td>
<td>Mathematics for the Liberal Arts I</td>
</tr>
<tr>
<td></td>
<td>MTH 157</td>
<td>Elementary Statistics **</td>
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<tr>
<td></td>
<td>MTH 163</td>
<td>Precalculus I*</td>
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<tr>
<td></td>
<td>MTH 164</td>
<td>Precalculus II*</td>
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<tr>
<td></td>
<td>MTH 166</td>
<td>Precalculus with Trigonometry*</td>
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<tr>
<td></td>
<td>MTH 173</td>
<td>Calculus with Analytic Geometry I</td>
</tr>
<tr>
<td></td>
<td>MTH 174</td>
<td>Calculus with Analytic Geometry II</td>
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<tr>
<td></td>
<td>MTH 270</td>
<td>Applied Calculus</td>
</tr>
<tr>
<td>Natural Science/Lab (8 credits required)</td>
<td>BIO 101</td>
<td>General Biology I</td>
</tr>
<tr>
<td>(Sequence preferred but not required; first half must be taken before second half.)</td>
<td>BIO 102</td>
<td>General Biology II *</td>
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<td>BIO 114</td>
<td>Organisms *</td>
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<td>BIO 142</td>
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<td>NAS 130</td>
<td>Elements of Astronomy</td>
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<td>PHY 100</td>
<td>Elements of Physics *</td>
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<td>PHY 242</td>
<td>University Physics II</td>
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<tr>
<td>Social and Behavioral Sciences (6 credits required)</td>
<td>ECO 120</td>
<td>Survey of Economics *</td>
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<tr>
<td></td>
<td>ECO 201</td>
<td>Principles of Economics I *</td>
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<tr>
<td></td>
<td>ECO 202</td>
<td>Principles of Economics II *</td>
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<tr>
<td></td>
<td>GEO 210</td>
<td>People and Land: Intro to Cultural Geography</td>
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<td>GEO 220</td>
<td>World Regional Geography</td>
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<td>PSY 200</td>
<td>Principles of Psychology *</td>
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<td></td>
<td>PSY 201</td>
<td>Introduction to Psychology I *</td>
</tr>
<tr>
<td></td>
<td>PSY 202</td>
<td>Introduction to Psychology II *</td>
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<td>PSY 230</td>
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<td></td>
<td>PSY 231</td>
<td>Life Span Human Development I *</td>
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<td>PSY 232</td>
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<td></td>
<td>SOC 268</td>
<td>Social Problems</td>
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<td>SSC 107</td>
<td>Problems of People in the Modern World</td>
</tr>
<tr>
<td>Student Development (1 credit required)</td>
<td>SDV 100</td>
<td>College Success Skills</td>
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<tr>
<td></td>
<td>SDV 101</td>
<td>Orientation to Health Sciences or STEM or IT Profession</td>
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<tr>
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<td>SDV 107</td>
<td>Career Education</td>
</tr>
</tbody>
</table>
Approved Elective Courses

Each required general education course if not used to meet a requirement, can be used as an approved elective. The following list represents additional approved electives in this program. Fourteen elective credits are required.

ACC 211-212  Principles of Accounting I-II **
ACC 215  Computerized Accounting
ADJ 100  Survey of Criminal Justice
ADJ 110  Introduction to Law Enforcement
ADJ 111  Law Enforcement Organization & Administration I
ADJ 120  Introduction to Courts
ADJ 133  Ethics and the Criminal Justice Professional
ADJ 140  Introduction to Corrections
ADJ 161  Introduction to Computer Crime
ADJ 211-212  Criminal Law, Evidence and Procedures I-II
ADJ 215  Report Writing for Law Enforcement
ADJ 216  Organized Crime and Corruption
ADJ 228  Narcotics and Dangerous Drugs
ADJ 229  Law Enforcement and the Community
ADJ 232  Domestic Violence
ADJ 234  Terrorism and Counter-Terrorism
ADJ 236  Principles of Criminal Investigation
ADJ 245  Management of Correctional Facilities
ARA 101-102  Beginning Arabic I-II
ARA 201-202  Intermediate Arabic I-II
ART 121-122  Drawing I-II
ART 131-132  Fundamentals of Design I-II
ART 153-154  Ceramics I-II
ART 235  Functional Ceramics
ART 236  Sculptural Ceramics
ART 241-242  Painting I-II
ART 243-244  Watercolor I-II
ASL 101-102  American Sign Language I-II
ASL 201-202  American Sign Language III-IV
BIO 205  General Microbiology
BIO 276  Freshwater Ecology
BUS 100  Introduction to Business
BUS 200  Principles of Management
BUS 221  Business Statistics I ***
BUS 227  Quantitative Methods
BUS 241  Business Law I
BUS 270  Interpersonal Dynamics in the Business Organization
CHI 101-102  Beginning Chinese I-II
CHI 201-202  Intermediate Chinese I-II
CHM 241-243  Organic Chemistry I and Lab
CHM 242-244  Organic Chemistry II and Lab
CSC 201-202  Computer Science I-II****
CSC 205  Computer Organization
CST 126  Interpersonal Communication
CST 151-152  Acting I-II
CST 136  Theatre Workshop
CST 152  Film Appreciation II
CST 229  Intercultural Communication
EDU 200  Introduction to Teaching as a Profession
EGR 115  Engineering Graphics
EGR 120  Introduction to Engineering
EGR 125  Introduction to Engineering Methods
EGR 127  Introduction to Computer Programming

Approved Elective Courses - Continued

EGR 140  Engineering Mechanics: Statics
ENG 279  Film and Literature
FRE 101-102  Beginning French I-II
FRE 201-202  French I-II
GER 101-102  Beginning German I-II
GER 201-202  Intermediate German I-II
GEO 221  Regions of the World I
HIS 181  History and Theory of Historical Preservation
HIS 267  The Second World War
HIS 269  Civil War and Reconstruction
HIS 276  United States History Since World War II
HIS 277  The American Experience in Vietnam
HIS 279  Age of the American Revolution
HIS 295  America in the Middle East
HUM 195  Honors Program (1 credit)
ITD 110  Web Design
ITD 112  Designing Web Page Graphics
ITD 130  Database Fundamentals
ITD 210  Web Design II
ITN 208  Protocols and Communications
ITN 260  Network Security Basics
ITP 100  Software Design
ITP 110  Visual Basic Programming I
ITP 120  Java Programming I (cross lists as CSC 201)****
ITP 200  Data Structures (cross lists as CSC 202)*****
ITP 220  Java Programming II
JPN 101-102  Beginning Japanese I-II
JPN 201-202  Intermediate Japanese I-II
MKT 100  Principles of Marketing
MTH 177  Introductory Linear Algebra
MTH 277  Vector Calculus
MTH 285  Linear Algebra
MTH 287  Mathematical Structures
MTH 291  Differential Equations
MUS 137  Chorus Ensemble
PHT 164  Digital Photography I
PHT 264  Digital Photography II
PLS 211-212  U.S. Government I-II
PLS 241-242  International Relations I-II
PST 105  Psychology of Personal Adjustment
PST 211  Research Methodology for Behavioral Sciences
PST 213  Statistics for Behavioral Sciences
PST 215  Abnormal Psychology
PST 220  Introduction to Behavior Modification
PST 270  Human Sexuality
REL 210  Survey of the New Testament
RUS 101-102  Beginning Russian I-II
RUS 201-201  Intermediate Russian I-II
SOC 215  Sociology of the Family
SOC 236  Criminology
SOC 266  Minority Group Relations
SOC 293  Immigrants in American Society
SOC 295  Sociology of Religion
SPA 101-102  Beginning Spanish I-II
SPA 201-202  Intermediate Spanish I-II

Additional elective courses may be approved with specific permission of an Academic Dean, using the “Program Adjustment Form,” available in the Admissions & Records Office.

* Students may not receive credit toward graduation requirements in this program of study for BIO 102 and BIO 114, for ECO 120 and ECO 201, for ECO 120 and ECO 202, for PHY 100 and PHY 201, for PSY 200 and PSY 201, for PSY 200 and PSY 202, for PSY 230 and PSY 231, for MTH 163 and MTH 166, or for MTH 164 and MTH 166

** Students may not receive credit towards graduation in this program of study for both ACC 115 and ACC 211 or ACC 115 and ACC 212.

*** Students may not receive credit for both CSC 201 and ITP 120.

**** Students may not receive credit for both CSC 202 and ITP 200.
Science

Award: Associate of Science Degree

Major: Science

The A.S. degree program in Science is designed to prepare students to transfer to four-year institutions and pursue a Bachelor of Science degree in an area of the biological sciences, engineering, mathematics or physical sciences.

Nearly all four-year colleges and universities in Virginia, as well as some private institutions in the state, now abide by the Virginia State Policy on Transfer. The policy states that students who complete the Blue Ridge Community College A.S. degree in College/University Transfer will have met all lower division general education requirements at participating institutions. The policy does not guarantee admission to these institutions nor does it imply that each individual community college course will transfer. A copy of the Virginia State Policy on Transfer and additional information on articulation agreements with Virginia four-year colleges and universities is available in the College Advising Center.

The degree is intended for students who wish to continue their studies in the following fields: Biology, Chemistry, Computer Science, Engineering, Mathematics, Physics, Pre-med, Pre-vet, and Pre-dentistry. The suggested curriculum and list of courses that follows includes the highest level college-transfer courses available at BRCC and is designed to allow students to transfer to their senior institution with the highest standing possible in their intended major. Considering the number of institutions and majors that can be chosen, it is not feasible to offer a curriculum that satisfies the needs of all. For choice of electives, it is strongly recommended that all students begin with the following guidelines but that they also contact the institution(s) to which they wish to transfer and verify which courses will be best for their specific major and specialization. Students should request a community college transfer guide directly from the college or university in which they plan to enroll or consult that institution’s website. The Academic Advising link on the BRCC website has very useful academic advising guides for the most popular transfer majors. Students may consult this guide to assist them in planning which courses to enroll in if they plan to transfer to a specific major.

Curriculum

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
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<tr>
<td>ENG 111</td>
<td>College Composition I</td>
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<tr>
<td>MTH 173</td>
<td>Calculus with Analytic Geometry I</td>
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<td></td>
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<tr>
<td></td>
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<tr>
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<tr>
<td><strong>Second Semester</strong></td>
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<td>ENG 112</td>
<td>College Composition II</td>
<td>3</td>
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<tr>
<td></td>
<td>Elective d</td>
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</tr>
<tr>
<td>MTH 174</td>
<td>Calculus with Analytic Geometry II e</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>or</td>
<td></td>
</tr>
<tr>
<td>MTH 157</td>
<td>Elementary Statistics e</td>
<td>(3)</td>
</tr>
<tr>
<td></td>
<td>and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mathematic Elective</td>
<td>(2)</td>
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<tr>
<td></td>
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<td><strong>Third Semester</strong></td>
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</tr>
<tr>
<td>Mathematics/Natural Science Electives f</td>
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<td>Social and Behavioral Science Elective c</td>
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<tr>
<td>Literature/Humanities/Fine Arts g</td>
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<tr>
<td>HLT/PED</td>
<td>Health/Physical Education Elective h</td>
<td>1</td>
</tr>
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<td></td>
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<td>15</td>
</tr>
</tbody>
</table>
Fourth Semester

Mathematics/Natural Science Electives $^f$ 8
Mathematics/Natural Science Electives/Computer Science Electives $^f$ 4
Literature $^g$ 3

Total credits required 61

$^a$ This list of majors is not exclusive. The AS degree in Science can also be used for students who wish to transfer to other technology-related fields. Biology majors may prefer to pursue an A.A.&S. transfer degree depending on their intended four-year institution, and should consult an advisor.

$^b$ Minimum of eight credits required in Natural Science with Laboratory electives (biology, chemistry, geology, astronomy, or physics courses). Choose from approved Natural Science/Lab electives listed under Required General Education Courses. Required General Education Courses appear on page 46 of the current BRCC catalog. Sequences preferred but not required.

$^c$ Minimum of nine credits required in History and Social and Behavioral Science electives (with an exception for the Engineering Specialization - see below), of which 3 credits must be History, and 3 credits must be a Social or Behavioral Science. Choose from approved History and Social and Behavioral Sciences electives listed under Required General Education Courses page 46.

$^d$ Students majoring in Engineering should take EGR 140; all other students must take a History or Social and Behavioral Science elective.

$^e$ Students taking 3 credit MTH 157 must also take an additional 2 credits in Mathematics electives. These may be chosen from the Mathematics electives listed under Required General Education Courses, or Approved Elective Courses. Approved Elective Courses appear on page 47 of the current catalog.

$^f$ The remaining 20 credits of Mathematics and Natural Science electives may be chosen from Required General Education Courses or from any BIO, CHM, GOL, MTH, NAS, or PHY prefixed Approved Elective Courses. Up to four elective credits in this category may also come from CSC 200 or CSC 201 (Computer Science). Requirements of four-year institutions may vary. Students should consult an academic advisor or their faculty advisor to select electives and certain required courses that will satisfy baccalaureate major requirements.

$^g$ Minimum of six credits required in Literature/Humanities/Fine Arts electives with at least three credits in Literature. Choose from approved Literature/Humanities/Fine Arts electives listed under Required General Education Courses.

$^h$ Any HLT or PED prefixed course excluding HLT 143 and 144 may be used to satisfy this requirement.
**SCIENCE**

**Award:** Associate of Science Degree  
**Major:** Science  
**Specialization:** Computer Science Specialization  

*Possible occupations for graduates are software development, network analysis, software security, and database design.*

The A.S. degree program with a major in Science and a Computer Science specialization is designed for students who wish to pursue a four year degree in Computer Science and a career in a field such as one of those above.

The specialization in Computer Science prepares students with core knowledge and skills needed for entry into baccalaureate schools of education programs in computer science. Students should be knowledgeable about the specific requirements of the four year school to which they wish to transfer so that they may make appropriate course choices.

**Curriculum**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
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<td></td>
</tr>
<tr>
<td>ENG 111</td>
<td>College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>SDV</td>
<td>Student Development</td>
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<tr>
<td>MTH 173</td>
<td>Calculus with Analytic Geometry</td>
<td>5</td>
</tr>
<tr>
<td>MTH 173</td>
<td>Science with Laboratory a</td>
<td>4</td>
</tr>
<tr>
<td>CSC 200</td>
<td>Introduction to Computer Science</td>
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</tr>
<tr>
<td></td>
<td><strong>Total credits</strong></td>
<td>16</td>
</tr>
</tbody>
</table>

| **Second Semester** | | |
| ENG 112    | College Composition II         | 3      |
| MTH 174    | Calculus with Analytic Geometry II | 5      |
| MTH 157    | Elementary Statistics b        | (3)    |
| MTH 157    | and                            |        |
| MTH 157    | Mathematical Elective          | (2)    |
| MTH 157    | Science with Laboratory a      | 4      |
| CSC 201    | Computer Science I             | 4      |
|            | **Total credits**              | 16     |

| **Third Semester** | | |
| Mathematics Electives c | 3    |
| History Elective d      | 3    |
| CSC 202    | Computer Science II            | 4      |
| Literature e           | 3    |
| HLT/PED    | Health/Physical Education Elective f | 1 |
|            | **Total credits**              | 14     |

| **Fourth Semester** | | |
| CSC 205    | Computer Organization          | 3      |
| Social and Behavioral Science Elective d | 3 |
| ITP 220    | Java Programming II            | 3      |
| History or Social and Behavioral Science Elective d | 3 |
| Literature/Humanities/Fine Arts Elective e | 2 |
|            | **Total credits**              | 15     |

| **Total credits required** | 61 |

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a Minimum of eight credits required in Natural Science with Laboratory electives (biology, chemistry, geology, astronomy, or physics courses). Choose from approved Natural Science/Lab electives listed under Required General Education Courses. Required General Education courses appear on page 46 of the current BRCC catalog. Sequences preferred but not required.
Students taking 3 credit MTH 157 must also take an additional 2 credits in Mathematics electives. These may be chosen from the Mathematics electives listed under Required General Education Courses page 46, or Approved Elective Courses. Approved Elective Courses appear on page 47 of the current catalog.

MTH 277, MTH 285, or MTH 287 may be used to meet this requirement. Requirements of senior institutions vary, and students should consult a Computer Science faculty advisor to determine appropriate mathematics elective choices.

Minimum of six credits required in History and Social and Behavioral Science electives, of which 3 credits must be History, and 3 credits must be a Social or Behavioral Science. Choose from approved History and Social and Behavioral Sciences electives listed under Required General Education Courses.

Minimum of six credits required in Literature/Humanities/Fine Arts electives with at least three credits in Literature. Choose from approved Literature/Humanities/Fine Arts electives listed under Required General Education Courses.

Any HLT or PED prefixed course excluding HLT 143 and 144 may be used to satisfy this requirement.
Science

Award: Associate of Science Degree
Major: Science
Specialization: Engineering

The A.S. degree program in Science with a specialization in Engineering is designed to prepare students to transfer to four year institutions to pursue a Bachelor of Sciences degree in an area of Engineering. The degree is intended for students who wish to continue their studies in the following fields: Civil, General, Industrial or Mechanical Engineering. The suggested curriculum and list of courses that follows includes the highest level college-transfer courses available at BRCC and is designed to allow students to transfer to their final institution with the highest standing possible in their intended major. Considering the number of institutions and majors that can be chosen, it is not feasible to offer a curriculum that satisfies the needs of all. For choices of electives, it is strongly recommended that all students begin with the following guidelines but that they also contact the institution(s) to which they wish to transfer and verify which courses will be best for their specific major and specialization.

Curriculum

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MTH 173</td>
<td>Calculus with Analytic Geometry I</td>
<td>5</td>
</tr>
<tr>
<td>CHM 111</td>
<td>College Chemistry I</td>
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</tr>
<tr>
<td>EGR 120</td>
<td>Introduction to Engineering</td>
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<tr>
<td>ENG 111</td>
<td>College Composition I</td>
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</tr>
<tr>
<td>SDV</td>
<td>Student Development</td>
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<tr>
<td>History Elective b</td>
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<tr>
<td><strong>Second Semester</strong></td>
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<td></td>
</tr>
<tr>
<td>MTH 174</td>
<td>Calculus with Analytic Geometry II</td>
<td>5</td>
</tr>
<tr>
<td>CHM 112</td>
<td>College Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>EGR 140</td>
<td>Engineering Mechanics - Statics</td>
<td>3</td>
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<tr>
<td>ENG 112</td>
<td>College Composition II</td>
<td>3</td>
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<tr>
<td>Social and Behavioral Science Elective b</td>
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<tr>
<td><strong>Third Semester</strong></td>
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<tr>
<td>MTH 277</td>
<td>Vector Calculus</td>
<td>4</td>
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<tr>
<td>PHY 241</td>
<td>University Physics I</td>
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<tr>
<td>HLT/PED</td>
<td>Health/Physical Education Elective</td>
<td>1</td>
</tr>
<tr>
<td>Literature/Humanities/Fine Arts Elective b</td>
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<td></td>
</tr>
<tr>
<td>Literature b</td>
<td></td>
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<tr>
<td><strong>Fourth Semester</strong></td>
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<tr>
<td>MTH 291</td>
<td>Ordinary Differential Equations</td>
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<tr>
<td>MTH 177</td>
<td>Linear Algebra</td>
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<td>PHY 242</td>
<td>University Physics II</td>
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<td>Engineering Elective c</td>
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<tr>
<td>Engineering Elective c</td>
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<tr>
<td>EGR 245</td>
<td>Engineering Mechanics - Dynamics</td>
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<tr>
<td><strong>Total credit required</strong></td>
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</tr>
</tbody>
</table>

a This list of majors is not exclusive. The A.S. with a specialization in Engineering can be used for students who wish to transfer in other Engineering fields as well.
b A list of approved Literature/Fine Arts/History electives can be found on page 47 of the BRCC catalog.
c The typical Engineering sequences for certain majors follows: JMU: EGR 115, EGR 126, EGR 206, EGR 126; UVA/VT: EGR 126 or CSC 201 plus two of either EGR 206 or EGR 246 or EGR 248.
**Accounting**

**Award:** Associate of Applied Science Degree  
**Major:** Accounting

Possible occupations for graduates: accounting trainee, junior accountant, accounting technician, bookkeeper, or office manager.

The A.A.S. degree program with a major in Accounting is designed for people who seek employment or professional development in the accounting or business field.

### Curriculum

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 211</td>
<td>Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>BUS 100</td>
<td>Introduction to Business</td>
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<td>HLT/PED</td>
<td>Health/Physical Education Elective</td>
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<tr>
<td>ITE 119</td>
<td>Information Literacy</td>
<td>3</td>
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<tr>
<td>ENG 111</td>
<td>College Composition I</td>
<td>3</td>
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<tr>
<td>or</td>
<td>ENG 116</td>
<td>(3)</td>
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<tr>
<td>ACC 215</td>
<td>Computerized Accounting</td>
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<td>SDV</td>
<td>Student Development</td>
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<tr>
<td></td>
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<tr>
<td>ACC 212</td>
<td>Principles of Accounting II</td>
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<tr>
<td>BUS 200</td>
<td>Principles of Management</td>
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<tr>
<td>ECO 120</td>
<td>Survey of Economics (^b)</td>
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<tr>
<td>ENG 112</td>
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<tr>
<td>BUS</td>
<td>Business Elective (^c)</td>
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<td>ITE 140</td>
<td>Spreadsheet Software</td>
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<td>MTH 141</td>
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<td>ACC 221</td>
<td>Intermediate Accounting I</td>
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<td>ACC 124</td>
<td>Payroll Accounting</td>
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<td>BUS 226</td>
<td>Microcomputer Application in Business</td>
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<td>BUS 241</td>
<td>Business Law I</td>
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<tr>
<td>ACC 231</td>
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<td>ACC 275</td>
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<td>BUS 270</td>
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</table>

\(^a\) Students may select any ACC, BUS, or IT (ITE, ITD, ITN, ITP) course. Students may not receive credit toward graduation requirements for both ACC 115 and ACC 211 or ACC 115 and ACC 212.

\(^b\) Students may not receive credit towards graduation requirements for both ECO 120 and ECO 201 or ECO 120 and ECO 202.

\(^c\) Please refer to page 65 for a list of Business Electives.

\(^d\) Please refer to page 92 for the list of Literature/Humanities/Fine Arts electives that are approved to fulfill these requirements.
Administration of Justice

Award: Associate of Applied Science Degree  
Major: Administration of Justice

Possible occupations for graduates (depending upon the level of education and training): police officer, state trooper, deputy sheriff, jailer, correctional officer, investigator, security guard, and loss prevention manager.

The A.A.S. degree program with a major in Administration of Justice is designed to be a highly flexible and customizable program for people who seek full-time employment in the criminal justice system as well as for in-service officers. In addition, this degree may allow students to continue to some four year institutions to complete courses needed for various baccalaureate degrees.

Curriculum

<table>
<thead>
<tr>
<th>Course No.</th>
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<tbody>
<tr>
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<td>ITE 119</td>
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<td>SOC 236</td>
<td>Criminology</td>
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<td>ADJ 120</td>
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<td>ADJ 133</td>
<td>Ethics for the Criminal Justice Professional</td>
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<td>ADJ 140</td>
<td>Introduction to Corrections</td>
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<tr>
<td>ADJ 105</td>
<td>Juvenile Justice System</td>
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<tr>
<td>CST 110</td>
<td>Introduction to Communication</td>
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<td>ADJ</td>
<td>Elective</td>
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<tr>
<td>ADJ 215</td>
<td>Report Writing</td>
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<tr>
<td></td>
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<td><strong>Fourth Semester</strong></td>
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<tr>
<td>ADJ 227</td>
<td>Introduction to Constitutional Law</td>
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<td>ADJ</td>
<td>Elective</td>
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<tr>
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<td>Elective</td>
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</table>

**Total credits required** 66-67

a Please refer to page 92 for the list of Literature/Humanities/Fine Arts and Social and Behavioral Science electives that are approved to fulfill these requirements.

b Please refer to list of Natural Science/Mathematics courses on page 92.
Administration of Justice

Award: Associate of Applied Science Degree
Major: Administration of Justice
Specialization: Law Enforcement

Possible occupations for graduates (depending upon the level of education and training): police officer, trooper, deputy sheriff, jailer, correctional officer, investigator, security guard, and loss prevention manager.

The A.A.S. degree program with a major in Administration of Justice and a Law Enforcement specialization is designed to enhance the knowledge and skills of both in-service officers and those who aspire to criminal justice careers.

Curriculum

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
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</thead>
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<tr>
<td><strong>First Semester</strong></td>
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<td>ADJ 100</td>
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<td>ENG 111</td>
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<td>ITE 119</td>
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<td>SDV</td>
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<td>SOC 236</td>
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<td>ADJ 133</td>
<td>Ethics for the Criminal Justice Professional</td>
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<td>ADJ 232</td>
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<tr>
<td>ADJ 140</td>
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<td>ADJ 105</td>
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<td>CST 110</td>
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<td>ADJ 215</td>
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<td>ADJ 211</td>
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</tr>
<tr>
<td>ADJ 228</td>
<td>Narcotics and Dangerous Drugs</td>
<td>3</td>
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</tbody>
</table>

Please refer to page 92 for the list of Literature/Humanities/Fine Arts and Social and Behavioral Science electives that are approved to fulfill these requirements.

Please refer to list of Natural Science/Mathematics courses on page 92.
Administration of Justice

Award: Associate of Applied Science Degree  
Major: Administration of Justice  
Specialization: Corrections

Possible occupations for graduates (depending upon the level of education and training): police officer, trooper, deputy sheriff, jailer, correctional officer, investigator, security guard, and loss prevention manager.

The A.A.S. degree program with a major in Administration of Justice and a Corrections specialization is designed to enhance the knowledge and skills of both in-service officers and those who aspire to careers in corrections.

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<td>ITE 119</td>
<td>Information Literacy</td>
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<tr>
<td>SDV</td>
<td>Student Development</td>
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<tr>
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<td>Criminology</td>
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<td>Literature/Humanities/Fine Arts Elective a</td>
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| **Second Semester**                                            |                                               |         |
| ADJ 120    | Introduction to Courts                                  | 3       |
| ADJ 133    | Ethics for the Criminal Justice Professional            | 3       |
| ADJ 145    | Corrections and the Community                           | 3       |
| ENG 112    | College Composition II                                  | 3       |
| HLT/PED    | Health/Physical Education Electives                    | 2       |

| **Total credits required**                                     | 66 - 67                                       |

a Please refer to page 92 for the list of Literature/Humanities/Fine Arts and Social and Behavioral Science electives that are approved to fulfill these requirements.

b Please refer to list of Natural Science/Mathematics courses on page 92.
## Applications in Corrections

**Award:** Career Studies Certificate  
Purpose: to provide a flexible set of learning experiences that will enhance the education and professional development of both officers working in the corrections field as well as those who aspire to careers in corrections. Completion of this career studies certificate also will benefit people who are interested in learning how the criminal justice system works. This career studies certificate is for students who may want to earn the A.A.S degree in Administration of Justice with a specialization in corrections.

<table>
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<tr>
<td>ADJ 100</td>
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<tr>
<td>ADJ 145</td>
<td>Corrections and the Community</td>
<td>3</td>
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<tr>
<td>ADJ 147</td>
<td>Local Adult Detention Facilities</td>
<td>3</td>
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<tr>
<td>ADJ 245</td>
<td>Management of Correctional Facilities</td>
<td>3</td>
</tr>
<tr>
<td>ADJ 248</td>
<td>Probation, Parole and Treatment</td>
<td>3</td>
</tr>
<tr>
<td>ADJ</td>
<td>Elective a</td>
<td>3</td>
</tr>
<tr>
<td>ITE 119</td>
<td>Information Literacy</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total credits required** 21

*a* SPA 150 may also be used.

## Applications in Law Enforcement

**Award:** Career Studies Certificate  
Purpose: to provide a flexible set of learning experiences that will enhance the education and professional development of both in-service officers and those aspiring to criminal justice careers. Completion of this career studies certificate also will benefit people who are interested in learning how the criminal justice system works. This career studies certificate is for students who may want to earn the A.A.S degree in Administration of Justice.

<table>
<thead>
<tr>
<th>Course No.</th>
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<tr>
<td>ADJ 100</td>
<td>Survey of Criminal Justice</td>
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<tr>
<td>ADJ 110</td>
<td>Introduction to Law Enforcement</td>
<td>3</td>
</tr>
<tr>
<td>ADJ 256</td>
<td>Principles of Criminal Investigation</td>
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<tr>
<td>ADJ 211</td>
<td>Criminal Law Evidence and Procedure I</td>
<td>3</td>
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<tr>
<td>ADJ 228</td>
<td>Narcotics and Dangerous Drugs</td>
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<td>ADJ 232</td>
<td>Domestic Violence</td>
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<tr>
<td>ADJ</td>
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<td>3</td>
</tr>
<tr>
<td>ITE 119</td>
<td>Information Literacy</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total credits required** 24

*a* SPA 150 may also be used.

## High Tech Crime Investigation

**Award:** Career Studies Certificate  
Purpose: to provide a flexible set of learning experiences that will enhance the education and professional development of both in-service officers and those aspiring to criminal justice careers. Completion of this career studies certificate also will benefit people who are interested in learning how the criminal justice system works. This career studies certificate is for students who may want to earn an A.A.S degree in Administration of Justice or persons needing college credit to broaden employment opportunities.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
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<tr>
<td>ADJ 177</td>
<td>Topics in Digital Evidence and Forensics I</td>
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<td>ADJ 277</td>
<td>Topics in Digital Evidence and Forensics II</td>
<td>3</td>
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<tr>
<td>ADJ 157</td>
<td>Computer Security</td>
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<tr>
<td>ADJ 161</td>
<td>Introduction to Crime</td>
<td>3</td>
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<tr>
<td>ADJ 168</td>
<td>Computer Applications in Administration of Justice</td>
<td>3</td>
</tr>
<tr>
<td>ADJ 236</td>
<td>Criminal Investigations</td>
<td>3</td>
</tr>
<tr>
<td>ITE 119</td>
<td>Information Literacy</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total credits required** 24
Aviation Maintenance Technology

Students who wish to pursue Federal Aviation Administration (FAA) Certification as a mechanic with either an airframe, powerplant, or airframe and powerplant rating may choose from four options. Students who wish to become light sport aircraft pilots or mechanics have an additional option.

Students may be eligible to receive credit for some courses in these curricula through the College’s advanced standing process. Examples include credit by examination or by articulation agreement.

Award: Associate of Applied Science Degree

Possible occupations for graduates are: entry-level positions in the maintenance, repair, overhaul and modification of aircraft (following Federal Aviation Administration certification as mechanic with airframe and powerplant ratings). Students who earn the Associate of Applied Science Degree in Aviation Maintenance Technology are additionally better qualified for positions in the industry as lead mechanics, shop foreman, and directors of maintenance.

The Aviation Maintenance Technology (Airframe and Powerplant) Associate of Applied Science Degree provides students with a background to qualify for the Federal Aviation Administration (FAA) mechanic’s certificate with both airframe and powerplant ratings, along with the general education skills to enhance their technical skills.

Curriculum

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tr>
<td><strong>First Semester</strong></td>
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<tr>
<td>SDV</td>
<td>Student Development</td>
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<td>MTH 103</td>
<td>Applied Technical Mathematics ^a</td>
<td>3</td>
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<tr>
<td>AMT 103</td>
<td>Basic Electricity and Lab</td>
<td>2</td>
</tr>
<tr>
<td>AMT 105-106</td>
<td>Aviation Science for Mechanics and Lab</td>
<td>4</td>
</tr>
<tr>
<td>AMT 107</td>
<td>Aircraft Drawings</td>
<td>1</td>
</tr>
<tr>
<td>AMT 109-110</td>
<td>Materials and Processes and Lab</td>
<td>2</td>
</tr>
<tr>
<td>AMT 111</td>
<td>Federal Aviation Regulations</td>
<td>1</td>
</tr>
<tr>
<td>AMT 261-262</td>
<td>Aircraft Electrical Systems and Lab</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>17</td>
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<tr>
<td>HLT/PED</td>
<td>Health/Physical Education Elective</td>
<td>1</td>
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<tr>
<td>AMT 221-222</td>
<td>Non-Metallic Structures and Lab</td>
<td>4</td>
</tr>
<tr>
<td>AMT 223-224</td>
<td>Metallic Structures and Lab</td>
<td>4</td>
</tr>
<tr>
<td>AMT 241-242</td>
<td>Reciprocating Engines and Lab</td>
<td>4</td>
</tr>
<tr>
<td>AMT 243-244</td>
<td>Turbine Engines and Lab</td>
<td>1</td>
</tr>
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<td></td>
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<td>17</td>
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<tr>
<td><strong>Third Semester</strong></td>
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<tr>
<td>Social and Behavioral Science Elective ^b</td>
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<tr>
<td>AMT 231-232</td>
<td>Aircraft Landing Gear Systems and Lab</td>
<td>3</td>
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<tr>
<td>AMT 233-234</td>
<td>Communication/Navigation and Control Systems and Lab</td>
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<tr>
<td>AMT 253-254</td>
<td>Ignition Systems and Lab</td>
<td>2</td>
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<tr>
<td>AMT 255-256</td>
<td>Fuel Metering Systems and Lab</td>
<td>3</td>
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<tr>
<td>AMT 263-264</td>
<td>Aircraft Fuel, Fire, and Instrument Systems</td>
<td>1</td>
</tr>
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<td></td>
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<td>17</td>
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<tr>
<td><strong>Fourth Semester</strong></td>
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<tr>
<td>ENG 111</td>
<td>College Composition I</td>
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<tr>
<td>or ENG 116</td>
<td>Writing for Business</td>
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<tr>
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<td>Health/Physical Education Elective</td>
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<tr>
<td>AMT 225-226</td>
<td>Assembly and Rigging and Lab</td>
<td>2</td>
</tr>
<tr>
<td>AMT 227-228</td>
<td>Airframe Inspection and Lab</td>
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</tbody>
</table>
Aviation Maintenance Technology: Airframe Maintenance

**Award:** Certificate

**Purpose:** to provide students with the content and skills needed for entry-level positions as general aircraft-overhaul mechanic, accessory mechanic, electric-shop mechanic, general cabin-equipment mechanic, maintenance-crew member, ramp-service crew member, and hangar-crew member. After obtaining experience and further training, certificate completers may advance to positions such as airframe technician (licensed), supervisor, and inspector.

Students who wish to earn the Associate of Applied Science Degree in Aviation Maintenance Technology may apply all coursework from this certificate to the degree.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
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</thead>
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<td>AMT 103</td>
<td>Basic Electricity and Lab</td>
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</tr>
<tr>
<td>AMT 105-106</td>
<td>Aviation Science for Mechanics and Lab</td>
<td>4</td>
</tr>
<tr>
<td>AMT 107</td>
<td>Aircraft Drawings</td>
<td>1</td>
</tr>
<tr>
<td>AMT 109-110</td>
<td>Materials and Processes and Lab</td>
<td>2</td>
</tr>
<tr>
<td>AMT 111</td>
<td>Federal Aviation Regulations</td>
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<td>AMT 261-262</td>
<td>Aircraft Electrical Systems and Lab</td>
<td>3</td>
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<tr>
<td><strong>Second Semester</strong></td>
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<td></td>
</tr>
<tr>
<td>ENG 111</td>
<td>College Composition I</td>
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<td>AMT 225-226</td>
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</tr>
<tr>
<td>AMT 227-228</td>
<td>Airframe Inspection and Lab</td>
<td>4</td>
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</tbody>
</table>

**Total credits required** 67

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**Notes:**

- MTH 103 is recommended, but any math listed on page 92, except MTH 141, will fulfill this requirement.
- Please refer to page 92 for the list of Literature/Humanities/Fine Arts and Social and Behavioral Science electives that are approved to fulfill these requirements.
### Aviation Maintenance Technology: Powerplant Maintenance

**Award:** Certificate

**Purpose:** to provide students with the content and skills needed for entry-level positions as general aircraft engine-overhaul mechanic, accessory mechanic, electric-shop mechanic, and general engine mechanic. After obtaining experience and further training, certificate completers may advance to positions such as powerplant technician (licensed), supervisor and inspector.

Students who wish to earn the Associate of Applied Science Degree in Aviation Maintenance Technology may apply all coursework from this certificate to the degree.

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<td>Applied Technical Mathematics</td>
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<td>AMT 103</td>
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</tr>
<tr>
<td>AMT 111</td>
<td>Federal Aviation Regulations</td>
<td>1</td>
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<tr>
<td>AMT 261-262</td>
<td>Aircraft Electrical Systems and Lab</td>
<td>3</td>
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#### First Semester

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<td>College Composition I</td>
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<tr>
<td>or</td>
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<td>ENG 116</td>
<td>Writing for Business</td>
<td>(3)</td>
</tr>
<tr>
<td>AMT 241-242</td>
<td>Reciprocating Engines and Lab</td>
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</tr>
<tr>
<td>AMT 243-244</td>
<td>Turbine Engines and Lab</td>
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#### Second Semester

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<th>Title</th>
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<tbody>
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<td>Ignition Systems and Lab</td>
<td>2</td>
</tr>
<tr>
<td>AMT 255-256</td>
<td>Fuel Metering Systems and Lab</td>
<td>3</td>
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<tr>
<td>AMT 263-264</td>
<td>Aircraft Fuel, Fire, and Instrument Systems</td>
<td>3</td>
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#### Third Semester

<table>
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<th>Title</th>
<th>Credits</th>
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<tbody>
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</tr>
<tr>
<td>AMT 251-252</td>
<td>Lubrication Systems and Propellers and Lab</td>
<td>3</td>
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#### Fourth Semester

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
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</table>

**Total credits required**

40

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*MTH 103 is recommended, but any math listed on page 92, except MTH 141, will fulfill this requirement*  

### Light Sport Aircraft Mechanic

**Award:** Career Studies Certificate

**Purpose:** to provide students with the content and skills needed to operate and maintain light sport aircraft. Full time students may complete the program in two semesters; part-time students determine their own pace.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMT 171</td>
<td>Light Sport Aircraft Regulations</td>
<td>1</td>
</tr>
<tr>
<td>AMT 173</td>
<td>Light Sport Aircraft General Airframe</td>
<td>1</td>
</tr>
<tr>
<td>AMT 175</td>
<td>Light Sport Aircraft Engines and Propellers</td>
<td>1</td>
</tr>
<tr>
<td>AMT 177</td>
<td>Light Sport Aircraft Class</td>
<td>1</td>
</tr>
<tr>
<td>AMT 178</td>
<td>Light Sport Aircraft Maintenance and Training</td>
<td>1</td>
</tr>
<tr>
<td>ARO 120</td>
<td>Light Sport Aircraft Ground School</td>
<td>3</td>
</tr>
<tr>
<td>ARO 290</td>
<td>Coordinated Internship in Aviation</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total credits required**

9
Business Management

Students who wish to pursue an education in the area of Business Management have several options from which to choose. The curricula offerings enable students to begin with a Career Studies Certificate and to continue their studies culminating in an A.A.S. degree in Business Management.

Management

Award: Associate of Applied Science Degree
Major: Management

Possible occupations for graduates: assistant manager, management trainee, manager of a small business, supervisor, sales representative, and other positions related to the business field.

The A.A.S. degree program with a major in Management is for people who seek employment or professional development in the business field. Full-time students may complete the following associate in applied science degrees in two years; part-time students determine their own pace.

Curriculum

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUS 200</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>MKT 100</td>
<td>Principles of Marketing</td>
<td>3</td>
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<tr>
<td>BUS 100</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>ENG 111</td>
<td>College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 116</td>
<td>Writing for Business</td>
<td>(3)</td>
</tr>
<tr>
<td>ITE 119</td>
<td>Information Literacy</td>
<td>3</td>
</tr>
<tr>
<td>SDV</td>
<td>Student Development</td>
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<td><strong>Total credits required</strong></td>
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<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Second Semester</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECO 120</td>
<td>Survey of Economics c</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112</td>
<td>College Composition II</td>
<td>3</td>
</tr>
<tr>
<td>BUS</td>
<td>Business Elective b</td>
<td>(3)</td>
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<tr>
<td>MTH 141</td>
<td>Business Mathematics I</td>
<td>3</td>
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<tr>
<td>HLT/PED</td>
<td>Health/Physical Education Elective</td>
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</tr>
<tr>
<td>General Elective</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Business Elective b</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>Total credits required</strong></td>
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<td>16</td>
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<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td><strong>Third Semester</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACC 211</td>
<td>Principles of Accounting I a</td>
<td>3</td>
</tr>
<tr>
<td>ACC 115</td>
<td>Applied Accounting a</td>
<td>(3)</td>
</tr>
<tr>
<td>BUS</td>
<td>Business Elective b</td>
<td>3</td>
</tr>
<tr>
<td>BUS 241</td>
<td>Business Law I</td>
<td>3</td>
</tr>
<tr>
<td>ITE 140</td>
<td>Spreadsheet Software</td>
<td>3</td>
</tr>
<tr>
<td>HLT/PED</td>
<td>Health/Physical Education Elective</td>
<td>1</td>
</tr>
<tr>
<td>Social and Behavioral Science Elective d</td>
<td>3</td>
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<table>
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<tr>
<th>Course No.</th>
<th>Title</th>
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<td><strong>Fourth Semester</strong></td>
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<td></td>
</tr>
<tr>
<td>ACC 212</td>
<td>Principles of Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>BUS</td>
<td>Business Elective b</td>
<td>(3)</td>
</tr>
<tr>
<td>FIN 215</td>
<td>Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>BUS 226</td>
<td>Computer Business Applications</td>
<td>3</td>
</tr>
<tr>
<td>BUS 270</td>
<td>Interpersonal Dynamics in the Business Organization</td>
<td>3</td>
</tr>
<tr>
<td>Business Elective b</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Literature/Humanities/Fine Arts Elective d</td>
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<td></td>
</tr>
<tr>
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<td>18</td>
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</table>

a Students who take ACC 115 must take a BUS elective in the second semester. ACC 211 must be followed by ACC 212. Students may not receive credit toward graduation requirements for ACC 115 and ACC 211 or ACC 115 and ACC 212.
b Please refer to page 65 for the list of Business courses that are approved to fulfill these requirements. Other courses may be accepted with divisional approval.

c Students may not receive credit towards graduation requirements for both ECO 120 and ECO 201 or ECO 120 and ECO 202.

d Please refer to page 92 for the list of Literature/Humanities/Fine Arts and Social and Behavioral Science electives that are approved to fulfill these requirements.

**Management, Administrative Assistant and Business Specialist Specialization**

**Award:** Associate of Applied Science Degree  
**Major:** Management  
**Specialization:** Administrative Assistant and Business Specialist

*Possible occupations for graduates:* administrative or executive assistant, office manager, information services specialist, and other related office administrative positions.

The A.A.S. degree program in Management with a specialization in Administrative Assistant and Business Specialist is designed for students who seek career advancement in the growing field of 21st century office technologies and senior administrative support. Studies will include integrated computer software applications, project and scheduling management, semi-structured decision-making and problem-solving, team skills, records storage and retrieval, customer service, and electronic communications.

**Curriculum**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td></td>
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<tr>
<td>AST 102</td>
<td>Keyboarding II a</td>
<td>3</td>
</tr>
<tr>
<td>BUS 100</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>ENG 111</td>
<td>College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>ENG 116 Writing for Business</td>
<td>(3)</td>
</tr>
<tr>
<td>ITE 119</td>
<td>Information Literacy</td>
<td>3</td>
</tr>
<tr>
<td>MTH 141</td>
<td>Business Mathematics I</td>
<td>3</td>
</tr>
<tr>
<td>SDV</td>
<td>Student Development</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16</td>
</tr>
<tr>
<td><strong>Second Semester</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECO 120</td>
<td>Survey of Economics b</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112</td>
<td>College Composition II</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>BUS Business Elective d</td>
<td>(3)</td>
</tr>
<tr>
<td>HLT/PED</td>
<td>Health/Physical Education Elective</td>
<td>1</td>
</tr>
<tr>
<td>ITE 140</td>
<td>Spreadsheet Software</td>
<td>3</td>
</tr>
<tr>
<td>ITD 130</td>
<td>Database Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>Social and Behavioral Science Elective c</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16</td>
</tr>
<tr>
<td><strong>Third Semester</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACC 211</td>
<td>Principles of Accounting I d</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>ACC 115 Applied Accounting d</td>
<td>(3)</td>
</tr>
<tr>
<td>AST 201</td>
<td>Keyboarding III</td>
<td>3</td>
</tr>
<tr>
<td>BUS 226</td>
<td>Computer Business Applications</td>
<td>3</td>
</tr>
<tr>
<td>BUS 270</td>
<td>Interpersonal Dynamics in the Business Organization</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>Literature/Humanities/Fine Arts Elective c</td>
<td>3</td>
</tr>
<tr>
<td>MKT 100</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>18</td>
</tr>
<tr>
<td><strong>Fourth Semester</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AST 243</td>
<td>Office Administration I</td>
<td>3</td>
</tr>
<tr>
<td>BUS 200</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BUS 241</td>
<td>Business Law I</td>
<td>3</td>
</tr>
<tr>
<td>HLT/PED</td>
<td>Health/Physical Education Elective</td>
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<tr>
<td>ITD 110</td>
<td>Web Page Design I</td>
<td>3</td>
</tr>
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</table>
ACC 212  Principles of Accounting II d  3

or

BUS  Business Elective e (3)  16

Total credits required  66

a Prerequisite: AST 101 or keyboarding competence

b Students may not receive credit towards graduation requirements for both ECO 120 and ECO 201 or ECO 120 and ECO 202.

c Please refer to page 92 for the list of Literature/Humanities/Fine Arts and Social and Behavioral Science electives that are approved to fulfill these requirements.

d Students who take ACC 115 must take a BUS elective in the fourth semester. ACC 211 must be followed by ACC 212. Students may not receive credit toward graduation requirements for ACC 115 and ACC 211 or for both ACC 115 and ACC 212.

e Please refer to page 65 for the list of Business courses that are approved to fulfill these requirements. Other courses may be accepted with divisional approval.

Administrative Assistant

Award: Career Studies Certificate

Purpose: to provide students with an opportunity to pursue advancement in a 21st-century office career. Studies will include both foundational and advance courses in the following: keyboarding, computer hardware and software knowledge, word-processing and document production, spreadsheets and basic accounting procedures, as well as essential office management processes. Once completed, courses in this career studies certificate may be applied toward other programs offered by the College, such as the A.A.S. degree in Management, with an Administrative Assistant and Business Information Specialist specialization.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 115</td>
<td>Applied Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACC 211</td>
<td>Accounting I</td>
<td>(3)</td>
</tr>
<tr>
<td>AST 101</td>
<td>Keyboarding I</td>
<td>2</td>
</tr>
<tr>
<td>AST 102</td>
<td>Keyboarding II</td>
<td>3</td>
</tr>
<tr>
<td>AST 201</td>
<td>Keyboarding III</td>
<td>3</td>
</tr>
<tr>
<td>AST 243</td>
<td>Office Administration I</td>
<td>3</td>
</tr>
<tr>
<td>BUS 100</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>ENG 111</td>
<td>College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 116</td>
<td>Writing for Business</td>
<td>(5)</td>
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<tr>
<td>ITD 130</td>
<td>Database Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>ITE 119</td>
<td>Information Literacy</td>
<td>3</td>
</tr>
<tr>
<td>ITE 120</td>
<td>Principles of Information Systems</td>
<td>(3)</td>
</tr>
<tr>
<td>CSC 200</td>
<td>Introduction to Computer Science</td>
<td>(3)</td>
</tr>
<tr>
<td>ITE 140</td>
<td>Spreadsheet Software</td>
<td>3</td>
</tr>
</tbody>
</table>

Total credits required  29
### Basic Office Skills

**Award: Career Studies Certificate**

Purpose: to provide students with an opportunity to acquire basic skills for entry-level positions in the 21st century office environment. Studies will include foundational computer hardware and software knowledge, keyboarding, word-processing and document production, spreadsheets and fundamental accounting procedures, and essential office procedures. Once completed, courses in this career studies certificate may be applied toward other programs offered by the College, such as the A.A.S. degree in Management, with an Administrative Assistant and Business Information Specialist specialization.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 211</td>
<td>Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>ACC 115 Applied Accounting</td>
<td>(3)</td>
</tr>
<tr>
<td>AST 101</td>
<td>Keyboarding I</td>
<td>2</td>
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<tr>
<td>BUS 100</td>
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<td>3</td>
</tr>
<tr>
<td>ENG 111</td>
<td>College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>ENG 116 Writing for Business</td>
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<tr>
<td>AST 206</td>
<td>Professional Development</td>
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<tr>
<td>or</td>
<td>BUS Business Elective a</td>
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</tr>
</tbody>
</table>

**Total credits required** 20

*a* Please refer to page 65 for the list of Business courses that are approved to fulfill these requirements.

### Entrepreneurship

**Award: Career Studies Certificate**

Purpose: to provide students with the opportunity to acquire the knowledge and skills needed to become an entrepreneur, rather than employee or manager. Students will learn how to plan, implement, and monitor a new business, understand market and capital economies, and will fully explore the role of globalization in the marketplace.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 115</td>
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<tr>
<td>BUS 165</td>
<td>Small Business Management</td>
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</tr>
<tr>
<td>BUS 241</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>BUS 226</td>
<td>Computer Business Applications</td>
<td>3</td>
</tr>
<tr>
<td>ITE 119</td>
<td>Information Literacy</td>
<td>3</td>
</tr>
<tr>
<td>FIN 215</td>
<td>Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>ITE 160</td>
<td>Introduction to E-Commerce</td>
<td>3</td>
</tr>
<tr>
<td>MKT 100</td>
<td>Principles of Marketing</td>
<td></td>
</tr>
</tbody>
</table>

**Total credits required** 24

### Fundamentals of Business

**Award: Career Studies Certificate**

Purpose: to provide students with the opportunity to acquire basic skills and knowledge in business operations, to include areas in business such as marketing, information technology, and the basic foundations of business operations. Each of the courses in this certificate could lead to an advanced certificate and eventually to the Associates degree in Business Management.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BUS 100</td>
<td>Introduction to Business</td>
<td>3</td>
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<tr>
<td>BUS 200</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>ITE 119</td>
<td>Information Literacy</td>
<td>3</td>
</tr>
<tr>
<td>MKT 100</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total credits required** 12
Leadership and Supervision

Award: Career Studies Certificate

Purpose: to provide students with an opportunity to acquire basic skills and knowledge in the areas of Leadership and Supervision. Studies will include topics in leadership skills, problem solving, decision making, effective communications, dealing with conflict and employee relations, delegation, motivation, time management, team building, process improvement and others. Once completed, courses in this career studies certificate may be applied toward the A.A.S. degree in Business Management.

Course No. | Title | Credits
--- | --- | ---
BUS 118 | Concepts of Supervision | 3
BUS 100 | Introduction to Business | 3
ENG 111 | College Composition I | (3)
or
ENG 116 | Writing for Business | (3)
ITE 119 | Information Literacy | 3
ECO 120 | Survey of Economics a | 3
BUS 200 | Principles of Management | 3
BUS 270 | Interpersonal Dynamics in the Business Organization | 3
ENG 112 | College Composition II | 3
or
Business Elective b | | (3)

Total credits required | 24

a Students may not receive credit towards graduation requirements for both ECO 120 and ECO 201 or ECO 120 and ECO 202.
b Please refer to page 65 for the list of Business courses that are approved to fulfill these requirements. Other courses may be accepted with divisional approval.

Business Electives: Business Management Degree

All ACC, AST, BUS, ECO, FIN, ITE, ITD, ITP, ITN, MKT or REA courses that are not satisfying a requirement are approved Business electives. Students may not receive credit toward graduation requirements for both ACC 115 and ACC 211 or ACC 115 and ACC 212. Students may also not receive credit towards graduation requirements for both ECO 120 and ECO 201 or ECO 120 or ECO 202.

IND 195, IND 150, and IND 181 are also approved courses. Before enrolling in any Business elective, check catalog course descriptions for prerequisite requirements.
Computer and Electronics Technology

Award: Associate of Applied Science Degree
Major: Computer and Electronics Technology

Possible occupations for graduates are: electronics technician, industrial electronics technician, instrumentation technician, consumer product repair technician, communications technician, computer network technician, and technical salesperson.

The A.A.S. degree program in Computer and Electronics Technology is designed for people who seek employment or professional development in the areas of computer and electronics technology and is structured so that students need no previous electrical or electronics knowledge. The program provides students with knowledge and skills needed to prepare for the following certification testing: Certified Electronics Technician (ISCET) and Certified Electronics Associate (EIA).

Generally, the A.A.S. in Computer and Electronics Technology is the minimum requirement for many employment opportunities in the field.

Curriculum

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
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<tr>
<td>ENG 111</td>
<td>College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ETR 106</td>
<td>Programming Methods for Electrical/</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Electronic Calculations</td>
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<tr>
<td>ETR 113</td>
<td>D.C. and A.C. Fundamentals I</td>
<td>3</td>
</tr>
<tr>
<td>ETR 123</td>
<td>Electronics Applications</td>
<td>2</td>
</tr>
<tr>
<td>HLT/PED</td>
<td>Health/Physical Education Elective</td>
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</tr>
<tr>
<td>MTH 103</td>
<td>Applied Technical Math I</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MTH 163</td>
<td>Precalculus I a</td>
<td>(3)</td>
</tr>
<tr>
<td>SDV</td>
<td>Student Development</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15</td>
</tr>
<tr>
<td><strong>Second Semester</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ETR 114</td>
<td>D.C. and A.C. Fundamentals II</td>
<td>3</td>
</tr>
<tr>
<td>ETR 143</td>
<td>Devices and Applications I</td>
<td>4</td>
</tr>
<tr>
<td>ETR 164</td>
<td>Upgrading and Maintaining PC Hardware b</td>
<td>3</td>
</tr>
<tr>
<td>ETR 225</td>
<td>Data Communications c</td>
<td>4</td>
</tr>
<tr>
<td>MTH 104</td>
<td>Applied Technical Math II</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MTH 164</td>
<td>Precalculus II a</td>
<td>(3)</td>
</tr>
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<td>HLT/PED</td>
<td>Health/Physical Education Elective</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>18</td>
</tr>
<tr>
<td><strong>Third Semester</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ETR 241</td>
<td>Electronic Communications I</td>
<td>4</td>
</tr>
<tr>
<td>ETR 273</td>
<td>Computer Electronics I</td>
<td>4</td>
</tr>
<tr>
<td>PHY 201</td>
<td>General College Physics I d</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHY 100</td>
<td>Elements of Physics d</td>
<td>(4)</td>
</tr>
<tr>
<td></td>
<td>Social and Behavioral Science Elective e</td>
<td>3</td>
</tr>
<tr>
<td>CST 110</td>
<td>Introduction to Communication</td>
<td>3</td>
</tr>
<tr>
<td></td>
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<td><strong>Fourth Semester</strong></td>
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<td></td>
</tr>
<tr>
<td>ETR 237</td>
<td>Industrial Electronics I</td>
<td>3</td>
</tr>
<tr>
<td>ETR 274</td>
<td>Computer Electronics II</td>
<td>4</td>
</tr>
<tr>
<td>ETR 296</td>
<td>On-site training in Electronics f</td>
<td>2</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ETR 298  Seminar & Project in Computer and Electronics f  (2)
Literature/Humanities/Fine Arts Elective e  3
Social and Behavioral Science Elective e  3

Total credits required  66

a  MTH 163-164 required for transfer.
b  Cross-listed as ITN 106
c  Cross-listed as ITN 208
d  PHY 201 required for transfer.
e  Please refer to page 92 for the list of Literature/Humanities/Fine Arts electives and Social and Behavioral Science electives that are approved to fulfill these requirements.
f  Instructor approval required.

Computer and Electronics Technology, Computer Network Technologies Specialization

Award:  Associate of Applied Science Degree
Major:  Computer and Electronics Technology
Specialization:  Computer Network Technologies

Possible occupations for graduates are: networking specialist, network technician, network installation/maintenance specialist, network administrator trainee, PC repair technician, help desk specialist, and end-user support specialist.

The A.A.S. degree program in Computer and Electronics Technology with a Computer Network Technologies specialization is designed for people who seek employment or professional development in the field of network technology.

The knowledge and skills needed for success as a computer network technician include a combination of basic electronics, digital/microprocessor electronics, data communications, computer systems, and LAN (Local Area Network) architecture and administration. These skills are an integral part of the Computer Network Technologies curriculum. The curriculum includes technical courses in both electronics technology and information systems technology. Instruction includes both the theoretical concepts and practical applications (hands-on) needed for success in computer network technologies.

Employers are interested in skilled technicians who are certified in various areas. The Computer Network Technologies specialization provides students with knowledge and skills needed to prepare for the following certification examinations: A+ certification exam for Computer Technicians (CompTia), Network+ for Network Technicians (CompTia), Security+ for Computer Security Technicians (CompTia), Windows 2008 Server (Microsoft), and Cisco Certified Network Associate.

Curriculum

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ETR 106</td>
<td>Programming Methods for Electrical/Electronic Calculations</td>
<td>2</td>
</tr>
<tr>
<td>ETR 113</td>
<td>D.C. and A.C. Fundamentals I</td>
<td>3</td>
</tr>
<tr>
<td>ETR 123</td>
<td>Electronics Applications</td>
<td>2</td>
</tr>
<tr>
<td>HLT/PED</td>
<td>Health/Physical Education Elective</td>
<td>1</td>
</tr>
<tr>
<td>ITE 119</td>
<td>Information Literacy</td>
<td>3</td>
</tr>
<tr>
<td>MTH 103</td>
<td>Applied Technical Math I or Applied Technical Math II or</td>
<td>3</td>
</tr>
<tr>
<td>MTH 163</td>
<td>Precalculus I a</td>
<td>(3)</td>
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<tr>
<td>SDV</td>
<td>Student Development</td>
<td>1</td>
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<tr>
<td><strong>Second Semester</strong></td>
<td></td>
<td>15</td>
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<tr>
<td>ENG 111</td>
<td>College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ETR 164</td>
<td>Upgrading and Maintaining PC Hardware b</td>
<td>3</td>
</tr>
<tr>
<td>ETR 225</td>
<td>Data Communications c</td>
<td>4</td>
</tr>
<tr>
<td>MTH 104</td>
<td>Applied Technical Math II or</td>
<td>3</td>
</tr>
</tbody>
</table>

Blue Ridge Community College 2014-2015 Catalog and Student Handbook
MTH 164  Precalculus II \(^a\)  (3)
HLT/PED  Health/Physical Education Elective  1
Social and Behavioral Science Elective \(^d\)  (3)

### Third Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETR 273</td>
<td>Computer Electronics I</td>
<td>4</td>
</tr>
<tr>
<td>ITN 103</td>
<td>Administration of Networked Servers</td>
<td>3</td>
</tr>
<tr>
<td>ITN 260</td>
<td>Network Security Basics</td>
<td>3</td>
</tr>
<tr>
<td>PHY 201</td>
<td>General College Physics I (^e)</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHY 100</td>
<td>Elements of Physics (^e)</td>
<td>(4)</td>
</tr>
<tr>
<td>Social and Behavioral Science Elective (^d)</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

### Fourth Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETR 274</td>
<td>Computer Electronics II</td>
<td>4</td>
</tr>
<tr>
<td>ETR 296</td>
<td>On-Site Training in Electronics (^f)</td>
<td>2</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ETR 298</td>
<td>Seminar &amp; Project in Electronics (^f)</td>
<td>(2)</td>
</tr>
<tr>
<td>ITE 182</td>
<td>User Support/Help Desk</td>
<td>3</td>
</tr>
<tr>
<td>ITN 151</td>
<td>Introductory Routing and Switching</td>
<td>3</td>
</tr>
<tr>
<td>Literature/Humanities/Fine Arts Elective (^d)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CST 110</td>
<td>Introduction to Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Total credits required
67

\(^a\) MTH 163-164 required for transfer.

\(^b\) Cross-listed as ITN 106

\(^c\) Cross-listed as ITN 208

\(^d\) Please refer to page 92 for the list of Literature/Humanities/Fine Arts electives and Social and Behavioral Science electives that are approved to fulfill these requirements.

\(^e\) PHY 201 required for transfer.

\(^f\) Instructor approval required.

### Computer Network Technologies

**Award: Career Studies Certificate**

Purpose: to provide students with fundamental knowledge and skills in data communications, computer systems, and LAN (Local Area Network) architecture and administration. The program emphasizes the importance of certification and assists students to prepare for certification exams.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITE 182</td>
<td>User Support/Help Desk</td>
<td>3</td>
</tr>
<tr>
<td>ITN 106</td>
<td>Microcomputer Operating Systems(^a)</td>
<td>3</td>
</tr>
<tr>
<td>ITN 208</td>
<td>Protocols and Communications(^b)</td>
<td>4</td>
</tr>
<tr>
<td>ITE 119</td>
<td>Information Literacy(^c)</td>
<td>3</td>
</tr>
<tr>
<td>ITN 103</td>
<td>Administration of Networked Servers</td>
<td>3</td>
</tr>
<tr>
<td>ITN 151</td>
<td>Introductory Routing and Switching</td>
<td>3</td>
</tr>
<tr>
<td>ITN 260</td>
<td>Network Security Basics</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Total credits required
22

\(^a\) Cross-listed as ETR 164.

\(^b\) Cross-listed as ETR 225.

\(^c\) ITE 119 is a co-requisite or prerequisite to most other IT courses and should be taken in the first semester.
Human Services

Award: Associate of Applied Science Degree

Major: Human Services

The Human Services program prepares students for employment as paraprofessionals in a wide variety of service agencies. As “people workers,” graduates occupy helping roles in many fields, including mental health, mental retardation, substance abuse, rehabilitation, aging, children’s and family programs, and corrections. Many graduates use this curriculum as a first step toward a four-year degree in areas such as social work, counseling, and education. Full-time students may complete the degree in two years; part-time students determine their own pace. Successful completion of program may require a background check, as well as controlled substance testing.

Curriculum

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
<td></td>
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<tr>
<td>ENG 111</td>
<td>College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>HMS 100</td>
<td>Introduction to Human Services a</td>
<td>3</td>
</tr>
<tr>
<td>ITE 119</td>
<td>Information Literacy</td>
<td>3</td>
</tr>
<tr>
<td>PSY 200</td>
<td>Principles of Psychology</td>
<td>3</td>
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<tr>
<td>SDV</td>
<td>Student Development</td>
<td>1</td>
</tr>
<tr>
<td>Literature/Humanities/Fine Arts Elective b</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
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<td>16</td>
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<tr>
<td>Second Semester</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENG 112</td>
<td>College Composition II</td>
<td>3</td>
</tr>
<tr>
<td>HLT 121</td>
<td>Introduction to Drug Use and Abuse</td>
<td>3</td>
</tr>
<tr>
<td>HMS 190</td>
<td>Coordinated Internship in Mental in Mental/Human Services</td>
<td>2</td>
</tr>
<tr>
<td>MEN 101</td>
<td>Mental Health Skill Training I</td>
<td>3</td>
</tr>
<tr>
<td>PSY 230</td>
<td>Developmental Psychology</td>
<td>3</td>
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<tr>
<td>SOC 268</td>
<td>Social Problems</td>
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<tr>
<td>Third Semester</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HMS 290</td>
<td>Coordinated Internship in Human Services</td>
<td>3</td>
</tr>
<tr>
<td>PSY 215</td>
<td>Abnormal Psychology</td>
<td>3</td>
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<tr>
<td>PSY 220</td>
<td>Introduction to Behavior Modification</td>
<td>3</td>
</tr>
<tr>
<td>SOC 215</td>
<td>Sociology of the Family</td>
<td>3</td>
</tr>
<tr>
<td>HMS 141</td>
<td>Group Dynamics I</td>
<td>3</td>
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<tr>
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<tr>
<td></td>
<td></td>
<td>18</td>
</tr>
<tr>
<td>Fourth Semester</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEN 295</td>
<td>Topics in Interviewing</td>
<td>3</td>
</tr>
<tr>
<td>MEN 225</td>
<td>Counseling Therapy</td>
<td>3</td>
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<tr>
<td></td>
<td>Math/Science Elective c</td>
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<td>SOC 266</td>
<td>Race and Ethnicity</td>
<td>3</td>
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<td>HMS 290</td>
<td>Coordinated Internship in Human Services</td>
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<tr>
<td></td>
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<td>Total credits required</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>67</td>
</tr>
</tbody>
</table>

a HMS 100 is a prerequisite for some MEN and HMS courses.

b Please see page 92 for the list of Literature/Humanities/Fine Arts electives that are approved to fulfill this requirement.

c For students who intend to transfer to a four-year institution MTH 157 is strongly recommended. MTH 103 or MTH 141 are recommended math courses for students who do not intend to transfer. Please refer to list of Natural Science/Mathematics courses on page 92 for all possible math courses.

d Students may not receive credit towards graduation requirements for both PSY 200 and PSY 201, PSY 200 and 202 or PSY 230 and PSY 231.
Aging in Place

Award: Career Studies Certificate

Purpose: to prepare students to work with individuals, public, and private agencies to serve the needs of aging individuals. Graduates will be positioned to assist the growing population of elderly to age successfully. Students may utilize this Certificate to further prepare themselves as private agency entrepreneurs or leaders.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMS 100</td>
<td>Introduction to Human Services</td>
<td>3</td>
</tr>
<tr>
<td>HLT 230</td>
<td>Principles of Nutrition and Human Development</td>
<td>3</td>
</tr>
<tr>
<td>HLT 236</td>
<td>Gerontology</td>
<td>3</td>
</tr>
<tr>
<td>MEN 101</td>
<td>Mental Health Skills Training</td>
<td>3</td>
</tr>
<tr>
<td>HMS 106</td>
<td>Working with Death</td>
<td>3</td>
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<tr>
<td>BUS/FIN</td>
<td>Business/Finance Elective ^a</td>
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<tr>
<td>HMS 190</td>
<td>Coordinated Internship</td>
<td>2</td>
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</tbody>
</table>

Total credits required 20

^a Students are encouraged to take personal finance (FIN 107).
Information Systems Technology

The A.A.S. degree program with a major in Information Systems Technology is designed for people who seek employment or professional development as a generalist in the area of information systems technology, with specific knowledge in various areas such as microcomputer applications, programming, and networking support.

Information Systems Technology

**Award:** Associate of Applied Science Degree

**Major:** Information Systems Technology

Possible occupations for graduates are: computer operator, help desk support, computer programmer, programmer analyst, PC support technician, and network support technician.

The A.A.S. degree program with a major in Information Systems Technology is designed for people who wish to be an Information Systems generalist with knowledge in various areas, such as microcomputer applications, programming, and networking support.

The Information Systems Technology program provides students with knowledge and skills needed to prepare for the Microsoft Office Specialist (MOS) Certification, CompTia A+ Certification, CompTia Network+ Certification, and CIW Foundations.

Curriculum

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
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<tr>
<td><strong>First Semester</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENG 111</td>
<td>College Composition I (^a)</td>
<td>3</td>
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<tr>
<td>or</td>
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<tr>
<td>ENG 116</td>
<td>Writing for Business</td>
<td>(3)</td>
</tr>
<tr>
<td>BUS 100</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>MTH 103</td>
<td>Applied Technical Math I (^b)</td>
<td>3</td>
</tr>
<tr>
<td>ITN 106</td>
<td>Microcomputer Operating Systems (^c)</td>
<td>3</td>
</tr>
<tr>
<td>ITE 119</td>
<td>Information Literacy (^d)</td>
<td>3</td>
</tr>
<tr>
<td>SDV 101</td>
<td>Orientation to the IT Profession</td>
<td>2</td>
</tr>
<tr>
<td></td>
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<tr>
<td><strong>Second Semester</strong></td>
<td></td>
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</tr>
<tr>
<td>BUS 270</td>
<td>Interpersonal Dynamics in the Business Organization</td>
<td>3</td>
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<tr>
<td>ITN 208</td>
<td>Protocols and Communication (^e)</td>
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<tr>
<td>ITP 100</td>
<td>Software Design (^f)</td>
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<tr>
<td>ENG 112</td>
<td>College Composition II (^g)</td>
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<td>or</td>
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<tr>
<td>Elective (^g)</td>
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<tr>
<td>ITD 130</td>
<td>Database Fundamentals</td>
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<tr>
<td><strong>Third Semester</strong></td>
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<td></td>
</tr>
<tr>
<td>HLT/PED</td>
<td>Health/Physical Education Elective</td>
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<tr>
<td>IT Programming Elective (^h)</td>
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<tr>
<td>IT Elective (^i)</td>
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<td>3</td>
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<tr>
<td>ITD 110</td>
<td>Web Page Design I</td>
<td>3</td>
</tr>
<tr>
<td>ITN 260</td>
<td>Network Security Basics</td>
<td>3</td>
</tr>
<tr>
<td>ITE 120</td>
<td>Principles of Information Systems</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16</td>
</tr>
<tr>
<td><strong>Fourth Semester</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HLT/PED</td>
<td>Health/Physical Education Elective</td>
<td>1</td>
</tr>
<tr>
<td>ITP 296</td>
<td>Internship in IT (^j)</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITP 298</td>
<td>Seminar and Project (^j)</td>
<td>(3)</td>
</tr>
<tr>
<td>IT Elective (^i)</td>
<td></td>
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</tbody>
</table>
ITE 160  Introduction to E-Commerce  3
Social and Behavioral Science Elective  k  3
Literature/Humanities/Fine Arts Elective  l  3

**Total credits required**  65

a  Students intending to complete a four-year degree in the future should select ENG 111 and 112.
b  Students should take the highest math for which they are prepared. Any student wishing to transfer should choose: MTH 151, MTH 157, MTH 163, MTH 173, or MTH 270
c  Cross-listed as ETR 164.
d  ITE 119 is a co-requisite or prerequisite to most other IT courses and should be taken in the first semester.
e  Cross-listed with ETR 225
f  ITP 100 is a prerequisite to all other ITE programming courses
g  Students intending to complete a four-year degree in the future should select ENG 112. Recommended elective CST 229. Other electives include ITN 151, all 100-200 level ITE, ITD, ITP, and ITN courses not already required in the program, and ACC 211, BUS 226, ECO 201 and 202.
h  Students should select a programming course. Suitable courses include ITP 110, ITP 120, ITP 225 or a second level programming course. Prerequisite: Completion of ITE 119 and ITP 100 or permission of instructor.
i  IT electives include ACC 211, BUS 226, ITN 151, all 100-200 level ITE, ITD, ITP, and ITN courses not already required in the program.
j  The internship or capstone project should be completed in the last semester of the program. Credit for these courses may not be obtained through the College’s advanced standing process.
k  Please refer to the list of Social and Behavioral Science electives on page 92 that are approved to fulfill this requirement. Recommended elective ECO 201 and 202.
l  Please refer to the approved list of Literature/Humanities/Fine Arts electives on page 92 to fulfill this requirement.

---

**Information Systems Technology, Information Technology for Business Specialization**

**Award:** Associate of Applied Science Degree  
**Major:** Information Systems Technology  
**Specialization:** Information Technology for Business

Possible occupations for graduates are: Information Specialist, Supervisor, Executive Administrative Assistant, Computer Sales, Software Trainer, and related occupations.

The A.A.S. degree in Information Systems Technology with a specialization in Information Technology for Business focuses on the practical application of computing to solve business issues. It is designed to train specialists in how to use computer systems to organize, analyze, and maintain business information. It provides students with a blend of information systems technology and business courses.

**Curriculum**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUS 100</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>ENG 111</td>
<td>College Composition I  a</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENG 116</td>
<td>Writing for Business</td>
<td>(3)</td>
</tr>
<tr>
<td>MTH 103</td>
<td>Applied Technical Math I  b</td>
<td>3</td>
</tr>
<tr>
<td>ITN 106</td>
<td>Microcomputer Operating Systems  c</td>
<td>3</td>
</tr>
<tr>
<td>ITE 119</td>
<td>Information Literacy  d</td>
<td>3</td>
</tr>
<tr>
<td>SDV 101</td>
<td>Orientation to the IT Profession</td>
<td>2</td>
</tr>
</tbody>
</table>

Total: 17

| **Second Semester**                                                                 |
| BUS 118    | Concepts of Supervision                    | 3       |
| ENG 112    | College Composition II                    | 3       |
| or         |                                             |         |
|            | Elective  e                               | (3)     |
| ITE 182    | User Support/Help Desk Principles          | 3       |
ITN 208  Protocols and Communications $^f$  4
Social and Behavioral Science Elective $^g$  3

**Third Semester**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 270</td>
<td>Interpersonal Dynamics in the Business Organization</td>
<td>3</td>
</tr>
<tr>
<td>ITE 120</td>
<td>Principles of Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>ITE 140</td>
<td>Spreadsheet Software</td>
<td>3</td>
</tr>
<tr>
<td>ITE 160</td>
<td>Introduction to E-Commerce</td>
<td>3</td>
</tr>
<tr>
<td>HLT/PED</td>
<td>Health/Physical Education Elective</td>
<td>1</td>
</tr>
<tr>
<td>IT/BUS</td>
<td>Elective $^h$</td>
<td>3</td>
</tr>
</tbody>
</table>

**Fourth Semester**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLT/PED</td>
<td>Health/Physical Education Elective</td>
<td>1</td>
</tr>
<tr>
<td>ITD 110</td>
<td>Web Page Design I</td>
<td>3</td>
</tr>
<tr>
<td>ITD 130</td>
<td>Database Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>ITP 296</td>
<td>Internship in IT</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>ITP 298 Seminar and Project</td>
<td>(3)</td>
</tr>
<tr>
<td>IT/BUS</td>
<td>Elective $^h$</td>
<td>3</td>
</tr>
</tbody>
</table>

| Literature/Humanities/Fine Arts Elective $^j$ | 3 |

**Total credits required**  65

**a** Students intending to complete a four-year degree in the future should select ENG 111 and 112.

**b** Students should take the highest math for which they are prepared. Any student wishing to transfer should choose: MTH 151, MTH 157, MTH 163, MTH 173, or MTH 270.

**c** Cross-listed with ETR 164

**d** ITE 119 is a co-requisite or prerequisite to most other IT courses and should be taken in the first semester.

**e** Students intending to complete a four-year degree in the future should select ENG 112 Recommended elective CST 229. Other electives include ITN 151, all 100-200 level BUS, ITE, ITD, ITP, and ITN courses not already required in the program, ACC 211, BUS 226, ECO 201 and 202.

**f** Cross-listed with ETR 225

**g** Please refer to the list of Social and Behavioral Science electives on page 92 that are approved to fulfill this requirement. Recommended elective ECO 201 and 202.

**h** IT/BUS electives include ACC 211, ECO 201 and 202, BUS 226, ITN 151, all 100-200 level ITD, ITE, ITN, and ITP courses not already required in the program.

**i** The internship or capstone project should be completed in the last semester of the program. Credit for these courses may not be obtained through the College’s advanced standing process.

**j** Please refer to the approved list of Literature/Humanities/Fine Arts electives on page 92 to fulfill this requirement.

**Computer Help Desk**

**Award: Career Studies Certificate**

Purpose: to provide students with both the technical skills and the interpersonal skills needed to be successful in a help desk support position. The goal of the course content and the career studies certificate is to include up-to-date information and technology that is currently used by many help desk professionals in today’s workforce. Following the completion of the program, graduates will be prepared for an entry-level position in a help desk support role.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>College Composition</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>Writing for Business</td>
<td>(3)</td>
</tr>
<tr>
<td>BUS 270</td>
<td>Interpersonal Dynamics in the Business Organization</td>
<td>3</td>
</tr>
<tr>
<td>ITE 105</td>
<td>Career and Cyber Ethics</td>
<td>2</td>
</tr>
<tr>
<td>or</td>
<td>Orientation to the IT Profession</td>
<td>(2)</td>
</tr>
<tr>
<td>SDV 101</td>
<td>Information Literacy $^a$</td>
<td>3</td>
</tr>
<tr>
<td>ITE 119</td>
<td>User Support/Help Desk Principles</td>
<td>3</td>
</tr>
<tr>
<td>ITE 140</td>
<td>Spreadsheet Software</td>
<td>3</td>
</tr>
</tbody>
</table>
## Computer Network Technologies

**Award: Career Studies Certificate**

Purpose: to provide students with fundamental knowledge and skills in data communications, computer systems, LAN (Local Area Network) architecture and administration. The program emphasizes the importance of certification and assists students to prepare for certification exams.

<table>
<thead>
<tr>
<th>Course No</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITE 182</td>
<td>User Support/Help Desk</td>
<td>3</td>
</tr>
<tr>
<td>ITN 106</td>
<td>Microcomputer Operating Systems&lt;sup&gt;b&lt;/sup&gt;</td>
<td>3</td>
</tr>
<tr>
<td>ITN 208</td>
<td>Protocols and Communications&lt;sup&gt;b&lt;/sup&gt;</td>
<td>4</td>
</tr>
<tr>
<td>ITE 119</td>
<td>Information Literacy&lt;sup&gt;c&lt;/sup&gt;</td>
<td>3</td>
</tr>
<tr>
<td>ITN 103</td>
<td>Administration of Networked Servers</td>
<td>3</td>
</tr>
<tr>
<td>ITN 151</td>
<td>Introductory Routing and Switching</td>
<td>3</td>
</tr>
<tr>
<td>ITN 260</td>
<td>Network Security Basics</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total credits required**

22

<sup>a</sup> Cross-listed as ETR 164.

<sup>b</sup> Cross-listed as ETR 225.

<sup>c</sup> ITE 119 is a co-requisite or prerequisite to most other IT courses and should be taken in the first semester.

## Information Technology

**Award: Career Studies Certificate**

Purpose: to provide the student with an opportunity to explore various technical areas within Information Technology. These courses will provide an overview of the discipline for those interested in expanding their knowledge but will also provide an appropriate background for continuing academic studies. This certificate follows the guidelines for transfer options in Information Systems prepared by the Association for Computing Machinery Two-Year College Education Committee.

<table>
<thead>
<tr>
<th>Course No</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITE 119</td>
<td>Information Literacy&lt;sup&gt;a&lt;/sup&gt;</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITE 120</td>
<td>Principles of Information Systems</td>
<td>(3)</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSC 200</td>
<td>Introduction to Computer Science</td>
<td>(3)</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITE 105</td>
<td>Careers and Cyber Ethics</td>
<td>2</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SDV 101</td>
<td>Orientation to the IST Profession</td>
<td>(2)</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITP 100</td>
<td>Software Design</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITP 120</td>
<td>Java Programming I</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITN 208</td>
<td>Protocols and Communications</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITD 130</td>
<td>Database Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IT Elective&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITP 296</td>
<td>Internship in IT</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITP 298</td>
<td>Seminar and Project</td>
<td>(3)</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IT Elective</td>
<td></td>
<td>(3)</td>
</tr>
</tbody>
</table>

**Total credits required**

25

<sup>a</sup> ITE 119 is a co-requisite or prerequisite to most other IT courses and should be taken in the first semester.

<sup>b</sup> IT electives include ACC 211, BUS 226, ETR 225, ITN 151, all 100-200 level ITE, ITD, ITP, and ITN courses not already required in the program.
Multimedia Development and Integration

**Award: Career Studies Certificate**
Purpose: to provide students with the foundations of multimedia production. The courses introduce the student to current software and hardware used in the production of multimedia for web, video, film, and computer-based applications. The student will also learn pre-production planning methods and resource management associated with multimedia production. The goal of the Career Studies Certificate in Multimedia Development is to prepare students for entry-level career positions in video production, film production and at multimedia design studios, and for further studies at senior institutions.

<table>
<thead>
<tr>
<th>Course No</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITE 119</td>
<td>Information Literacy a</td>
<td>3</td>
</tr>
<tr>
<td>ART 131</td>
<td>Fundamentals of Design I</td>
<td>3</td>
</tr>
<tr>
<td>ITE 170</td>
<td>Multimedia Software</td>
<td>3</td>
</tr>
<tr>
<td>ITD 110</td>
<td>Web Design I</td>
<td>3</td>
</tr>
<tr>
<td>ITE 270</td>
<td>Advanced Multimedia Development</td>
<td>3</td>
</tr>
<tr>
<td>ART 283</td>
<td>Computer Graphics</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total credits required** 18

a ITE 119 is a prerequisite for ITD 110

Web Design and Development

**Award: Career Studies Certificate**
Purpose: to train students to use standards-based web design fundamentals including multimedia design and for database-driven web applications.

Following completion of the program, graduates will be prepared for entry-level positions in: web design, web development, and mobile web application development. Students also have the opportunity to further specialize, through electives, in graphic and multimedia design, server security and administration, or further programming skills.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITE 119</td>
<td>Information Literacy a</td>
<td>3</td>
</tr>
<tr>
<td>ITD 110</td>
<td>Web Page Design I</td>
<td>3</td>
</tr>
<tr>
<td>ITD 210</td>
<td>Web Page Design II</td>
<td>3</td>
</tr>
<tr>
<td>ITD 130</td>
<td>Database Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>ITP 100</td>
<td>Software Design</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>CSC 200 Introduction to Computer Science</td>
<td>(3)</td>
</tr>
<tr>
<td>ITP 120</td>
<td>Java Programming I</td>
<td>4</td>
</tr>
<tr>
<td>ITP 225</td>
<td>Web Scripting Languages</td>
<td>3</td>
</tr>
<tr>
<td>IT</td>
<td>Elective b</td>
<td>6</td>
</tr>
</tbody>
</table>

**Total credits required** 28

a ITE 119 is a co-requisite or prerequisite to most other IT courses and should be taken in the first semester.
b Choose from ART 283, ART 284, ITE 170, ITE 270, ITE 160, ITN 103, ITN 208, ITN 260, ITP 110, or ITP 220
**Mechanical Design Technology**

**Award:** Associate of Applied Science Degree  
**Major:** Mechanical Design Technology  

Possible occupations for graduates: engineering assistant, mechanical engineer technician, industrial engineer technician, quality control technician, material testing technician, and technical salesperson.

The A.A.S. degree program in Mechanical Design Technology is designed for people who seek employment or professional development in the area of mechanical engineering technology. Technical electives can be selected to suit the student’s specific career objectives.

### Curriculum

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cad 140</td>
<td>Technical Drawing</td>
<td>3</td>
</tr>
<tr>
<td>Eco 120</td>
<td>Survey of Economics d</td>
<td>3</td>
</tr>
<tr>
<td>Eng 111</td>
<td>College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>Mec 111</td>
<td>Materials for Industry</td>
<td>3</td>
</tr>
<tr>
<td>Mth 103</td>
<td>Applied Technical Mathematics I</td>
<td>3</td>
</tr>
<tr>
<td>or Mth 163</td>
<td>Precalculus I a</td>
<td>(3)</td>
</tr>
<tr>
<td>Sdv</td>
<td>Student Development</td>
<td>1</td>
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<td></td>
<td><strong>Total credits required</strong></td>
<td>16</td>
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<tr>
<td><strong>Second Semester</strong></td>
<td></td>
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</tr>
<tr>
<td>Cad 241</td>
<td>Parametric Solid Modeling I</td>
<td>3</td>
</tr>
<tr>
<td>Egr 127</td>
<td>Introduction to Computer Programming</td>
<td>2</td>
</tr>
<tr>
<td>Mec 112</td>
<td>Processes of Industry</td>
<td>3</td>
</tr>
<tr>
<td>Mth 104</td>
<td>Applied Technical Mathematics II</td>
<td>3</td>
</tr>
<tr>
<td>or Mth 164</td>
<td>Precalculus II a</td>
<td>(3)</td>
</tr>
<tr>
<td>Social and Behavioral Science Elective b</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total credits required</strong></td>
<td>14</td>
</tr>
<tr>
<td><strong>Third Semester</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cad 225</td>
<td>Machine Drawing and Design</td>
<td>3</td>
</tr>
<tr>
<td>Cad 242</td>
<td>Parametric Solid Modeling II</td>
<td>3</td>
</tr>
<tr>
<td>Egr 130</td>
<td>Statics and Strengths of Materials for Engineering Technology</td>
<td>5</td>
</tr>
<tr>
<td>Phy 201</td>
<td>General College Physics I</td>
<td>4</td>
</tr>
<tr>
<td>or Technical Elective c</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total credits required</strong></td>
<td>18</td>
</tr>
<tr>
<td><strong>Fourth Semester</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Egr 245</td>
<td>Engineering Mechanics - Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>Egr 247</td>
<td>Mechanics of Materials Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>Egr 285</td>
<td>Capstone Project</td>
<td>1</td>
</tr>
<tr>
<td>Hlt/ped</td>
<td>Health/Physical Education Electives</td>
<td>2</td>
</tr>
<tr>
<td>Mec 211</td>
<td>Machine Design I</td>
<td>4</td>
</tr>
<tr>
<td>Phy 202</td>
<td>General College Physics II</td>
<td>4</td>
</tr>
<tr>
<td>or Technical Elective c</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Literature/Humanities/Fine Arts Elective b</td>
<td>(3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total credits required</strong></td>
<td>17-18</td>
</tr>
</tbody>
</table>

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a MTH 173 may be substituted. Students who wish to transfer should take MTH 163-164 or MTH 173.

b Please refer to page 92 for the list of Literature/Humanities/Fine Arts electives and Social and Behavioral Science electives that are approved to fulfill these requirements.

c Please refer to page 77 for Technical Electives for the Mechanical Design Technology degree that may fulfill this requirement.
Students may not receive credit towards graduation requirements for both ECO 120 and ECO 201 or ECO 120 and ECO 202.

Technical Electives: Mechanical Design Technology Degree
ARC 121, ARC 122, CAD 243, MEC 225, MEC 255, and MTH 173 may be used as technical electives.

Computer-Aided Drafting

**Award: Career Studies Certificate**
Purpose: to train students in the fundamentals of design and drafting and the use of computer software applications in various drafting disciplines. This career studies certificate provides the minimum preparation for employment as a draftsman or CAD operator.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD 140</td>
<td>Technical Drawing</td>
<td>3</td>
</tr>
<tr>
<td>CAD 241</td>
<td>Parametric Solid Modeling I</td>
<td>3</td>
</tr>
<tr>
<td>CAD 242</td>
<td>Parametric Solid Modeling II</td>
<td>3</td>
</tr>
<tr>
<td>ARC 121</td>
<td>Architectural Drafting I</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>CAD 243 Parametric Solid Modeling III</td>
<td>(3)</td>
</tr>
</tbody>
</table>

Total credits required: 12

Quality Control

**Award: Career Studies Certificate**
Purpose: to give students training in quality control techniques. This career studies certificate prepares students for assembly line quality assurance jobs.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD 161</td>
<td>Blueprint Reading I</td>
<td>2</td>
</tr>
<tr>
<td>BUS 200</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>IND 146</td>
<td>Statistical Quality Control</td>
<td>3</td>
</tr>
<tr>
<td>EGR 206</td>
<td>Engineering Economics</td>
<td>3</td>
</tr>
<tr>
<td>MEC 111</td>
<td>Materials for Industry</td>
<td>3</td>
</tr>
<tr>
<td>BUS 221</td>
<td>Business Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>MTH 157 Elementary Statistics</td>
<td>(3)</td>
</tr>
</tbody>
</table>

Total credits required: 17
Nursing

Award: Associate of Applied Science Degree in Health Technology

Major: Nursing

The Associate of Applied Science degree in Health Technology with a major in nursing is designed to prepare selected students to qualify as contributing members of the health team, rendering direct patient care as beginning practitioners of nursing in a variety of health service facilities. Classroom and clinical experiences will include lifespan from birth to death. Graduates will be eligible to take the National Council Licensure Examination leading to licensure as a Registered Nurse (RN). Licensure is required in order to be employed as a registered nurse. The nursing program is approved by the State Board of Nursing and accredited by the ACEN (Accreditation Commission for Education in Nursing) 3343 Peachtree Road NE, Suite 850, Atlanta, Georgia 30326; telephone 404-975-5000.

The nursing law of Virginia addresses criteria for application for licensure. The Virginia State Board of Nursing has the power to deny opportunity to procure a license through testing if the applicant has willfully committed a felony/misdemeanor under laws of the Commonwealth of Virginia or of the United States. Students will be required to pay for a criminal background check and urine drug test when they apply for the clinical component of the program.

General Education Courses

Students who have not been accepted into the clinical component of the program will be enrolled in the Health Sciences-Nursing (pre-nursing) curriculum. Pre-nursing students are encouraged to complete clinical component prerequisites (required in order to be eligible for admission) and as many of the general education courses as possible before beginning the clinical portion of the program. The general education courses required for graduation are: ENG 111-112, SOC 215, PSY 230, Humanities/Fine Arts (see footnote on page 78), ITE 119, and SDV, in addition to BIO 141-142, which are clinical prerequisite courses. Please note that BIO 141-142 must be completed within 10 years of application to the clinical component of the program. BIO 141 must be completed with a grade of “C” or better prior to the application deadline, and the applicant must be enrolled in BIO 142. Candidates may be provisionally admitted pending successful completion of BIO 142 with a grade of “C” or better.

Pre-nursing students are encouraged to complete as many required general education courses as possible before applying for admission to the clinical component of the program. Students who did not complete high school biology, algebra and chemistry with a grade of “C” or higher are also strongly encouraged to complete MTE 1-5, BIO 101 and CHM 101 or CHM 111 before enrolling in the BIO 141-142 sequence. In addition, students should not enroll in two science courses during the same semester, excluding summer.

Application and Admission to the Clinical Component

General Information

Admission to the clinical component of the nursing program is highly competitive. Students apply in a separate admissions process to the clinical component in the fall prior to the start of nursing classes the following year. LPNs begin in May. Traditional students begin in August. Clinical applications are available online on the Nursing Program website in late fall semester. Acceptance to the College does not guarantee admission to the clinical component. Students must satisfy the graduation requirements listed in the BRCC Catalog and Nursing Student Handbook in effect at the time they begin the clinical component of the program. For students with questionable criminal records, you are encouraged to do a complete background check to determine eligibility for the program. Please see information regarding this on the Nursing Program website: community.b SCC.edu/nursing/.

Students who are admitted to the clinical component of the program must complete each nursing course with a grade of 82% or greater in order to continue in the clinical nursing sequence. Students who fail to achieve a minimum grade of 82% may not continue in the program and must reapply and be accepted for readmission. Readmission is competitive and is not guaranteed.

Residence in Service Region

Since the number of applicants generally exceeds the space available in the clinical program, some applicants may not be accepted even if the minimum requirements for admission are met. When enrollments must be limited for any curriculum, such as nursing, priority shall be given to all qualified applicants who are the most competitive. Residents of the political subdivisions supporting the College will receive 5 additional points on the selection scale. These include residents in the BRCC service area: Harrisonburg, Staunton, Waynesboro,
Augusta County, Rockingham County, and Highland County.

Please be aware that the qualified Virginia resident applicant pool may more than fill the enrollment capacity for the nursing clinical component; therefore the College may not be able to honor all requests for admission into the nursing clinical component.

In order to be considered a resident of the BRCC service region, applicants must have been domiciled continuously in the service region for the 12 months prior to the clinical application deadline and must not be residents of the service region for the primary purpose of education. Service area criteria will be scrutinized very carefully. A student with out-of-state tuition status is not a resident of the BRCC service region.

Documentation may be required to establish residency in the BRCC service region. Listed below are documents that may be requested:

- the parents’ and student’s latest federal and Virginia tax returns
- physical residence in the student’s name that is not student housing
- full-time or equivalent employment documenting income of $10,500 or more
- car registration and VA driver’s license in the student’s name
- documents showing who pays insurances and college tuition and fees.

**Clinical Component Prerequisites**

In order to be considered for admission to the clinical portion of the nursing program, applicants must have:

- earned a high school diploma or the equivalent
- applied to the College
- attained a 45% score on the math and reading comprehension portions of the nursing entrance examination required by the program. Additional information is available at [community.brcc.edu/nursing/](http://community.brcc.edu/nursing/). In lieu of the designated nursing entrance examination, scores from NLN, HESI, and ATI may be accepted if approved by the Nursing Program Head. The nursing entrance examination must be taken within three years of application to the clinical component of the program.
- 1 unit of high school biology with laboratory, with a grade of “C” or higher (or BIO 101)
- 1 unit of high school chemistry with laboratory, with a grade of “C” or higher (or CHM 101 or CHM 111)
- A Virginia Placement Test (VPT) score demonstrating competency in arithmetic or MTE 1-2 is required and successful completion of MTE 3-5 is strongly recommended, or SAT math score of 520, or ACT math score of 22, or completion of college-level math with a grade of “C” or higher
- 1 unit of high school algebra (with a “C” or better) or MTE 1-5, or SAT math score of 520/ACT math score of 22, or completion of college-level math class equivalent to MTH 151 or higher with a grade of “C” or higher
- a cumulative grade point average of 2.5 or higher in BRCC college course work
- successfully completed BIO 141 and 142 with a grade of “C” or higher. BIO 141 and 142 must have been successfully completed within 10 years of application to the clinical component of the program. Students who are registered for BIO 142 in the spring semester may be given conditional acceptance pending completion with a grade of “C” or higher
- submitted a Nursing Clinical Component Application form by the stated deadline date.
- submitted official transcripts of all secondary and post-secondary schools attended (excluding VCCS colleges), including LPN transcripts and current LPN license for students who completed LPN training)
- thoroughly reviewed all information presented in the current online Nursing Program Information session and completed the post-test with a score of 70 or higher. A copy of the post-test must be submitted with the application. These materials can be accessed at [community.brcc.edu/nursing/](http://community.brcc.edu/nursing/).

**Admission Preference**

Preference for admission to the clinical component of the program is given to applicants who have:

- documented residence in the BRCC service region for 12 months continuously prior to the clinical application deadline, in accordance with the criteria described earlier in this narrative
- completed more of the general education courses required for graduation, compared to other applicants
- a higher grade point average in the general education courses required for graduation, compared to other applicants
- a higher grade point average for BIO 141-142, compared to other applicants
- previous paid work experience in a health care setting.
Special Admission Criteria for Recent High School Graduates

A limited number of recent high school graduates (not to exceed 10% of successful applicants) may be admitted to the clinical component of the program. Since recent high school graduates have not had the opportunity to enroll in the required general education courses in the program, there are special admission criteria that are outlined below. Students should be aware that this option is a rigorous and academically challenging program that requires five semesters (including summer) of full-time attendance. The special admission criteria are:

- high school cumulative grade point average of 3.0 or higher
- applied to the College
- attained a 45% score on the math and reading comprehension portions of the nursing entrance examination required by the program.
- 1 unit of high school biology with laboratory, with a grade of “C” or higher (or BIO 101)
- 1 unit of high school chemistry with laboratory, with a grade of “C” or higher (or CHM 101 or CHM 111)
- Scholastic Aptitude Test (SAT) scores of 500 or higher /reading, 500 or higher/writing, 520 or higher/math, or ACT scores of 21 on reading and writing, and 22 on math Virginia Placement Test (VPT) score demonstrating competency in arithmetic or MTE 1-2 is required and MTE 3-5 is strongly recommended. Students who have achieved a grade of “C” or higher on a high school algebra course are not required to take a math course.
- High School Transcript: current high school students must submit an official transcript. A final official transcript is required in June for high school candidates with tentative acceptance.
- Admission preference will be given to high school candidates who have successfully completed Advanced Placement (AP) courses, who have a higher high school grade point average than other high school applicants, or who have completed dual enrollment courses through the Career Pathways Consortium.

Admission Criteria for Students Seeking Program Readmission

Any student who fails the clinical component or receives a final grade lower than 82% in any of the courses in the clinical nursing sequence may not continue in the major. The student must reapply to the program and, if accepted, repeat the course and earn a final grade of 82% or higher before taking the next course in the sequence. Readmission to the program is competitive and is not guaranteed. Students must apply for readmission to the clinical component and document completion of all regular admission criteria. Students will only be readmitted once to the clinical component of the nursing program. In order to graduate, students must maintain a cumulative grade point average of 2.0. Students who apply for readmission after two years from the time they left the program must start at the beginning of the nursing course sequence. Students seeking readmission to the program must:

- complete an exit interview with the Nursing program head prior to leaving the program.
- document completion of all regular admission criteria by stated deadlines.
- submit a written plan of action for completion of the required general education courses in the program.
- successfully complete a skills exam and written exam with a score of 80% or better.

Advanced Standing for LPN Students

LPN students must apply for admission to the clinical component of the program and document completion of all regular admission criteria (including submission of an official transcript from their LPN program and a copy of their current Virginia unrestricted LPN license). Once accepted, LPN students complete three semesters of study, beginning in the summer.

Full-time Curriculum

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>BIO 141</td>
<td>Human Anatomy and Physiology I</td>
<td>4</td>
</tr>
<tr>
<td>NUR 108</td>
<td>Nursing Principles and Concepts I</td>
<td>6</td>
</tr>
<tr>
<td>NUR 136</td>
<td>Principles of Pharmacology I</td>
<td>1</td>
</tr>
<tr>
<td>SDV</td>
<td>Student Development</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15</td>
</tr>
</tbody>
</table>
### Spring Semester (2nd semester)
- **ENG 112** College Composition II  
- **BIO 142** Human Anatomy and Physiology II  
- **NUR 109** Nursing Principles and Concepts II  
- **NUR 137** Principles of Pharmacology II  

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 112</td>
<td>College Composition II</td>
<td>3</td>
</tr>
<tr>
<td>BIO 142</td>
<td>Human Anatomy and Physiology II</td>
<td>4</td>
</tr>
<tr>
<td>NUR 109</td>
<td>Nursing Principles and Concepts II</td>
<td>6</td>
</tr>
<tr>
<td>NUR 137</td>
<td>Principles of Pharmacology II</td>
<td>1</td>
</tr>
</tbody>
</table>

### Summer Semester (3rd semester)
- **NUR 226** Health Assessment  
- **NUR 247** Psychiatric/Mental Health Nursing  
- **ITE 119** Information Literacy  
- **PHI 225** Selected Problems in Applied Ethics  

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR 226</td>
<td>Health Assessment</td>
<td>3</td>
</tr>
<tr>
<td>NUR 247</td>
<td>Psychiatric/Mental Health Nursing</td>
<td>3</td>
</tr>
<tr>
<td>ITE 119</td>
<td>Information Literacy</td>
<td>3</td>
</tr>
<tr>
<td>PHI 225</td>
<td>Selected Problems in Applied Ethics</td>
<td>2</td>
</tr>
</tbody>
</table>

### Fall Semester (4th semester)
- **NUR 245** Maternal-Newborn Nursing  
- **NUR 213** Second Level Nursing III  
- **PSY 230** Developmental Psychology  

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR 245</td>
<td>Maternal-Newborn Nursing</td>
<td>3</td>
</tr>
<tr>
<td>NUR 213</td>
<td>Second Level Nursing III</td>
<td>7</td>
</tr>
<tr>
<td>PSY 230</td>
<td>Developmental Psychology</td>
<td>3</td>
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</tbody>
</table>

### Spring Semester (5th semester)
- **NUR 214** Second Level Nursing IV  
- **NUR 254** Dimensions of Nursing  
- **SOC 215** Sociology of the Family  

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR 214</td>
<td>Second Level Nursing IV</td>
<td>7</td>
</tr>
<tr>
<td>NUR 254</td>
<td>Dimensions of Nursing</td>
<td>2</td>
</tr>
<tr>
<td>SOC 215</td>
<td>Sociology of the Family</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Total credits required: **66**

*LPNs who qualify for this option do not take NUR 108 and NUR 109 but take NUR 115 and NUR 136 in the summer. Two credits of NUR 108 count towards PED/HLT requirements for this degree.*

*Please refer to page 92 for the list of Literature/Humanities/Fine Arts electives that are approved to fulfill these requirements.*

### Part-time Curriculum
This option is for those students who need some prerequisites and/or must work and wish to attend part-time. This option can take three years or longer because students may wish to take only one pre-clinical class per semester.

**Pre-Clinical Studies for Traditional Students**
- **ENG 111 and 112**: College Composition I-II
- **BIO 141 and 142**: Human Anatomy and Physiology I-II
- **SOC 215**: Sociology of the Family
- **PHI 225**: Selected Problems in Applied Ethics (see footnote “b” under full-time curriculum)
- **PSY 230**: Developmental Psychology
- **ITE 119**: Information Literacy
- **SDV**: Student Development

**Clinical Component: 5 semesters**

**Fall:**
- NUR 108: Nursing I
- NUR 136: Principles of Pharmacology I

**Spring:**
- NUR 109: Nursing II
- NUR 137: Principles of Pharmacology II

**Summer:**
- NUR 226: Health Assessment
- NUR 247: Psychiatric/Mental Health Nursing

**Fall:**
- NUR 245: Maternal/Newborn Nursing
- NUR 213: Second Level Nursing III

**Spring:**
- NUR 214: Second Level Nursing IV
- NUR 254: Nursing Dimensions
Part-Time LPN-RN Transition Curriculum

This option is for those students who are LPNs, need some prerequisites, and/or work and wish to attend part-time. This option can take two years or longer.

Pre-Clinical Studies for LPN Students

ENG 111 and 112: College Composition I-II
BIO 141 and 142: Human Anatomy and Physiology I-II
SOC 215: Sociology of the Family
PHI 225: Selected Problems in Applied Ethics (see footnote “b” under full-time curriculum)
PSY 230: Developmental Psychology
ITE 119: Information Literacy
SDV: Student Development

Clinical Component: 3 semesters

Summer:  NUR 115: LPN Transition
          NUR 136: Principles of Pharmacology I
          NUR 226: Health Assessment
          NUR 247: Psychiatric/Mental Health Nursing

Fall:    NUR 245: Maternal/Newborn Nursing
          NUR 137: Principles of Pharmacology II
          NUR 213: Second Level Nursing III

Spring:  NUR 214: Second Level Nursing IV
          NUR 254: Nursing Dimensions

All of these options are fully explained in the online Nursing Information Session at community.brcc.edu/nursing/.
Technical Studies

Award: Associate of Applied Science Degree

Major: Students select a plan of study based upon career goals

Possible occupations for graduates: entry-level positions in highly skilled technical fields.

The Technical Studies Degree is designed to provide a broad foundation of general education and technical knowledge, including a focused concentration of study that is based upon the student’s identified career path and/or an industry’s need.

Full-time students may complete the Associate of Applied Science degree in two years; part-time students determine their own pace. Students may be eligible to receive credit for some courses in these curricula through the College’s advanced standing process. Examples include credit by examination or credit received through an articulation agreement.

Curriculum

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>General Education</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>English Composition</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Literature/Humanities/Fine Arts Elective c</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Social and Behavioral Science Elective c</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Mathematics/Natural Science</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Wellness</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Student Development</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Technical Foundations</strong></td>
<td>18-24</td>
</tr>
<tr>
<td></td>
<td>Principles of Technology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Microcomputers/Programming/Software</td>
<td>6-9</td>
</tr>
<tr>
<td></td>
<td>Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Quality Control</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Team Concepts/Problem Solving</td>
<td>3-6</td>
</tr>
<tr>
<td></td>
<td><strong>Content Skills and Knowledge</strong></td>
<td>15-27</td>
</tr>
<tr>
<td></td>
<td>Option 1: Courses selected from a single existing certificate or Diploma, plus electives to define a content area (courses selected to meet students’ goals and employer needs) plus related courses and electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Work-Based Learning</strong></td>
<td>6-15</td>
</tr>
<tr>
<td></td>
<td><strong>Total credits required</strong></td>
<td>65-69</td>
</tr>
</tbody>
</table>
Technical Studies

Award: Associate of Applied Science Degree
Major: Technical Studies
Specialization: Manufacturing Engineering Technology

Possible occupations for graduates in the Manufacturing Engineering Technology program include: manufacturing engineer, control and instrumentation technician, process controls engineer or electromechanical technician. This field of study also suggests career areas in management, supervision, and quality assurance.

The Associate of Applied Science degree in Technical Studies with a specialization in Manufacturing Engineering Technology is designed to provide the technical skills and knowledge base required for those individuals who seek employment or professional development in the field of manufacturing automation. The knowledge and skills needed for success in this field or as a manager of an automated production process include a knowledge of CAD, material science, machine and process technology, basic electronics, digital and microprocessor electronics, instrumentation, PLC systems/programming, as well as managerial courses in business, economics and quality assurance. The curriculum is structured not to require previous electrical or electronics experience; however, these and other skill, will be reinforced through lab exercises as the student progresses through the curriculum.

Curriculum

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAD 140</td>
<td>Technical Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ENG 111</td>
<td>College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>or ETR 113</td>
<td>DC and AC Fundamentals I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 116</td>
<td>Writing for Business</td>
<td>(3)</td>
</tr>
<tr>
<td>IND 165</td>
<td>Principles of Industrial Technology I</td>
<td>4</td>
</tr>
<tr>
<td>MTH 103</td>
<td>Applied Technical Math I</td>
<td>3</td>
</tr>
<tr>
<td>or MTH 163</td>
<td>Pre-calculus I a</td>
<td>(3)</td>
</tr>
<tr>
<td></td>
<td><strong>17</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Second Semester</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ETR 114</td>
<td>DC and AC Fundamentals II</td>
<td>3</td>
</tr>
<tr>
<td>HLT/PED</td>
<td>Health/Physical Education Elective</td>
<td>1</td>
</tr>
<tr>
<td>IND 166</td>
<td>Principles of Industrial Technology II</td>
<td>4</td>
</tr>
<tr>
<td>PHY 100</td>
<td>Elements of Physics b</td>
<td>4</td>
</tr>
<tr>
<td>CAD 241</td>
<td>Parametric Solid Modeling</td>
<td>3</td>
</tr>
<tr>
<td>SDV</td>
<td>Student Development</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>16</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Third Semester</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ETR 273</td>
<td>Computer Electronics I</td>
<td>4</td>
</tr>
<tr>
<td>or MEC 111</td>
<td>Materials for Industry</td>
<td>3</td>
</tr>
<tr>
<td>or HLT/PED</td>
<td>Health/Physical Education Elective</td>
<td>3</td>
</tr>
<tr>
<td>or BUS 200</td>
<td>Principles of Management</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>17</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Fourth Semester</strong></td>
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<td></td>
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<tr>
<td>ETR 237</td>
<td>Industrial Electronics</td>
<td>3</td>
</tr>
<tr>
<td>EGR 206</td>
<td>Engineering Economics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>17</strong></td>
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</tr>
<tr>
<td></td>
<td><strong>Total credits required: 66</strong></td>
<td></td>
</tr>
</tbody>
</table>

a Based on math placement testing. Students planning to transfer are strongly encouraged to take MTH 163.

b Students who wish to transfer may elect to take PHY 201-202 in lieu of this course.

c Please refer to page 92 for the list of Literature/Humanities/Fine Arts and Social and Behavioral Science Electives that are approved to fulfill this requirement.
Technical Studies

Award: Associate of Applied Science Degree

Major: Technical Studies

Specialization: Mechatronics

The Associate of Applied Science degree in Technical Studies with a specialization in Mechatronics is designed to provide the technical skills and knowledge needed for people who seek employment or professional development in a manufacturing environment. The knowledge and skills needed for success as an industrial maintenance technician include a combination of drafting, trade mathematics, basic electronics, robotics, instrumentation, mechanical system concepts, basic controls, and troubleshooting experiences. The curriculum is structured so that students do not need previous electrical or electronics knowledge.

Full-time students may complete the Associate of Applied Science degree in two years; part-time students determine their own pace. Students may be eligible to receive credit for some courses in these curricula through the College’s advanced standing process. Examples include credit by examination or credit received through an articulation agreement.

Curriculum

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELE 123</td>
<td>Electrical Applications I</td>
<td>2</td>
</tr>
<tr>
<td>ETR 113</td>
<td>DC and AC Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>MAC 156</td>
<td>Mechanisms I</td>
<td>3</td>
</tr>
<tr>
<td>MAC 195</td>
<td>Math Applications for Mechanisms</td>
<td>2</td>
</tr>
<tr>
<td>MEC 161</td>
<td>Basic Fluid Mechanics-Hydraulics/Pneumatic</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Student Development</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Total credits required</strong></td>
<td>16</td>
</tr>
<tr>
<td><strong>Second Semester</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ETR 114</td>
<td>DC and AC Fundamentals II</td>
<td>3</td>
</tr>
<tr>
<td>ELE 124</td>
<td>Electrical Applications II</td>
<td>2</td>
</tr>
<tr>
<td>MAC 157</td>
<td>Mechanisms II</td>
<td>3</td>
</tr>
<tr>
<td>ETR 237</td>
<td>Industrial Electronics</td>
<td>3</td>
</tr>
<tr>
<td>ENG 111</td>
<td>English Composition I</td>
<td>3</td>
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<tr>
<td></td>
<td>Social Science Elective a</td>
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<tr>
<td></td>
<td><strong>Total credits required</strong></td>
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<tr>
<td><strong>Third Semester</strong></td>
<td></td>
<td></td>
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<tr>
<td>ELE 156</td>
<td>Electrical Control Systems</td>
<td>3</td>
</tr>
<tr>
<td>ETR 177</td>
<td>Industrial Robotics and Robotics Programming</td>
<td>3</td>
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<tr>
<td>IND 165</td>
<td>Principles of Industrial Technology I</td>
<td>4</td>
</tr>
<tr>
<td>INS 110</td>
<td>Principles of Instrumentation</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Literature/Humanities/Fine Arts Elective a</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>Total credits required</strong></td>
<td>16</td>
</tr>
<tr>
<td><strong>Fourth Semester</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IND 251</td>
<td>Automated Manufacturing Systems</td>
<td>4</td>
</tr>
<tr>
<td>ETR 286</td>
<td>Principles and Applications of Robotics</td>
<td>3</td>
</tr>
<tr>
<td>EGR 206</td>
<td>Engineering Economics</td>
<td>3</td>
</tr>
<tr>
<td>CAD 161</td>
<td>Blueprint Reading</td>
<td>2</td>
</tr>
<tr>
<td>MTH 103</td>
<td>Applied Technical Math I</td>
<td>3</td>
</tr>
<tr>
<td>HLT/PED</td>
<td>Health/Physical Education Electives</td>
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</tr>
<tr>
<td></td>
<td><strong>Total credits required</strong></td>
<td>17</td>
</tr>
</tbody>
</table>

Please refer to page 92 for the list of Literature/Humanities/Fine Arts and Social and Behavioral Science Electives that are approved to fulfill this requirement.
Automation in Manufacturing Engineering

**Award: Career Studies Certificate**

Purpose: to provide students with the fundamental knowledge and skills necessary for employment or professional development in an automated manufacturing environment with focus on computer integrated manufacturing and sensor input/output process control systems. This career studies certificate prepares students for manufacturing occupations such as control technician, instrumentation technician, manufacturing technologist, electromechanical technician, and industrial technician. Upon completion of the career studies certificate, credits may be applied toward the A.A.S. degree with a specialization in Technical Studies in Manufacturing Engineering Technology.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IND 165</td>
<td>Principles of Industrial Technology I</td>
<td>4</td>
</tr>
<tr>
<td>IND 166</td>
<td>Principles of Industrial Technology II</td>
<td>4</td>
</tr>
<tr>
<td>CAD 140</td>
<td>Technical Drawing</td>
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</tr>
<tr>
<td>ETR 113</td>
<td>DC and AC Fundamentals I</td>
<td>3</td>
</tr>
<tr>
<td>ETR 114</td>
<td>DC and AC Fundamentals II</td>
<td>3</td>
</tr>
<tr>
<td>ETR 237</td>
<td>Industrial Electronics I</td>
<td>4</td>
</tr>
<tr>
<td>IND 251</td>
<td>Automation in Manufacturing Systems</td>
<td></td>
</tr>
</tbody>
</table>

**Total credits required**  

25

Business Management and Productivity

**Award: Career Studies Certificate**

Purpose: to provide a broad overview of the three major areas involved in the day-to-day operations of a manufacturing facility, including economics, financial management and human resource utilization. The completed career studies certificate will provide a foundation for those students seeking further study in the area of manufacturing management.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 200</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
</tbody>
</table>
| ENG 111    | English Composition I  
 or ENG 116 Writing for Business  
 or ITE 119 Information Literacy  
 or ITE 120 Principles of Information Systems  
 or CSC 200 Introduction to Computer Science  
 or BUS 270 Interpersonal Dynamics in the Business Organization  
 or EGR 206 Engineering Economics | (3)  
 or (3)  
 or (3)  
 or (3)  
 or (3)  
 or (3)  |

**Total credits required**  

15

*Students who plan to transfer are strongly encouraged to take ENG 111*

Electrical Control Fundamentals

**Award: Career Studies Certificate**

Purpose: to provide students, who already possess an understanding of electrical fundamentals, further instruction in the areas of electrical control and programmable logic control. This career studies certificate prepares students for entry-level positions as controls or instrument technicians in manufacturing.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETR 112</td>
<td>Math Applications for ELE/ETR Analysis</td>
<td>2</td>
</tr>
<tr>
<td>INS 110</td>
<td>Principles of Instrumentation</td>
<td>3</td>
</tr>
<tr>
<td>ELE 156</td>
<td>Electrical Controls Systems</td>
<td>3</td>
</tr>
<tr>
<td>ETR 237</td>
<td>Industrial Electronics I</td>
<td>3</td>
</tr>
<tr>
<td>SAF 127</td>
<td>Industrial Safety</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total credits required**  

13
Electrical Fundamentals

**Award: Career Studies Certificate**  
Purpose: to provide students with a strong foundation in electrical principles, both A.C. & D.C., and to familiarize students with basic applications. This career studies certificate prepares students for entry-level technical positions in manufacturing that focus on electrical applications.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETR 112</td>
<td>Math Applications for ELE/ETR Analysis</td>
<td>2</td>
</tr>
<tr>
<td>ELE 113</td>
<td>Electricity I</td>
<td>3</td>
</tr>
<tr>
<td>ELE 123</td>
<td>Electrical Applications I</td>
<td>2</td>
</tr>
<tr>
<td>ELE 114</td>
<td>Electricity II</td>
<td>3</td>
</tr>
<tr>
<td>ELE 124</td>
<td>Electrical Applications II</td>
<td>2</td>
</tr>
<tr>
<td>SAF 127</td>
<td>Industrial Safety</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total credits required** 14

Mechanical Maintenance Technology

**Award: Career Studies Certificate**  
Purpose: to provide students with an understanding and training in mechanical systems found in a manufacturing environment, including: mechanical drives, hydraulics, and pneumatics. This career studies certificate prepares students for positions in industrial maintenance.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAC 195</td>
<td>Math Applications for Mechanisms</td>
<td>2</td>
</tr>
</tbody>
</table>
| CAD 161    | Blueprint Reading I  

\footnote{a}  
| MAC 156    | Mechanisms I                         | 3       |
| MAC 157    | Mechanisms II                        | 3       |
| MEC 161    | Basic Fluid Mechanics - Hydraulics/Pneumatics | 4       |

**Total credits required** 14  
\footnote{Students wishing to enter the Technical Studies, Manufacturing Engineering Technology Associate Degree program or the Automation in Manufacturing Engineering Career Studies Certificate may substitute CAD 161 and an approved one credit course for CAD 140.}

Mechatronics I

**Award: Career Studies Certificate**  
Purpose: to provide the student with a basic understanding of electrical and mechanical operations. Included is foundational math instruction. This career studies certificate prepares students for entry level positions in industrial maintenance.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELE 123</td>
<td>Electrical Applications I</td>
<td>2</td>
</tr>
<tr>
<td>ETR 113</td>
<td>DC and AC Fundamentals I</td>
<td>3</td>
</tr>
<tr>
<td>MAC 156</td>
<td>Mechanisms I</td>
<td>3</td>
</tr>
</tbody>
</table>
| MAC 195    | Math Applications for Mechanisms 

\or  
| AST 206    | Professional Development                     | (3)    |
| MEC 161    | Basic Fluid Mechanics - Hydraulics/Pneumatics | 4       |

**Total credits required** 14

Mechatronics II

**Award: Career Studies Certificate**  
Purpose: to provide students who already possess an understanding of electrical and mechanical fundamentals further instruction in the areas of mechanics and electrical systems. This career studies certificate prepares students for entry level positions as mechanical or electrical technicians in manufacturing.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELE 124</td>
<td>Electrical Applications II</td>
<td>2</td>
</tr>
<tr>
<td>ETR 114</td>
<td>DC and AC Fundamentals II</td>
<td>3</td>
</tr>
<tr>
<td>MAC 157</td>
<td>Mechanisms II</td>
<td>3</td>
</tr>
<tr>
<td>ETR 237</td>
<td>Industrial Electronics I</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total credits required** 11
Mechatronics III

**Award: Career Studies Certificate**

**Purpose:** to provide students who already possess an understanding of electrical fundamentals, further instruction in the areas of electronics, programmable logic control, and robotics programming. This career studies certificate prepares students for technical level positions as controls or instrument technicians.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELE 156</td>
<td>Electrical Control Systems</td>
<td>3</td>
</tr>
<tr>
<td>ETR 177</td>
<td>Industrial Robotic and Robotics Programming</td>
<td>3</td>
</tr>
<tr>
<td>IND 165</td>
<td>Principles of Industrial Technology I</td>
<td>4</td>
</tr>
<tr>
<td>INS 110</td>
<td>Principles of Instrumentation</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total credits required</strong></td>
<td></td>
<td><strong>13</strong></td>
</tr>
</tbody>
</table>

Mechatronics IV

**Award: Career Studies Certificate**

**Purpose:** to provide students, who already possess an advanced understanding of electrical and mechanical systems, further instruction in the areas of process and business operations of a manufacturing facility. This career studies certificate prepares students for project lead and/or entry level engineering positions in a manufacturing operation.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IND 251</td>
<td>Automated Manufacturing Systems</td>
<td>4</td>
</tr>
<tr>
<td>ETR 286</td>
<td>Principles and Applications of Robotics</td>
<td>3</td>
</tr>
<tr>
<td>EGR 206</td>
<td>Engineering Economics</td>
<td>3</td>
</tr>
<tr>
<td>CAD 161</td>
<td>Blueprint Reading</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total credits required</strong></td>
<td></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

Process Technology

**Award: Career Studies Certificate**

**Purpose:** to provide students with an introduction to various systems found in a manufacturing environment and a fundamental understanding of the controls used. This career studies certificate prepares the student to advance to positions such as control room operator or production team leader.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IND 106</td>
<td>Industrial Engineering Technology</td>
<td>3</td>
</tr>
<tr>
<td>CAD 161</td>
<td>Blueprint Reading (^1)</td>
<td>2</td>
</tr>
<tr>
<td>IND 165</td>
<td>Principles of Industrial Technology I</td>
<td>4</td>
</tr>
<tr>
<td>INS 110</td>
<td>Principles of Instrumentation</td>
<td>3</td>
</tr>
<tr>
<td>ETR 150</td>
<td>Machine Control Using Relay and Programmable Logic</td>
<td>3</td>
</tr>
<tr>
<td>IND 251</td>
<td>Automation in Manufacturing Systems</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total credits required</strong></td>
<td></td>
<td><strong>19</strong></td>
</tr>
</tbody>
</table>

\(^1\) Students wishing to enter the Technical Studies, Manufacturing Engineering Technology Associate Degree program or the Automation in Manufacturing Engineering Career Studies Certificate may substitute CAD 161 and an approved one credit course for CAD 140.
Veterinary Technology

Students who wish to pursue an education in the area of veterinary science have two options from which to choose: a Career Studies Certificate in Veterinary Assisting or an Associate of Applied Science degree in Veterinary Technology. After completion of the career studies certificate, a student may choose to apply for admission into the Veterinary Technology Associate Degree program. If accepted into the program, one of the courses in the career studies certificate, VET 236, will count towards the Associate of Applied Science degree. Two programs of instruction are available for the Associate Degree program: the full-time day program at the Weyers Cave campus and, for students in the Virginia Beach, Fredericksburg, Richmond, and Roanoke regions of Virginia, a part-time program through the Compressed Video Network transmitted to the Virginia Beach campus of Tidewater Community College, the Midlothian Campus of John Tyler Community College, Germanna Community College (Locust Grove campus), and to Virginia Western Community College.

**Veterinary Technology**

**Award:** Associate of Applied Science Degree in Animal Science

**Major:** Veterinary Technology

**Length:** Five semesters including one summer (two-year) curriculum *

Possible occupations for graduates: veterinary technician for veterinary hospital, diagnostic/research laboratory, the pharmaceutical industry, zoos/wildlife centers, sales and livestock managers, or veterinary educators.

* The Associate of Applied Science degree in Veterinary Technology is designed for people who seek employment in the area of veterinary technology. The objectives of the program are to prepare graduates for employment in private veterinary hospitals and other related fields.

A coordinated externship, required during the summer between the first and second year, includes 400 hours of work in a veterinary hospital. The College staff will assist students in obtaining the externship placement.

Students must pass each VET-prefix course in the Veterinary Technology curriculum in order to continue in the program. A minimum GPA of 2.0 is required for graduation.

**Admission Requirements**

To be admitted to the Veterinary Technology program, applicants should:

1) be a high school graduate or equivalent;
2) have successfully completed algebra and biology with a laboratory;
3) complete an application for admission on-line and submit official transcripts from high school and/or all colleges and universities attended;
4) complete the Veterinary Technology program application;
5) observe in a veterinary hospital which employs a LVT for 16 hours;
6) complete essay questions;
7) if requested, complete an interview with a member of the Veterinary Technology staff;
8) have good organizational and study skills;
9) submit a letter of recommendation from a veterinarian or licensed veterinary technician.

Since admission to the Veterinary Technology program is competitive, applicants are encouraged to complete the admissions requirements by January 31 of the year in which they wish to enroll. Experience in the animal health field or working with animals is advantageous.

Graduates of the program are eligible to take the National Veterinary Technician Exam (NVTE) administered by the American Association of Veterinary State Boards and is required for state licensure in Virginia.
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>SDV</td>
<td>Student Development</td>
<td>1</td>
</tr>
<tr>
<td>VET 100</td>
<td>Introduction to Animal Science</td>
<td>4</td>
</tr>
<tr>
<td>VET 105</td>
<td>Introduction to Veterinary Technology</td>
<td>3</td>
</tr>
<tr>
<td>VET 111</td>
<td>Anatomy and Physiology of Domestic Animals</td>
<td>4</td>
</tr>
<tr>
<td>VET 120</td>
<td>Veterinary Medical Terminology and Calculations</td>
<td>a 1</td>
</tr>
<tr>
<td></td>
<td><strong>First Semester</strong></td>
<td><strong>18</strong></td>
</tr>
<tr>
<td>CHM 110</td>
<td>Survey of Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>VET 115</td>
<td>Laboratory Techniques I</td>
<td>4</td>
</tr>
<tr>
<td>VET 121</td>
<td>Clinical Practices I</td>
<td>4</td>
</tr>
<tr>
<td>VET 216</td>
<td>Animal Pharmacology</td>
<td>^1</td>
</tr>
<tr>
<td></td>
<td><strong>Second Semester</strong></td>
<td><strong>17</strong></td>
</tr>
<tr>
<td>VET 290</td>
<td>Coordinated Practice in Veterinary Technology</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Summer Session</strong></td>
<td>^4</td>
</tr>
<tr>
<td>VET 236</td>
<td>Companion Animal Behavior</td>
<td>3</td>
</tr>
<tr>
<td>HLT/PED</td>
<td>Health/Physical Education Electives</td>
<td>2</td>
</tr>
<tr>
<td>VET 215</td>
<td>Laboratory Techniques II</td>
<td>4</td>
</tr>
<tr>
<td>VET 221</td>
<td>Advanced Clinical Practices III</td>
<td>4</td>
</tr>
<tr>
<td>VET 205</td>
<td>Applied Veterinary Surgical Nursing ^b</td>
<td>^3</td>
</tr>
<tr>
<td></td>
<td><strong>Third Semester</strong></td>
<td><strong>16</strong></td>
</tr>
<tr>
<td>VET 210</td>
<td>Animal Diseases and Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>VET 217</td>
<td>Introduction to Laboratory, Zoo and Wildlife Medicine</td>
<td>3</td>
</tr>
<tr>
<td>VET 222</td>
<td>Advanced Clinical Practices IV</td>
<td>4</td>
</tr>
<tr>
<td>VET 230</td>
<td>Veterinary Hospital Management</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Fourth Semester</strong></td>
<td><strong>17</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Total credits required</strong></td>
<td><strong>72</strong></td>
</tr>
</tbody>
</table>

^a Please refer to page 92 for the list of Literature/Humanities/Fine Arts and Social and Behavioral Science electives that are approved to fulfill this requirement.

^b May be taken in either third or fourth semester.

**Veterinary Technology Distance Education Program**

**Award:** Associate of Applied Science Degree in Animal Science  
**Major:** Veterinary Technology  
**Length:** Nine semesters including two summers

This program is designed for those students who for personal or financial reasons cannot travel to Weyers Cave for the residential program. Courses are interactive, two-way audio and video, transmitted over the VCCS Compressed Video Network. Courses are transmitted to the Virginia Beach campus of Tidewater Community College, the Midlothian Campus of John Tyler Community College, Germanna Community College (Locust Grove campus), and Virginia Western Community College. The following courses are transmitted: VET 100, VET 105, VET 111, VET 115, VET 121, VET 120, VET 216, VET 236, VET 210, VET 215, VET 221, VET 217, VET 222, VET 230, and VET 205. These courses must be completed elsewhere: ENG 111, SDV 100, CHM 110, Literature/Humanities/Fine Arts, HLT/PED, and Social and Behavioral Science elective. The program begins at each site every three years.
Applicants must:
1. have completed or be in the process of completing the general education courses required for the Associate of Applied Science degree in Veterinary Technology;
2. work for at least 20 hours per week with a veterinarian willing to provide supervision and opportunities to practice the tasks taught in the various courses;
3. be committed to enrolling in all the courses for this program as they are offered.
4. complete an application for admission on-line and submit official transcripts from high school and/or all colleges and universities attended;
5. observe in a veterinary hospital which employees a LVT for 16 hours;
6. complete an interview with a member of the Veterinary Technology staff;
7. submit a letter of recommendation from a veterinarian or licensed veterinary technician.

The distance learning program has limited space and students will be selected on a competitive basis. An interview is required.

Students must pass each VET-prefix course in the Veterinary Technology curriculum in order to continue in the program. A minimum GPA of 2.0 is required for graduation.

Veterinary Assisting

Award: Career Studies Certificate
Purpose: to assist people presently employed in veterinary hospitals who want professional development. Individuals with other pet-related interests, such as pet shop personnel, dog breeders, and pet owners, may also benefit from this set of courses. All courses except VET 236 may be taken in any order for completion of the career studies certificate. VET 101 or VET 102 must be completed prior to VET 236.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>VET 101</td>
<td>Introduction to Veterinary Assisting</td>
<td>3</td>
</tr>
<tr>
<td>VET 102</td>
<td>Care and Maintenance of Small Domestic Animals</td>
<td>3</td>
</tr>
<tr>
<td>VET 103</td>
<td>Veterinary Office Assisting</td>
<td>3</td>
</tr>
<tr>
<td>VET 236</td>
<td>Companion Animal Behavior</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total credits required</strong></td>
<td></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>
# Approved General Education Courses

for Associate of Applied Science (A.A.S.) Degree Programs

## Communication
- ENG 111 College Composition I
- ENG 112 College Composition II
- ENG 116 Writing for Business

## Literature/Humanities/Fine Arts
- ART 101 History and Appreciation of Art I
- ART 102 History and Appreciation of Art II
- CST 151 Film Appreciation I
- ENG 241 Survey of American Literature I
- ENG 242 Survey of American Literature II
- ENG 244 Survey English Literature I
- ENG 251 Survey of World Literature I
- ENG 252 Survey of World Literature II
- HUM 260 Survey of 20th Century Culture
- MUS 121 Music Appreciation I
- MUS 122 Music Appreciation II
- PHI 101 Introduction to Philosophy I
- PHI 102 Introduction to Philosophy II
- PHI 115 Practical Reasoning
- PHI 211 The History of Western Philosophy I
- PHI 212 The History of Western Philosophy II
- PHI 225 Select Problems in Applied Ethics
- REL 231 Religions of the World I

## Social/Behavioral Sciences
- ECO 120 Survey of Economics
- ECO 201 Principles of Economics I (Macro)
- ECO 202 Principles of Economics II (Micro)
- GEO 210 People and Land: Introduction to Cultural Geography
- GEO 220 World Regional Geography
- PLS 135 American National Politics
- HIS 101 History of Western Civilization I
- HIS 102 History of Western Civilization II
- HIS 111 History of World Civilization I
- HIS 112 History of World Civilization II
- HIS 121 United States History I
- HIS 122 United States History II
- PSY 200 Principles of Psychology
- PSY 201 Introduction to Psychology I
- PSY 202 Introduction to Psychology II
- PSY 230 Developmental Psychology
- PSY 231 Life Span Human Development I
- PSY 232 Life Span Human Development II
- SOC 200 Principles of Sociology
- SOC 268 Social Problems
- SSC 107 Problems of People in the Modern World

## Natural Science/Mathematics
- MTH 103 Applied Technical Math
- MTH 141 Business Math
- MTH 151 Mathematics for the Liberal Arts I
- MTH 157 Elementary Statistics
- MTH 163 Precalculus I
- MTH 164 Precalculus II
- MTH 166 Precalculus with Trigonometry
- MTH 173 Calculus with Analytic Geometry I
- MTH 174 Calculus with Analytic Geometry II
- MTH 270 Applied Calculus
- BIO 101 General Biology I
- BIO 102 General Biology II
- BIO 114 Organisms
- BIO 141 Anatomy and Physiology I
- BIO 142 Anatomy and Physiology II
- CHM 101 General Chemistry I
- CHM 102 General Chemistry II
- CHM 110 Survey of Chemistry
- CHM 111 College Chemistry I
- CHM 112 College Chemistry II
- GOL 105 Physical Geology
- GOL 110 Earth Science
- NAS 130 Elements of Astronomy
- PHY 100 Elements of Physics
- PHY 201 General College Physics I
- PHY 202 General College Physics II
- PHY 241 University Physics I
- PHY 244 University Physics II

## Personal Development
- Any HLT/PED course
- SDV 100 Student Development
- SDV 101 Orientation to Health Sciences
- SDV 101 Orientation to STEM
- SDV 101 Orientation to IST Profession
- SDV 107 Career Education

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* Students may not receive credit towards graduation requirements for ECO 120 and ECO 201; ECO 120 and ECO 202; PSY 200 and PSY 201; PSY 200 and PSY 202; PSY 230 and PSY 231; MTH 163 and MTH 166; MTH 164 and MTH 166; BIO 102 and BIO 114; and PHY 100 and PHY 201.
Automotive Analysis and Repair

Award: Diploma
Major: Automotive Analysis and Repair
Length: Four semesters (two-year) curriculum *

Possible occupation for graduates: automotive technician in a new car dealership or independent service facility.

The Diploma in Automotive Analysis and Repair is designed for people who seek employment in the area of Automotive Technology.

Automotive students may participate in the cooperative education program during each semester. Students work at an approved site and receive credit toward graduation. Due to the sequencing of courses, students may only enter the program in the Fall semester. If student demand for the program exceeds capacity, then a waiting list for admission will be maintained. Students on the waiting list who are at college-level in English and at the MTE 5 level or higher in mathematics, or who have completed all needed developmental course work, will be given priority for admission if space becomes available in the program.

The program is Master Certified in all eight Automotive areas by the National Institute for Automotive Service Excellence and has received the Award for Excellence in Post-Secondary Vocational Education from the Motor Vehicle Manufacturers of the U.S. and the American Vocational Association.

Students must pass each AUT-prefix course in the Automotive Technology curriculum in order to continue in the program. A minimum GPA of 2.0 is required for graduation.

Automotive students must have a valid driver's license.

* For a full-time student; part-time enrollment is not allowed.

Curriculum

General Education Program Requirements

The following general education courses must be successfully completed in order to graduate from the Automotive Analysis and Repair program. It is strongly recommended that students enrolled in the AUT program take their general education course requirements during the summer months or take one general education course concurrently with required AUT courses each semester.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 116</td>
<td>Writing for Business</td>
<td>3</td>
</tr>
<tr>
<td>CST 126</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>ITE 119</td>
<td>Information Literacy</td>
<td>3</td>
</tr>
<tr>
<td>HLT 100</td>
<td>First Aid &amp; CPR</td>
<td>2</td>
</tr>
</tbody>
</table>

a ENG 116 and CST 126 should be taken during the first year.

Students may enter the program in the first semester of either the A or B sequence. Completion of both the A and B sequence of courses is required for graduation.

Group A

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT 111</td>
<td>Automotive Engines I</td>
<td>4</td>
</tr>
<tr>
<td>AUT 136</td>
<td>Automotive Vehicle Inspection</td>
<td>2</td>
</tr>
<tr>
<td>AUT 141</td>
<td>Auto Power Trains I</td>
<td>4</td>
</tr>
<tr>
<td>AUT 197</td>
<td>Cooperative Education in Automotive Analysis</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>or</td>
<td></td>
</tr>
<tr>
<td>AUT 199</td>
<td>Supervised Study in Automotive Mechanics</td>
<td>(1)</td>
</tr>
<tr>
<td>AUT 275</td>
<td>Shop Management</td>
<td>2</td>
</tr>
</tbody>
</table>

13
Second Semester
AUT 142  Auto Power Trains II  4
AUT 197  Cooperative Education in Automotive Analysis  1
or
AUT 199  Supervised Study in Automotive Mechanics (1)
AUT 236  Automotive Climate Control  4
AUT 267  Automotive Suspension and Braking Systems  13

Group B

First Semester
AUT 121  Automotive Fuel Systems I  4
AUT 197  Cooperative Education in Automotive Analysis  1
or
AUT 199  Supervised Study in Automotive Mechanics (1)
AUT 241  Automotive Electricity I  4
AUT 273  Automotive Drivability and Tune-Up I  3

Second Semester
AUT 122  Automotive Fuel Systems II  4
AUT 197  Cooperative Education in Automotive Analysis  1
or
AUT 199  Supervised Study in Automotive Mechanics (1)
AUT 217  Computerized Fuel Systems  3
AUT 245  Automotive Electronics  12

Total credits required  61

General Education

Award: Certificate
The General Education Certificate provides students with a general foundation course of study that can be used to transfer into a baccalaureate degree program or used for the associate degree program. This certificate will allow students to obtain recognition for completing a minimum set of general education courses while also allowing for easier transfer to four year institutions that may recognize and accept general education certificates. Students pursuing an associate degree should refer to the curriculum guide for the program of choice for appropriate course selection.

Curriculum

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112</td>
<td>College Composition II</td>
<td>3</td>
</tr>
<tr>
<td>HIS</td>
<td>History a</td>
<td>3</td>
</tr>
<tr>
<td>MTH</td>
<td>Mathematics a</td>
<td>3</td>
</tr>
<tr>
<td>SDV</td>
<td>Student Development a</td>
<td>1</td>
</tr>
<tr>
<td>HAS</td>
<td>Social and Behavioral Science Elective a</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Literature/Humanities/Fine Arts a</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Literature b</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Science with Laboratory a</td>
<td></td>
</tr>
</tbody>
</table>

Total credits required  33

---

a  Choose from the approved History, Mathematics, Student Development, Social and Behavioral Sciences, Literature/Humanities/Fine Arts and Natural Science with Lab courses listed under Required General Education Courses on page 46 of the current catalog.

b  Choose from the following Literature courses, ENG 241, 242, 243, 244, 251, or 252.
Health Sciences

Award: Certificate

Purpose: to prepare students who wish to enter allied health, veterinary technology, funeral services, and respiratory therapy programs with competitive admissions procedures at Blue Ridge Community College or at other colleges. Students should consult the catalog of the transfer institution they wish to attend for admission requirements for competitive health programs such as dental assisting, dental hygiene, physical therapy assisting, respiratory therapy, or other allied health programs.

Successful completion of the Health Sciences Certificate will strengthen the academic record of students applying for admission to Blue Ridge Community College’s Registered Nursing and Veterinary Technology programs, John Tyler Community College’s Funeral Services program, and J. Sargeant Reynolds Community College’s Respiratory Therapy program. Please note, however, that not all courses listed will be required in every allied health program. Some allied health programs may require more prerequisite courses prior to admission. Students should carefully follow the admission procedures published for the particular health program of interest.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 101</td>
<td>Introduction to Biology</td>
<td>4</td>
</tr>
<tr>
<td>ENG 111</td>
<td>College Composition</td>
<td>3</td>
</tr>
<tr>
<td>SDV</td>
<td>Student Development</td>
<td>1</td>
</tr>
<tr>
<td>CHM</td>
<td>Chemistry Elective</td>
<td>3-4</td>
</tr>
<tr>
<td>SOC SCI</td>
<td>Social and Behavioral Science Elective</td>
<td>3</td>
</tr>
<tr>
<td>PSY</td>
<td>Psychology Elective</td>
<td>3</td>
</tr>
<tr>
<td>HUM</td>
<td>Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td>Career Field Electives</td>
<td></td>
<td>10-15</td>
</tr>
</tbody>
</table>

Total credits required 30-35

Refer to table below for specific course recommendations for each allied health program area.

### Academic Advising Table for Specific Allied Health Programs

<table>
<thead>
<tr>
<th>Electives</th>
<th>Registered Nursing A.A.S. Degree</th>
<th>Veterinary Technology A.A.S. Degree</th>
<th>Funeral Services A.A.S. Degree</th>
<th>Respiratory Therapy A.A.S. Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemistry Elective</td>
<td>CHM 101: General Chemistry I &amp; Lab Or CHM 111: College Chemistry I &amp; Lab</td>
<td>any Chemistry Course</td>
<td>CHM 110: Survey of Chemistry</td>
<td>CHM 101: General Chemistry I &amp; Lab</td>
</tr>
<tr>
<td>Social and Behavioral Science Elective</td>
<td>SOC 215: Sociology of the Family</td>
<td>See page 92 for list of courses</td>
<td>SOC 200: Principles of Sociology</td>
<td>Choose any ECO, GEO, HIS, PLS, PSY, or SOC course</td>
</tr>
<tr>
<td>Psychology Elective</td>
<td>PSY 230: Developmental Psychology</td>
<td>See page 92 for list of courses</td>
<td>PSY 116: Psychology of Death and Dying</td>
<td>Choose any PSY course</td>
</tr>
<tr>
<td>Humanities Elective</td>
<td>PHI 225: Ethics recommended. See page 92 for other options</td>
<td>See page 92 for list of courses</td>
<td>Choose any REL course</td>
<td>ART 101, 102, MUS 121, 122 Any REL or PHI, Literature</td>
</tr>
</tbody>
</table>

See also: Nursing Program Website, Veterinary Technology Website, JTCC Funeral Services Website, and the JSRCC Respiratory Therapy Website.
Career Studies Certificates

Many specialized certificates are available for students who wish to pursue a special interest course of study. Each Career Studies curriculum is usually equivalent to one semester of full-time community college work. However, completion time varies for each student and each certificate.

Admission Requirements: Career Studies students apply for admission to the College and register for the appropriate classes.

To be eligible for graduation, a student must:
1. fulfill all course and credit-hour requirements specified in the program option (approved courses may be substituted for minimum requirements);
2. earn a minimum of 25\% of the credits required at Blue Ridge Community College;
3. earn a minimum grade point average of 2.0;
4. resolve all financial obligations to the College;
5. complete an Application for Graduation form in the Admissions and Records Office by state deadlines.

Students who complete requirements for Career Studies Certificates are not eligible for graduation honors. Appropriate courses taken in this program may be applicable toward other programs at the College.

Students may be eligible to receive credit for some courses in these curricula through the College’s advanced standing process.

Alternative Energy

Award: Career Studies Certificate

Purpose: to provide entry-level knowledge and skills in the fundamentals of alternative energy. This career studies certificate provides the minimum preparation for employment in the new ‘green’ jobs section, which are expected to heavily involve the installation of residential solar (hot water and electric), wind electric, and cogeneration systems.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGR 115</td>
<td>Engineering Graphics</td>
<td>3</td>
</tr>
<tr>
<td>ELE 123</td>
<td>Electrical Applications I</td>
<td>2</td>
</tr>
<tr>
<td>ENE 120</td>
<td>Solar Power Photovoltaic</td>
<td>4</td>
</tr>
<tr>
<td>ENE 220</td>
<td>Wind Power Generation</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total credits required</strong></td>
<td></td>
<td><strong>13</strong></td>
</tr>
</tbody>
</table>

American Sign Language

Award: Career Studies Certificate

Purpose: to provide a basic knowledge of American Sign Language and deaf culture. The completed career studies certificate will provide a foundation for those students who wish to pursue more advanced preparation for ASL interpreter certification.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASL 101</td>
<td>American Sign Language I</td>
<td>3</td>
</tr>
<tr>
<td>ASL 102</td>
<td>American Sign Language II</td>
<td>3</td>
</tr>
<tr>
<td>ASL 201</td>
<td>American Sign Language III</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total credits required</strong></td>
<td></td>
<td><strong>9</strong></td>
</tr>
</tbody>
</table>

Art: Introduction to Two-Dimensional Art

Award: Career Studies Certificate

Purpose: to provide a foundation for individuals interested in two-dimensional art for personal enrichment and for those interested in a career in art. The courses generally transfer to a four-year college or university. This program balances basic skills and knowledge with expressive concerns in order to encourage individuals to find their artistic vision. Courses may be applied to the Fine Arts Certificate.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 101</td>
<td>History and Appreciation of Art I</td>
<td>(3)</td>
</tr>
<tr>
<td>ART 102</td>
<td>History and Appreciation of Art II</td>
<td>(3)</td>
</tr>
<tr>
<td>ART 121</td>
<td>Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ART 122</td>
<td>Drawing II</td>
<td>3</td>
</tr>
</tbody>
</table>
Plus two electives from the following:

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 241</td>
<td>Painting I</td>
<td>(3)</td>
</tr>
<tr>
<td>ART 242</td>
<td>Painting II</td>
<td>(3)</td>
</tr>
<tr>
<td>ART 243</td>
<td>Watercolor I</td>
<td>(3)</td>
</tr>
<tr>
<td>ART 244</td>
<td>Watercolor II</td>
<td>(3)</td>
</tr>
</tbody>
</table>

Total credits required 15

Art: Introduction to Three-Dimensional Art

Award: Career Studies Certificate

Purpose: to provide a foundation for individuals interested in the three-dimensional arts for personal enrichment and for those interested in a career in art. The courses generally transfer to a four-year college or university. This program balances basic skills and knowledge with expressive concerns in order to encourage individuals to find their artistic vision. Courses may be applied to the Fine Arts Certificate.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 101</td>
<td>History and Appreciation of Art I</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ART 102</td>
<td>History and Appreciation of Art II</td>
<td>(3)</td>
</tr>
<tr>
<td>ART 121</td>
<td>Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ART 132</td>
<td>Fundamentals of Design II</td>
<td>3</td>
</tr>
<tr>
<td>ART 153</td>
<td>Ceramics I</td>
<td>3</td>
</tr>
</tbody>
</table>

Plus one elective from the following:

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 154</td>
<td>Ceramics II</td>
<td>(3)</td>
</tr>
<tr>
<td>ART 235</td>
<td>Functional Ceramics</td>
<td>(3)</td>
</tr>
<tr>
<td>ART 236</td>
<td>Sculptural Ceramics</td>
<td>(3)</td>
</tr>
</tbody>
</table>

Total credits required 15

Commercial Driving

Award: Career Studies Certificate

Purpose: to provide students with the knowledge and skills necessary for employment as licensed Class A commercial tractor trailer drivers.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRK 101</td>
<td>DOT Safety Rules and Regulations</td>
<td>2</td>
</tr>
<tr>
<td>TRK 102</td>
<td>Preventive Maintenance for Truck Drivers</td>
<td>1</td>
</tr>
<tr>
<td>TRK 103</td>
<td>Tractor Trailer Driving</td>
<td>2</td>
</tr>
</tbody>
</table>

Total credits required 12

Commercial Driving Enhanced

Award: Career Studies Certificate

Purpose: to provide students with the knowledge and skills necessary for employment as licensed Class A commercial tractor trailer drivers.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRK 101</td>
<td>DOT Safety Rules and Regulations</td>
<td>2</td>
</tr>
<tr>
<td>TRK 102</td>
<td>Preventive Maintenance for Truck Drivers</td>
<td>1</td>
</tr>
<tr>
<td>TRK 103</td>
<td>Tractor Trailer Driving</td>
<td>9</td>
</tr>
<tr>
<td>TRK 193</td>
<td>Studies in Compliance Safety Accountability</td>
<td>1</td>
</tr>
<tr>
<td>BUS 223</td>
<td>Business and Transportation</td>
<td>2</td>
</tr>
</tbody>
</table>

Total credits required 16

Graphic Design

Award: Career Studies Certificate

Purpose: to provide the educational background and skills in graphic design for entry level positions in graphic communications and graphic design. These courses generally transfer to a four-year college or university.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITE 119</td>
<td>Information Literacy a</td>
<td>3</td>
</tr>
<tr>
<td>ART 121</td>
<td>Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ITD 110</td>
<td>Web Page Design I</td>
<td>3</td>
</tr>
</tbody>
</table>
ART 131  Fundamentals of Design I  
PHT 164  Introduction to Digital Photography  
ART 283  Computer Graphics I  
ART 284  Computer Graphic II  

**Total credits required**  21

*a* ITE 119 is a prerequisite for ITD 110.

---

**Medical Coding—Hospital**

**Award:** Career Studies Certificate  
Purpose: to provide students with fundamental knowledge and skills in health records, medical coding, and reimbursement processes. The program’s primary focus is on ICD-9/10 coding for hospital applications and preparation for the Certified Coding Associate and/or Certified Coding Specialist exams.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLT 143</td>
<td>Medical Terminology I</td>
<td>3</td>
</tr>
<tr>
<td>BIO 141</td>
<td>Anatomy and Physiology I</td>
<td>4</td>
</tr>
<tr>
<td>HIM 253</td>
<td>Coding for Health Records (Emphasizes ICD-9/10)</td>
<td>4</td>
</tr>
<tr>
<td>HLT 144</td>
<td>Medical Terminology II a</td>
<td>3</td>
</tr>
<tr>
<td>BIO 142</td>
<td>Anatomy and Physiology II b</td>
<td>4</td>
</tr>
<tr>
<td>HIM 254</td>
<td>Advanced Coding and Reimbursement (Emphasizes CPT)</td>
<td>4</td>
</tr>
<tr>
<td>HIM 190</td>
<td>Coordinated Internship c</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total credits required**  24

*a* While there is no prerequisite for HLT 144, students are recommended to complete HLT 143 first.  
*b* BIO 141 is a prerequisite for BIO 142.  
*c* Prerequisites for HIM 190 include (1) HLT 143, (2) HLT 144, and (3) HIM 253-or-HIM 254.
Partnership Programs

Culinary Arts and Management

Award: Associate of Applied Science Degree  
Major: Culinary Arts and Management  
(Partnership Program awarded at Dabney S. Lancaster Community College)

Possible occupations for graduates: pastry chef, broiler cook, restaurant owner, food service manager, caterer, and sous chef.

The Culinary Arts and Management Associate of Applied Science degree program is a partnership program with Dabney S. Lancaster Community College. Students complete 27 credits of general education courses at Blue Ridge Community College and subsequently complete the remaining program requirements at Dabney S. Lancaster Community College. Students will gain the skills needed to begin, or advance in, the specialty field of Culinary Arts and Management. In addition to food preparation principles and practice, students will also become knowledgeable about the management of food and beverage service operations.

For information about general education requirements at BRCC, go to [www.brcc.edu/services/advising/partnerships](http://www.brcc.edu/services/advising/partnerships) or contact Ms. Beth Styers in the Academic Advising Center. For additional information about the Culinary Arts and Management program, contact Dr. Phil McManus at Dabney S. Lancaster Community College at 540-863-2931.

Funeral Services

Award: Associate of Applied Science Degree  
Major: Funeral Services  
(Partnership Program awarded at John Tyler Community College)

Possible occupations for graduates: fully licensed funeral director or embalmer.

The Funeral Services Associate of Applied Science degree program is a partnership program with John Tyler Community College. Students complete general education courses at Blue Ridge Community College and subsequently apply to John Tyler Community College to complete the remaining program requirements. Students will gain the necessary technical skills, academic background, hands-on experience, and professional attitudes to become a fully licensed funeral director and embalmer.

For information about general education requirements at BRCC, go to [www.brcc.edu/services/advising/partnerships](http://www.brcc.edu/services/advising/partnerships) or contact Ms. Beth Styers in the Academic Advising Center. For additional information about the Funeral Services program, contact Mr. Rick Sikon at John Tyler Community College at 804-706-5113.

Radiologic Technology

Major: Radiologic Technology  
(Partnership Program)

Possible occupations for graduates: radiologic technicians. With further training/education, graduates may specialize in CT imaging, sonography, nuclear medicine, angiography, mammography, radiation therapy, and MRI imaging.

The Radiologic Technology program is a partnership with Rockingham Memorial Hospital. Students complete general education courses at Blue Ridge Community College and subsequently apply to the Rockingham Memorial Hospital School of Radiologic Technology.

For information about general education requirements at BRCC, go to [www.brcc.edu/services/advising/partnerships](http://www.brcc.edu/services/advising/partnerships) or contact Ms. Beth Styers in the Academic Advising Center. For additional information about the Rockingham Memorial Hospital Radiologic Technology Program, call 540-433-4476.
Respiratory Therapy

Award: Associate of Applied Science Degree
Major: Respiratory Therapy

(Partnership Program awarded at J. Sargeant Reynolds Community College)

Possible occupations for graduates: licensed respiratory therapist in hospitals, clinics, research facilities, home care agencies, and alternate care sites.

The Respiratory Therapy Associate of Applied Science degree program is a partnership program with J. Sargeant Reynolds Community College. Students complete general education courses at Blue Ridge Community College and subsequently apply to J. Sargeant Reynolds Community College to complete the remaining program requirements. Students will gain the necessary knowledge and skills to treat, manage, and care for patients with breathing abnormalities, under the supervision of a physician.

For information about general education requirements at BRCC, go to www.brcc.edu/services/advising/partnerships or contact Ms. Beth Styers in the Academic Advising Center. For additional information about the Respiratory Therapy program, contact Ms. Sherry Compton at J. Sargeant Reynolds Community College at 804-523-5013.
Course Descriptions
Course Descriptions

Course Numbers

Courses numbered (MTE 1-9 and ENF 1-3) are developmental studies courses. The credits earned in these courses are not used in computing grade point average and do not apply toward graduation or transfer. However, such courses carry credit for the purpose of tuition payment.

Courses numbered 10-99 are basic occupational courses for diploma and certificate programs. The credits earned in these courses are applicable toward diploma and certificate programs but are not applicable toward an associate degree.

Courses numbered 100-199 are freshman courses applicable toward an associate degree and/or certificate and diploma programs.

Courses numbered 200-299 are sophomore courses applicable toward an associate degree and/or certificate and diploma programs.

Course Offerings

All courses are not offered each semester and some are offered only every other year. Students are advised to refer to the current Schedule of Classes, as well as consult with an academic advisor for assistance with planning ahead.

Course Hours

The educational programs combine the teaching of theoretical concepts in “lecture” with an appropriate amount of application of principles and practical training in “laboratory” under faculty supervision. The teaching of theoretical concepts in lectures, seminars, discussions, and other similar classes is identified as “lecture” and the teaching of the application of principles and practical training in laboratories, seminars, shop, clinical training, supervised work experiences, and other similar classes is identified as “laboratory.”

The number of lecture hours in class each week (including lecture, seminar, and discussion hours) and/or the number of laboratory hours in class each week (including laboratory, shop, supervised practice, and cooperative work experiences) are indicated for each course in the course description. The total number of lecture and laboratory hours in class each week is also called “contact” hours because it is time spent under the direct supervision of a faculty member. In addition to attending the required lecture and laboratory hours as listed in the course descriptions, students also must spend time on out-of-class assignments. Each credit hour usually requires two hours of out-of-class study per week. Credits are indicated in the course description section.

Course Prerequisites and Co-requisites

If any prerequisites are required to enroll in a course, these prerequisites will be identified in the course description in the College Catalog and Student Handbook. The Catalog also indicates which courses must be taken in sequence (i.e. CHM 111-112). When co-requisites are required for a course, usually the co-requisites must be taken at the same time. The prerequisites or their equivalent must be completed satisfactorily before enrolling in a course unless special permission is obtained from the instructor.

Students must ensure that any required prerequisite (including placement test results) is documented in their student record prior to registration. The College reserves the right to administratively withdraw students from courses for which they have not met the prerequisites.

Accounting

ACC 115 (3-4 CR)
Applied Accounting
Presents practical accounting procedures for retail stores, professional individuals in firms, and personal service occupations. Covers the accounting cycle, journals, ledgers, preparation of financial statements and payrolls, and checking account management. Students may not receive credit toward graduation requirements for both ACC 115 and ACC 211 or ACC 115 and ACC 212. Lecture 3-4 hours per week.

ACC 124 (3 CR)
Payroll Accounting
Presents accounting systems and methods used in computing and recording payroll to include payroll tasks and compliance with federal and state legislation. Lecture 3 hours per week.
ACC 211  
Principles of Accounting I  
(3 CR)  
Presents accounting principles and their application to various businesses. Covers the accounting cycle, income determination, and financial reporting. Studies services, merchandising, and includes internal controls. Students may not receive credit toward graduation requirements for both ACC 115 and ACC 211. Lecture 3 hours per week.

ACC 212  
Principles of Accounting II  
Prerequisite: ACC 211  
(3 CR)  
Continues Accounting Principles 211 with emphasis on the application to partnerships, corporations, and the study of financial analysis. Includes an introduction to cost and managerial accounting. Students may not receive credit toward graduation requirements for both ACC 115 and ACC 212. Lecture 3 hours per week.

ACC 215  
Computerized Accounting  
Prerequisite: ACC 211 or equivalent  
(3-4 CR)  
Introduces the computer in solving accounting problems. Focuses on operation of computers. Presents the accounting cycle and financial statement preparation in a computerized system and other applications for financial and managerial accounting. Lecture 3-4 hours per week.

ACC 221  
Intermediate Accounting I  
Prerequisite: ACC 212 or equivalent  
(3 CR)  
Covers accounting principles and theory, including a review of the accounting cycle and accounting for current assets, current liabilities and investments. Introduces various accounting approaches and demonstrates the effect of these approaches on the financial statement users. Lecture 3 hours per week.

ACC 222  
Intermediate Accounting II  
Prerequisite: ACC 221 or equivalent  
(3 CR)  
Continues accounting principles and theory with emphasis on accounting for fixed assets, intangibles, corporate capital structure, long-term liabilities, and investments. Lecture 3 hours per week.

ACC 231  
Cost Accounting I  
Prerequisite: ACC 212 or equivalent  
(3 CR)  
Studies cost accounting methods and reporting as applied to job order, process, and standard cost accounting systems. Includes cost control and other topics. Lecture 3 hours per week.

ACC 261  
Principles of Federal Taxation  
(3 CR)  
Presents the study of federal taxation as it relates to individuals and related entities. Includes tax planning, compliance, and reporting. Lecture 3 hours per week.

ACC 275  
Capstone Seminar in Accounting  
Prerequisites: ACC 211, ACC 212, ACC 221  Prerequisite or Co-Requisite: ACC 222  
(3 CR)  
Integrates knowledge in financial accounting, managerial/cost accounting, computer techniques, business ethics, general ledger, and communication skills in preparing a professional student portfolio. Provides a learning experience that allows the student to apply broad knowledge of the accounting profession through discipline and specific projects; involves the integration of individual and team activities to simulate workplace situations. Lecture 3 hours per week.

Administration of Justice

ADJ 100  
Survey of Criminal Justice  
(3 CR)  
Presents 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 105  
The Juvenile Justice System  
(3 CR)  
Presents the evolution, philosophy, structures, and processes of the American juvenile delinquency system; surveys the right of juveniles, dispositional alternatives, rehabilitation methods, and current trends. Lecture 3 hours per week.
ADJ 110
Introduction to Law Enforcement
Studies the philosophy and history of law enforcement, presenting an overview of the crime problem and policy response issues. Surveys the jurisdictions and organizations of local, state, and federal law enforcement agencies. Examines the qualification requirements and career opportunities in the law enforcement profession. Lecture 3 hours per week.

ADJ 111-112
Law Enforcement Organization and Administration I-II
Teaches the principles of organization and administration of law enforcement agencies. Studies the management of line operations, staff and auxiliary services, investigative, and juvenile units. Introduces the concept of data processing; examines policies, procedures, rules, and regulations pertaining to crime prevention. Surveys concepts of protection of life and property, detection of offenses, and apprehension of offenders. Lecture 3 hours per week.

ADJ 120
Introduction to Courts
Presents an overview of the American judiciary—the federal and 50 state judicial systems—with emphasis on criminal court structures, functions, and personnel; surveys the judicial system in the Commonwealth of Virginia. Lecture 3 hours per week.

ADJ 128
Patrol Administration and Operations
Studies the goals, methods, and techniques of police patrol with focus on the norms which govern work behavior in a police career. Examines the responsibilities of administrators and field supervisors of patrol in the local and state law enforcement agencies. Lecture 3 hours per week.

ADJ 133
Ethics and the Criminal Justice Professional
Examines ethical dilemmas pertaining to the criminal justice system, including those in policing, courts, and corrections. Focuses on some of the specific ethical choices that must be made by the criminal justice professional. Lecture 3 hours per week.

ADJ 140
Introduction to Corrections
Focuses on societal responses to the offender. Traces the evolution of practices based on philosophies of 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 145
Corrections and the Community
Studies and evaluates the relationships and interactions between correctional organizations and free society. Focuses on the shared responsibility of the community and corrections agencies to develop effective programs for management and treatment of criminal offenders. Lecture 3 hours per week.

ADJ 147
Local Adult Detention Facilities
Studies security procedures in adult detention facilities, the criteria for effective supervision of inmates, the correctional aspects of inmate discipline, and the handling of “special inmates.” Presents concepts, programs, and planning considerations for jail management and the operations of adult detention facilities. Lecture 3 hours per week.

ADJ 157
Computer Security
Examines security concerns with access controls, shutdown alternatives, hardware and software protection, and data encryption. Lecture 3 hours per week. Cross-listed as ITN 260.

ADJ 161
Introduction to Computer Crime
Provides a basic introduction to the nature of computer crimes, computer criminals, relevant law, investigative techniques, and emerging trends. No prerequisites. Basic knowledge of computer use is recommended. Lecture 3 hours per week.

ADJ 162
Introduction to Sex Crimes
Provides a basic introduction to sex crimes. Topics covered will include relevant law, investigative techniques, cybersex crimes and criminals, application of criminal investigative analysis, and future trends. Lecture 3 hours per week.
ADJ 164 (3 CR)
Case Studies in Murder/Violent Crime
Introduces the student to the investigation of murder and other violent crimes by means of classic case studies and, to the extent feasible, local case files. Topics covered will include methodology, strategy and tactics, analysis, relevant law, and future trends. While evidentiary techniques and technologies will be discussed, the primary focus will be on critical thinking applied to serious violent crime. Lecture 3 hours per week.

ADJ 168 (3 CR)
Computer Applications in Administration of Justice
Provides instruction in the techniques and practices used to identify the automation needs of criminal justice agencies; covers the use of computer applications in the processing of operational and administrative records and standardized reports; discusses the use of rational database applications to develop specialized reports. Lecture 3 hours per week.

ADJ 170 (3 CR)
Street Gangs and Law Enforcement
Teaches the philosophy and history of gangs in America through the eyes of law enforcement, courts, corrections and the citizenry. Examines methods by which law enforcement defines the gang problem and intervenes in gang membership. Explores gang globalization; differentiates street gangs and terrorist cells. Lecture 3 hours per week.

ADJ 171 (3-4 CR)
Forensic Science I
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. Lecture 3-4 hours. Laboratory 0-3 hours. Total 3-6 hours per week.

ADJ 177 (3 CR)
Digital Evidence and Forensics I
Provides an opportunity to explore topical areas of interest related to digital evidence and forensics. Lecture 3 hours per week.

ADJ 211-212 (3 CR) (3 CR)
Criminal Law, Evidence and Procedures I-II
Teaches the elements of proof for major and common crimes and the legal classification of offenses. Studies the kinds, degrees and admissibility of evidence and its presentation in criminal proceedings with emphasis on legal guidelines for methods and techniques of evidence acquisition. Surveys the procedural requirements from arrest to final disposition in the various American court systems with focus on the Virginia jurisdiction. Lecture 3 hours per week.

ADJ 215 (3 CR)
Report Writing
Prerequisite: ENG 111
Introduces the basic mechanics and procedures of report writing; emphasizes clear, concise and accurate writing of communications as they relate to law enforcement records, investigations, and research. Lecture 3 hours per week.

ADJ 216 (3 CR)
Organized Crime and Corruption
Addresses judicial efforts against and involvement in corruption, drug, vice, and white-collar crimes, both individual and organized. Lecture 3 hours per week.

ADJ 227 (3 CR)
Constitutional Law for Justice Personnel
Surveys the basic guarantees of liberty described in the U. S. Constitution and the historical development of these restrictions on government power, primarily through U. S. Supreme Court decisions. Reviews rights of free speech, press, assembly, as well as criminal procedure guarantees (to counsel, jury trial, habeas corpus, etc.) as they apply to the activities of those in the criminal justice system. Lecture 3 hours per week.

ADJ 228 (3 CR)
Narcotics and Dangerous Drugs
Surveys the historical and current usage of narcotics and dangerous drugs. Teaches the identification and classification of such drugs and emphasizes the symptoms and effects on their users. Examines investigative methods and procedures utilized in law enforcement efforts against illicit drug usage. Lecture 3 hours per week.
ADJ 229  
Law Enforcement and the Community  
Considers current efforts by law enforcement personnel to achieve an effective working relationship with the community. Surveys and analyzes various interactive approaches of law enforcement agencies and the citizenry they serve. Lecture 3 hours per week.

ADJ 232  
Domestic Violence  
Surveys historical issues that have affected family violence. Examines current trends in the context of the criminal justice system. Lecture 3 hours per week.

ADJ 234  
Terrorism and Counter-Terrorism  
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. Lecture 3 hours per week.

ADJ 235  
Research in Criminal Justice  
Presents research methodology—including the development of research questions, quantification techniques, collection procedures, analysis tools, and the means of establishing relationships between theory, policy, and practice. Lecture 3 hours per week.

ADJ 236  
Principles of Criminal Investigation  
Surveys the fundamentals of criminal investigation procedures and techniques. Examines crime scene search, collecting, handling and preserving evidence. Lecture 3 hours per week.

ADJ 245  
Management of Correctional Facilities  
Describes management options and operational implications for staffing, security, safety, and treatment. Considers impact of changes in public policy on corrections. Lecture 3 hours per week.

ADJ 248  
Probation, Parole, and Treatment  
Surveys the philosophy, history, organization, personnel, and functioning of traditional and innovative probation and parole programs; considers major treatment models for clients. Lecture 3 hours per week.

ADJ 277  
Digital Evidence and Forensics II  
Provides an opportunity to explore advanced concepts related to digital evidence and forensics. Lecture 3 hours per week.

**Arabic**

ARA 101-102  
Beginning Arabic I-II  
Introduces understanding, speaking, reading, and writing skills and emphasizes basic Arabic sentence structure. Discusses the diversity of cultures in the Arab world. Lecture 5 hours per week.

ARA 201-202  
Intermediate Arabic I-II  
Prerequisite: ARA 102  
Continues to develop understanding, speaking, reading and writing skills and emphasizes basic Arabic sentence structure. Discusses the diversity of cultures in the Arab world. Classes are conducted in Arabic. Lecture 3-4 hours per week.

**Aviation Maintenance Technology**

AMT 103  
Basic Electricity  
Co-requisite: MTH 103  
Introduces electrical theory and concepts for the aviation mechanic, including Ohm’s law, electrical circuits, diagrams, and a variety of electrical components. Lecture 1 hour. Laboratory 4 hours. Total 5 hours per week.
AMT 105  
*Aviation Science for Mechanics*  
(2 CR)  
Introduces students to the applications of mechanics, levers, sound, fluid and heat dynamics, basic aircraft structures, aerodynamics, fabrication and installation of rigid and flexible fluid lines and fittings, basic aircraft cleaning materials, methods, corrosion control, weighing procedures, weight, arms, moments, center of gravity computation, placarding, aircraft loading, required forms, weighing, starting, moving, servicing, securing and fueling aircraft. Lecture 2 hours per week.

AMT 106  
*Aviation Science for Mechanics Lab*  
*Co-requisite: AMT 105*  
(2 CR)  
Introduces students to the applications of mechanics, levers, sound, fluid and heat dynamics, basic aircraft structures, aerodynamics, fabrication and installation of rigid and flexible fluid lines and fittings, basic aircraft cleaning materials, methods, corrosion control, weighing procedures, weight, arms, moments, center of gravity computation, placarding, aircraft loading, required forms, weighing, starting, moving, servicing, securing and fueling aircraft. Laboratory 6 hours per week.

AMT 107  
*Aircraft Drawing*  
(1 CR)  
Studies basic drafting, drawings, symbols and schematic diagrams, sketches of repairs and alterations, blueprint information, and graphs and charts. Laboratory 3 hours per week.

AMT 109  
*Materials and Processes*  
(1 CR)  
Studies basic shop practices, including selection, identification and installation of aircraft hardware and materials, precision measuring tools and operations, basic heat treating processes, and forms of nondestructive inspections. Lecture 1 hour per week.

AMT 110  
*Materials and Processes Lab*  
*Co-Requisite: AMT 109*  
(1 CR)  
Studies basic shop practices, including selection, identification, and installation of aircraft hardware and materials, precision measuring tools and operations, basic heat treating processes, and forms of nondestructive inspections. Laboratory 4 hours per week.

AMT 111  
*Federal Aviation Regulations*  
(1 CR)  
Reviews Federal Aviation Regulations for maintenance of aircraft, including maintenance forms and records, publications, privileges, and limitations of aircraft mechanics. Laboratory 3 hours per week.

AMT 171  
*Light Sport Aircraft Regulations*  
(1 CR)  
Theory component overview of the following regulations: light-sport rule, and 14 CFR parts 21, 39, 43, 45, 65, and 91, industry-developed consensus standards, including continued airworthiness requirements and inspection practices/techniques, use of hand tools, torque wrench, safe typing practices, and identification of aviation hardware, manufacturer’s safety directives, FAA airworthiness directives, the use of manufacturer’s manuals and maintenance recordkeeping, and personal safety. Lecture 1 hour per week.

AMT 173  
*Light Sport Aircraft General Airframe*  
(1 CR)  
Theory component of weight and balance, ballistic parachutes, theory, installation, operation, and inspection, fuel systems, operations, and inspection, landing gear and brakes, performing minor repairs and minor alterations, inspection of composite structures and minor repairs, electric system, theory, inspection, and troubleshooting, flight and engine instrumentation, inspection and repair to wood, tubing, and sheet-metal structures, inspection and installation of floats/repositioning landing gear, corrosion, cause and prevention, and the use of manufacturer’s manuals and technical data. Lecture 1 hour per week.

AMT 175  
*Light Sport Aircraft Engines and Propellers*  
(1 CR)  
Theory component for 2- and 4-cycle engine operation (fuel and lubrication), inspection, maintenance of engines and propellers, use of manufacturer’s manuals and technical data, troubleshooting of 2-and 4-cycle engines, proper engine run-up techniques, service, inspection, and maintenance of feathering or folding propellers used on gliders. Lecture 1 hour per week.

AMT 177  
*Light Sport Aircraft Airplane Class*  
(1 CR)  
Theory component of flight control operation, aircraft rigging including flight controls, landing wires, flying wires, removal and installation of fabric covering on wings and tail surfaces, disassembly and assembly of wings, flight controls, accessories, removal and installation of the engine, including fuel system, instrumentation, and accessories, use of manufacturer’s manuals and technical data, and identification and inspection of critical areas. Lecture 1 hour per week.
AMT 178  
Light Sport Aircraft Airplane Maintenance Training  
Prerequisites: AMT 171, AMT 173, AMT 175, and AMT 177  
Practical applications of Light Sport Aircraft Regulations, general airframe, engines, and propellers, and airplane class. Laboratory 3 hours per week.

AMT 221  
Non-Metallic Structures  
Studies the inspection, service and repair of wood structures, preliminary and secondary repair of interior and service of plastic, honeycomb, bonded, and composite and laminated structures, including the selection, application, inspection, and testing of fabric and fiberglass coverings and methods of repair; selection of aircraft finishing materials; and the application of paints, dopes, primers, and trim. Lecture 2 hours per week.

AMT 222  
Non-Metallic Structures and Covering Lab  
Co-requisite: AMT 221  
Studies the inspection, service, and repair of wood structures, preliminary and secondary repair of interior and repair of plastic, honeycomb, bonded, and composite and laminated structures, including the selection, application, inspection, and testing of fabric and fiberglass coverings and methods of repair; identification and selection of aircraft finishing materials; and the application of paints, dopes, primers, and trim. Laboratory 8 hours per week.

AMT 223  
Metallic Structures  
Introduces aircraft sheet metal fabrication, inspection and repair including rivets and fasteners; contemporary welding methods on aircraft structures; oxyacetylene, arc, inert gas, and brazing techniques; inspection of welded structures and safety procedures. Lecture 2 hours per week.

AMT 224  
Metallic Structures and Finishes Lab  
Co-requisite: AMT 223  
Introduces aircraft sheet metal fabrication, inspection and repair including rivets and fasteners; contemporary welding methods on aircraft structures; oxyacetylene, arc, inert gas, and brazing techniques; inspection of welded structures and safety procedures. Laboratory 8 hours per week.

AMT 225  
Assembly and Rigging  
Introduces aerodynamic theory and function of aircraft control surfaces, including the fabrication and installation of control devices for fixed and rotary wing aircraft; jacking and control surface balance. Lecture 1 hour per week.

AMT 226  
Assembly and Rigging Lab  
Co-requisite: AMT 225  
Introduces aerodynamic theory and function of aircraft control surfaces, including the fabrication and installation of control devices for fixed and rotary wing aircraft; jacking and control surface balance. Laboratory 3 hours per week.

AMT 227  
Airframe Inspections  
Introduces the inspection and return of aircraft to service, including the procedural and legal aspects of 100 hour, annual and periodic inspections. Lecture 1 hour per week.

AMT 228  
Airframe Inspections Lab  
Co-requisite: AMT 227  
Introduces the inspection and return of aircraft to service, including the procedural and legal aspects of 100 hour, annual and periodic inspections. Laboratory 3 hours per week.

AMT 231  
Airframe Landing Gear Systems  
Introduces simple and complex systems, including the operation, service, and repair of mechanical and hydraulic retraction mechanisms; wheel, tire, and brake service; aircraft speed and configuration warning systems, electric brake controls, anti-skid systems, and position and warning systems; operation of systems and uses in aircraft; identification of hydraulic fluids, seals, and hydraulic and pneumatic control devices. Lecture 2 hours per week.
AMT 232
Airframe Landing Gear Systems Lab
**Co-requisite: AMT 231**
Introduces simple and complex systems, including the operation, service, and repair of mechanical and hydraulic retraction mechanisms; wheel, tire, and brake service; aircraft speed and configuration warning systems, electric brake controls, anti-skid systems, and position and warning systems; operation of systems and uses in aircraft; identification of hydraulic fluids, seals, and hydraulic and pneumatic control devices. Laboratory 5 hours per week.

AMT 233
Communication/Navigation and Control Systems
Studies the operation of aircraft avionics, autopilots and antennas, including inspection and installation; aircraft pressurization, air conditioning, heating and oxygen systems, the operation, inspection, troubleshooting, service and repair; and inspection and servicing, and troubleshooting; and inspection, operation and troubleshooting of de-ice and anti-ice systems. Lecture 2 hours per week.

AMT 234
Communication/Navigation and Control Systems Lab
**Co-requisite: AMT 233**
Studies the operation of aircraft avionics, autopilots, and antennas, including inspection and installation; aircraft pressurization, air conditioning, heating and oxygen systems, the operation, inspection, troubleshooting, service and repair; and inspection and servicing, and troubleshooting; inspection, operation, and troubleshooting of de-ice and anti-ice systems. Laboratory 5 hours per week.

AMT 241
Reciprocating Engines
Studies the history and development of the aircraft reciprocating engine including the repair, overhaul and inspection of various types of engines, the operation and troubleshooting of engines. Lecture 2 hours per week.

AMT 242
Reciprocating Engines Lab
**Co-requisite: AMT 241**
Studies the history and development of the aircraft reciprocating engine including the repair, overhaul, and inspection of various types of engines, the operation and troubleshooting of engines. Laboratory 7 hours per week.

AMT 243
Turbine Engines
Studies the development, theory and operation of turbine engines, including engine design, performance, accessories, subsystems, engine maintenance, and overhaul. Lecture 2 hours per week.

AMT 244
Turbine Engines Lab
**Co-requisite: AMT 243**
Studies the development, theory, and operation of turbine engines, including engine design, performance, accessories, subsystems, engine maintenance, and overhaul. Laboratory 7 hours per week.

AMT 245
Powerplant Inspections
Introduces the inspection and return of powerplants to service, including the methodology and record-keeping for inspection of aircraft reciprocating and gas turbine engines and propellers. Lecture 1 hour per week.

AMT 246
Powerplant Inspections Lab
**Co-requisite: AMT 245**
Introduces the inspection and return of powerplants to service, including the methodology and record-keeping for inspection of aircraft reciprocating and gas turbine engines and propellers. Laboratory 3 hours per week.

AMT 251
Lubrication Systems and Propellers
Studies the identification and selection of lubricants for aircraft powerplants; inspection, service, troubleshooting, and repair of the lubrication systems and components; identification and nomenclature of aircraft propellers; and operation, control and repair of both reciprocating and turbine engine propeller installations. Lecture 1 hour per week.

AMT 252
Lubrication Systems and Propellers Lab
**Co-requisite: AMT 251**
Studies the identification and selection of lubricants for aircraft powerplants; inspection, service, troubleshooting, and repair of the lubrication systems and components; identification and nomenclature of aircraft propellers; and operation, control, and repair of both reciprocating and turbine propeller installations. Laboratory 6 hours per week.
AMT 253
Ignition and Starting Systems
Introduces the overhaul, inspection, and troubleshooting of reciprocating and gas turbine ignition and starting systems, including the repair and bench testing of components. Lecture 1 hour per week.

AMT 254
Ignition and Starting Systems Lab
Co-requisite: AMT 253
Introduces the overhaul, inspection, and troubleshooting of reciprocating and gas turbine ignition and starting systems, including the repair and bench testing of components. Laboratory 4 hours per week.

AMT 255
Fuel Metering Systems
Studies the fundamental operation of fuel metering systems in aircraft powerplants; technical data to repair and overhaul carburetors and components; inspecting, troubleshooting, and adjusting turbine engine fuel metering systems and electronic fuel controls; operation and service of aircraft induction, preheat, anti-ice, and supercharger systems; inspection, service, and repair of engine cooling systems—all air and liquid cooled installations; inspection, service, and repair of engine exhaust systems, including the operations of turbo compounded engines, thrust reversers, and noise suppressors. Lecture 1 hour per week.

AMT 256
Fuel Metering Systems Lab
Co-requisite: AMT 255
Studies the fundamental operation of fuel metering systems in aircraft powerplants; technical data to repair and overhaul carburetors and components; inspecting, troubleshooting and adjusting turbine engine fuel metering systems and electronic fuel controls; operation and service of aircraft induction, preheat, anti-ice and supercharger systems; inspection, service, and repair of engine cooling systems—all air and liquid cooled installations; inspection, service, and repair of engine exhaust systems, including the operations of turbo compounded engines, thrust reversers, and noise suppressors. Laboratory 7 hours per week.

AMT 261
Aircraft Electrical Systems
Prerequisite: AMT 103
Introduces wiring, control, indication, and protection devices for AC and DC systems; inspection, troubleshooting service, and repair of these systems; installation, inspection, testing, servicing engine electrical system wiring; controls, indicator, and protective devices; aircraft batteries; and the repair and service of electrical generating systems. Lecture 1 hour per week.

AMT 262
Aircraft Electrical Systems Lab
Prerequisite: AMT 261
Introduces wiring, control, indication, and protection devices for AC and DC systems; inspection, troubleshooting, service, and repair of these systems; installation, inspection, testing, servicing engine electrical system wiring; controls, indicator and protective devices; aircraft batteries; and the repair and service of electrical generating systems. Laboratory 8 hours per week.

AMT 263
Aircraft Fuel, Fire, and Instrument Systems
Introduces the inspection, servicing, troubleshooting, and repair of aircraft and engine fuel systems and components; inspection, servicing, troubleshooting, and repair of aircraft and engine fire detection and extinguishing systems; inspection, troubleshooting, removal, and replacement of aircraft and engine instruments and indicating systems. Lecture 1 hour per week.

AMT 264
Aircraft Fuel, Fire, and Instrument Systems Lab
Co-requisite: AMT 263
Introduces the inspection, servicing, troubleshooting, and repair of aircraft and the engine fuel systems and components; inspection, servicing, troubleshooting, and repair of aircraft and engine fire detection and extinguishing systems; inspection, troubleshooting, removal, and replacement of aircraft and engine instruments and indicating systems. Laboratory 6 hours per week.

Architecture

ARC 121
Architectural Drafting I
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. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.
ARC 122
Architectural Drafting II
Prerequisite: ARC 121 or equivalent
A continuation of Architectural Drafting I. Requires development of a limited set of working drawings, including a site plan and related details and pictorial drawings. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

ARC 221
Architectural CAD Applications Software I
Prerequisite: ARC 122 or equivalent
Teaches the principles and techniques of architectural drawing practices through the use of architecture specific CAD software. Utilizes the commands and features of the software to generate drawings that emphasize architectural design and structural systems. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

Aviation

ARO 120
Light Sport Airplane Ground School
Presents the beginning study of flight, including aerodynamics, airframe, engine, systems, basic flight instruments, Federal Aviation Administration regulations, airplane and pilot performance, flight operations, and weather as it pertains to light sport aircraft. Prepares students for the FAA examination for Light Sport Pilot-Airplane rating. Lecture 3 hours per week.

ARO 290
Coordinated Internship in Aviation
Prerequisite: Instructor approval
Supervised 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.

Art

ART 101-102
History and Appreciation of Art I-II
May be taken out of sequence
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
Must be taken in sequence
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. Lecture 1 hour. Studio instruction 4 hours. Total 5 hours per week.

ART 131-132
Fundamentals of Design I-II
May be taken out of sequence
Explores the concepts of two- and three-dimensional design and color. May include field trips as required. Lecture 1 hour. Studio instruction 4 hours. Total 5 hours per week.

ART 153-154
Ceramics I-II
Presents problems in the design and production of functional and non-functional ceramic works. Includes handbuilding on the potter’s wheel and clays and glazes. Lecture 0-2 hours. Studio instruction 4-6 hours. Total 5-8 hours per week.

ART 235
Functional Ceramics
Prerequisite: ART 154 or divisional approval
Explores the design and production of functional ceramics, including handbuilding and use of the wheel. Lecture 0-2 hours. Studio instruction 4-6 hours. Total 6-8 hours per week.

ART 236
Sculptural Ceramics
Prerequisite: ART 154 or divisional approval
Explores the design and production of sculptural ceramics, including handbuilding and use of the wheel. Lecture 0-2 hours. Studio instruction 4-6 hours. Total 6-8 hours per week.
### ART 241-242
**Painting I-II**
*Must be taken in sequence*
Introduces abstract and representational painting in acrylic and/or oil with emphasis on color composition and value. Lecture 1-2 hours. Studio instruction 4 hours. Total 5-6 hours per week.

### ART 243-244
**Watercolor I-II**
*Must be taken in sequence*
Presents abstract and representational painting in watercolor with emphasis on design, color, composition, technique and value. Lecture 1-2 hour. Studio instruction 4 hours. Total 5-6 hours per week.

### ART 283-284
**Computer Graphics I-II**
*Must be taken in sequence*
Utilizes microcomputers and software to produce computer graphics. Employs techniques learned to solve studio projects which reinforce instruction and are appropriate for portfolio use. Lecture 1-2 hours. Studio instruction 3-4 hours. Total 5-6 hours per week.

### American Sign Language

#### ASL 101-102
**American Sign Language I-II**
Introduces the fundamentals of American Sign Language (ASL) used by the deaf community, including basic vocabulary, syntax, finger spelling, 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. Lecture 3-4 hours. Laboratory 0-2 hours. Total 3-5 hours per week.

#### ASL 201
**American Sign Language III**
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. Lecture 3-4 hours. Laboratory 0-2 hours. Total 3-5 hours per week.

### Administrative Support Technology

#### AST 101
**Keyboarding I**
Teaches alpha/numeric keyboard with emphasis on correct techniques, speed, and accuracy. Teaches formatting of basic personal and business correspondence, reports, and tabulation. Lecture 3 hours per week.

#### AST 102
**Keyboarding II**
*Prerequisite: AST 101 or keyboarding competence*
Develops keyboarding and document production skills with emphasis on preparation of specialized business documents. Continues skill-building for speed and accuracy. Lecture 3 hours per week.

#### AST 201
**Keyboarding III**
*Prerequisite: AST 102 or instructor approval*
Develops decision-making skills, speed, and accuracy in production keying. Applies word processing skills in creating specialized business documents. A laboratory co-requisite (AST 202) may be required. Lecture 2-4 hours per week. 2-4 Credits.

#### AST 206
**Professional Development**
Develops professional awareness in handling business and social situations. Emphasizes goal setting, critical thinking, decision-making, and employment skills. Lecture 3 hours per week. 3 credits.

#### AST 243
**Office Administration I**
*Prerequisite: AST 102 or instructor approval*
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. Lecture 3 hours per week.
Astronomy

See Natural Science (NAS)

Automotive

AUT 111  (4 CR)
Automotive Engines I
Presents analysis of power, cylinder condition, valves, and bearings in the automotive engine to establish the present condition, repairs, or adjustments. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

AUT 121-122  (4 CR)  (4 CR)
Automotive Fuel Systems I-II
Must be taken in sequence
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 chargers. Also includes complete diagnosis, troubleshooting, overhaul, and factory adjustment procedures of all major carbureted and fuel injection systems. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

AUT 136  (2 CR)
Automotive Vehicle Inspection
Presents information on methods for performing automotive vehicle safety inspection. Lecture 1 hour per week. Laboratory 2 hours. Total 3 hours per week.

AUT 141-142  (4 CR)  (4 CR)
Auto Power Trains I-II
Must be taken in sequence
Presents operation, design, construction, and repair of power train components, standard and automatic transmission. Includes clutches, propeller shaft, universal joints, rear axle assemblies, fluid couplings, torque converters, as well as 2-, 3-, and 4-speed standard, overdrive, and automatic transmissions. Lecture 2 hours. Laboratory 6 hours. Total 8 hours per week.

AUT 197  (1 CR)
Cooperative Education in Automotive Analysis
Supervised on-the-job training for pay in approved business, industrial, and service firms coordinated by the College. May be repeated for credit. Variable hours.

AUT 199  (1 CR)
Supervised Study in Automotive Analysis
Assigns problems for independent study incorporating previous instruction and supervised by the instructor. May be repeated for credit. Variable hours.

AUT 217  (3 CR)
Computerized Fuel Systems
Prerequisite: AUT 241 or instructor approval
Introduces devices which sense the engine condition and control fuel mixture to produce economical fuel consumption. Teaches theory of operation, testing, adjustment and repair or replacement of these devices. Variable lecture/laboratory hours per week. Lecture 1-2 hours. Laboratory 3-6 hours. Total 5-7 hours per week.

AUT 236  (4 CR)
Automotive Climate Control
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 241  (4 CR)
Automotive Electricity I
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  (4 CR)
Automotive Electronics
Prerequisite: AUT 241 or instructor approval
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 3 hours. Total 6 hours per week.

AUT 267  (4 CR)
Automotive Suspension and Braking Systems
Presents the operation, design, construction, repair, and servicing of braking and suspension systems. Explains use of tools and test equipment, evaluation of test results, estimation and repair cost, front and rear suspension alignment, power and standard steering, and power, standard and disc brakes. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.
AUT 273  
Automotive Driveability and Tune-Up I  
(3 CR)

Presents diagnostic and service procedures for automatic electrical and mechanical systems. Teaches use of tools and test equipment, evaluation of test results, and estimation of repair cost. Emphasizes performance of required service. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

AUT 275  
Shop Management  
(2 CR)

Studies shop layout, personnel management, cost analysis, record keeping, and quality control. Discusses shop manager, service salesman, and service writer’s roles in customer relations. Lecture 2 hours per week.

Biology

BIO 101-102  
General Biology I-II  
(4 CR) (4 CR)

Must be taken in sequence  
Prerequisite: Completion of high school chemistry or CHM 101 is strongly encouraged

Explores fundamental characteristics of living matter from the molecular level to the ecological community with emphasis on general biological principles. Introduces the diversity of living organisms, their structure, function, and evolution. Lecture 3 hours. Recitation and laboratory 3 hours. Total 6 hours per week.

BIO 114  
Organisms  
(4 CR)

Prerequisite: BIO 101 and instructor approval

An exploration of how diverse life forms carry out fundamental processes that sustain life, including acquiring and using essential molecules, growing and reproducing, responding to environmental stimuli, and maintaining a stable internal environment. Labs will introduce students to the scientific method in a series of investigative lab and field experiences. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

BIO 141-142  
Human Anatomy and Physiology I-II  
(4 CR) (4 CR)

Must be taken in sequence  
Integrates anatomy and physiology of cells, tissues, organs, and systems of the human body. Integrates concepts of chemistry, physics, and pathology. Lecture 3 hours. Laboratory 2-3 hours. Total 5-6 hours per week.

BIO 205  
General Microbiology  
(4 CR)

Prerequisites: BIO 101 or BIO 141 and CHM 101 or 111 or instructor approval

Examines morphology, genetics, physiology, ecology, and control of microorganisms. Emphasizes application of microbiological techniques to selected fields. Lecture 3 hours. Recitation and laboratory 3 hours. Total 6 hours per week.

Business Management and Administration

BUS 100  
Introduction to Business  
(3 CR)

Presents a broad introduction to the functioning of business enterprise within the U.S. economic framework. Introduces economic systems, essential elements of business organization, production, human resource management, marketing, finance and risk management. Develops business vocabulary. Lecture 3 hours per week.

BUS 118  
Concepts of Supervision  
(3 CR)

Teaches the five functions of management: planning, organizing, staffing, directing and controlling. Includes instruction in leadership skills, problem-solving and decision-making, effective communications, dealing with conflict and employee relations, time management, delegation, and motivation. Lecture 3 hours 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 200  
Principles of Management  
(3 CR)

Teaches management and the management functions of planning, organizing, leading, and controlling. Focuses on application of management principles to realistic situations managers encounter as they attempt to achieve organizational objectives. Lecture 3 hours per week.
BUS 202
Applied Management Principles
Prerequisite: BUS 200 or divisional approval
Focuses on management practices and issues. May use case studies and/or management decision models to analyze and develop solutions to management problems. Lecture 3 hours per week.

BUS 205
Human Resource Management
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 221
Business Statistics I
Prerequisite: MTH 163 or divisional approval
Focuses on statistical methodology in the collection, organization, presentation, and analysis of data; concentrates on measures of central tendency, dispersion, probability concepts and distribution, sampling, statistical estimation, normal and T distribution and hypotheses for means and proportions. (This course may not substitute for any math prefix course at Blue Ridge Community College. Students may not receive credit toward graduation in any program of study for both BUS 221 and MTH 157). Lecture 3 hours per week.

BUS 223
Business and Transportation
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 226
Computer Business Applications
Prerequisites: Keyboarding competence and ITE 119 or ITE 120 or CSC 200
Provides a practical application of software packages including spreadsheets, word processing, database management, and presentation graphics. Includes the use of programs in accounting techniques, word processing, and management science application. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

BUS 227
Quantitative Methods
Prerequisites: BUS 221 or MTH 157 AND MTH 173 or MTH 270
Includes 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. May include computer applications. Lecture 3 hours per week.

BUS 241
Business Law I
Develops a basic understanding of the US business legal environment. Introduces property and contract law, agency and partnership liability, and government regulatory law. Students will be able to apply these legal principles to landlord/tenant disputes, consumer rights issues, employment relationships, and other business transactions. Lecture 3 hours per week.

BUS 242
Business Law II
Focuses on business organization and dissolution, bankruptcy, and Uniform Commercial Code. Introduces international law and the emerging fields of E-Commerce and Internet Law. Lecture 3 hours per week.

BUS 270
Interpersonal Dynamics in the Business Organization
Prerequisites: ENG 111 or ENG 116 and ITE 119 or ITE 120 or CSC 200
Focuses on intra-and interpersonal effectiveness in the business organization. Includes topics such as planning and running effective meetings, networking and politicking, coaching and mentoring, making effective and ethical decisions, developing interpersonal skills that are essential to effective managers, and to improve skills in verbal, non-verbal, and written communication. Lecture 3 hours. Total 3 hours per week.

BUS 296
On-Site Training in Business
Offers opportunities for career orientation and training without pay in selected business and industry. Supervised and coordinated by the College. Credit/work ratio not to exceed 1:5 hours. Variable hours per week.
Computer Aided Drafting

CAD 140
Technical Drafting
Enhances the principles learned that are related directly to the field of drafting and design. Gives a more in-depth exposure to detail and working drawings, dimensioning, tolerancing, and conventional drafting practices. Teaches CAD modeling, may include parametric modeling. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

CAD 161
Blueprint Reading I
Teaches the application of basic principles, visualization, orthographic projection, detail of drafting shop processes and terminology, assembly drawings, and exploded views. Considers dimensioning, changes and corrections, classes of fits, tolerances and allowances, sections and convention in blueprint reading. Lecture 0-1 hours. Laboratory 3 hours. Total 3-4 hours per week.

CAD 225
Machine Drawing and Design
Prerequisites: CAD 140 or EGR 115 and CAD 241
Teaches design of basic machine elements and the analysis of linear and geometric tolerancing including the preparation of complete design and production drawings. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

CAD 241
Parametric Solid Modeling I
Prerequisite: CAD 140
Focuses on teaching students the design of parts by parametric solid modeling. Topics include, but are not limited to, sketch profiles, geometric and dimensional constraints, 3-D features, model generation by extrusion, revolution and sweep, and the creation of 2-D drawing views that include sections, details, and auxiliary. Part I of II. Lecture 2-3 hours. Laboratory 2-3 hours. Total 4-6 hours per week.

CAD 242
Parametric Solid Modeling II
Prerequisites: CAD 140 and CAD 241
Focuses on teaching the design of parts by parametric solid modeling. Topics covered will include, but not be limited to, sketch profiles, geometric and dimensional constraints, 3-D features, model generation by extrusion, revolution and sweep, and the creation of 2-D drawing views that include sections, details and auxiliary. Part II of II. (Credit will not be awarded for both CAD 242 and DRF 232.) Lecture 2-3 hours. Laboratory 2-3 hours. Total 4-6 hours per week.

CAD 243
Parametric Solid Modeling III
Prerequisites: CAD 140, CAD 241 and CAD 242
Focuses on teaching the software for the design of parts and assemblies by means of advanced parametric solid modeling to include advanced mechanical drafting techniques and building mechanical assemblies. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

Chemistry

CHM 101-102
General Chemistry I-II
Prerequisite: Demonstrated proficiency in MTE 1 - 4 through placement testing or completion on the modules
Must be taken in sequence
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 110
Survey of Chemistry
Introduces the basic concepts of general, organic, and biochemistry with emphasis on their applications to other disciplines. No previous chemistry background required. Lecture 3 hours per week.

CHM 111-112
College Chemistry I-II
Prerequisite: Two units of high school algebra or equivalent (with a minimum grade of C)
Must be taken in sequence
Explores the fundamental laws, theories, and mathematical concepts of chemistry. Designed primarily for science and engineering majors. Requires a strong background in mathematics. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.
CHM 241-242
Organic Chemistry I-II
**Prerequisites:** CHM 111-112  **Co-requisite:** CHM 243-244 or permission of instructor
Introduces fundamental chemistry of carbon compounds, including structures, physical properties, syntheses, and typical reactions. Emphasizes reaction mechanisms. Lecture 3 hours per week.

CHM 243-244
Organic Chemistry Laboratory I-II
**Prerequisites:** CHM 111-112  **Co-requisite:** CHM 241-242 or permission of instructor
Is taken concurrently with CHM 241 and CHM 242. Laboratory 3 hours per week.

CHM 260
Introductory Biochemistry
**Prerequisite:** CHM 112 or divisional approval
Explores fundamentals of biological chemistry. Includes study of macromolecules, metabolic pathways, and biochemical genetics. Lecture 3 hours per week.

Chinese

CHI 101-102
Beginning Chinese I-II
**Prerequisite for CHI 102, CHI 101**
Introduces understanding, speaking, reading, and writing skills; emphasizes basic Chinese sentence structure. Lecture 5 hours per week.

CHI 201-202
Conversational Chinese I-II
**Prerequisite:** CHI 102
Offers intensive practice in comprehending and speaking Chinese, with emphasis on developing structure and fluency. Part I of II.

Computer Science

CSC 200
Introduction to Computer Science
**Prerequisites:** Successful completion of algebra I and II in high school or MTE 1-9 or MTH 163 and keybonding skills
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 hands-on component. Lecture 3-4 hours per week.

CSC 201
Computer Science I
**Prerequisite:** CSC 200 or ITP 100 or instructor permission
Introduces algorithm and problem solving methods. Emphasizes structured programming concepts, elementary data structures, and the study and use of a high level programming language. Students may not receive credit toward graduation requirements for both CSC 201 and ITP 120. Lecture 4 hours per week.

CSC 202
Computer Science II
**Prerequisite:** CSC 201 or instructor permission
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. Lecture 4 hours per week.

CSC 205
Computer Organization
**Prerequisites:** CSC 201 and MTH 173
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.

Communication Studies and Theatre

CST 100
Principals of Public Speaking
Applies theory and principals of public address with emphasis on preparation and delivery. Lecture 3 hours per week.
CST 110
Introduction to Communication
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 3 hours per week.

CST 126
Interpersonal Communication
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
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 131-132
Acting I-II
Prerequisite: CST 130 or CST 131 or divisional approval
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. Lecture 2 hours. Laboratory 3 hour. Total 5 hours per week.

CST 136
Theatre Workshop
Enables students to work on various activities of play production. The student participates in play production, set design, stage carpentry, sound, costuming, light, stage managing, props, promotion, or stage crew. May be repeated for credit. Lecture 3 hours per week.

CST 151-152
Film Appreciation I-II
Must be taken in sequence
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 229
Intercultural Communication
Emphasizes the influence of culture on the communication process including differences in values, message systems, and communication rules. Lecture 3 hours per week.

CST 233-234
Rehearsal and Performance I-II
Explores various aspects of the theatre through involvement in college theatre production. Variable hours per week.

Economics

ECO 120
Survey of Economics
Presents a broad overview of economic theory, history, development, and application. Introduces terms, definitions, policies, and philosophies of market economics. Provides some comparison with other economic systems. Includes some degree of exposure of microeconomic and macroeconomic concepts. Students may not receive credit towards graduation for both ECO 120 and ECO 201 nor both ECO 120 and ECO 202. Lecture 3 hours per week.

ECO 201
Principles of Economics I–Macroeconomics
May be taken out of sequence
Introduces macroeconomics including the study of Keynesian, classical, monetarist principles and theories, the study of national economic growth, inflation, recession, unemployment, financial markets, money and banking, the role of government spending and taxation, along with international trade and investments. Lecture 3 hours per week.

ECO 202
Principles of Economics II–Microeconomics
May be taken out of sequence
Introduces the basic concepts of microeconomics. Explores the free market concepts with coverage of economic models and graphs, scarcity and choices, supply and demand, elasticities, marginal benefits and costs, profits, and production and distribution. Lecture 3 hours per week.
Education

EDU 114  
Driver Task Analysis  
Prerequisite: Must be eligible for ENF 02 or ESL 41 and ESL 42  
Introduces the “driver task” as related to the highway transportation system and factors that influence performance ability. Prepares students so they may be eligible to take certification exams for driving school instructors in both public and private schools. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

EDU 214  
Instructional Principles of Driver Education  
Prerequisite: EDU 114  
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. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

EDU 200  
Introduction to Teaching as a Profession  
Prerequisites: Successful completion of 24 credits of transfer courses, including ENG 111-112  
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. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

Energy Technology

ENE 120  
Solar Power Photovoltaic  
Studies the production and conversion of electrical energy from modular to grid power systems. Covers the storage of energy, thermal solar capture, and storage for residential and commercial applications. Covers energy conversion and storage equipment based on size and efficiency. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

ENE 220  
Wind Power Generation  
Studies wind turbines, their location, efficiency, and cost. Covers power generation with wind turbines, storage, conversion to established values, use of batteries, invertors, grid tie systems, and all necessary wiring installations. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

Engineering

EGR 115  
Engineering Graphics  
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. (Credit will not be awarded for both EGR 115 and EGR 110.) Lecture 1-2 hours. Laboratory 3 hours. Total 4-5 hours per week.

EGR 120  
Introduction to Engineering  
Introduces the engineering profession, professional concepts, ethics, and responsibility. Reviews hand calculators, number systems, and unit conversions. Introduces the personal computer, operating systems and processing, engineering problem solving, and graphic techniques. Lecture 2 hours per week.

EGR 126  
Computer Programming for Engineers  
Introduces computers, their architecture and software. Teaches program development using flowcharts. Solves engineering problems involving programming in languages such as FORTRAN, PASCAL, or C++. Lecture 2-3 hours. Laboratory 0-2 hours. Total 3-4 hours per week.

EGR 127  
Introduction to Computer Programming  
Introduces programming in a higher level language such as FORTRAN, BASIC, PASCAL, or C++, on the microcomputer. Uses the operating system, packaged software and peripheral devices. Emphasizes engineering program problem solving. Lecture 1 hour. Laboratory 2 hours. Total 3 hours per week.
EGR 130
Statics and Strength of Materials for Engineering Technology
Prerequisites: MTH 103-104 or MTH 163-164 or equivalent
Presents principles and applications of free-body diagrams of force systems in equilibrium. Analyzes frames and
trusses. Presents principles and applications to problems in friction, centroids, and moments of inertia. Includes
properties of materials, stress, strain, elasticity, design of connections, shear and bending in statically determinate
beams, and axially loaded columns. Lecture 4 hours. Laboratory 2 hours. Total 6 hours per week.

EGR 140
Engineering Mechanics - Statics
Prerequisite: MTH 173
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. Lecture 3 hours per week.

EGR 199
Supervised Study
Assigns problems for independent study incorporating previous instruction and supervised by the instructor. May
be repeated for credit one time. Lecture 3 hours per week.

EGR 206
Engineering Economics
Presents economic analysis of engineering alternatives. Studies economic and cost concepts, calculation of
economic equivalence, comparison of alternatives, replacement economy, economic optimization in design and
operation, depreciation, and after tax analysis. Lecture 2-3 hours per week.

EGR 245
Engineering Mechanics - Dynamics
Concurrent enrollment in EGR 199 required
Prerequisite: EGR 130
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. Lecture 3 hours per week.

EGR 246
Mechanics of Materials
Prerequisite: EGR 140
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. Lecture 3 hours per week.

EGR 247
Mechanics of Materials Laboratory
Prerequisite: EGR 130
Examines mechanical behavior of bars, rods, shafts, tubes, and beams subjected to various types of loading.
Introduces experimental stress analysis techniques, such as the use of strain gages and data reduction. Laboratory
2 hours per week.

EGR 248
Thermodynamics for Engineering
Studies formulation of the first and second law of thermodynamics. Presents energy conversion, concepts of
energy, temperature, entropy and enthalpy, and equations of state of fluids. Covers reversibility and irreversibility
in processes, closed and open systems, cyclical processes, and problem solving using computers. Lecture 3 hours
per week.

EGR 285
Capstone Project
Provides a capstone research project for the final semester of the program, focusing inquiry on an area of interest
to the student or area relevant to their prospective career fields. May include problem based research topics,
internships, or other focused projects. Prerequisite: IND 290 Lecture 1 hour per week.

Electrical Technology

ELE 113
Electricity I
Teaches principles of electricity covering fundamentals, devices, and components in both D.C. and A.C. circuits.
Part I of II. Lecture 3 hours per week.
ELE 114
Electricity II
Teaches principles of electricity covering fundamentals, devices, and components in both D.C. and A.C. circuits. Part II of II. Lecture 3 hours per week.

ELE 123
Electrical Applications I
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. Part I of II. Lecture 0-1 hours. Laboratory 2-4 hours. Total 2-4 hours per week.

ELE 124
Electrical Applications II
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. Part II of II. Lecture 0-1 hours. Laboratory 2-4 hours. Total 2-4 hours per week.

ELE 156
Electrical Control Systems
Includes troubleshooting and servicing electrical controls, electric motors, motor controls, motor starters, relays, overloads, instruments and control circuits. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

Preparing for College English

ENF 1
Preparing for College English I
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 VPT-English placement test results (Virginia Placement Test-English). Upon successful completion and faculty recommendation, students will move into ENF 3 (if they require additional preparation) or into college-level English (if they require no additional preparation). Credit is not applicable toward graduation.

ENF 2
Preparing for College English II
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 VPT-English placement test results (Virginia Placement Test-English). Upon successful completion and faculty recommendation, students will move into ENF 3 (if they require additional preparation) or into college-level English (if they require no additional preparation). Credit is not applicable toward graduation.

ENF 3
Preparing for College English III
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 VPT-English placement test results (Virginia Placement Test-English). Credit is not applicable toward graduation.

English as a Second Language

ESL 41
Composition II
Prerequisite: Requires competency in the English language and ability to write short essays in understandable English, as indicated by a placement test and writing sample, or by teacher recommendation from a previous level
Prepares for college-level writing by practice in the writing process, emphasizing development of thought in essays of greater length and complexity and use of appropriate syntax and diction. Students review grammar at an intermediate to high level, and learn to write short compositions on varying subjects. Writing instruction is also integrated with longer reading projects, such as a novel. Credits are not applicable toward graduation. Lecture 4 hours per week.

ESL 42
Reading II
Prerequisite: Requires competency in reading as indicated by the placement test or by teacher recommendation from a previous level Helps students improve their reading comprehension and vocabulary development
Improves students’ reading proficiency to a level that would allow them to function adequately in the ESL 52 reading class and other college courses. Students study listening, speaking, reading, discussion and some writing on academic content units from across the disciplines. Helps students improve their reading comprehension and vocabulary development. Credits are not applicable toward graduation. Lecture 6 hours per week.
ESL 52 (4 CR)
Reading III
Prerequisite: Requires competency in reading as indicated by the placement test or by teacher recommendation from a previous level
Emphasizes applying and synthesizing ideas. Includes ways to detect organization, summarize, make inferences, draw conclusions, evaluate generalizations, recognize differences between facts and opinions, and introduces other advanced comprehension strategies. May also include comprehensive library skills. Students will also write more advanced essays based on their reading material, and participate in listening/speaking skills related to academic lecture and academic discussions. Credits are not applicable toward graduation. Helps students improve their reading comprehension and vocabulary development. Improves students’ reading proficiency to a level that would allow them to succeed in certificate and degree programs. Lecture 3-6 hours per week.

ESL 95 (1-5 CR)
Topics in ESL
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

English

ENG 111 (3 CR)
College Composition I
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 (3 CR)
College Composition II
Prerequisites: Students must successfully complete ENG 111 or its equivalent, and must be able to use word processing software
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. Lecture 3 hours per week.

ENG 116 (3 CR)
Writing for Business
Develops ability in business writing through extensive practice in composing business correspondence and other documents. Guides students in achieving voice, tone, style, and content appropriate to a specific audience and purpose. Includes instruction in formatting and editing. Introduces students to business discourse through selected readings. Lecture 3 hours per week.

ENG 241-242 (3 CR) (3 CR)
Survey of American Literature I-II
Prerequisite: ENG 112 or divisional approval
May be taken out of sequence
Examines American literary works from colonial times to the present, emphasizing the ideas and characteristics of our national literature. Involves critical reading and writing. Lecture 3 hours per week.

ENG 243-244 (3 CR) (3 CR)
Survey of English Literature I-II
Prerequisite: ENG 112 or divisional approval
May be taken out of sequence
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. Lecture 3 hours per week.

ENG 251-252 (3 CR) (3 CR)
Survey of World Literature I-II
Prerequisite: ENG 112 or divisional approval
May be taken out of sequence
Examines major works of world literature. Involves critical reading and writing. Lecture 3 hours per week.

Electronics Technology

ETR 106 (2 CR)
Programming Methods for Electrical/Electronic Calculations
Studies all purpose symbolic instruction code (BASIC). Focuses on applications of BASIC to electrical problem solving and circuit analysis. May require preparation of a report as an out-of-class activity. Lecture 1 hour. Laboratory 3 hours. Total 4 hours per week.
ETR 112
Math Applications for ELE/ETR Analysis
Presents mathematical applications for ELE/ETR students. Includes mathematical concepts and problems in algebra and trigonometry, and direct application to electronic analysis. Includes a survey of advanced mathematics to develop and reinforce electronic concepts. Lecture 1 hour. Laboratory 2 hours. Total 3 hours per week.

ETR 113-114
D.C. and A.C. Fundamentals I-II
Prerequisite for ETR 114: ETR 113 Co-Requisite for ETR 113: MTH 163 or MTH 103
Must be taken in sequence
Studies D.C. and A.C. circuits, basic electrical components, instruments, network theorems, and techniques used to predict, analyze, and measure electrical quantities. Lecture 2-3 hours. Laboratory 2-3 hours. Total 4-6 hours per week.

ETR 123
Electronic Applications I
Co-requisite for ETR 123: ETR 113
Provides laboratory and shop assignment/jobs as applied to basic electronic devices, circuits and systems with emphasis on practical measurements. May require preparation of a report as an out-of-class activity. Lecture 1 hour. Laboratory 2 hours. Total 3 hours per week.

ETR 143
Devices and Applications I
Prerequisites: ETR 113 and ETR 114
Teaches theory of active devices and circuits such as diodes, power supplies, transistors (BJTs), amplifiers and their parameters, FETs, and operational amplifiers. May include UJT's, oscillators, RF amplifiers, thermionic devices, and others. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

ETR 150
Machine Control Using Relay and Programmable Logic
Provides an introduction to hardwired relay logic and the programmable logic controller (PLC) as utilized in a variety of different control tasks. Covers different types of inputs and outputs in control systems. Teaches practical troubleshooting strategies. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

ETR 164
Upgrading and Maintaining PC Hardware
Teaches upgrading of the system CPU, memory, drives, multimedia components, modem, and video card in a microcomputer. Covers hardware as well as software related maintenance issues. Lecture 2 hours. Cross-listed as ITN 106. Laboratory 2-3 hours. Total 4-5 hours per week.

ETR 177
Industrial Robotics and Robotics Programming
Prepares the student to safely operate and maintain a robot and develop and maintain basic robot programs.

ETR 225
Data Communications
Studies computer communication devices including configurations and protocols. May include modems multiplexing, teletex, and interfacing with telecommunication systems such as local and area networks, microwave and satellite and delivery systems, fiber optic systems, and packet systems. Cross listed as ITN 208. Lecture 3-4 hours. Laboratory 0-6 hours. Total 4-9 hours per week.

ETR 237
Prerequisite: ETR 113
Studies linear integrated circuits for industrial applications, motors, industrial control devices, power control circuits, transducers, industrial process control, and sequential process control. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

ETR 241
Electronic Communications I
Prerequisites: ETR 143 and ETR 114
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. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

ETR 273-274
Computer Electronics I-II
Prerequisite: ETR 106
Must be taken in sequence
Applies principles of digital electronics and microprocessors to familiarize the student with typical circuits used to interface computer and/or controllers with various I/O devices. May include exposure to high level programming as well as assembly language routines. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ETR 286</td>
<td>Robotics</td>
<td>(3 CR)</td>
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<td>Provides an overview of terminology, principles,</td>
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<td>practices, and applications of robotics. Studies</td>
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<td>electronic controls, sensors, and system</td>
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<td>ETR 296</td>
<td>On-Site Training in Electronics</td>
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<td><strong>Prerequisite:</strong> Instructor approval</td>
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<td>Offers opportunities for career orientation</td>
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<td>ETR 298</td>
<td>Seminar and Project in Computer and Electronics</td>
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<td>instructor approval</td>
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<tr>
<td></td>
<td>Requires completion of a project or research</td>
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<tr>
<td></td>
<td>report related to the student's occupational</td>
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<tr>
<td></td>
<td>objective and a study of approaches to the</td>
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<tr>
<td></td>
<td>selection and pursuit of career opportunities in</td>
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</tr>
<tr>
<td></td>
<td>the field. May be repeated for credit. Variable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>hours.</td>
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</tbody>
</table>

**Financial Services**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN 215</td>
<td>Financial Management</td>
<td>(3 CR)</td>
</tr>
<tr>
<td></td>
<td>Introduces basic financial management topics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>including statement analysis, working capital,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>capital budgeting, and long-term financing.</td>
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<tr>
<td></td>
<td>Focuses on Net Present Value and Internal Rate</td>
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<tr>
<td></td>
<td>of Return techniques, lease vs. buy analysis,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>and Cost of Capital computations. Uses problems</td>
<td></td>
</tr>
<tr>
<td></td>
<td>and cases to enhance skills in financial planning</td>
<td></td>
</tr>
<tr>
<td></td>
<td>and decision making. Lecture 3 hours per week.</td>
<td></td>
</tr>
<tr>
<td>FIN 107</td>
<td>Personal Finance</td>
<td>(3 CR)</td>
</tr>
<tr>
<td></td>
<td>Presents a framework of personal money</td>
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<tr>
<td></td>
<td>management concepts, including establishing</td>
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<tr>
<td></td>
<td>values and goals, determining sources of income,</td>
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<tr>
<td></td>
<td>managing income, preparing a budget, developing</td>
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<tr>
<td></td>
<td>consumer buying ability, using credit,</td>
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<tr>
<td></td>
<td>understanding savings and insurance, providing</td>
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<tr>
<td></td>
<td>for adequate retirement, and estate planning.</td>
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<tr>
<td></td>
<td>Lecture 3 hours per week.</td>
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</tr>
</tbody>
</table>

**Fire Science**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FST 100</td>
<td>Principles of Emergency Services</td>
<td>(3 CR)</td>
</tr>
<tr>
<td></td>
<td>Provides an overview to fire protection; career</td>
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</tr>
<tr>
<td></td>
<td>opportunities in fire protection and related</td>
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<tr>
<td></td>
<td>fields; philosophy and history of fire protection</td>
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<tr>
<td></td>
<td>/service; fire loss analysis; organization and</td>
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<tr>
<td></td>
<td>function to public and private fire</td>
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<tr>
<td></td>
<td>protection services; fire departments as part of</td>
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<tr>
<td></td>
<td>local government; laws and regulations affecting</td>
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<td></td>
<td>the fire service; fire service nomenclature;</td>
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<tr>
<td></td>
<td>specific fire protection functions; basic fire</td>
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<tr>
<td></td>
<td>chemistry and physics; introduction to fire</td>
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<tr>
<td></td>
<td>protection systems; introduction to fire</td>
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</tr>
<tr>
<td></td>
<td>strategy and tactics.</td>
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<tr>
<td>FST 110</td>
<td>Fire Behavior and Combustion</td>
<td>(3 CR)</td>
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<tr>
<td></td>
<td>Explores the theories and fundamentals of how</td>
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<td></td>
<td>and why fires start, spread, and how they are</td>
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<tr>
<td></td>
<td>controlled. Lecture 3 hours per week.</td>
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<tr>
<td>FST 120</td>
<td>Occupational Safety and Health for the Fire</td>
<td>(3 CR)</td>
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<tr>
<td></td>
<td>Service</td>
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<tr>
<td></td>
<td>Introduces the basic concepts of occupational</td>
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<tr>
<td></td>
<td>health and safety as it relates to emergency</td>
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<tr>
<td></td>
<td>service organizations. Includes risk evaluation</td>
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<tr>
<td></td>
<td>and control procedures for fire stations, training</td>
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<tr>
<td></td>
<td>sites, emergency vehicles, and emergency</td>
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<tr>
<td></td>
<td>situations involving fire, EMS, hazardous</td>
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<tr>
<td></td>
<td>materials, and technical rescue. (Upon</td>
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<tr>
<td></td>
<td>completion of this course, students should be</td>
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<tr>
<td></td>
<td>able to establish and manage a safety program in</td>
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<tr>
<td></td>
<td>an emergency service organization. Lecture 3</td>
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<td></td>
<td>hours per week.</td>
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</table>

**French**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>FRE 101-102</td>
<td>Beginning French I-II</td>
<td>(4 CR)</td>
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<tr>
<td></td>
<td>Introduces understanding, speaking, reading and</td>
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</tr>
<tr>
<td></td>
<td>writing skills and emphasizes basic French</td>
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<tr>
<td></td>
<td>sentence structure. Lecture 4 hours per week.</td>
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<tr>
<td>FRE 111</td>
<td>Conversation in French I</td>
<td>(3 CR)</td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite:</strong> FRE 102</td>
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<tr>
<td></td>
<td>Emphasizes the spoken language, stressing fluency</td>
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<tr>
<td></td>
<td>and correctness of structure, pronunciation, and</td>
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<td></td>
<td>vocabulary.</td>
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</tbody>
</table>
FRE 201-202
Intermediate French I-II
Continues to develop understanding, speaking, reading, and writing skills. Lecture 3 hours per week.

Geography

GEO 210
People and the Land: An Introduction to Cultural Geography
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
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.

GEO 221
Regions of the World I
Presents an overview of physical and cultural characteristics of selected geographical regions of the world. Focuses upon significant problems within each of the regions. Studies the European cultural sphere including Europe, Soviet Union, the Americas and Australia and the emerging nations in Africa, Southwest Asia and the Orient. Introduces the student to types and uses of maps. Part I of II. Lecture 3 hours per week.

Geology

GOL 105
Physical Geology
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 110
Earth Science
Prerequisite: GOL 105 or instructor permission
Examines the dynamics of the Earth and its relation to the solar system. Applies the principles of geology, oceanography, meteorology, and astronomy in a multi-disciplinary science environment. Stresses the effects of geologic processes on the environment. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

German

GER 101
Beginning German I
Introduces understanding, speaking, reading, and writing skills and emphasizes basic German sentence structures. Part I of II. Lecture 4-5 hours per week. May include one additional hour oral practice per week.

GER 102
Beginning German II
Introduces understanding, speaking, reading, and writing skills and emphasizes basic German sentence structures. Part II of II. Lecture 4-5 hours per week. May include one additional hour oral practice per week.

GER 201
Intermediate German I
Continues to develop understanding, speaking, reading, and writing skills. German is used in the classroom. Prerequisite GER 102 or equivalent. Part I of II. Lecture 3-4 hours per week. May include one additional hour oral practice per week.

GER 202
Intermediate German II
Continues to develop understanding, speaking, reading, and writing skills. German is used in the classroom. Prerequisite GER 102 or equivalent. Part II of II. Lecture 3-4 hours per week. May include one additional hour oral practice per week.
Health Information Management

HIM 190  
Coordinated Internship in Medical Coding  
(2 CR)  
Prerequisite: (1) HLT 143, (2) HLT 144, and (3) HIM 253 or HIM 254  
Supervised on-the-job training in selected business, industrial or service firms coordinated by the College.  
Credit/practice ratio not to exceed 1:5 hours.  Variable hours per week.

HIM 253  
Health Records Coding  
(4 CR)  
Permitted for concurrent enrollment with HLT 143, HLT 144, BIO 141, and/or BIO 142  
Examines the development of coding classification systems. Introduces ICD-9/10-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. Laboratory 0-3 hours. Total 3-7 hours per  
week.

HIM 254  
Advanced Coding and Reimbursement  
(4 CR)  
Permitted for concurrent enrollment with BIO 141 and/or BIO 142  
Stresses advanced coding skills through practical exercises using actual medical records. Introduces CPT-4 coding  
system and guidelines for out-patient/ambulatory surgery coding. Introduces prospective payment system and its  
integration with ICD-9/10-CM coding. Lecture 3-4 hours. Laboratory 0-3 hours. Total 3-6 hours per week.

History

HIS 101-102  
History of Western Civilization I-II  
(3 CR)  
May be taken out of sequence  
Examines the development of western civilization from ancient times to the present. The first semester ends with  
the 17th century; the second semester continues through modern times. Lecture 3 hours per week.

HIS 111-112  
History of World Civilization I-II  
(3 CR)  
May be taken out of sequence  
Surveys Asian, African, Latin American, and European civilizations from the ancient period to the present.  
Lecture 3 hours per week.

HIS 121-122  
United States History I-II  
(3 CR)  
May be taken out of sequence  
Surveys United States history from its beginning to the present. Lecture 3 hours per week.

HIS 211-212  
History of England I-II  
(3 CR)  
May be taken out of sequence  
Surveys the history of the British Isles from pre-Celtic times to the present. Lecture 3 hours per week.

HIS 267  
The Second World War  
(3 CR)  
Examines causes and consequences of the Second World War. Includes the rise of totalitarianism, American  
neutrality, military developments, the home fronts, diplomacy, and the decision to use the atomic bomb. Lecture  
3 hours per week.

HIS 269  
Civil War and Reconstruction  
(3 CR)  
Studies factors that led to the division between the States. Examines the war, the home fronts, and the era of  
Reconstruction. Lecture 3 hours per week.

HIS 276  
United States History Since World War II  
(3 CR)  
Investigates United States history from 1946 to the present, studying both domestic developments and American  
involvement in international affairs. Lecture 3 hours per week.

HIS 277  
The American Experience in Vietnam  
(3 CR)  
Analyzes American involvement in Vietnam from World War I through the Nixon and Ford years. Includes  
Roosevelt’s plan of trusteeship, the Geneva Conference, the American military role, and the search for peace.  
Lecture 3 hours per week.
HIS 279
Age of the American Revolution
Examines the factors that led to the separation of the American British colonies from Great Britain. Covers the Revolutionary War, the problems faced by the revolutionary government, and postwar events that led to the adoption of the United States Constitution. Lecture 3 hours per week.

Health

HLT 100
First Aid and Cardiopulmonary Resuscitation
Focuses on the principles and techniques of safety, first aid, and cardiopulmonary resuscitation. Lecture 2 hours per week.

HLT 110
Concepts of Personal and Community Health
Studies the concepts related to the maintenance of health, safety, and the prevention of illness at the personal and community level. Lecture 3 hours per week.

HLT 116
Introduction to Personal Wellness Concepts
Introduces students to the dimensions of wellness including the physical, emotional, environmental, spiritual, occupational, and social components. Lecture 2 hours per week.

HLT 121
Introduction to Drug Use and Abuse
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 122
Introduction to Alcohol Abuse and Control
Explores the physiological, psychological, and sociological effects of alcohol. Studies why people drink, disease concepts, alcohol tolerance curves, and alcohol’s effect on the operation of a motor vehicle. Lecture 1 hour per week.

HLT 135
Child Health and Nutrition
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 143-144
Medical Terminology I-II
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 230
Principles of Nutrition and Human Development
Teaches the relationship between nutrition and human development. Emphasizes nutrients, balanced weight, weight control, and the nutritional needs of an individual. Lecture 3 hours per week.

HLT 250
General Pharmacology
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.

HLT 271
Physical Care Management of the Older Adult
Introduces the physiology of aging; integrates caretaker guidelines; demonstrates skills to care for aging at a variety of functional levels. Lecture 3 hours per week.

HLT 272
Medical Management of the Older Adult
Introduces common medical problems associated with the aging; examines preventive and restorative care associated with common illnesses. Focuses on assessments, evaluation, and safe administration of medications. Includes emergency care and CPR. Lecture 3 hours per week.
### Human Services

**HMS 100**  
**Introduction to Human Services**  
Introduces human service agencies, roles, and careers. Presents a historical perspective of the field as it relates to human services today. Additional topics include values clarification and needs of target populations. Lecture 3 hours per week.

**HMS 106**  
**Working with Death and Dying**  
Studies the hospice concept emphasizing the management of providing services associated with terminal illness, while providing human services for the family as well as the patient. Explores the unique role of each member of the hospice care team as to how each assists the patient and family in coping with the effects of the illness. Emphasizes understanding grief and loss. Focuses on the dying person and emphasizes the social and moral aspects of death and dying. Lecture 3 hours per week.

**HMS 141**  
**Group Dynamics I**  
**Prerequisites:** HMS 100, MEN 101, HMS 190, and PSY 230  
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 190**  
**Coordinated Internship in Mental Health/Human Services**  
**Prerequisites:** HMS 100 and MEN 101  
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.

**HMS 236**  
**Gerontology**  
Examines the process of aging; its implications in relation to health, recreation, education, transportation, meaningful work or activity, and community resources. Emphasizes experiencing the aging process, facilitating retirement, and application of the helping relationship to work with older adults. Lecture 3 hours per week.

**HMS 238**  
**Selected Topics in Aging**  
Provides students with an opportunity to explore a variety of major current issues in aging. Topics may include care giving and the elderly, elderly drug use and misuse, protective services, crisis interventions, homecare, elder-abuse, and other current topics. Lecture 3 hours per week.

**HMS 290**  
**Coordinated Internship in Mental Health/Human Services**  
**Prerequisites:** HMS 190, PSY 215, PSY 230 and SOC 215  
Includes supervised practice in selected business, industrial, or service firms coordinated by the College. Credit/practice ratio maximum 1:5 hours. Variable hours.

### Humanities

**HUM 195**  
**Honors Seminar**  
An in-depth project providing additional, extensive study or research of a selected topic coordinated by the respective instructor and the coordinator of the Honors Program. Lecture 1 hour per week.

**HUM 201-202**  
**Survey of Western Culture I-II**  
*May be taken out of sequence*  
Studies thought, values and arts of Western culture, integrating major developments in art, architecture, literature, music, and philosophy. Covers the following periods: ancient and classical, early Christian and Byzantine, Medieval, and Early Renaissance. Lecture 3 hours per week.

**HUM 260**  
**Survey of Twentieth-Century Culture**  
Explores literature, visual arts, philosophy, music, and history of our time from an interdisciplinary perspective. Lecture 3 hours per week.
### Industrial Engineering Technology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
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<tbody>
<tr>
<td>IND 106</td>
<td>(3 CR)</td>
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<tr>
<td><strong>Industrial Engineering Technology</strong></td>
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<tr>
<td>Introduces basic skills required for a career in industrial engineering technology. Includes basic statistics for engineering technicians, the SI system, graphic analysis, and careers as an industrial engineering technician. Lecture 3 hours per week.</td>
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<tr>
<td>IND 116</td>
<td>(3 CR)</td>
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<tr>
<td><strong>Applied Technology</strong></td>
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<tr>
<td>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.</td>
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</tr>
<tr>
<td>IND 145</td>
<td>(3 CR)</td>
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<tr>
<td><strong>Introduction to Metrology</strong></td>
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<tr>
<td>Studies principles of measurement and calibration control, 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.</td>
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<tr>
<td>IND 146</td>
<td>(3 CR)</td>
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<tr>
<td><strong>Statistical Quality Control</strong></td>
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<tr>
<td>Studies essentials and application of statistics in quality control function. May include definitions and uses of averages, standard deviations, ranges, and sampling plans. May discuss dependent and independent variables, and distribution probabilities. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.</td>
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</tr>
<tr>
<td>IND 165</td>
<td>(4 CR)</td>
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<tr>
<td><strong>Principles of Industrial Technology I</strong></td>
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<tr>
<td>Introduces principle concepts of technology involving mechanical, fluid, electrical, and thermal power as they relate to force, work, and rate. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.</td>
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</tr>
<tr>
<td>IND 166</td>
<td>(4 CR)</td>
</tr>
<tr>
<td><strong>Principles of Industrial Technology I</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Prerequisite: IND 165</strong></td>
<td></td>
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<tr>
<td>Introduces principle concepts of technology involving mechanical, fluid, electrical, and thermal power as they relate to resistance, energy, power, and force transformers. Places an emphasis on mechanical and advantage systems. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.</td>
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<tr>
<td>IND 250</td>
<td>(3 CR)</td>
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<tr>
<td><strong>Introduction to Basic Computer Integrated Manufacturing</strong></td>
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<tr>
<td>Presents basic principles used in the design and implementation in a computer integrated manufacturing system. Emphasizes team concept and all aspects of a computer integrated manufacturing system to include the following: Robotics, Conveyor Control, Machining Center Integration Quality Control, Statistical Quality Control, and Computer Integrated Manufacturing (CIM) software. Lecture 0-2 hours. Laboratory 3-9 hours. Total 4-9 hours per week.</td>
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<tr>
<td>IND 251</td>
<td>(4 CR)</td>
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<tr>
<td><strong>Automated Manufacturing Systems I</strong></td>
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<tr>
<td>Presents basic principles used in the design and implementation in manufacturing work cells. Includes selection of the robot system, worksite, application cell sensors, development of cycle times, and economic analysis. Lecture 2-4 hours. Laboratory 0-4 hours. Total 3-6 hours per week.</td>
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### Instrumentation

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<th>Course Code</th>
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<tbody>
<tr>
<td>INS 110</td>
<td>(3 CR)</td>
</tr>
<tr>
<td><strong>Principles of Instrumentation</strong></td>
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<tr>
<td>Introduces various types of instruments and gauges used in the manufacturing processes. Examines basic principles of pneumatic, hydraulic, electronic, and mechanically operated devices. Requires a report as an out-of-class activity. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.</td>
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### Information Technology Database

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<th>Course Code</th>
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<tbody>
<tr>
<td>ITD 110</td>
<td>(3 CR)</td>
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<tr>
<td><strong>Web Page Design I</strong></td>
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<tr>
<td><strong>Prerequisite: ITE 119</strong></td>
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<tr>
<td>Stresses a working knowledge of web site design, construction, and management using HTML or XHTML. Course content includes headings, lists, links, images, image maps, tables, forms, and frames. Lecture 3-4 hours per week.</td>
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</table>
ITD 130  
**Database Fundamentals**  
*Prerequisite: ITE 119*  
Introduces the student to Relational Database and Relational Database theory. Course content includes planning, defining, and using a database; table design, linking, and normalization; types of databases, database description and definition. Lecture 3-4 hours per week.

ITD 196  
**On-Site Training in E-Commerce**  
*Prerequisite: ITD 110*  
Offers opportunities for career orientation and training without pay in selected businesses and industry. Supervised and coordinated by the College. Credit/work ratio not to exceed 1:5 hours. Variable hours per week.

ITD 210  
**Web Page Design II**  
*Prerequisite: ITD 110*  
Incorporates advanced techniques in web site planning, design, usability, accessibility, advanced site management, and maintenance utilizing web editor software(s). Lecture 3-4 hours per week.

ITD 212  
**Interactive Web Design**  
Provides techniques in interactive design concepts to create cross-platform, low-bandwidth animations utilizing a vector-based application. Emphasizes the importance of usability, accessibility, optimization, and performance. Lecture 3-4 hours per week.

ITD 220  
**E-Commerce Administration**  
*Recommended Prerequisite: ITD 110*  
Emphasizes techniques to plan and to design a platform independent commerce web site. Course content focuses on web business strategies, and the hardware and software tools necessary for Internet commerce, including comparison and selection of commerce architecture, installation and configuration, security considerations, and planning of a complete business-to-consumer and a business-to-business site. Lecture 3-4 hours.

ITD 298  
**Seminar and Project**  
*Prerequisite: Instructor approval*  
This course requires completion and presentation of a project related to the student’s occupational objective.

**Information Technology Essentials**

ITE 105  
**Careers and Cyber Ethics**  
Career paths in Information Technology will be explored to help the student determine the appropriate degree plan. Career paths include, but are not limited to software development, computer science, database, networking, system administration and operations, end user support, web design, and management. The student will learn ethical concerns in business and information technology, including the ACM Code of Ethics. Lecture 2 hours per week.

ITE 119  
**Information Literacy**  
Presents the information literacy core competencies focusing on the use of information technology skills. Skills and knowledge will be developed in database searching, computer applications, information security and privacy, and intellectual property issues. Lecture 3 hours per week.

ITE 120  
**Principles of Information Systems**  
Provides an overview of the fundamentals of computer information systems. Focuses on the role of computers in business today including hardware, software, analysis, design, and implementation of information systems. Includes an introduction to computer ethics, and business and personal security. Exposes students to techniques used in programming and system development. A hands-on component utilizing spreadsheets, databases, and web design applications is integrated into this course. Lecture 3-4 hours per week.

ITE 130  
**Introduction to Internet Services**  
Provides instruction to provide students with a working knowledge of Internet terminology and services including e-mail, WWW browsing, search engines, ftp, file compression, and other services using a variety of software packages. This course provides instruction for basic web page construction. Lecture 3-4 hours.
ITE 140
Spreadsheet Software
Covers the use of 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, styles, insert headers and footers, and filter data. This course covers MOS Excel objectives. Lecture 3-4 hours.

ITE 160
Introduction to E-Commerce
Studies the culture and demographics of the Internet, on-line business strategies, and the hardware and software tools necessary for Internet commerce. Includes the identification of appropriate target segments, the development of product opportunities, pricing structures, distribution channels over the Internet, and the execution of marketing strategy in computer-mediated environments. Presents case histories of successful Web applications. Lecture 3-4 hours.

ITE 170
Multimedia Software
Explores technical fundamentals of creating multimedia projects with related hardware and software. Students will learn to manage resources required for multimedia production and evaluation and techniques for selection of graphics and multimedia software. Lecture 3 hours.

ITE 182
User Support/Help Desk Principles
Prerequisite: ITE 119
Introduces a variety of tools and techniques that are used to provide user support in help desk operations. Includes help desk concepts, customer service skills, troubleshooting problems, writing for end users, help desk operations, and software, needs analysis, facilities management, and other related topics related to end user support. Lecture 3-4 hours per week.

ITE 200
Technology for Teachers
Provides K-12 classroom teachers with the knowledge and skills needed to fulfill the Commonwealth of Virginia’s Technology Standards for Instructional Personnel. Students will finish the course with a solid understanding of educational technology, including how to use computers, how to access information on the World Wide Web, and how to integrate computers and educational technology into the classroom curriculum. Students will learn how to base technology integration decisions on contemporary learning theories. Lecture 3-4 hours per week.

ITE 270
Advanced Multimedia Development
Prerequisite: ITE 170
Refines multimedia skills, focusing on project development using digital media; video clips, still images, and audio (sounds, music, and narration). Lecture 3 hours per week.

ITE 298
Seminar and Project
Prerequisite: Instructor approval
This course requires completion and presentation of a project related to the student’s occupational objective. Variable hours per week.

Information Technology Networking

ITN 103
Administration of Networked Servers
Instruction focuses on the installation, configuration, and management of local area networked servers. Topics covered include support for local area networked devices, system services, and deployment of networked operating systems. This course can include any version of Windows or Linux Server Platforms. Lecture 2-3 hours. Laboratory 2 hours. Total 4-5 hours per week.

ITN 106
Microcomputer Operating Systems
Teaches use of operating system utilities and multiple-level directory structures, creation of batch files, and configuration of microcomputer environments. May include a study of graphical user interfaces. Cross listed as ETR 164. Lecture 3 hours. Laboratory 0-2 hours. Total 3-5 hours per week.
ITN 151
Introductory Routing and Switching–Cisco
Encompasses instruction in the advantages of LAN segmentation using bridges, routers, and switches. Includes
Spanning Tree Protocol and Virtual LANs, as well as multiprotocol support and traffic filtering. Includes network
design issues and differences between the following WAN services: LAPB, Frame Relay, ISDN, HDLC and PPP.
Lecture 2-3 hours. Laboratory 0-2 hours. Total 3-5 hours per week.

ITN 208
Protocols and Communications
Centers on providing an understanding of the TCP/IP suite and the details of its implementation. The details of
implementation are treated by discussing IP addressing, the structure of frames and protocol headers that enable
communication between two computers. Discusses IP routing, tunneling, SNMP, and security. Cross listed as
ETR 225. Lecture 3 hours. Laboratory 0-2 hours. Total 3-5 hours per week.

ITN 260
Network Security Basics
Prerequisite: ITE 119
Provides instruction in the basics of network security in depth. Course content includes security objectives, security
architecture, security models and security layers. Course content also includes risk management, network security
policy, and security training. Course content includes the security keys, confidentiality, integrity, availability,
accountability, and audit ability. Lecture 3 hours. Laboratory 0-2 hours. Total 3-5 hours per week.

Information Technology Programming

ITP 100
Software Design
Prerequisite: Demonstrated proficiency in MTE 1-4 through placement testing or completion of the
MTE 1-4 modules
Introduces principles and practices of software development. Includes instruction in critical thinking, problem-
solving skills, and essential programming logic in structured and object-oriented design using contemporary
tools. Lecture 3-4 hours.

ITP 110
Visual Basic Programming
Involves instruction in fundamentals of event-driven programming using Visual Basic. Emphasizes program
construction, algorithm development, coding, debugging, and documentation of graphical user interface
applications. Lecture 3-4 hours per week.

ITP 120
Java Programming I
Prerequisite: CSC 200 or ITP 100 or instructor permission
Entails instruction in fundamentals of object-oriented programming using Java. Emphasizes program construction,
algorithm development, coding, debugging, and documentation of console and graphical user interface
applications. Students may not receive credit toward graduation requirements for both ITP 120 and CSC 201.
Lecture 3-4 hours per week.

ITP 200
Data Structures and Algorithms
Prerequisite: CSC 201 or ITP 120 or ITP 132 or divisional approval
Introduces searching and sorting algorithms and basic data structures. Students will examine data structures and
algorithms in a given computer language including sets, strings, stacks, queries, arrays, linked lists, and trees.
Lecture 3-4 hours.

ITP 220
Java Programming II
Prerequisite: ITP 120 or instructor permission
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 225
Web Scripting Languages
Prerequisites: ITC 110 and ITP 100
Introduces students to the principles, systems, and tools used to implement web applications. Provides students
with a comprehensive introduction to the programming tools and skills required to build and maintain interactive
web sites. Students will develop web applications utilizing client-side and server-side scripting languages along
with auxiliary tools needed for complete applications. Lecture 3-4 hours per week.
ITP 240
Server Side Programming
Centers around instruction in fundamentals of Internet application design, development, and deployment. Includes implementation of server component models, security, and database connectivity using server-side programming. Lecture 3-4 hours per week.

ITP 258
System Development Project
Prerequisite: ITP 112, ITP 120, or ITP 132
Focuses on application of information technologies (IT) to system life cycle methodology, systems analysis, systems design, and system implementation practices. Methodologies related to identification of information requirements, feasibility in the areas of economic, technical and social requirements, and related issues are included in course content. Software applications may be used to enhance student skills. Lecture 3-4 hours.

ITP 296
On-Site Training in Information Systems
Prerequisite: Instructor approval
Offers opportunities for career orientation and training without pay in selected business and industry. Supervised and coordinated by the College. Credit/work ratio not to exceed 1:5 hours. Variable hours per week. This is a second-year course, subject to instructor approval.

ITP 298
Seminar and Project
Prerequisite: Instructor approval
This course requires completion and presentation of a project related to the student’s occupational objective. Subject to instructor approval.

Japanese

JPN 101-102
Beginning Japanese I-II
Develops the understanding, speaking, reading, and writing of Japanese, and emphasizes the structure of the language. Lecture 4-5 hours per week. May include one additional hour of oral practice per week.

JPN 201-202
Intermediate Japanese I-II
Prerequisite: JPN 102
Continues the development of the skills of understanding, speaking, reading, and writing of Japanese. Classes conducted in Japanese. Part I of II. Lecture 3-4 hours per week. May include one additional hour of oral practice per week.

Machine Technology

MAC 156-157
Mechanisms I-II
Teaches techniques for disassembly, inspection, alignment, and reassembly of industrial machinery. Includes hands-on activities involving alignment of motor and pump shaft, tension of multi-belt sheaves, and the setting of end play and backlash in a gear box. Includes instruction on bearings involving the proper assembly and disassembly. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

MAC 195
Math Applications for Mechanisms
Presents mathematical applications for the study of mechanisms. Includes mathematical concepts and problems in algebra and trigonometry. Includes a survey of mathematical applications for basic electricity, hydraulics, and pneumatics. Lecture 2 hours.

Mechanical Engineering Technology

MEC 111
Materials for Industry
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, material systems, thermal processing, and electronic-related materials. Lecture 3 hours per week.
MEC 112
Processes of Industry
Analyzes the processes of manufacturing products from materials for industry/engineering. Includes machining casting, forming molding, hot/cold working, chipless machining, and welding. Addresses quality assurance and inspection procedures. Lecture 3 hours per week.

MEC 119
Introduction to Basic CNC and CAM
Teaches the basic concepts of Computer Numerical Control (CNC) programming of Numerical Control Machinery with emphasis on Computer Aided Manufacturing (CAM)/Computer Aided Drafting (CAD). Program writing procedures will be based on using the following: basic G-code programming language for CNC machinery, CAD/CAM programming systems to produce correct code for CNC Machinery, basic computer usage, CAD/CAM integration, and Code-to-machine transfer via Distributive Numeric Control (DNC). Lecture 1-2 hours. Laboratory 2-4 hours. Total 3-5 hours per week.

MEC 161
Basic Fluid Mechanics - Hydraulics/Pneumatics
Introduces theory, operation and maintenance of hydraulic/pneumatics devices and systems. Emphasizes the properties of fluids, fluid flow, fluid statics, and the application of Bernoulli's equation. Lecture 2-3 hours. Laboratory 2-3 hours. Total 4-6 hours per week.

MEC 211
Machine Design I
Prerequisite: EGR 130 or equivalent
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. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

MEC 225
Metallurgy
Teaches fundamentals of metallurgy, grain size, effect on carbon content, and hardness testing devices. Tests different alloys to determine the effect of heat treatment. Requires preparation of weekly laboratory reports. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

MEC 255
Thermodynamics
Studies the properties of fluids and basic principles of work, energy, and heat. Includes the first and second laws of thermodynamics, processes, and cycles, thermal reversibilities and irreversibilities, internal combustion engines, and gas turbines. Lecture 3 hours per week.

Mental Health

MEN 101
Mental Health Skill Training I
Prerequisite: HMS 100
Develops skills necessary to function as a mental health worker, with emphasis on guided practice in counseling skills as well as improved self-awareness. Includes training in problem-solving, goal-setting, and implementation of appropriate strategies and evaluation techniques relating to interaction involving a variety of client needs. Lecture 3 hours per week.

MEN 135
Human Services and the Law
Examines current issues in mental health and impact of federal and state laws on delivery of services. Considers issues of civil commitment of the mentally ill, confidentiality, and rights of clients. Lecture 3 hours per week.

MEN 225
Counseling Therapy
Prerequisites: HMS 100, MEN 101, PSY 215, PSY 230, SOC 215 and concurrent enrollment in or completion of one semester of HMS 190
Studies various models of counseling theories and appropriate application of counseling techniques in the helping profession. Lecture 3 hours per week.

MEN 295
Topics in Interviewing
Helps students acquire knowledge and develop skills for effective communication in helping Individuals and families in planning change. Emphasis on development of interviewing skills. Class activities include role playing and interviews with individuals and groups. Lecture 3 hours per week.
Marketing

MKT 100  (3 CR)
Principles of Marketing
Presents principles, methods and problems involved in the 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, ethical, and international considerations in marketing. Lecture 3 hours per week.

Math Essentials (Developmental Math Modules)

MTE 1  (1 CR)
Operations with Positive Fractions
Prerequisite: Qualifying placement score
Includes operations and problem solving with proper fractions, improper fractions, and mixed numbers without the use of a calculator. Emphasizes applications and includes U. S. customary units of measure. Credit is not applicable toward graduation.

MTE 2  (1 CR)
Operations with Positive Decimals and Percents
Prerequisite: MTE 1 or qualifying placement score
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.

MTE 3  (1 CR)
Algebra Basics
Prerequisite: MTE 2 or qualifying placement score
Includes basic operations with algebraic expressions and solving simple algebraic equations using signed numbers with emphasis on applications. Credit is not applicable toward graduation.

MTE 4  (1 CR)
First Degree Equations and Inequalities in One Variable
Prerequisite: MTE 3 or qualifying placement score
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.

MTE 5  (1 CR)
Linear Equations, Inequalities and Systems of Linear Equations In Two Variables
Prerequisite: MTH 4 or qualifying placement score
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.

MTE 6  (1 CR)
Exponents, Factoring and Polynomial Equations
Prerequisite: MTE 5 or qualifying placement score
Includes techniques of factoring polynomials and using these techniques to solve polynomial equations. Emphasizes applications using polynomial equations solved by factoring. Credit is not applicable toward graduation.

MTE 7  (1 CR)
Rational Expressions and Equations
Prerequisite: MTE 6 or qualifying placement score
Includes simplifying rational algebraic expressions, solving rational algebraic equations and solving applications that use rational algebraic equations. Credit is not applicable toward graduation.

MTE 8  (1 CR)
Rational Exponents and Radicals
Prerequisite: MTE 7 or qualifying placement score
Includes simplifying radical expressions, using rational exponents, solving radical equations, and solving applications using radical equations. Credit is not applicable toward graduation.

MTE 9  (1 CR)
Functions, Quadratic Equations and Parabolas
Prerequisite: MTE 8 or qualifying placement score
Includes an introduction to functions in ordered pair, graph, and equation form. Also introduces quadratic functions, their properties and their graphs. Credit is not applicable toward graduation.
Mathematics

**MTH 103**
Applied Technical Mathematics I
Prerequisite: Competency in Math Essentials MTE 1-3 as demonstrated through the placement and diagnostic tests, or by satisfactorily completing the required MTE units or equivalent
Presents a review of arithmetic, elements of algebra, geometry, and trigonometry. Directs applications to specialty areas. Part I of II. Lecture 3 hours per week.

**MTH 104**
Applied Technical Mathematics II
Prerequisites: a placement recommendation for MTH 103 and one unit of high school mathematics or equivalent
Presents a review of arithmetic, elements of algebra, geometry, and trigonometry. Directs applications to specialty areas. Part II of II. Lecture 3 hours per week.

**MTH 141**
Business Mathematics I
Prerequisite: Competency in Math Essentials MTE 1-3 as demonstrated through the placement and diagnostic tests, or by satisfactorily completing the required MTE units or equivalent Part I of II
Provides instruction, review, and drill in percentage, cash and trade discounts, mark-up, payroll, sales, property and other taxes, simple and compound interest, bank discounts, loans, investments, and annuities. Lecture 3 hours per week.

**MTH 151**
Mathematics for the Liberal Arts I
Prerequisite: Competency in Math Essentials MTE 1-5 as demonstrated through the placement and diagnostic tests, or by satisfactorily completing the required MTE units or equivalent
Presents topics in sets, logic, numeration systems, geometric systems, and elementary computer concepts. Lecture 3 hours per week.

**MTH 157**
Elementary Statistics
Prerequisite: Competency in Math Essentials MTE 1-5 as demonstrated through the placement and diagnostic tests, or by satisfactorily completing the required MTE units or equivalent (Credit will not be awarded for both MTH 157 and MTH 240 or MTH 241) (Students may not receive credit toward graduation in any program of study for both MTH 157 and BUS 221)
Presents elementary statistical methods and concepts including descriptive statistics, estimation, hypothesis testing, linear regression, and categorical data analysis.

**MTH 163**
Precalculus I
Prerequisite: Competency in Math Essentials MTE 1-9 as demonstrated through the placement and diagnostic tests, or by satisfactorily completing the required MTE units or equivalent (Credit will not be awarded for both MTH 163 and MTH 166)
Presents college algebra, matrices, and algebraic, exponential, and logarithmic functions. Lecture 3 hours per week.

**MTH 164**
Precalculus II
Prerequisite: MTH 163 or equivalent (Credit will not be awarded for both MTH 164 and MTH 166 or MTH 164 and MTH 168)
Presents trigonometry, analytic geometry, and sequences and series. Lecture 3 hours per week.

**MTH 166**
Precalculus with Trigonometry
Prerequisite: a placement recommendation for MTH 166 (Credit will not be awarded for both MTH 163 and MTH 166 or MTH 164 and MTH 166)
Presents college algebra, analytic geometry, trigonometry, and algebraic exponential and logarithmic functions. Lecture 4-5 hours per week.

**MTH 173**
Calculus with Analytic Geometry I
Prerequisites: a placement recommendation for MTH 173 or completion of MTH 163-164 or MTH 166 and four units of high school mathematics including Algebra I, Algebra II, Geometry and Trigonometry or equivalent (Credit will not be awarded for more than one of MTH 173, MTH 175 or MTH 273)
Presents analytic geometry and the calculus of algebraic and 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. Lecture 4-5 hours per week.
MTH 174
Calculus with Analytic Geometry II
Prerequisite: MTH 173 or equivalent (Credit will not be awarded for more than one of MTH 174, MTH 176 or MTH 274)
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. Lecture 4-5 hours.

MTH 175
Calculus of One Variable I
Prerequisites: a placement recommendation for MTH 175 and four units of high school mathematics including Algebra I, Algebra II, Geometry and Trigonometry or equivalent (Credit will not be awarded for more than one of MTH 173, MTH 175 or MTH 273)
Prepares differential calculus of one variable including the theory of limits, derivatives, differentials, antiderivatives and applications to algebraic and transcendental functions. Designed for mathematical, physical, and engineering science programs. Lecture 3 hours per week.

MTH 176
Calculus of One Variable II
Prerequisite: MTH 175 or equivalent (Credit will not be awarded for more than one of MTH 174, MTH 176 or MTH 274)
Continues the study of integral calculus of one variable including indefinite integral, definite integral and methods of integration with applications to algebraic and transcendental functions. Designed for mathematical, physical, and engineering science programs. Lecture 3 hours per week.

MTH 177
Introduction to Linear Algebra
Co-requisite: MTH 173 or instructor permission (Credit will not be awarded for MTH 177 and MTH 285)
Covers matrices, vector spaces, determinants, solutions of systems of linear equations, and eigen values. Designed for mathematical, physical, and engineering science programs. Lecture 2 hours per week.

MTH 200
Abstract Algebra
Prerequisite: MTH 174 or instructor permission
Covers groups, isomorphisms, fields, homomorphisms, rings, and integral domains. Fulfills the abstract algebra requirement for Virginia high school mathematics teaching endorsement. Lecture 3 hours per week.

MTH 250
College Geometry
Prerequisite: a placement recommendation for MTH 250 and MTH 174 or equivalent
Presents topics in Euclidean and non-Euclidean geometries chosen to prepare individuals for teaching geometry at the high school level. Studies Euclid’s geometry and its limitations, axiomatic systems, techniques of proof, and Hilbert’s geometry, including the parallel postulates for Euclidean, hyperbolic, and elliptic geometries. Lecture 3 hours per week.

MTH 270
Applied Calculus
Prerequisite: MTH 163 or MTH 166 or equivalent (Credit will not be awarded for both MTH 270 and MTH 271)
Introduces limits, continuity, differentiation and integration of algebraic and transcendental functions, techniques of integration, and partial differentiation. Lecture 3 hours per week.

MTH 277
Vector Calculus
Prerequisite: MTH 174 or equivalent
Presents vector valued functions, partial derivatives, multiple integrals, and topics from the calculus of vectors. Designed for mathematical, physical, and engineering science programs. Lecture 4 hours per week.

MTH 279
Ordinary Differential Equations
Prerequisite: MTH 174 or equivalent
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. Lecture 4 hours per week.

MTH 285
Linear Algebra
Prerequisite: MTH 174 or equivalent (Credit will not be awarded for MTH 177 and MTH 285)
Covers matrices, vector spaces, determinants, solutions of systems of linear equations, basis and dimension, eigen values, and eigen vectors. Lecture 3 hours per week.
**MTH 287**  
**Mathematical Structures**  
**Prerequisite:** MTH 163-164, or MTH 166 or equivalent  
Presents topics in mathematical structures of value to students majoring in Computer Science or other disciplines requiring programming skills. Covers logic, set theory, number theory, combinatorics, functions, relations, and graph theory. Lecture 3 hours per week.

**MTH 291**  
**Differential Equations**  
**Prerequisite:** MTH 174 or equivalent  
Introduces first order differential equations, linear differential equations, numerical methods, and applications. Designed for mathematical, physical, and engineering science programs. Lecture 3 hours per week.

**Music**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 121-122</td>
<td>Music Appreciation I-II</td>
<td>3 CR</td>
<td>May be taken out of sequence</td>
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<td></td>
<td><strong>May be taken out of sequence</strong></td>
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<tr>
<td>MUS 137</td>
<td>Chorus Ensemble</td>
<td>1 CR</td>
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</table>

Increase 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.

**Natural Science**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
<th>Prerequisite</th>
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</thead>
<tbody>
<tr>
<td>NAS 130</td>
<td>Elements of Astronomy</td>
<td>4 CR</td>
<td><strong>Prerequisite:</strong> familiarity with basic algebra</td>
</tr>
</tbody>
</table>

 Covers history of astronomy and its recent developments. Stresses the use of astronomical instruments and measuring techniques and includes the study and observation of the solar system, stars, and galaxies. Lecture 3 hours per week. Recitation and laboratory 3 hours. Total 6 hours per week.

**Nursing**

<table>
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<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
<th>Prerequisite</th>
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</thead>
<tbody>
<tr>
<td>NUR 108</td>
<td>Nursing Principles and Concepts I</td>
<td>6 CR</td>
<td><strong>Prerequisite:</strong> NUR 108</td>
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<tr>
<td>NUR 109</td>
<td>Nursing Principles and Concepts II</td>
<td>6 CR</td>
<td><strong>Prerequisite:</strong> NUR 108</td>
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<tr>
<td>NUR 115</td>
<td>LPN Transition</td>
<td>2-7 CR</td>
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</tbody>
</table>

Introduces the role of the registered nurse through concepts and skill development in the discipline of professional nursing. This course serves as a bridge course for licensed practical nurses and is based upon individualized articulation agreements, mobility exams, or other assessment criteria as they relate to local programs and service areas. Includes math computational skills and basic computer instruction related to the delivery of nursing care. Lecture 1-7 hours. Laboratory 0-18 hours. Total 2-19 hours per week.
NUR 136  (1 CR)
Principles of Pharmacology I
Focuses on principles of medication administration which include dosage calculations, major drug classifications, drug legislation, legal aspects of medication administration, drug action on specific body systems, and basic computer applications. Lecture 1-2 hours per week.

NUR 137  (1 CR)
Principles of Pharmacology II
Continues discussion on principles of medication administration which include dosage calculations, major drug classifications, drug legislation, legal aspects of medication administration, drug action on specific body systems, and basic computer applications. Lecture 1-2 hours per week.

NUR 213  (7 CR)
Second Level Nursing III
Emphasizes complex nursing care of individuals, families, and/or groups in various stages of development who are experiencing alterations related to their biopsychosocial needs. Uses all components of the nursing process with increasing degrees of skill. Includes math computation skills, basic computer instruction related to the delivery of nursing care; cardiovascular, respiratory, endocrine, neurological and renal disorders. Provides supervised learning experience in college nursing laboratories and/or cooperating agencies. Lecture 1-7 hours. Laboratory 3-21 hours. Total 9-22 hours per week.

NUR 214  (7 CR)
Second Level Nursing IV
Emphasizes complex nursing care of individuals, families, and/or groups in various stages of development who are experiencing alterations related to their biopsychosocial needs. Uses all components of the nursing process with increasing degrees of skill. Includes math computation skills, basic computer instruction related to the delivery of nursing care related to chronic disorders throughout the lifespan including immunological; hematological; infectious; burn; integumentary; sensory, and neurological disorders. Provides supervised learning experience in college nursing laboratories and/or cooperating agencies. Lecture 1-7 hours. Laboratory 3-21 hours. Total 9-22 hours per week.

NUR 226  (3 CR)
Health Assessment
Teaches the systematic approach to obtaining a health history and performing a physical assessment. Lecture 0-2 hours per week. Laboratory 3-9 hours per week. Total 4-9 hours per week.

NUR 245  (3 CR)
Maternal/Newborn Nursing
Develops nursing skills in caring for families in the antepartum, intrapartum, and post-partum periods. Lecture 3 hours per week.

NUR 247  (3 CR)
Psychiatric/Mental Health Nursing
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 2-9. Total 2-9 hours per week.

NUR 254  (2 CR)
Dimensions of Professional Nursing
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 2 hours per week.

Physical Education and Recreation

PED 103-104  (1 CR) (1 CR)
Aerobic Fitness I-II
Must be taken in sequence
Develops cardiovascular fitness through activities designed to elevate and sustain heart rates appropriate to age and physical condition. Laboratory 2 hours. Total 2 hours per week.

PED 107-108  (1 CR) (1 CR)
Exercise and Nutrition I-II
Must be taken in sequence
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. Laboratory 2 hours. Total 2 hours per week.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>CRs</th>
<th>Course Name</th>
<th>Description</th>
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</table>
| PED 109-120| (1CR)(1CR) | Yoga I-II | Must be taken in sequence  
Focuses on the forms of yoga training emphasizing flexibility. Laboratory 2 hours. Total 2 hours per week. |
| PED 110    | (1 CR)       | Zumba          | Focuses on Latin rhythms, dance moves and techniques in Zumba. Utilizes physical activity, cardiovascular endurance, balance, coordination and flexibility as related to dance. Laboratory 2 hours. Total 2 hours per week. |
| PED 111-112| (1 CR)(1 CR) | Weight Training I-II | Must be taken in sequence  
Focuses on muscular strength and endurance training through individualized workout programs. Teaches appropriate use of weight training equipment. Laboratory 2 hours. Total 2 hours per week. |
| PED 113-114| (1 CR)(1 CR) | Lifetime Activities I-II | Must be taken in sequence  
Presents lifetime sports and activities. Teaches skills and methods of lifetime sports and activities appropriate to the local season and facilities available. Laboratory 2 hours. Total 2 hours per week. |
| PED 117    | (1 CR)       | Fitness Walking  | Teaches content and skills needed to design, implement, and evaluate an individualized program of walking, based upon fitness level. Laboratory 2 hours. Total 2 hours per week. |
| PED 120    | (1-2 CR)     | Yoga II         | Focuses on forms of yoga training emphasizing flexibility. Prerequisite PED 109. Lecture 0-1 hour per week. Laboratory 2 hours. Total 2-3 hours per week. |
| PED 121-122| (1 CR)(1 CR) | Racketball I-II  | Must be taken in sequence  
Teaches racketball skills and strategies for team and individual play. Includes terminology, scoring, etiquette, equipment selection, and safety. Laboratory 2 hours. Total 2 hours per week. |
| PED 123-124| (1 CR)(1 CR) | Tennis I-II      | Must be taken in sequence  
Teaches tennis skills with emphasis on stroke development and strategies for individual and team play. Includes rules, scoring, terminology, and etiquette. Laboratory 2 hours. Total 2 hours per week. |
| PED 129    | (1 CR)       | Self-Defense    | Examines history, techniques, and movements associated with self-defense. Introduces the skills and methods of self-defense, emphasizing mental and physical discipline. Laboratory 2 hours. Total 2 hours per week. |
| PED 133-134| (1 CR)(1 CR) | Golf I-II        | Must be taken in sequence  
Teaches basic skills of golf, rules, etiquette, scoring, terminology, equipment selection and use, and strategy. Laboratory 2 hours. Total 2 hours per week. |
| PED 137-138| (1 CR)(1 CR) | Martial Arts I-II| Must be taken in sequence  
Emphasizes forms, styles, and techniques of body control, physical and mental discipline, and physical fitness. Presents a brief history of development of martial arts theory and practice. Laboratory 2 hours. Total 2 hours per week. |
| PED 148 and PED 299 | (1 CR)(1 CR) | Snowboarding I and II | Must be taken in sequence  
Teaches basic skills of snowboarding, selection and use of equipment, terminology, and safety rules. Includes field experience. Laboratory 2 hours. Total 2 hours per week. |
<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>PED 150</td>
<td>Soccer</td>
<td>Emphasizes soccer skills and techniques, strategies, rules, equipment, and physical conditioning. Laboratory 2 hours. Total 2 hours per week.</td>
</tr>
<tr>
<td>PED 156</td>
<td>Softball</td>
<td>Emphasizes skills, techniques, strategies, and rules. Laboratory 2 hours. Total 2 hours per week.</td>
</tr>
<tr>
<td>PED 163</td>
<td>Jazz I</td>
<td>Introduces dance through contemporary jazz movements. Includes floor stretches, isolations, dance patterns and locomotor movements. Laboratory 2 hours. Total 2 hours per week.</td>
</tr>
<tr>
<td>PED 166</td>
<td>Ballet</td>
<td>Teaches ballet as a discipline with correct alignment and ballet form. Expresses movement through traditional dance form with choreographic emphasis. Laboratory 2 hours. Total 2 hours per week.</td>
</tr>
<tr>
<td>PED 181-182</td>
<td>Downhill Skiing I-II</td>
<td>Must be taken in sequence. Teaches basic skills of downhill skiing; selection and use of equipment; terminology and safety rules. Includes field experience. Laboratory 2 hours. Total 2 hours per week.</td>
</tr>
<tr>
<td>PED 245</td>
<td>Lifeguard Training</td>
<td>Prerequisites: the 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 lb 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. 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. Lecture 1 hour. Laboratory 2 hours. Total 3 hours per week.</td>
</tr>
<tr>
<td>PED 248</td>
<td>Advanced Snow Boarding</td>
<td>Teaches the advanced skills of snowboarding, selection and use of equipment, terminology, and safety rules. Lecture 1 hour. Laboratory 2 hours. Total 3 hours per week.</td>
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</tbody>
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**Philosophy**

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<thead>
<tr>
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<tbody>
<tr>
<td>PHI 101-102</td>
<td>Introduction to Philosophy I-II</td>
<td>May be taken out of sequence. Introduces a broad spectrum of philosophical problems and perspectives with an emphasis on the systematic questioning of basic assumptions about meaning, knowledge, reality, and values. Lecture 3 hours per week.</td>
</tr>
<tr>
<td>PHI 115</td>
<td>Practical Reasoning</td>
<td>Studies informal logic and language techniques as they relate to reasoning and argument. Provides practice in analyzing arguments and constructing sound arguments. Lecture 3 hours per week.</td>
</tr>
<tr>
<td>PHI 211-212</td>
<td>The History of Western Philosophy I-II</td>
<td>May be taken out of sequence. Provides historical survey of representative philosophers from the pre-Socratics to the present. Introduces the student to development of philosophical thought through selected readings of original works and appropriate critical materials. Lecture 3 hours per week.</td>
</tr>
<tr>
<td>PHI 225</td>
<td>Selected Problems in Applied Ethics</td>
<td>Analyzes and discusses significant contemporary ethical issues and problems existing throughout the various professions, such as business, medicine, law, education, journalism, and public affairs. Lecture 3 hours per week.</td>
</tr>
</tbody>
</table>

**Photography**

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<tr>
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<tbody>
<tr>
<td>PHT 164</td>
<td>Introduction to Digital Photography</td>
<td>Teaches the fundamentals of photography including camera function, composition, and image production as they apply to digital imagery. Lecture 1 hour. Laboratory 4 hours. Total 5 hours per week.</td>
</tr>
</tbody>
</table>
PHT 264 (3 CR)
Digital Photography II
Teaches theory and practice of digital photography. Emphasizes use of digital cameras in studio and on location. Teaches advanced techniques of image editing. Provides training in digital image transmission from remote locations. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

Physics

PHY 100 (4 CR) (4 CR)
Elements of Physics
Covers basic concepts of physics, including Newtonian mechanics, properties of matter, heat and sound, fundamental behavior of gases, ionizing radiation, and fundamentals of electricity. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

PHY 201-202 (4 CR) (4 CR)
General College Physics I-II
Prerequisite: proficiency with algebra and familiarity with basic trigonometry and plane geometry Must be taken in sequence
Teaches fundamental principles of physics. Covers mechanics, thermodynamics, wave phenomena, electricity and magnetism, and selected topics in modern physics. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

PHY 241-242 (4 CR) (4 CR)
University Physics I-II
Prerequisite: MTH 173 (PHY 241) and MTH 174 (PHY 242)
Teaches principles of classical and modern physics. Includes mechanics, wave phenomena, heat, electricity, magnetism, relativity, and nuclear physics. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

Political Science

PLS 135 (3 CR)
American National Politics
Teaches political institutions and processes of the national government of the United States, focuses on the Congress, presidency, and the courts, and on their interrelationships. Gives attention to public opinion, suffrage, elections, political parties, interest groups, civil rights, domestic policy, and foreign relations. Lecture 3 hours per week.

PLS 211-212 (3 CR) (3 CR)
U. S. Government I-II
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 241-242 (3 CR) (3 CR)
International Relations I-II
Teaches geographic, demographic, economic, ideological, and other factors conditioning the policies of countries and discusses conflicts and their adjustment. Lecture 3 hours per week.

Psychology

PSY 105 (3 CR)
Psychology of Personal Adjustment
Introduces psychological principles that contribute to a well-adjusted personality. Considers the effects of stress and coping with the problems of everyday life. Lecture 3 hours per week.

PSY 116 (3 CR)
Psychology of Death and Dying
Focuses on psychological aspects of death and dying. Teaches the meaning of death and ways of handling its personal and social implications. Includes psychological, sociological, cultural, and religious views of death. Lecture 3 hours per week.

PSY 200 (3 CR)
Principles of Psychology
Co-Requisite: ENG111
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. Students may not receive credit toward graduation requirements for both PSY 200 and PSY 201 nor for both PSY 200 and PSY 202. Lecture 3 hours per week.
PSY 201-202
Introduction to Psychology I-II
(May be taken out of sequence)
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. Students may not receive credit toward graduation requirements for both PSY 200 and PSY 201 nor for both PSY 200 and PSY 202. Lecture 3 hours per week.

PSY 211
Research Methodology for Behavioral Sciences
Introduces the principles and processes of various research procedures for applying the scientific method to understanding behavior. Includes preparation for conducting, understanding and interpreting laboratory and field studies; documenting principles through research; and applying critical assessment to generic research. Lecture 3 hours per week.

PSY 213
Statistics for Behavioral Sciences
Prerequisite: MTH 157
Introduces the principles and processes of statistics within behavioral research. Emphasizes understanding and applying statistical tests to behavioral data. Stresses recognition and use of process, based upon knowledge and understanding, over mathematical derivation. Focuses on selection of appropriate statistics, their application, and correct decisions of interpretation within a behavioral research experience. Lecture 3 hours per week.

PSY 215
Abnormal Psychology
Prerequisite: PSY 200 or PSY 201 or divisional approval
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. Lecture 3 hours per week.

PSY 216
Social Psychology
Prerequisite: PSY 200, PSY 201, or PSY 202
Examines individuals in social contexts, their social roles, group processes, and intergroup relations. Includes topics such as small group behavior, social behavior, social cognition, conformity, attitudes, and motivation. Lecture 3 hours per week.

PSY 220
Introduction to Behavior Modification
Studies the history of behaviorism and the principles and applications of behavior modification. Emphasizes observation and application of behavior modification principles. Lecture 3 hours per week.

PSY 230
Developmental Psychology
Studies the development of the individual from conception to death. Follows a lifespan perspective on the developmental tasks of the person’s physical, cognitive, and psychosocial growth. Lecture 3 hours per week.

PSY 231-232
Life Span Human Development I-II
(May be taken out of sequence but students are encouraged to complete PSY 231 prior to PSY 232)
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 236
Adolescent Psychology
Studies development of the adult personality. Investigates physical, intellectual, social and emotional factors of the individual from late childhood to early adulthood. Lecture 3 hours per week.

PSY 270
Psychology of Human Sexuality
Prerequisite: PSY 200, PSY 201, or PSY 202
Focuses on scientific investigation of human sexuality and psychological and social implications of such research. Considers socio-cultural influences, the physiology and psychology of sexual response patterns, sexual dysfunctions, and development of relationships. Lecture 3 hours per week.
## Real Estate

**REA 100 (4 CR)**  
**Principles of Real Estate**  
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.

**REA 215 (3 CR)**  
**Real Estate Brokerage**  
Considers administrative principles and practices of real estate brokerage, financial control, and marketing of real property. Lecture 3 hours per week.

## Religion

**REL 210 (3 CR)**  
**Survey of the New Testament**  
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 231-232 (3 CR)**  
**Religions of the World I-II**  
*May be taken out of sequence*  
Studies religions of the world with attention to origin, history, and doctrine. Lecture 3 hours per week.

## Russian

**RUS 101-102 (5 CR)**  
**Beginning Russian I-II**  
*Prerequisite for RUS 102, RUS 101*  
Develops the understanding, speaking, reading, and writing of Russian, and emphasizes the structure of the language. May include oral drill and practice. Lecture 5 hours per week.

**RUS 201-202 (3 CR)**  
**Intermediate Russian I-II**  
*Prerequisite: RUS 102 or equivalent*  
Continues the development of the skills of understanding, speaking, reading, and writing of Russian. Class conducted in Russian. May include oral drill and practice. Lecture 3 hours per week.

## Safety

**SAF 127 (2 CR)**  
**Industrial Safety**  
Provides basic understanding of safety and health in an industrial situation. Includes hazardous materials, substances, conditions, activities and habits as well as the prescribed methods and equipment needed for the apprentice to protect himself/herself and others. Lecture 2 hours per week.

## Student Development

**SDV 100 (1 CR)**  
**College Success Skills**  
Assists students in transition to colleges. Provides overviews of college policies, procedures and curricular offerings. Encourages contacts with other students and staff. Assists students toward college success through information regarding effective study habits, career and academic planning, and other college resources available to students. May include English and math placement testing. Strongly recommended for beginning students. Required for graduation. Lecture 1 hour per week.

**SDV 101 (1-3 CR)**  
**Orientation to Health Sciences**  
Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the College and to the discipline in which they are enrolled. Covers topics such as services at the College including the learning resources center; counseling and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline. Lecture 1 hour per week.

**SDV 101 (1 CR)**  
**Orientation to Science, Technology, Engineering and Math (STEM)**  
Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the College and to the discipline in which they are enrolled. Covers topics such as services at the College including the learning resources center; counseling and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline. Lecture 1 hour per week.
SDV 101  
Orientation to IT Profession  
Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the College, and to the discipline in which they are enrolled. Covers topics such as services at the College including the learning resources center, counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline. Lecture 2 hours per week.

SDV 107  
Career Education  
Surveys career options available to students. Stresses career development and assists in the understanding of self in the world of work. Assists students in applying decision-making to career choice. Lecture 1 hour per week.

SDV 110  
Orientation to Teaching As a Profession  
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.

Sociology

SOC 200  
Principles of Sociology  
Introduces fundamentals of social life. Presents significant research and theory in areas such as culture, social structure, socialization, deviance, social stratification, and social institutions. Lecture 3 hours per week.

SOC 215  
Sociology of the Family  
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 life-styles. Lecture 3 hours per week.

SOC 235  
Juvenile Delinquency  
Studies demographic trends, causal theories and control of juvenile delinquency. Presents juveniles’ interaction with family, schools, police, courts, treatment programs, and facilities. Lecture 3 hours per week.

SOC 236  
Criminology  
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. Lecture 3 hours per week.

SOC 266  
Race and Ethnicity  
Considers race and ethnicity as social constructs that deeply affect our personal experience and our social institutions. Examines the relationships of racial and ethnic groups with each other and with the larger society, and the ways in which these relationships are constantly changing. Explores the experience of different groups and examines views of racial justice and equality. Introduces significant theoretical approaches to the study of race and ethnicity. Lecture 3 hours per week.

SOC 268  
Social Problems  
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. Lecture 3 hours per week.

SOC 293  
Studies In: Immigration and Immigrants in American Society  
An introduction to contemporary immigration and immigrant issues in the United States, with a special focus on the College’s service area. Lecture 3 hours per week.

SOC 295  
Topics In: Sociology of Religion  
Explores religion as a social phenomenon. Topics include the functions and organization of religious institutions, sociological theories of religion, the relationships between religion and other social institutions, religion’s role in social cohesion and conflict, and religious practices. Lecture 3 hours per week.
Spanish

**SPA 101-102** (4 CR) (4 CR)
Beginning Spanish I-II
*Must be taken in sequence*
Introduces understanding, speaking, reading, and writing skills and emphasizes basic Spanish sentence structure. Lecture 4 hours per week.

**SPA 150** (3 CR)
Spanish for Law Enforcement
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 201-202** (4 CR) (4 CR)
Intermediate Spanish I-II
*Prerequisite: SPA 102 or equivalent and permission of instructor*
*May be taken out of sequence with permission from instructor*
Continues to develop understanding, speaking, reading, and writing skills. Lecture 4 hours per week.

**SPA 211-212** (3 CR) (3 CR)
Intermediate Spanish Conversation I-II
*Prerequisite: SPA 202 or equivalent and permission of instructor*
*May be taken out of sequence*
Continues to develop fluency through emphasis on idioms and other complex sentence structures. Lecture 3 hours per week.

**SPA 241** (3 CR)
Intermediate Spanish Composition I
*Prerequisite: SPA 202 or equivalent*
Develops skills in written Spanish, emphasizing grammatical correctness. Lecture 3 hours per week.

**SPA 293** (1-5 CR)
Studies in: Spanish for Professionals
Covers new content not covered in existing courses in the discipline. Allows instructor to explore content and instructional methods to assess the course’s viability as a permanent offering. Variable hours per week.

**SPA 295** (1-5 CR)
Topics in: Spanish Immersion
Provides an opportunity to explore topic areas of an evolving nature or of short-term importance in the discipline. Variable hours per week.

Social Science

**SSC 107** (3 CR)
Problems of People in the Modern World
Analyzes contemporary social, psychological, political, and economic problems related to industrialization, urbanization, the role of government, and national and international tensions. Lecture 3 hours per week.

Truck Driving

**TRK 101** (2 CR)
DOT Safety Rules and Regulations
*Co-requisite TRK 102 and 103*
Includes an intensive study of the Department of Transportation and state and local laws and regulations governing the motor carrier industry as applied to the professional operation of commercial vehicles. Lecture 2 hours per week.

**TRK 102** (1 CR)
Preventive Maintenance for Truck Drivers
*Co-requisite TRK 101 and 103*
Focuses on the fundamentals of preventive maintenance and inspection procedures for gasoline and diesel powered tractor-trailers. Includes drivelines, brake systems, electrical systems, and accessories encountered by the professional truck driver. Lecture 1 hour per week.

**TRK 103** (9 CR)
Tractor Trailer Driving
*Co-requisite TRK 101 and 102*
Prepares the prospective driver to operate a motor vehicle in a safe and responsible manner. Provides practical training in over-the-road and city driving, including backing skills and pre-trip inspection. Emphasizes defensive driving. Lecture 3 hours. Laboratory 12 hours. Total 15 hours per week.
TRK 193  (1 CR)
Studies In: Compliance Safety Accountability
Focuses on selected topics in safety, including perspectives from the trucking industry, as well as perspectives from drivers regarding safety issues. Lecture 1 hour per week.

Veterinary Technology

VET 100  (4 CR)
Introduction to Animal Science
Surveys the common breeds of small and large domestic animals, including identification, management, and restraint. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

VET 101  (3 CR)
Introduction to Veterinary Assisting
Presents basic information about assisting the veterinarian. Includes information about companion animals, primarily dogs and cats. Lecture 3 hours per week.

VET 102  (3 CR)
Care and Maintenance of Small Domestic Animals I
Prerequisite: VET 101 or instructor permission (student must have small animal experience)
Provides information concerning animal hygiene, parasitology, first aid, disease detection, sanitation, principles of environmental control, and other topics related to the care and maintenance of small animals. Lecture 3 hours per week.

VET 103  (3 CR)
Veterinary Office Assisting
Presents basic information about common business procedures used in veterinary practice. Includes client and staff relationships and veterinary regulations. Lecture 3 hours per week.

VET 105  (3 CR)
Introduction to Veterinary Technology
Introduces the role of veterinary technicians in veterinary practice. Includes medical terminology, ethics, professionalism, and basic concepts of patient care. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

VET 111  (4 CR)
Anatomy and Physiology of Domestic Animals
Introduces the structure and function of the animal and of all the organ systems of common domestic animals. Includes histology, embryology, and genetics. Includes laboratory dissection and demonstrations. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

VET 115  (4 CR)
Laboratory Techniques I
Introduces techniques in hematology, urinalysis, and parasitology. Includes other laboratory tests performed in veterinary practice. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

VET 120  (3 CR)
Veterinary Medical Terminology and Calculations
Presents medical terminology and medical calculations used in the practice of veterinary technology. Lecture 3 hours per week.

VET 121  (4 CR)
Clinical Practices I
Presents advanced clinical techniques commonly performed in veterinary practice. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

VET 205  (3 CR)
Applied Veterinary Surgical Nursing
Presents advanced topics in the management of the surgical patient. Also provides laboratory experience in management of anesthesia and surgical assistance in addition to preoperative and postoperative care of patients. Lecture 2 hours per week. Laboratory 3 hours per week. Total 5 hours per week.

VET 210  (4 CR)
Animal Diseases and Microbiology
Surveys infectious and noninfectious diseases of domestic animals. Includes aspects of disease such as etiology, clinical signs, treatment, prevention, and pathology. Presents identification and drug sensitivity of common, disease-causing organisms. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.
VET 215  
Laboratory Techniques II  
**Prerequisite: VET 115**  
Expands concepts introduced in VET 115 including clinical chemistry, cytology, and other laboratory tests performed in veterinary practice. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

VET 216  
Animal Pharmacology  
Studies drugs and other medical substances of veterinary importance. Includes their characteristics, usage, measurement, dosage, administration, and also pharmacy management. Lecture 3 hours per week.

VET 217  
Introduction to Laboratory, Zoo and Wildlife Medicine  
Focuses on the identification, captive management, restraint and diseases of fish, reptiles, birds, rodents, rabbits, ferrets, primates, wild carnivores, and wild herbivores. Presents the fields of laboratory research and zoological medicine. Lecture 3 hours per week.

VET 221-222  
Advanced Clinical Practices III-IV  
**Prerequisite: VET 121**  
**Must be taken in sequence**  
Presents advanced clinical techniques commonly performed in veterinary practice. Lecture 3 hours. Laboratory 4 hours. Total 7 hours per week.

VET 230  
Veterinary Hospital Management  
Introduces common business procedures used in veterinary practice. Includes bill collection, appointment scheduling, telephone techniques, record keeping, merchandising, drug ordering and inventory control, and supervision of employees. Lecture 3 hours per week.

VET 236  
Companion Animal Behavior  
**Prerequisite: VET 101 or VET 102 or VET 105**  
Teaches basic behavior concepts as they apply to dogs, cats, and horses. Stresses prevention and treatment of behavior problems. Lecture 3 hours per week.

VET 290  
Coordinated Internship in Veterinary Technology  
Supervised on-the-job training in selected veterinary practices coordinated by the College. Variable hours.
College Policies

Americans with Disabilities Act Complaint Procedure

Blue Ridge Community College has adopted an internal procedure which provides for the prompt and equitable resolution of complaints alleging any action prohibited by the U. S. Department of Justice regulations implementing Title II of the Americans with Disabilities Act (ADA). Title II states, in part, that “no otherwise qualified disabled individual shall, solely by reason of such disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination in programs or activities sponsored by a public entity.”

Complaints should be addressed to the Vice President of Finance and Administration, who has been designated to coordinate ADA compliance efforts.

1. A complaint should be filed in writing, contain the name and address of the person filing it, and briefly describe the alleged violation of the regulations.
2. A complaint should be filed within 30 calendar days after the complainant becomes aware of the alleged violation.
3. An investigation, as may be appropriate, shall follow the filing of a complaint. The investigation shall be informal but thorough and afford all interested persons and their representatives, if any, an opportunity to submit evidence relevant to the complaint.
4. A written determination as to the validity of the complaint and a description of the resolution, if any, shall be issued and forwarded to the complainant no later than 10 calendar days after its filing.
5. The complainant can request a reconsideration of the case in instances of dissatisfaction with the resolution. The request for reconsideration should be made within 10 calendar days.
6. The ADA coordinator shall maintain the files and records relating to the complaints filed.
7. The right of a person to a prompt and equitable resolution of the complaint filed hereunder shall not be impaired by nor shall the use of this procedure be a prerequisite to the pursuit of other remedies.

Other remedies include the filing of an ADA complaint with the federal EEOC, or other responsible federal agency. State employees may also file a complaint with the state EEO or initiate a grievance under the state grievance procedure.

Campus Crime Report

The College’s annual Crime Statistics Report is available at www.brcc.edu/student/right/.

Children on Campus

Childcare arrangements should be made as children will not be permitted to accompany parents to class or to remain on campus unsupervised. The College is not responsible for any unsupervised children on campus at any time.

Computer Ethics Guidelines

Thousands of users share VCCS Information Technology resources. Everyone must use these resources responsibly since misuse by even a few individuals has the potential to disrupt VCCS business or the work of others. Therefore, you must exercise ethical behavior when using these 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), invasion of privacy (18.2-152.5), or theft of computer services (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.

Scope

In accordance with VCCS, Acceptable Use requirements define acceptable and permitted use of COV, VCCS, and college IT resources.

Applicability

The Acceptable Use Standard is applicable to the System Office and all colleges.

Definition

VCCS information technology resources include mainframe computers, servers, desktop computers, notebook computers, handheld devices, networks, software, data files, facilities, and related supplies.
The following standards shall govern the use of all VCCS information technology resources:

1. All users of VCCS IT resources must read and adhere to Virginia Department of Human Resource Management Policy 1.75-Use of Electronic Communications and Social Media.
2. 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 VCCS IT resources to gain unauthorized access to computing resources of other institutions, organizations, individuals, etc.
3. The System Office and colleges reserve the right (with or without cause) to monitor, access and disclose all data created, sent, received, processed, or stored on VCCS systems to ensure compliance with VCCS policies and federal, state, or local regulations. College or System Office officials will have the right to review and/or confiscate (as needed) any equipment (COV owned or personal) connected to a COV owned device or network.
4. The System Office and Colleges shall use an authorized COV warning banner to communicate that IT systems and their use may be monitored and/or confiscated by authorized personnel; and there is no expectation of privacy when using a Commonwealth IT system.
5. Require acknowledgement that monitoring of IT systems and data may include, but is not limited to, network traffic; application and data access; keystrokes (only when required for security investigations and approved in writing by the agency head); and user commands; email and Internet usage; and message and data content.
6. Local Administrator rights, or the equivalent on non-Microsoft Windows-based IT systems shall be limited to only authorized staff as appropriate to prevent users from:
   a. Installing or using proprietary encryption hardware/software on VCCS systems;
   b. Tampering with security controls configured on their workstations;
   c. Installing personal software on a VCCS system;
   d. Adding hardware to, removing hardware from, or modifying hardware on a VCCS system and;
7. You must not authorize 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.
8. The transmission of unencrypted sensitive data over the internet shall be prohibited unless properly encrypted and approved by the agency head. When connected to internal networks from COV guest networks or non-COV networks, data transmission shall only use full tunneling and not use split tunneling.
9. You must use your computer resources only for authorized purposes. Students or staff, for example, may not use their accounts for private consulting or to support a personal business venture. 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 any VCCS facility must comply with the policies of acceptable use promulgated by the organizations responsible for those networks. The VCCS shall document the user’s acceptance of the System Office or college Acceptable Use Policy before or as soon as practicable after, gaining access to VCCS IT systems.
10. 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 subroutine libraries, data and electronic mail) without prior authorization.
11. The data owner, data custodian, 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.
12. You must not 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.
13. 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.
14. 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 Office or the Internal Audit department.

15. You must not use the Commonwealth’s Internet access or electronic communication in cases where it:
   • interferes with the user's productivity or work performance, or with any other employee’s productivity or work performance;
   • adversely affects the efficient operation of the computer system;
   • results in any personal gain or profits to the user
   • violates any provision of this policy, any supplemental policy adopted by the agency supplying the Internet or electronic communication systems, or any other policy, regulation, law or guideline as set forth by local, State or Federal law. (See Code of Virginia 2.1-804-805 § 2.2-2827 as of October 1, 2011.)

Note: Any user of VCCS IT resources employing the Commonwealth’s Internet or electronic communication systems for personal use must present their communications in such a way as to be clear that the communication is personal and is not a communication of the agency or the Commonwealth.

Enforcement Procedure
1. Faculty, staff, students and patrons at the College or System Office 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 Instruction and Student Services. The Vice President, in cooperation with the CIO, will determine the appropriate disciplinary action(s) 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. Such 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 or designee will report any violations of state and federal law to the appropriate authorities.
5 All formal disciplinary action(s) taken under this policy are subject to the Commonwealth’s personnel guidelines and the accused may pursue findings through the appropriate grievance procedure.

Domicile Appeals Process
(Refer to 23-7.7 Code of Virginia)
I. Initial Determination - The Office of Admissions & Records is responsible for making an initial determination of eligibility for in-state tuition rates. The decisions shall be based on information provided on the “Application for Virginia In-State Tuition Rates”, supporting documents, and statements made by the student. The Office of Admissions & Records shall follow guidelines issued by the State Council of Higher Education of Virginia (SCHEV) in making determinations of eligibility for in-state tuition rates. The initial determination made by the Office of Admissions & Records shall be an oral determination. All documents needed to support determination of domicile must be submitted to the Office of Admissions and Records prior to the first day of semester.

II. Intermediate Review - A student who is aggrieved by an eligibility determination made by the Office of Admissions & Records may appeal the decision to the Vice President of Instruction and Student Services. The student must file a written appeal within five calendar days of initial determination. A “Supplemental Application for Virginia In-State Tuition Rates” may be required, if the Vice President of Instruction and Student Services determines that additional domicile information is necessary. Within ten calendar days of receipt of an appeal, the Vice President of Instruction and Student Services will review the initial determination. The student shall be provided with the opportunity to present information either in person, or in writing. In reviewing the initial determination, guidelines issued by the State Council of Higher Education...
Parking and Traffic Safety

Adequate parking space is provided free of charge for students and a limited number of spaces are reserved for visitors, handicapped individuals, and staff. The number of pedestrians and the crowded nature of the parking lots make low speed and careful driving a necessity. The speed limit on campus is 15 miles per hour in parking lots. Parking on campus is restricted to those vehicles that display a current sticker. Student parking is permitted for visitors, handicapped individuals, and staff. The number of pedestrians and the crowded nature of the parking lots make low speed and careful driving a necessity. The speed limit on campus is 15 miles per hour in parking lots.

Parking on campus is restricted to those vehicles that display a current sticker. Student parking is permitted in any marked paved space intended for that purpose and not otherwise restricted. Special parking is available to handicapped individuals whose vehicles display the appropriate state permits or license plates. Applications for handicapped plates should be made through the Department of Motor Vehicles. Campus parking stickers can be obtained from the ID Card Office (E 111B) or the Public Safety Desk in Houff Student Center. Parking violations are subject to a monetary fine. Students with unpaid fines will not receive transcripts, grades or be permitted to register for the next semester. Students who wish to appeal a fine should contact the Public Safety Officer, located in the Houff Student Center, or the ID Card Office in E 111B. Vehicles parked illegally are also subject to towing or having devices applied to the vehicle to preclude movement (i.e. being “booted”). Such devices will not be removed before payment of outstanding fines. For further information see the Blue Ridge Community College booklet “Parking and Traffic Regulations,” available in the Houff Center lobby and online at http://community.brcc.edu/security/wp-content/uploads/Parking-Traffic-Regulations.pdf. If students, faculty, or staff have questions or concerns regarding parking, parking decals, or availability of parking they
should contact the Security Officer at 540-430-4564, 24 hours a day, 7 days a week. The Public Safety Officer will provide parking information or assistance with temporary permits.

Law enforcement and crash reporting are the responsibility of the Campus Police Department and local law enforcement agencies which provide the same services to the community at large. Minor vehicle crashes in the College parking lots are generally not serviced by the local law enforcement agencies unless a law has been broken. While the Public Safety Department will assist in minor crashes, they are ultimately resolved by the individuals and their insurance companies.

Pets on Campus

No animals are allowed on campus with the exception of guide dogs for students, faculty, or staff with documented disabilities, and animal patients scheduled for treatment in the Veterinary Clinic. These patients will be housed in the area provided for that purpose and are not to be taken to other parts of the campus or left in vehicles.

State Board for Community Colleges Weapons Regulations

8VAC95-10. Definitions.

The following words and terms when used in this chapter shall have the following meanings unless the context clearly indicates otherwise:

- “Police officer” means law-enforcement officials appointed pursuant to Article 3 (§ 15.2-1609 et seq.) of Chapter 16 and Chapter 17 (§ 15.2-1700 et seq.) of Title 15.2, Chapter 17 (§ 23-232 et seq.) of Title 23, Chapter 2 (§ 29.1-200 et seq.) of Title 29.1, or Chapter 1 (§ 52-1 et seq.) of Title 52 of the Code of Virginia or sworn federal law-enforcement officers.

- “College property” means any property owned, leased, or controlled by a member college of the Virginia Community College System and the administrative office of the Virginia Community College System.

- “Weapon” means (i) any pistol, revolver, or other weapon designed or intended to propel a missile of any kind by action of an explosion of any combustible material; (ii) any dirk, bowie knife, switchblade knife, ballistic knife, machete, razor, slingshot, spring stick, metal knucks, or blackjack; (iii) any flailing instrument consisting of two or more rigid parts connected in such a manner as to allow them to swing freely, which may be known as a nun chahka, nun chuck, nunchaku, shuriken, or fighting chain; (iv) any disc, of whatever configuration, having at least two points or pointed blades which is designed to be thrown or propelled and which may be known as a throwing star or oriental dart; or (v) any weapon of like kind, to include but not limited to, tasers.

- “Weapon” does not mean knives or razors used for domestic purposes, pen or folding knives with blades less than three inches in length, or knives of like kind carried for use in accordance with the purpose intended by the original seller.

8VAC95-10. 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.

8VAC95-10. Exceptions to prohibition.

The prohibition in 8VAC95-10 shall not apply to current sworn and certified local, state, and federal law enforcement officers with proper identification, nor shall it apply to possession of a weapon when stored securely inside the vehicle of properly permitted students and employees.

The chief of the college police department or head of security department, or his designee, may authorize in writing a person to possess, store, or use a weapon: (i) when used for educational or artistic instruction, display, parade, or ceremony sponsored or approved by the college (unloaded or disabled only and with other specified safeguards, if appropriate); or (ii) for any college-approved training, course, or class.

8VAC95-10. Person lawfully in charge.

Campus police officers or security, and other police officers acting pursuant to a mutual aid agreement or by concurrent jurisdiction, are lawfully in charge for the purposes of forbidding entry upon or remaining upon college property while possessing or carrying weapons in violation of this chapter.
Title IX Prevention of Sexual Misconduct Procedure

Blue Ridge Community College and the Virginia Community College System (VCCS) will not tolerate sexual misconduct in any form. Sexual misconduct is a flagrant violation of the values and behavioral expectations of a college community. All reported violations within the jurisdiction of the College, including sexual assault, sexual harassment, and sexual violence, will be investigated and, as warranted, will be resolved through appropriate college disciplinary processes. Civil and criminal proceedings may also be used as appropriate in accordance with applicable state and federal laws. (c.f. The Virginia Community College System Policy Manual, Section 3.10, Appendices III and XVII to Section 3, and Section 6.5.6.2).

An educational institution is a community of trust whose very existence depends on the recognition of each individual’s importance and value. This trust creates the freedom for each individual to live, think, act, and speak without fear of physical harm. Sexual misconduct shatters the bond of trust within a college community. If you believe that a member of the college community has violated the VCCS Policy on Sexual Misconduct, we encourage you to follow the reporting procedures outlined below.

Sexual assault, sexual harassment, and sexual violence are behaviors specifically prohibited by VCCS policy. The VCCS Policy on Sexual Misconduct shall apply to all employees and students of Blue Ridge Community College.

Sexual Assault

Sexual assault is defined as sexual intercourse without consent, including rape (whether by acquaintance or stranger), sodomy, or other forms of sexual penetration. To constitute lack of consent, the acts must be committed either by force, threat of force, intimidation, or through use of victim's mental helplessness of which the accused was aware or should have been aware.

Sexual Harassment

a. Sexual harassment is defined as unwelcome sexual advances, requests for sexual favors, or other verbal or physical conduct or written communication of a sexual nature which is intimidating, hostile, or offensive. Sexual harassment shall be considered to have occurred when:
   1. Accepting or tolerating such conduct is made a term or condition of a student's status or an individual's employment either explicitly or implicitly;
   2. Accepting or rejecting such conduct is used as the basis for academic or employment decisions affecting the student or employee; or
   3. Such conduct creates an intimidating, hostile, or objectively offensive working or learning environment that substantially interferes with an employee's work performance or a student's academic performance.

b. Sexual harassment is contrary to the values of Blue Ridge Community College. It shall not be tolerated in any form, as outlined in Part 1604.11, Discrimination Because of Sexual Harassment of Title VII, Section 703, or the Civil Rights Act of 1964, as amended. All reported instances of sexual harassment shall be investigated.

Sexual Violence

Sexual violence is defined as physical sexual acts perpetrated against a person's will or where a person is incapable of giving consent due to the victim's use of drugs or alcohol. An individual also may be unable to give consent due to intellectual or other disability. A number of different acts fall into the category of sexual violence including rape, sexual assault, sexual battery, and sexual coercion.

The Dean of Student Services, Annette Williams, is the designated Title IX Coordinator and coordinates compliance with Title IX regulations.

Reporting Procedures

Students who believe that they have been subjected to sexual assault, harassment, or sexual violence should report their complaint as soon as possible after the event occurs. Reports of sexual misconduct by another student may be made to the Annette Williams, Dean of Student Services located on the first floor of Houff Student Center (105A) at the Weyers Cave campus, 540-453-2332 / williamsa@brcc.edu, or to the Bob Young, Vice President of Instruction and Student Services in Armstrong 107A, 540-453-2500 / youngb@brcc.edu.

Student or employee allegations involving college employees may be reported to the supervisor of the accused employee; Tim Nicely, Human Resource Director at 540-453-2371 / nicelyt@brcc.edu; or Annette Williams, Dean of Student Services in Houff 105A at 540-453-2332 / williamsa@brcc.edu.

As an alternative to filing a formal grievance, complaints may also be discussed and/or filled in writing with the Affirmative Action/Equal Employment Opportunity Officer (AA/EEO) of BRCC (Mr. Tim Nicely) or any other college official. Existing disciplinary and grievance procedures will serve as the framework for resolving allegations of sexual misconduct. Students found guilty of sexual misconduct will be subject to campus disciplinary penalties found in the Student Handbook. College employees found guilty of sexual misconduct will be subject to disciplinary action as specified by personnel policies. In addition, employees and students may face
criminal prosecution in the event of violations of applicable laws. The College also reserves the right to refer a complaint to a law enforcement agency if it appears that a crime may have been committed.

Current disciplinary and grievance procedures provide for (i) prompt and equitable resolution of complaints of sexual harassment, including sexual violence; (ii) cessation of sexual harassment or sexual violence, and prevention of recurrence; and (iii) a remedy for any effects of sexual harassment or sexual violence on the complainant.

In no case, should the a person be reprimanded or retaliated against in any way for initiating an inquiry or lodging a complaint in good faith regarding sexual harassment or sexual violence. Any conduct constituting such a reprimand or retaliation is itself a violation of this procedure and equally subject to disciplinary action.

The rights of both the accused and the complainant shall be protected, and the confidentiality of proceedings will be maintained to the fullest extent possible. BRCC officials will safeguard the identity of the complainant outside the confidential proceedings of the College’s disciplinary process, unless consent is secured from the complainant to reveal her or his identity. No part of a complainant’s sexual history shall be included as part of any campus proceedings. The rights of the individual filing the grievance to pursue legal remedies through criminal or civil courts will not be infringed by use of College disciplinary or grievance procedures. Similarly, College disciplinary or grievance procedures will not be prejudiced by the initiation of such action.

The Director of Human Resources and the Title IX Coordinator will provide periodic training programs for institutional personnel to ensure that the legal concepts associated with sexual harassment and sexual violence are understood, that sexual harassment and sexual violence are prevented, that instances of sexual harassment and sexual assault are promptly investigated and remediated, and that support services are available for complainants.

**Smoking, Eating, and Drinking Policies**

Smoking or use of tobacco in any form is prohibited on the main campus, except in areas designated specifically for this purpose. Eating or drinking in all laboratories is prohibited.

**Virginia Community College System 3.14.6 Workplace Violence Prevention and Threat Assessment Policy Guidelines**

Purpose: The purpose of this policy is to establish guidelines for the development of a College/System Office policy for the prevention of workplace and general campus violence. It includes the formation of campus Threat Assessment Teams and the promotion and maintenance of a productive environment for learning and working that is free from threats, intimidation, and violence.

3.14.6.0 Coverage: These policy guidelines will apply to all faculty, staff, students, visitors, contractors, and other third parties. Students may be covered under additional provisions of their respective college’s Student Handbook.

3.14.6.1 Policy Components:

A. Definitions:

Workplace: Any location, either permanent or temporary, where an employee performs any work-related duty. This includes, but is not limited to, the buildings and the surrounding perimeters, including the parking lots, field locations, alternate work locations (other than an individual’s home when telecommuting), and travel to and from work assignments.

Workplace Violence: Any physical assault or threatening behavior occurring in the workplace by employees, students, or third parties. It includes, but is not limited to, beating, stabbing, suicide, shooting, rape, attempted suicide, psychological trauma such as threats, obscene phone calls, intentionally damaging property, an intimidating presence which makes a reasonable person apprehensive of imminent harm, and harassment of any nature such as stalking, shouting so as to cause a disruption, swearing or committing injurious acts motivated by, or related to, domestic violence or sexual harassment.

Third Parties: Individuals who are not state employees, such as relatives, acquaintances, strangers, contractors, or visitors.

B. The colleges/system office prohibits threats and acts of violence on college property, within college/system office facilities, at any college/system office-sponsored event; while engaged in college/system office business, educational, or athletic activities; and while traveling in state vehicles. Prohibited conduct includes but is not limited to:

- injuring another person physically;
- engaging in behavior that creates a reasonable fear of injury to self or another person;
- engaging in behavior that would subject a reasonable person to, and does subject another individual to, extreme emotional distress; possessing, brandishing, or using a weapon while on state premises by students, except where possession is a result of participation in an organized and scheduled instructional exercise for a course, or where the student is a law enforcement professional, or when the weapon is secured in the
• possessing, brandishing, or using a firearm, weapon, or other device by faculty or staff that is not required by the individuals position while on college/system office property or engaged in college/system office business; or in violation of law or other college/system office policy, except where the employee is a law enforcement professional, and except when the weapon is secured in the employee’s vehicle.
• Brandishing, using, or possessing a weapon by third parties while on campus in academic or administrative buildings, or while attending a sporting, entertainment or educational event. This provision does not apply to law enforcement personnel.
• intentionally damaging property;
• threatening to injure an individual (including oneself) or to damage property;
• committing injurious acts motivated by, or related to, domestic violence or sexual harassment; and
• retaliating against any employee or student who, in good faith, reports a violation of this policy.

C. Consequences of Policy Violations:

1. Employees violating this policy will be subject to disciplinary action up to and including termination and criminal prosecution using existing policies and procedures including Section 3 of the VCCS Policy Manual or DHRM Policy 1.60, Standards of Conduct. Additionally, employees who are identified as engaging in the use of threatening language or behavior may be required, as a condition of continued employment, to participate in a mental health evaluation as part of a threat assessment process, and receive approval from the mental health evaluator that they are not a risk to themselves or others.
2. Students violating this policy will be subject to disciplinary action as outlined in their respective college’s Student Handbook, and other college policies as appropriate. Additionally, students who are identified as engaging in the use of threatening language or behavior may be required, as a condition of continued enrollment, to participate in a mental health evaluation as part of a threat assessment process, and receive approval from the mental health evaluator that they are not a risk to themselves or others.
3. Visitors and third parties violating this policy will be subject to applicable local, state, federal laws, and associated regulations, and may be barred from the college/System Office at the college’s/System Office’s discretion for violating this policy.

Statement on Student Rights and Responsibilities, Disciplinary, and Grievance Procedures

The Blue Ridge Community College Statement of Values is based upon respect for the dignity and worth of individuals within the campus community. Further, the college community welcomes diversity of ideas, intellectual debate, and the learning thereby engendered. Blue Ridge Community College strives for an environment which promotes these values and believes that, as members of the college community, each student contributes to uphold them. Therefore, the College clearly presents student rights and responsibilities and establishes the following disciplinary and grievance procedures to ensure that all members of the college community may benefit from the promotion of these values.

Student Rights

A. Students are free to pursue their educational goals so long as they meet the academic and behavioral standards of the College. The College shall provide appropriate opportunities for learning within the scope of its mission and resources.
B. Students have the right to fair treatment without discrimination on the basis of race, color, creed, national origin, gender, political affiliation, religion, or disability.
C. Students have a right to limited procedural due process in disciplinary and grievance matters.
E. Students are guaranteed the right to free inquiry, expression and assembly, provided they do not interfere with the rights of others or with the effective operation of the College.

Student Responsibilities

To ensure an environment consistent with the mission, values and vision of Blue Ridge Community College, students are expected to respect the rights of each member of the College community and to behave in a manner supportive of the collegiate environment. Behaviors which are considered to be disruptive of the collegiate environment and subject to disciplinary action include but are NOT limited to the following:
A. Providing false information or fraudulent documents to the College or any of its employees in the course of their duties; forgery, or alteration or misuse of College documents or instruments of identification.
B. Academic dishonesty, including cheating and plagiarism. Refer to the statement on Academic Honesty in the College catalog for more information. Please note that in addition to any penalty imposed on a student through this procedure as a result of a violation of academic dishonesty, faculty members may impose a grading penalty in accord with their syllabus and College policy in the course(s) in which the academic dishonesty occurred. Appeals of grading decisions must be conducted through the use of the grade appeal policy listed in the College catalog.

C. Disruption or obstruction of teaching, research, administration, disciplinary proceedings, or other activities authorized by the College.

D. Physical abuse, psychological abuse or the threat of such abuse of any person on College premises or at College activities or directed against any person because of their actions as an employee of the College.

E. Violation of established State Board for Community Colleges approved policies including, but not limited to, the Computer Ethics Guidelines, Policy on Expressive Activity, Sexual Misconduct Policy, Substance Abuse Policy, Weapons Regulation, and Workplace Violence Prevention & Threat Assessment Policy.

F. The on-campus purchase, consumption, possession or sale of alcoholic beverages as specified in the College substance abuse policy, except when specifically authorized by the College Board.

G. Possession, use, sale or purchase of any illegal drugs or hallucinogenic agents on College premises or at College activities, as specified by the College substance abuse policy.

H. Unauthorized restriction of vehicular or pedestrian traffic on College premises or at College activities.

I. Destruction, misuse, or damaging College property under its jurisdiction, or removal of such property without authorization.

J. Tampering with or misuse of fire-fighting or other safety equipment.

K. Violation of any local, state or federal law on campus or at a College authorized activity.

L. Failure to comply with directions of College officials acting in the performance of their duties.

Disciplinary Guidelines and Procedures

Guidelines

The College considers the guidelines set forth by the Student Rights and Responsibilities as conducive to a positive environment. If a student fails to behave in a manner consistent with these guidelines, the College reserves the right to impose disciplinary action. Disciplinary action may be initiated for violation of any rule or regulation of the College. The Blue Ridge Community College disciplinary procedure shall apply to conduct which occurs on property owned, occupied or used by Blue Ridge Community College, or to conduct which occurs while a student is attending or participating in any Blue Ridge Community College sponsored event or activity, or to conduct anywhere which is directed against any person employed by the College acting in their official capacity in performance of their duties.

Procedures

1. Procedure for Disciplinary Complaints: All disciplinary complaints against students should be brought to the Vice President of Instruction and Student Services. The President of the College may further designate any other College official to administer disciplinary policies and procedures as appropriate. The Vice President shall investigate the alleged violation to determine the severity and nature of the problem. The Vice President will send notice to the student at the student’s address of record (or hand the notice to the student in person) that a disciplinary investigation is taking place, along with a copy of this procedure. The student may request the assistance of a College Academic Advisor, who will explain to the student the procedures of this policy. If, at the sole discretion of the Vice President of Instruction and Student Services it is appropriate, the investigation will include an interview with the accused student, and attempts will be made to resolve the complaint informally. The student may also state a response to the investigation in writing to the Vice President. If the matter cannot be resolved informally, the Vice President will proceed administratively according to the guidelines established in section 3.

2. Procedure for immediate suspension pending final disposition: When, in the opinion of the Vice President, the continued presence of any person on campus poses a serious threat to the well-being or safety of College personnel, students, or to the property or operation of the College or any of its functions, such person may be immediately suspended and banned from the College campus and from all College-sponsored activities or events wherever they occur. This summary exclusion shall not prejudice the process or outcome of further proceedings initiated by any of the parties. When this decision is made, the Vice President will send notice to the student by mail at the student’s address of record. The correspondence will include the allegation against the student along with a general description of basis for the allegation and the basis by which the decision to immediately suspend the student was made. The correspondence will also make reference to the copy of this disciplinary procedure which the student received according to the procedure written above, thus informing the student of the procedures to be used to dispose of the case and for appeal of the disposition. At the discretion of the Vice President, the student may be allowed to return to the campus only for any and all activities related to this disciplinary procedure by requesting permission in writing. The Vice President will
inform the student of the decision regarding this request by sending a certified letter to the student’s address of record.

3. Administrative Disposition of a Violation: If, at the discretion of the Vice President, the complaint cannot be resolved informally, then the Vice President, or a designee of the Vice President, will prepare a written summary of the disposition of each violation of the behavior code. The summary will include a statement of the violation, a brief description of the evidence used to decide upon a sanction, and a statement of the sanction imposed. A list of possible sanctions is provided below. The Vice President will use certified mail to send a copy of the summary to the student’s address of record, or to the parent or guardian of an unmarried and unemancipated student who is under 18 years of age, and to other appropriate administrative personnel. A copy of the written summary will also be placed in the student’s file in the Admissions and Records Office and in a file in the Vice President of Instruction and Student Services’ office.

Sanctions include but are not limited to:

A. Admonition: At the discretion of the Vice President, a verbal or written reprimand to a student indicating that the student is violating or has violated College rules and admonishing the student to refrain from further violations.

B. Warning Probation: A written reprimand indicating that further violations of regulations will result in more severe disciplinary action. Warning probation may be imposed for any length of time up to one calendar year, and the student shall automatically be removed from probation when the imposed period expires.

C. Disciplinary Probation: A written reprimand indicating that further violations may result in suspension.

D. Withholding of Transcript, Degree, Diploma, Certificate, or suspension of the right to register for classes: A penalty imposed upon a student who fails to pay a debt owed to the College or who has a disciplinary case pending final disposition. This penalty terminates upon payment of the debt or upon final disposition of the case.

E. Restitution: A requirement for the student to reimburse the College for damaged or misappropriated property. This may take the form of appropriate service to repair or otherwise compensate for damages.

F. Suspension from the College: Exclusion from attending the College as a student for a definite period of time not to exceed one year.

G. Dismissal: Termination of student status for not less than one year. The conditions of readmission, if any, will be stated in the order of dismissal.

H. Expulsion: Permanent severance from the College.

A student may appeal the administrative disposition of a violation by following the procedure outlined below.

**Appeal Procedure**

**Appeals Committee:** When a student appeals the administrative disposition of a violation, he or she is entitled to limited due process including a hearing before an Appeals Committee. A written request for a hearing must be made to the Vice President of Instruction and Student Services on or before the fifteenth business day following the mailing of the certified letter which describes the administrative disposition.

The Appeals Committee will be selected by the President of the College. The Committee shall consist of two teaching faculty members, one administrative faculty member, one classified staff person, and one student. The President will select the chairperson from among the committee members. All members of the committee are eligible to vote in the hearing.

**Notice:** The chairperson of the Appeals Committee shall set the date, time and place for the hearing, and the Vice President will send notice of the hearing to the student by certified letter at the student’s address of record. This notice shall be mailed within five business days of the receipt of the student’s written request for a hearing and the hearing date will be set for at least one week after the date the certified letter is mailed. The Vice President, or the committee chairperson may, for good cause, postpone the hearing so long as all interested parties are notified of the new hearing date, time and place, and the new date is set at least one week after the notice of postponement is sent to the student. Every effort should be made by all involved parties to conduct the hearing at the earliest date available.

**Procedure**

The Appeals Committee will determine whether or not to uphold the administrative disposition determined by the Vice President. The chairperson shall provide reasonable opportunities for witnesses to be heard. Legal rules of evidence do not apply to hearings before the Appeals Committee. Counsel for any and all parties may be present, but they cannot act on behalf of the party they represent. The committee chairperson may admit any pertinent information and may exclude irrelevant, immaterial and unduly repetitious evidence. The hearing shall proceed generally as follows:
1. The chairperson presents the allegations against the student, along with the administrative disposition of each
allegation which the Vice President of Instruction and Student Services imposed.

2. The student presents the basis for appealing the administrative disposition.

3. At the discretion of the committee chairperson, the student, the Vice President, and other witnesses may
be interviewed by the committee. However, the student may not be compelled to testify against himself or
herself.

4. All evidence shall be offered to the committee during the hearing and made part of the hearing record.

5. Committee members may freely question witnesses.

6. The committee will vote on the issue of whether or not to uphold the administrative disposition of
each violation. The committee shall state in writing, for each alleged violation, whether they support
the administrative disposition and the sanction imposed. The committee can uphold the administrative
disposition or recommend a different sanction which may not exceed the sanction imposed by the Vice
President.

The decision of a simple majority of the members of the committee shall be submitted as the final
decision of the committee. The decision of the committee is final and binding.

Record: The hearing record shall include:

1. a copy of the notices sent to the student as described above,
2. all documentary and other evidence offered or admitted into evidence,
3. written motions, pleas, and any other materials considered by the committee, and
4. the committee’s finding.

The hearing record will be forwarded to the Vice President of Instruction and Student Services where it will
be securely maintained. If the committee upholds the administrative disposition, a record of the committee’s
finding will also be placed in the student’s academic file in the Admissions and Records Office.

**Student Government Association Constitution**

Copies of the Student Government Association Constitution are available in the office of the Student
Activities Director, located in the BRCC Bookstore facility.

**Student Organization Guidelines**

1. Organizations may be established within the College for any lawful purpose. Affiliation with an extramural
organization, such as a national society, shall not in itself disqualify the College branch or chapter from
institutional privileges.

A. All students and faculty sponsors or advisors of clubs, organizations, and activities, who wish to organize,
must apply to the College for official recognition. A packet of application materials, including a copy of
the College policies, is available in the office of the Student Activities Director. The Student Organization
form, that includes the information listed below, must be completed and submitted to the Student Activities
Director:

1. a constitution, mission or statement of purpose;
2. the name(s) of the organization’s advisor(s);
3. a current list of officers and the SGA Representative with emplid numbers;
4. a current list of other members with emplid numbers to meet the club membership requirements of 6
active members; and
5. the date, time, and place of regularly scheduled meetings.

B. After receipt of this document, the Student Activities Director will take the following action:

1. File the organization’s petition for official recognition with the document noted above and seek
administrative approval.
2. Respond in writing, with respect to the official action taken on the organization’s request for official
recognition.

C. Recognition of an organization does not imply approval or disapproval of the aims, objectives, policies,
and activities of the organization.

D. Any organization which fails to maintain a current advisor, officers, membership requirements, or schedule
of meetings, or engages in illegal activities on or off campus, may have sanctions imposed against it. These
sanctions may include admonition, probation, restitution, and withdrawal of College recognition. BRCC
reserves the right to restrict the participation of students who have been convicted of a felony or who are
listed on the Sex Offender Registry.

E. College facilities may be assigned by the President of the College or his designee to College organizations
and community civic groups for regular business meetings, social programs and other programs open to
the public. If, in the opinion of the President, the group poses a serious threat to the continued well-being
and safety of the institution, the use of facilities may be denied. Reasonable conditions may be imposed to
regulate the timeliness of requests, to determine the appropriateness of the space assigned, to regulate time
and use, and to insure proper maintenance.
II. A student group or organization of the College may distribute non-commercial written material on campus without prior approval providing such distribution does not disrupt the operations of the institution. Editorial freedom of the student press entails a corollary obligation under the canons of responsible journalism and applicable regulations of the Federal Communications Commission. All student communications shall explicitly state an editorial policy on the editorial page to the effect that opinions expressed are not necessarily those of the College or its student body.

**Student Photographs**

Photographs taken of individual students or groups of students anywhere on BRCC grounds or in BRCC facilities may be used by the College for release to media and for use in College materials and promotions, or on the website.

Students who do not wish for their image to be used in promotion of the College must notify the photographer at the time the photo is taken, or notify the Coordinator of Public Relations, located in C-108, within 24 hours after the photograph is taken.

**Substance Abuse Policy**

Blue Ridge Community College is committed to protecting the health, safety, and welfare of the citizens it serves by assuring that a drug-free workplace is maintained and that College employees and students perform their duties unimpaired by the effects of drugs or alcohol. The unlawful possession, use or distribution of controlled substances and alcohol on College premises or as a part of any of the College’s activities, by students and employees, is prohibited. Visit the following URL [www.brcc.edu/student/right/substance_abuse](http://www.brcc.edu/student/right/substance_abuse) for complete information regarding the Substance Abuse Policy.

**Weather-Related and Emergency Closings**

When severe weather or emergencies (snow, ice, flooding, power failures) require the College to be closed, notification will be made through text messages, announcements on the BRCC college website, by the greeting message on the College main telephone number (540-234-9261), and by local radio and television stations. The options for normal announcements, including any for delayed class times, are published online at [www.brcc.edu/student/weather](http://www.brcc.edu/student/weather). In the absence of any announcement, the College is open and students are expected to be in attendance.

Since the College serves a large geographic area, students are expected to exercise their own judgment when hazardous conditions exist in their areas. In the event that a student must miss a class for weather-related or emergency conditions, the student is obligated to notify the instructor as soon as possible and arrange for appropriate make-up work.
Resources for Students

Bookstore

The College Bookstore is located adjacent to the Houff Student Center and provides textbooks, supplies and miscellaneous items throughout the year. Regular hours of operation are Monday-Thursday, 9:00 a.m.-6:30 p.m., and Friday, 9:00 a.m.-4:00 p.m., unless otherwise posted.

Students may return or exchange new or used textbooks within a designated, posted time frame provided books are in original purchase condition, and the student presents a corresponding dated cash register receipt. All additional return policies are available in the bookstore and on the bookstore website.

The College Bookstore buys textbooks back for re-sale year round, no receipt is needed. Students may get information regarding the books and other materials needed for their courses, as well as place orders online at the bookstore link www.brcc.bkstr.com.

Bulletin Boards

Bulletin boards are in all College buildings. Posting of information and/or announcements must be submitted to and approved by the Office of Admissions and Records. An Admissions and Records staff member will place approved postings on the appropriate bulletin boards. All postings must comply with the standards described in the BRCC Posting Policy, available from Student Services or on the Internet at www.brcc.edu/brcc/policy/postings/.

Communication with Students

The VCCS has established email as a primary vehicle for official communication with students. An official VCCS Gmail (Google) email address has been established and assigned by the VCCS and the colleges for each registered student. All communications sent via email will be sent to the student's official VCCS Gmail (Google) email address. Faculty members will use the student's official VCCS Gmail (Google) email address to communicate with a student registered in their classes and administrative units will correspond with students via this address.

The VCCS expects that students will receive and read email in a timely manner. Students are expected to maintain their accounts and check their email periodically so that new mail will be properly received and read. A student's failure to receive and read official College communications delivered to their VCCS Gmail (Google) email address in a timely manner does not absolve that student from knowing and complying with the content of such communications.

While students are allowed to auto-redirect/forward email from their official VCCS Gmail (Google) email address to another address (e.g. @hotmail.com, @aol.com), they do so at their own risk. The VCCS is not responsible for the handling of email by other service providers. Having email redirected/forwarded does not absolve students from knowing and complying with the content of the communication sent to their official College email address.

Computers for Student Use

Computers and computer software support are available on the Weyers Cave campus in room F110 and the hallway between E/F building, seven days a week. Hours are posted at community.brcc.edu/lab/ or by contacting (540) 453-2219 for details. When classes are not in session, computers are available in D115, F104, F108, F109, and F115. There are also networked computers available for student use in the Houff Library and the Fine Arts building. Additional computing facilities are available at the BRCC Harrisonburg Center and at the Augusta Center on the Augusta Health Campus (hours may vary). Computer labs are open for use by currently enrolled BRCC students only. Computers for public use are available in the Library. Due to increasing volume and rising costs, students should print only what is needed for their BRCC courses.

Students should use only their official VCCS email accounts to communicate with College faculty, staff, and administrators. Similarly, students should check their VCCS accounts on a daily basis in order to remain informed of College and VCCS communications. If students make queries to BRCC or VCCS administrative offices or faculty from non-VCCS email accounts (such as Hotmail or AOL), they will be asked to resubmit their query using the official VCCS account.

Directory of Community Resources

For a complete, up-to-date listing of community resources, please see www.brcc.edu/services/community-resources/.
Emergency Information

Accidents and Injuries
If a serious accident or injury has occurred, any faculty, staff, student or visitor witness should call 911 (or 9-911 from a campus phone). The witness to the emergency should then follow the internal reporting procedure outlined below. The internal reporting procedure should also be followed for all accidents or injuries that are less serious in nature and which do not require immediate medical or police assistance.

Internal Reporting Procedure
All injuries, accidents and emergencies are to be reported to the Public Safety Department by dialing 540-453-2347 and/or the Security Officer on duty by dialing 2370 (or cell phone 540-430-4564) and providing the person who answers with a description of what has occurred.

Please note: The College is not equipped to provide medical services on campus. However, a first aid kit has been placed in each building, laboratory and shop, in the Student Services reception area, and in the Business Office. Portable electronic defibrillators are located in the Hallways of: A, E/F Connector, Houff, J, Plecker, Fine Arts Center, Faculty/Staff Lounge (E Building), Staff Workroom (T Building), Hangar entrance at the Airport, Break room at AHC, and in the Guard's office at the Harrisonburg campus. The portable electronic defibrillators should preferably be used by an appropriately trained individual.

Contacting Students on Campus Regarding Off-Campus Emergencies
Emergency calls will be transferred to the Academic Advising Center and an attempt will be made to locate and inform the student. The Academic Advising Center maintains the right to inquire into the nature of the emergency, the identity of the caller, and to determine whether interruption of a class is justified. Incoming calls of a non-emergency nature will be posted on the chalkboard in the lobby of Houff Student Center.

Food Service and Student Lounge
Food service, operated by Eric Stamer Catering, is located in the cafeteria on the ground floor of Houff Student Center. Eric Stamer Catering provides made-to-order hot and cold entrees, fresh salads and homemade desserts. Normal hours of operation during fall and spring semesters are 8:00 a.m. until 5:00 p.m. Monday-Thursday and 8:00 a.m. until 2:00 p.m. on Fridays. Summer semester hours are 8:00 a.m. until 2:00 p.m. Monday-Thursday and 8:00 a.m. until 1:00 p.m. on Fridays. Hours are subject to change. At other times, food machines are available in the cafeteria. The cafeteria is open for student use any time the College is open.

Identification Cards
Student identification cards are available to students enrolled in college credit courses. Identification cards may be obtained through the ID Card Office at designated times at the beginning of each semester. All students should obtain an identification card as various services will be linked to the ID card (Library, Parking, etc). If the ID card is lost or stolen, immediately report this to the ID Card Office for replacement.

License Plates
License plates featuring the Blue Ridge Community College logo are available for purchase from the Department of Motor Vehicles (DMV). Blue Ridge plates can be ordered at DMV offices across the state by filling out an application. They can also be ordered on-line at www.dmv.state.va.us. The plates cost $25 in addition to the regular DMV registration fee.

Lost and Found
Lost and Found is located in the Office of Admissions and Records in the Houff Student Center. Ordinary items which are turned in may be claimed during office hours. An effort will be made to locate owners of particularly valuable articles.

The College assumes no responsibility or liability for lost or stolen property. Valuables should be protected and marked appropriately. Student Services will dispose of items not claimed after 30 days.

Meeting Rooms
If students wish to use rooms to conduct student organization meetings or other activities, they should get permission from their club advisor, course instructor, or the Coordinator of Student Activities first, and then check on the availability of the room by contacting the appropriate office depending on room location.

Classrooms - Approval given by Academic Deans’ Office; Houff Student Center- Annette Williams, x2332; Plecker Workforce Center- Debbie Glenn, x2342.
Military Service Policy

Pursuant to 23-9, 6:2 of the Code of Virginia, and corresponding State Council on Higher Education for Virginia (SCHEV) Guidelines, Blue Ridge Community College has developed this policy providing for the tuition relief, refund, and reinstatement of students whose service in the uniformed services has required their sudden withdrawal or prolonged absence from their enrollment. Service in the uniformed services is defined as service (whether voluntary or involuntary) on active duty in the Armed Forces, including such service by a member of the National Guard or Reserve, for a period of more than 30 days under call or order to active duty of more than 30 days. BRCC shall provide the following:

a. Tuition and Required Fees
   Should a student be ordered to active duty (for reservists) or be mobilized (active military) as described in the Code of Virginia, Section 23-9, 6:2 and the State Council’s Virginia Tuition Relief, Refund, and Reinstatement Guidelines and he/she requests 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.” This policy also applies to refunds of Miscellaneous Education fees, General Program fees, Deposits, Auxiliary Services fees and Student Activity fees.
   BRCC shall provide, at the option of the student, refunds of deposits 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. Textbooks
   BRCC shall process refunds for textbooks according to contractual agreement with local vendors.

c. Academic Credits and Grades
   Students who are called to active duty or are mobilized, meaning service in uniformed services, as described in Virginia Tuition Relief, Refund, and Reinstatement Guidelines, will have the opportunity to receive incomplete grades (’I’) until released from active duty (for reservists) or mobilization (for active military personnel). 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 as an exception to VCCS policy 5.6.1 in accordance with the Virginia Tuition Relief, Refund, and Reinstatement Guidelines.
   Careful consideration will be given and special options are available for students who receive student financial aid or Veterans Administration benefits.

d. Deposits
   BRCC shall provide, at the option of the student, deposits to be retained and to be applicable to tuition, or fees charged in the semester or term in which the student returns to study.

e. Reinstatement
   Students who are called to active duty or are mobilized will be provided a reasonable opportunity to be reinstated in the same programs of study without having to re-apply for admission if they return to BRCC 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
   In accordance with the requirements of Code of Virginia, Section 23-9, 6-2, and the Virginia Tuition Relief, Refund, and Reinstatement Guidelines, BRCC will 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. BRCC has designated the Vice President of Instruction and Student Services as the office to ensure that these policies are properly disseminated and administered.

Social Security Number

Disclosure of your social security number is not required at this time, but it is highly recommended. Disclosure ultimately will be required for most students at the time of enrollment, per Section 6050S of the Restructuring and Reform Act of 1998, or at the time of disbursement of federal financial aid, per 34 Code of Federal Regulations Part 668.36. Section 23-2.2:1 of the Code of Virginia also authorizes the Virginia Community College System to collect student social security numbers and other personally identifiable information prior to a student’s enrollment, and requires it to electronically transmit enrollment data to the State Police. However, the VCCS will only use your social security number in accordance with federal and state reporting requirements, and for identification and research purposes within the VCCS. It shall not permit further disclosure unless required or authorized by the Family Educational Rights and Privacy Act of 1974, 20 U.S.C. Code 1232G, or pursuant to your obtained consent.

Student Health Insurance

A list of Student Health Insurance providers is available in the Office of Admissions and Records in the Houff Student Center.
Student Complaint & Appeals Processes

1. The student should submit his/her complaint in writing to the appropriate administrative unit.
2. The college will respond in writing within the designated time frame.
3. Documentation of written complaints and the college’s response will be kept in a secure location for three years and then will be destroyed.

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<th>Procedure</th>
<th>Website/Forms</th>
<th>Appeal Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vice President, Finance and Administration</td>
<td>Americans with Disabilities Act</td>
<td><a href="http://www.brcc.edu/assets/images/general/right-to-know-ada-complaint-procedure.pdf">http://www.brcc.edu/assets/images/general/right-to-know-ada-complaint-procedure.pdf</a></td>
<td>A complaint should be filed in writing, contain the name and address of the person filing it, and briefly describe the alleged violation of the regulations.</td>
</tr>
<tr>
<td>Vice President of Instruction and Student Services</td>
<td>Domicile Appeals Process</td>
<td><a href="http://www.brcc.edu/assets/images/general/domicile-appeals-process.pdf">http://www.brcc.edu/assets/images/general/domicile-appeals-process.pdf</a></td>
<td>The student must file a writ10 appeal within five calendar days of initial determination.</td>
</tr>
<tr>
<td>Director, Student Financial Aid and Scholarships</td>
<td>Satisfactory Academic Progress Policy</td>
<td><a href="http://www.brcc.edu/assets/images/general/domicile-appeals-process.pdf">http://www.brcc.edu/assets/images/general/domicile-appeals-process.pdf</a></td>
<td>To appeal the denial of financial aid due to not maintaining satisfactory academic progress, students must complete this form and attach the required documentation.</td>
</tr>
<tr>
<td>Academic Dean/ Vice President of Instruction and Student Services</td>
<td>Grade Appeal Procedure</td>
<td><a href="http://www.brcc.edu/assets/images/general/grade-appeal-procedure.pdf">http://www.brcc.edu/assets/images/general/grade-appeal-procedure.pdf</a></td>
<td>A writ10 appeal must be filed with the instructor as soon as possible and no later than 10 calendar days after the first day of class of the next regular (fall/spring) semester.</td>
</tr>
<tr>
<td>Academic Dean</td>
<td>Student Input About Instructor/ Quality of Instruction</td>
<td><a href="http://www.brcc.edu/student/right/input">http://www.brcc.edu/student/right/input</a></td>
<td>Issues that are not resolved by the student with the instructor, Dean, or VP ISS may be appealed using the Student Misconduct Appeal process.</td>
</tr>
<tr>
<td>Cashier, Student Financial Services</td>
<td>Parking Citation Appeal</td>
<td><a href="http://www.brcc.edu/assets/images/general/form-parking-citation-appeal.pdf">http://www.brcc.edu/assets/images/general/form-parking-citation-appeal.pdf</a></td>
<td>The individual should forward the appeals form to the Director of Public Safety within 10 days of the citation.</td>
</tr>
<tr>
<td>Dean, Student Services</td>
<td>Academic Dismissal</td>
<td><a href="http://www.brcc.edu/assets/images/general/academic-dismissal.pdf">http://www.brcc.edu/assets/images/general/academic-dismissal.pdf</a></td>
<td>Requests for reinstatement are considered by an Admissions Committee convened by the Dean of Student Services. An Appeal may be made to the Vice President of Instruction and Student Services within 10 days of notification of the Admission Committee’s decision.</td>
</tr>
<tr>
<td>Title IX Coordinator/ Dean, Student Services</td>
<td>Sexual Misconduct Policy</td>
<td><a href="https://www.brcc.edu/student/right/misconduct-policy/">https://www.brcc.edu/student/right/misconduct-policy/</a></td>
<td>Students who believe that they have been subjected to sexual assault or harassment should report their complaint as soon as possible after the event occurs to the Dean of Student Services or any other employee.</td>
</tr>
<tr>
<td>Vice President, Instruction and Student Services</td>
<td>Student Rights and Responsibilities, Disciplinary, and Grievance Procedures</td>
<td><a href="http://www.brcc.edu/assets/images/general/statement-student-rights-responsibilities.pdf">http://www.brcc.edu/assets/images/general/statement-student-rights-responsibilities.pdf</a></td>
<td>A writ10 request for a hearing must be made on or before the 15th business day following the mailing of the certified letter which describes the administrative disposition.</td>
</tr>
<tr>
<td>Vice President, Finance and Administration</td>
<td>Tuition Refund Appeals</td>
<td><a href="http://www.brcc.edu/assets/images/general/form-tuition-refund-request.pdf">http://www.brcc.edu/assets/images/general/form-tuition-refund-request.pdf</a></td>
<td>Refund appeals will not be considered unless the student has officially withdrawn from the class, and has a grade of W.</td>
</tr>
<tr>
<td>Dean, Student Services</td>
<td>All other student complaints</td>
<td></td>
<td>Issues that are not resolved by the student with the Dean or appropriate Vice President may be appealed using the Student Misconduct Appeal process.</td>
</tr>
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Blue Ridge Community College 2014-2015 Catalog and Student Handbook

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Blue Ridge Community College
2014-2015 Catalog Addendum

The BRCC Catalog Addendum represents changes and corrections to the printed version of the 2014-2015 Catalog.

Change to page 18

I - Incomplete No credit; used for verifiable, unavoidable reasons. To be eligible to receive an “I” grade, the student must (1) have satisfactorily completed more than 60% of the course requirements and attendance 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 reasons 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 (deadlines: May 1 for Fall; August 1 for Spring and December 1 for Summer) and; (4) identifies the default (B, C, D, F, P, R, S, or U) based upon course work already completed. Completion dates may not be set beyond the last day of the subsequent semester (to include summer term) without written approval from the Vice President of Instruction and Student Services. The student will be provided a copy of the documentation. An “I” grade will be changed to a “W” grade only under documented mitigating circumstances which must be approved by an Academic Dean.

Change to page 38

(number of math credits required)

Rationale for General Education Courses
in the Associate of Science Degree Programs

Responding to local industry and student transfer needs, Blue Ridge Community College introduced the first Associate of Science degree offered at the College in the Fall of 2009. The degree has been designed specifically for students transferring to four-year universities and pursuing majors related to Science, Technology, Engineering or Mathematics, the so-called STEM disciplines. Students who major in STEM disciplines require a greater depth of mathematics and science education, both at the community college and university levels. In developing our Associate of Science degree, BRCC faculty and administrators worked closely with university officials to ensure that general education standards were met in accordance with Virginia Community College System policy, but also that transferring students are well prepared for their chosen STEM major when admitted to baccalaureate level studies with junior level standing. As a result, specific general education requirements differ for A.S. degree graduates and A.A.&S. degree graduates. However, Blue Ridge Community College expects that both A.S. and A.A.&S. graduates will demonstrate similar general education outcomes, regardless of the specific required general education courses in which they are enrolled. For A.S. degree graduates, general education outcomes are taught in both STEM major courses and general education courses at the freshman and sophomore level.

In the general education portion of the Associate of Science Degree program, Blue Ridge Community College requires the following courses:

<table>
<thead>
<tr>
<th>We Require</th>
<th>Because We Expect Students To</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111-112 (6 Credits)</td>
<td>...develop exceptional writing skills, understand the importance and correct procedures for citing</td>
</tr>
</tbody>
</table>
sources, develop a depth of writing ability, and be able to develop a persuasive argument in written form.

| General Mathematics (10 credits) | ...demonstrate effective quantitative methodology skills, develop quantitative reasoning ability, and expand computational proficiency. General education mathematics courses also provide students with a foundation for understanding the mathematical aspects of scientific methodology. |

**Change to page 39**
SDV course waiver requirement change

The requirement may be waived for students who hold an Associate’s Degree or Bachelor’s Degree from a regionally accredited institution. Other requests for a waiver may be considered on a case-by-case basis. Students who receive a waiver for SDV must complete 1 credit of additional coursework to be eligible for graduation.

**Change to page 52**

The typical Engineering sequences for certain majors follows: JMU: EGR 115, EGR 126, EGR 206,

**Change to page 77**

Quality Control Career Studies Certificate is discontinued. New students may not select this plan.

**Change to page 86**

Automation in Manufacturing and Electrical Controls Fundamentals Career Studies Certificates are discontinued. New students may not select these plans.

**Change to page 88**

Process Technology Career Studies Certificate is discontinued. New students may not select this plan.

**Change to page 123**

ETR 237 (3-4 CR)

Industrial Electronics

Prerequisite: ETR 113

Studies linear integrated circuits for industrial applications, motors, industrial control devices, power control circuits, transducers, industrial process control, and sequential process control. Lecture 2 hours. Laboratory 2 hours. Total 4

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E. Violation of established State Board for Community Colleges approved policies including, but not limited to, the Computer Ethics Guidelines, Policy on Expressive Activity, Sexual Misconduct Policy, Substance Abuse Policy, Weapons
Regulation, and Workplace Violence Prevention & Threat Assessment Policy. For a complete list and details of the State Board for Community Colleges approved policies, see: http://www.vccs.edu/about/where-we-are/policy-manual/