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## Message from the President

Welcome once again to Blue Ridge Community and Technical College! It has been my privilege to be the president of our college and to watch as generations of students enroll, study, and graduate. Each of you is here to receive a solid education and whether that means a career path, university transfer, or customized contract training, we will do our best to deliver. Thank you for selecting Blue Ridge Community and Technical College as your next step in your education.

We have been up to a lot here at the college. We have had some great successes in the past year and we are looking forward to achieving success in several areas this coming year.

- Our Reaffirmation of Accreditation was a great success. Accreditation is important for the college because it permits us to provide federal financial aid and it eases the process of transfer credits. Our team assembled for the reaffirmation received a glowing report for their efforts and the college is now poised to proceed with the ten year visit in 2019-2020.
- We have signed new articulation agreements and now offer more opportunities for students to complete work at Blue Ridge Community and Technical College and transfer to a baccalaureate institution.
- Our Technology Center is now educating and training the over 700 employees who will be working at the new Procter & Gamble plant. Our Technology Center is a mere ½ mile from the entrance to the new P&G plant, which makes the partnership a logical development that will last for years.
- Students in Berkeley, Jefferson, and Morgan County Schools can now experience exciting programs that will prepare completers for a jump start on their college education.
- Our Culinary Academy is reshaping the menus and food selections for our Bruin Cafes. The food there is fantastic. It is the goal of the Bruins to prepare healthy and affordable meals for purchase by our faculty, staff, and students. Good nutrition is a major part of maintaining a healthy and productive life and our Bruins are there to help with that goal.

Our students are our reason for being. Without you we would not exist. We are here to help you succeed in gaining a good education whether that be for an occupation or for transfer. We have a fantastic group of experienced faculty and staff everywhere you look. Student Services, Career Services, classroom instruction, Finance Office, E Learning, IT Service and Support, Workforce Development and many others. We are here to help and we are glad you have chosen Blue Ridge Community and Technical College.

Welcome to The Ridge!

Best Wishes,

Dr. Peter G. Checkovich

# **General Information**

## **Mission Statement**

Blue Ridge Community and Technical College is dedicated to providing a diverse student population with collaborative programs and support services to improve the quality of life and promote economic development in its service area. Its quality academic programs are learner centered and focus on career entry, university transfer, developmental education, and workforce development.

## **Vision Statement**

Blue Ridge Community and Technical College curriculum is integrated directly with the economic and workforce needs of the region. Programs of study are designed to meet the needs expressed by community members, advisory boards, employers, and workforce as reflected in on-going needs analysis of the region. Blue Ridge Community and Technical College faculty and staff continuously analyze and modify the curricula and programs to meet the educational needs of an increasingly complex and technological society. Blue Ridge Community and Technical College intends to meet the educational challenges of the 21st century and to provide quality educational experiences for the population of the Eastern Panhandle.

## **Policy of Nondiscrimination**

Blue Ridge Community and Technical College provides opportunity to all prospective and current members of the student body, faculty, and staff on the basis of individual qualifications and merit without regard to race, color, sex, sexual preference, religion, age, national origin, or disability. The College neither affiliates knowingly with nor grants recognition to any individual, group, or organization having policies that discriminate on the basis of race, color, age, religion, sex, sexual preference, national origin, sexual orientation, marital or parental status, financial status, veteran status, or disability, as defined by applicable laws and regulations.

Blue Ridge Community and Technical College is required by Section 904, Title IX, Education Amendments of 1972, not to deny admission on the ground of blindness or severely impaired vision; by 45 CFR 84, Subpart E, Section 84.42, and by Section 504 Rehabilitation Act of 1973, nor to deny admission on basis of handicap; by 45 CFR 90, 91 not to discriminate on basis of age; and by 45 CFR 86, Subpart C, Section 86.21, not to deny admission on basis of sex. By Title VI of the Civil Rights Act of 1964, no person shall be subjected to discrimination on the ground of race, color, or national origin. Blue Ridge Community and Technical College is an equal opportunity-affirmative action employer in compliance with Title VII of the Civil Rights Act, West Virginia Human Rights Act, Title IX (Education Amendments of 1972), Section 504, Rehabilitation Act of 1973, American with Disabilities Act, and other applicable laws and regulations.

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## Academic Calendars

The academic year consists of two, 15-week semesters offered in the fall and spring of each year. Additionally, a 10-week summer session is offered. (Dates are subject to change. Please check the website for updated information).

| <b>Fall 2017</b> |     |  |
|------------------|-----|--|
| 08/18/2017       | Fri | Add/Drop and Late Registration (Late Fee Applies) via BRIDGE   |
| 08/21/2017       | Mon | Classes Begin  |
| 08/25/2017       | Fri | Last Day to Add/Drop or Late Register via BRIDGE - ends @ 11:00 pm   |
| 09/01/2017       | Fri | Last Day to Change a Course from Credit to Pass/Fail Status  |
| 09/04/2017       | Mon | Labor Day Holiday – College Closed   |
| 09/11/2017       | Mon | Last Day to Change a Course from Credit to Audit Status  |
| 10/06/2017       | Fri | Last Day to Apply for May Graduation<br>Last Day to Withdraw from First 8 Weeks Class  |
| 10/9/2017        | Mon | First Day of Mid-Term Exams  |
| 10/14/2017       | Sat | Last Day of Mid-Term Exams   |
| 10/16/2017       | Mon | Mid-Term Grades due at 9:00 am for 16 Week Classes<br>Final Grades due at 9:00 am for First 8 Weeks Classes<br>Second 8 Weeks Classes Begin<br>First Day of Academic Advisement for Continuing Students for Spring |
| 10/18/2017       | Wed | Grades Available on BRIDGE – Tentative   |

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|--------------------|-----|---|
| 10/23/2017         | Mon | First Day of Spring BRIDGE Registration for Continuing Students<br>Spring Booklist Available (Tentative)  |
| 11/17/2017         | Fri | Last Day to Apply for a Certificate for December  |
| 11/20/2017         | Mon | First Day of Thanksgiving Recess  |
| 11/26/2017         | Sun | Last Day of Thanksgiving Recess   |
| 12/08/2017         | Fri | Last Day to Withdraw from Full Semester or Second 8 Week Class<br>Last Day of Classes   |
| 12/11/2017         | Mon | First Day of Final Exams  |
| 12/16/2017         | Sat | Last Day of Final Exams   |
| 12/18/2017         | Mon | Grades Due at 9:00 am   |
| 12/20/2017         | Wed | Grades Available on BRIDGE - Tentative  |
| <b>Spring 2018</b> |     |   |
| 1/12/2018          | Fri | Add/Drop and Late Registration (Late Fee Applies) via BRIDGE  |
| 1/15/2018          | Mon | Martin Luther King Jr Day, College Closed   |
| 1/16/2018          | Tue | Classes Begin   |
| 1/22/2018          | Mon | Last Day to Add/Drop or Late Register via BRIDGE – ends @ 11:00 pm  |
| 1/29/2018          | Mon | Last Day to Change a Course from Credit to Pass/Fail Status   |
| 2/05/2018          | Mon | Last Day to Change a Course from Credit to Audit Status   |
| 3/02/2018          | Fri | Last Day to Apply for August and December Graduation<br>Last Day to Withdraw from First 8-Weeks Class   |
| 3/05/2018          | Mon | First Day of Mid-Term Exams   |
| 3/10/2018          | Sat | Last Day of Mid-Term Exams  |
| 3/12/2018          | Mon | Mid-Term Grades due at 9:00 am for 16 Week Classes<br>Final Grades due at 9:00 am for First 8 Weeks Classes<br>Second 8 Weeks Classes Begin<br>First Day of Academic Advisement for Continuing Students Summer & Fall |
| 3/14/2018          | Wed | Grades Available on BRIDGE - Tentative  |

|           |      |  |
|-----------|------|--|
| 3/19/2018 | Mon  | First Day of Summer BRIDGE Registration for Continuing Students<br>Summer Booklist Available (Tentative) |
| 3/21/2018 | Wed  | First Day of Fall BRIDGE Registration for Continuing Students<br>Fall Booklist Available (Tentative)     |
| 4/2/2018  | Mon  | First Day of Spring Recess   |
| 4/8/2018  | Sun  | Last Day of Spring Recess  |
| 4/6/2018  | Fri  | Last Day to Apply for a Certificate for May  |
| 5/04/2018 | Fri  | Last Day to Withdraw from Full Semester or Second 8 Week Class<br>Last Day of Classes                    |
| 5/07/2018 | Mon  | First Day of Final Exams   |
| 5/12/2018 | Sat  | Last Day of Final Exams  |
| 5/14/2018 | Mon  | Grades Due at 9:00 am  |
| 5/16/2018 | Wed  | Grades Available on BRIDGE - Tentative   |
| 5/24/2018 | Thur | Commencement (Tentative)   |

|                    |     |   |
|--------------------|-----|---|
| <b>Summer 2018</b> |     |   |
| 5/25/2018          | Fri | Add/Drop and Late Registration (Late Fee Applies) via BRIDGE  |
| 5/28/2018          | Mon | Memorial Day Holiday – College Closed   |
| 5/29/2018          | Tue | Classes Begin   |
| 6/01/2018          | Fri | Late Registration Ends– ends @ 11:00 pm   |
| 6/06/2018          | Wed | Last Day to Change a Course from Credit to Pass/Fail Status   |
| 6/11/2018          | Mon | Last Day to Change a Course from Credit to Audit Status   |
| 6/22/2018          | Fri | Last Day to Withdraw from a First 5 Weeks Class   |
| 6/30/2018          | Sat | First 5 Weeks Classes End   |
| 7/02/2018          | Mon | Mid-Term Grades due at 9:00 am for 10 Week Classes<br>Final Grades due at 9:00 am for First 5 Weeks Classes<br>Second 5 Weeks Classes Begin |

|           |       |   |
|-----------|-------|---|
| 7/04/2018 | Wed   | Independence Day Holiday – College Closed               |
| 7/05/2018 | Thurs | Grades Available on BRIDGE - Tentative                  |
| 8/03/2018 | Fri   | Last Day to Withdraw from a Second 5 Week/10 Week Class |
| 8/4/2018  | Sat   | Summer Classes End                                      |
| 8/6/2018  | Mon   | Grades due at 9:00 am                                   |
| 8/8/2017  | Wed   | Grades Available on BRIDGE - Tentative                  |

## Accreditation

Blue Ridge Community and Technical College (BRCTC) serves the West Virginia counties of Berkeley, Jefferson and Morgan. The College has evolved from a small presence in the Eastern Panhandle to an institution of over 5500 students and 135 full-time employees. Blue Ridge Community and Technical College operated as a component of Shepherd College and traces its beginnings to 1974. The College received its accreditation through its host institution, now Shepherd University. Over the next 25 years, the West Virginia legislature passed progressively more emphatic legislation calling for independent community colleges in the state.

The legislation passed by the state enabled Blue Ridge Community and Technical College to gradually attain a new location and independent accreditation. In 2001, Blue Ridge Community and Technical College's first milestone was to move from Shepherdstown to Martinsburg, WV. The new location and new legislation allowed Blue Ridge Community and Technical College to operate as a free-standing institution and perform such actions as developing its own budget, hiring faculty, developing its own strategic plan, organizing an independent Board of Governors and becoming independently accredited.

Blue Ridge Community and Technical College was independently accredited by the Higher Learning Commission in March 2005. The College, which had held the name of the Community and Technical College (CTC) of Shepherd, was officially renamed Blue Ridge Community and Technical College on July 1, 2006. Blue Ridge Community and Technical College has since received reaffirmation of accreditation in 2010 and most recently in 2015.

For more information regarding the institution's accreditation status, please visit <https://www.hlcommission.org/component/directory/?Action=ShowBasic&Itemid=&instid=2854>.



## **History of Blue Ridge Community and Technical College**

Shepherd College began offering 2-year programs in disciplines such as business in the 1960s. Officially, Shepherd Community College began in 1974 when the Nursing Department became the first official two-year program to be adopted by Shepherd. In 1989, the West Virginia State Board of Directors requested Shepherd to re-confirm its point of interest in operating a Community College. Dr. Pete Checkovich was chosen to become Dean of the Community and Technical College. He later was named Provost, and in 2004 became President of Community and Technical College of Shepherd (CTC Shepherd). CTC Shepherd was located on the basement floor of Gardiner Hall in Shepherdstown until August, 2001. Meanwhile, the Martinsburg City Council contacted college officials about the possibility of bringing the Community and Technical College to Martinsburg. The City Council offered a grant for the College if it would relocate, and offered to help the College find a suitable location in Martinsburg. The site selected was the former Blue Ridge Outlets. Their offer along with the location of the building was presented to the West Virginia Higher Education Policy Commission in the fall of 2000 and the move to Martinsburg was approved. In June of 2001, renovation of the Berkeley Building of the former Blue Ridge Outlet Complex began. Classes began at the Community and Technical College on August 20, 2001. In early 2002, the Berkeley County Commissioners finalized the purchase of the Blue Ridge Outlets complex; negotiations resulted in the May, 2003 relocation of the CTC Shepherd to the newly renovated Dunn Building. In March 2005, CTC Shepherd was accredited as an independent institution by The Higher Learning Commission and is a member of the North Central Association (NCA). On July 1, 2006, CTC Shepherd officially became Blue Ridge Community and Technical College.

The Dunn Building housed Blue Ridge Community and Technical College from 2003 – 2012 and accommodated the rapidly growing population. As enrollment continued to climb, College officials quickly recognized the need for a new headquarters building. In Fall of 2009, the College purchased 46 acres on Route 45 in Martinsburg, which now houses the new main campus. Construction began Fall of 2010 and the beautiful new campus was completed during the Spring of 2012. The 55,000 square foot building offers 18 classrooms, additional parking, and an on-campus server to the student body. The gorgeous new building is a welcomed addition to the scenery and backdrop within Berkeley County, West Virginia and will easily serve the thousands of students to come.

## **Workforce Development**

Blue Ridge Community and Technical College is a resource for employers in Berkeley, Morgan, and Jefferson Counties. Its academic educational programs, together with strong business and industry training programs, have created a learning organization whose students and graduates are among the best-prepared citizens and workers in the state.

Blue Ridge Community and Technical College provides educational solutions to the emerging and incumbent workforce that includes customized training design and delivery, supports industry certification, and improves the workplace performance of our customers. For additional information, please visit our website ([www.blueridgectc.edu](http://www.blueridgectc.edu)) or contact Ann Shipway at (304) 260-4380.

## **Campus Locations**

### **Headquarters**

Blue Ridge Community and Technical College Headquarters is located at 13650 Apple Harvest Drive, Martinsburg, West Virginia 25403, and the phone number is (304) 260-4380. Blue Ridge Community and Technical College administrative and faculty offices are at this location.

### **Technology Center**

Blue Ridge Community and Technical College opened its Technology Center in the Berkeley Business Park, located at 5550 Winchester Avenue, Martinsburg, WV 25405. The Technology Center held its ribbon cutting ceremony on June 18, 2008. Governor Joe Manchin, III gave the keynote address. This building was opened with a partnership with Allegheny Energy. The facility has an indoor and outdoor pole park, classrooms, lab classrooms for Culinary Arts, Mechatronics, Physical Therapy Assisting, Medical Assisting, Applied Lab Technician, computer labs and many office spaces. This site is approved by The Higher Learning Commission and the Department of Education. Please contact the College for more information.

### **The Pines Opportunity Center**

Blue Ridge Community and Technical College began using the Morgan County Center during the Fall of 2012. The Center is located in the Pines Opportunity Center, 109 War Memorial Drive, at the former Berkeley Springs hospital. Currently there are five standard classrooms along with several smaller rooms that can easily accommodate small groups and meetings. Please contact the College for more information.

## **Admissions**

### **Admission Requirements**

Students seeking admission to Blue Ridge Community and Technical College as degree-seeking students must have graduated from high school or passed the GED or TASC Assessment. To apply the following items must be submitted to the EM Office:

1. Complete Blue Ridge Community and Technical College Degree Seeking Application.
2. \$25 Application Fee.
3. ACT/SAT/or other placement test scores such as the WV Grade 11 Math and English Assessments (*Accuplacer is given to students without scores; for cutoff scores to be placed in foundation level classes, please review the Support Services section of this catalog*).
4. Official transcripts.
  1. High School, GED or TASC scores
  2. Any and all colleges attended

## **Admission to Limited Enrollment Programs**

The following associate of science degree programs have additional requirements for admission into the program.

1. Board of Governors, A.A.S.
2. Education, A.S.
3. Paramedic, A.A.S.
4. Electric Utility Technology, A.A.S.
5. Hospital - Nursing A.S.N.
6. Physical Therapist Assisting, A.A.S.
7. Technical Studies, A.A.S.

## **Types of Enrollment**

### ***First time Freshmen***

Students who have never attended a college or university before are classified as freshmen and must:

1. Complete Blue Ridge Community and Technical College Degree Seeking Application.
2. Pay the \$25 Application Fee.
3. Submit ACT/SAT/or other placement test scores such as the WV Grade 11 Math and English Assessments (*Accuplacer is given to students without scores; for cutoff scores to be placed in foundation level classes, please review the Support Services section of this catalog*).
4. Provide official transcripts.
  1. High School, GED or TASC scores
5. Complete separate Financial Aid paperwork (FAFSA) if interested in applying for Financial Aid.
6. Register for and attend an Orientation/Registration Session (included with acceptance letter).

### ***Readmits***

Students who have previously attended Blue Ridge Community and Technical College, have not attended another institution since prior enrollment, and would like to re-enroll are classified as readmitted students and must:

1. Complete Blue Ridge Community and Technical College Degree Seeking Application.
2. Pay the \$25 Application Fee.
3. Check BRIDGE to make sure you have no holds from previous attendance on your academic record. Holds or suspensions may prevent you from being readmitted.
4. Complete separate Financial Aid paperwork (FAFSA) if interested in applying for Financial Aid.
5. Register for and attend an Orientation/Registration Session (included with acceptance letter).

*Continuing students who have not been registered for one or two semesters (not including summer), can meet with their academic advisor to register for courses without reapplying for admission. (NOTE: This policy does not apply to students who have been suspended, attended another institution while not at BRCTC (see Transfer/Readmit below), or who have not been enrolled for longer than two semesters).*

## ***Transfers***

Students who have previously attended any other college (s) or university (ies) are classified as transfer students. Transfer students must:

1. Complete Blue Ridge Community and Technical College Degree Seeking Application.
2. Pay the \$25 Application Fee.
3. Provide previous official college transcripts from all institutions attended.
4. Provide official High School transcripts, TASC Assessment, or GED Scores, unless you meet both of the following qualifications:
  1. You have 15 or more college credits from an accredited college and/or program recognized by the US Department of Education.
  2. It has been 5 years or more since you graduated or received a GED/TASC Assessment.
5. Complete separate Financial Aid paperwork (FAFSA) if interested in applying for Financial Aid.
6. Register for and attend an Orientation/Registration Session (included with acceptance letter).

*For an associate's degree, a student must complete at least 24 credit hours of course work at Blue Ridge Community and Technical College. The last 12 hours of course work for an associate's degree must be completed at Blue Ridge Community and Technical College. For the Board of Governors, Occupational Development and Technical Studies Associate of Applied Science degrees, a student must complete at least 12 credit hours at a regionally accredited institution and at least 3 credit hours at Blue Ridge Community and Technical College.*

## ***Transfer/Readmits***

Students who have previously attended Blue Ridge Community and Technical College and then attended any other college(s) or university(ies) during their absence are considered transfer/readmit students.

Transfer/Readmits must:

1. Complete Blue Ridge Community and Technical College Degree Seeking Application.
2. Pay the \$25 Application Fee.
3. Provide official transcripts from schools attended during absence from Blue Ridge Community and Technical College.
4. Complete separate Financial Aid paperwork (FAFSA) if interested in applying for Financial Aid.
5. Register for and attend an Orientation/Registration Session (included with acceptance letter).

*For an associate's degree, a student must complete at least 24 credit hours of course work at Blue Ridge Community and Technical College. The last 12 hours of course work for an associate's degree must be completed at Blue Ridge Community and Technical College. For the Board of Governors, Occupational Development and Technical Studies Associate of Applied Science degrees, a student must complete at least 12 credit hours at a regionally accredited institution and at least 3 credit hours at Blue Ridge Community and Technical College.*

## ***Absence from College/Readmission***

Degree-seeking students in good academic standing who must discontinue their studies for a brief time will be considered eligible to re-enroll in future semesters, as long as they return after no more than two consecutive regular semesters (not including summer sessions), and do not take courses at another institution during that time without prior approval from the College.

Students who are on suspension, who take courses at another institution without prior approval, or who are absent from studies for more than three consecutive regular semesters (not including summer sessions), must re-apply for admission to the College.

Students wishing to return after an absence of no more than two consecutive regular semesters should make an appointment with their advisor and register for classes via BRIDGE.

## **Orientation/Registration**

Blue Ridge Community and Technical College's Orientation/Registration is required for all incoming associate degree and/or certificate seeking students. The Orientation/Registration will cost the student \$25.00. The purpose of the Blue Ridge Community and Technical College's Orientation/Registration is to familiarize students with policies, procedures, online services, campus services, and other academic and campus information and to register for classes. Orientation/Registration may be completed virtually and/or in-person. Below are the steps to registering for Orientation/Registration:

1. Admitted students will receive an email with their acceptance letter indicating Orientation/Registration dates.
2. Follow instructions included on the acceptance letter regarding Orientation/Registration.
3. Complete Placement Testing prior to Orientation/Registration if needed. Contact the Testing Center at 304-260-4380, extension 2114 with questions regarding testing.

## **Non-Degree Seeking Students**

Non-degree students are those who wish to take courses at Blue Ridge Community and Technical College but do not desire to enroll in any specific program or desire a degree.

- Non-degree students are generally not eligible for Financial Aid. Some specialized programs may be eligible but they have a separate registration process.
- Non-degree students are not assigned an advisor.
- Steps to enroll:
  1. Complete the one page non-degree application (available at the Welcome Desk or online at [www.blueridgectc.edu](http://www.blueridgectc.edu)).
  2. Submit placement test scores or unofficial college transcripts for proper placement in certain courses requiring pre-requisites. If no placement scores are available, schedule a Placement Test at the Testing Center.
  3. Students will receive an email with directions on payment, book(s), confirmation of registration, and instructions regarding BRIDGE.
  4. Pay the required tuition fee after registration.

Note: All of the above paperwork is required for each semester of registration. Non-degree students do not have priority registration in BRIDGE.

## **High School Students**

Students who are currently enrolled in high school and wish to take college level courses at Blue Ridge Community and Technical College are classified as high school students.

- Students must have at least a 2.0 high school GPA.
- Students must have placement test scores for proper placement in math or English. For specific score requirements, please refer to the Support Services section of this catalog.
- The total number of high school and college instructional hours in one semester is not to exceed 19.
- Steps to enroll:
  1. Complete the one-page non-degree application (available at the Welcome Desk or online at [www.blueridgectc.edu](http://www.blueridgectc.edu)), if you have a minimum of a 2.0 high school GPA.
  2. Submit placement test scores or unofficial college transcripts for proper placement in certain courses requiring pre-requisites. If no placement scores are available, schedule a Placement Test at the Testing Center.
  3. Submit current unofficial transcript of high school courses taken.
  4. Home schooled students must also submit a letter of current registration from the county in which they are enrolled.
  5. Submit all of the above together in one packet to the Admissions Office.
  6. Pay the required tuition fee after registration.

Note: All of the above paperwork is required for each semester of registration. High School students do not have an assigned academic advisor and do not have priority registration in Bridge.

## **College Credit for Military Service**

Students who have completed basic training in military service may be granted credits based on training and experience, which may be used to satisfy Liberal Arts physical education and/or elective requirements. It is the student's responsibility to request this credit and to verify this military experience to the Registrar. If the student was not in the Army or other service branch that has basic training then Blue Ridge Community and Technical College will grant the same credit to individuals who present a certified copy of their DD-214 form after completing a minimum of one year of active military service. Other credits may be awarded based upon military experience and/or training. Correspondence work completed at accredited institutions of higher learning cooperating with the Armed Forces Institute is accepted by colleges in West Virginia.

## **Fee Waiver**

Blue Ridge Community and Technical College recognizes the American College Test's or College Board's Application Fee Waiver Program for economically-disadvantaged students. The appropriate request for a fee waiver should be submitted by the High School Guidance Counselor with the admissions application form.

## **Admission of Students with Disabilities**

Some disabilities are considered a barrier to completion of admission into particular programs at Blue Ridge Community and Technical College. College officials desire to provide every possible accommodation to students with disabilities. To do this, however, college officials must have reasonable notice of the special accommodations required. Proper documentation from an established medical professional may be required. Please refer to the Disability Services Handbook for further instruction, documentation requirements, policies, and procedures. The Student Development Coordinator along with the student will develop accommodations for those students whom are in need. Inquiries or requests should be directed to the Student Development Coordinator.

## **Classification for Residency for Admissions and Fee Purposes**

### **General**

The institutional officer designated by the President shall assign students enrolling in a West Virginia public institution of higher education a residency status for admission, tuition, and fee purposes. In determining residency classification, the issue is essentially one of domicile. In general, the domicile of a person is that person's true, fixed, permanent home and place of habitation. The decision shall be based upon information furnished by the student and all other relevant information. The designated officer is authorized to require such written documents, affidavits, verifications, or other evidence as is deemed necessary to establish the domicile of a student. The burden of establishing domicile for admission, tuition, and fee purposes is upon the student. If there is a question as to domicile, the matter must be brought to the attention of the designated officer at least two weeks prior to the deadline for the payment of tuition and fees. Any student found to have made a false or misleading statement concerning domicile shall be subject to institutional disciplinary action and will be charged the nonresident fees for each academic term theretofore attended. The previous determination of a student's domiciliary status by one institution is not conclusive or binding when subsequently considered by another institution; however, assuming no change of facts, the prior judgment should be given strong consideration in the interest of consistency. Out-of-state students being assessed resident tuition and fees as a result of reciprocity agreement may not transfer said reciprocity status to another public institution in West Virginia.

### **Residence Determined by Domicile**

Domicile within the state means adoption of the state as a fixed permanent home and involves personal presence within the state with no intent on the part of the applicant or, in the case of the dependent student, the applicant's parent(s) to return to another state or county. Residing with relatives (other than parent(s)/legal guardian) does not, in and of itself, cause the student to attain domicile in this state for admission of fee payment purposes. West Virginia domicile may be established upon the completion of at least 12 months of continued presence within the state prior to the date of registration, provided that such 12 months' presence is not primarily for the purpose of attendance at any institution of higher education in West Virginia. Establishment of West Virginia domicile with less than 12 months' presence prior to the

date of registration must be supported by evidence of positive and unequivocal action. In determining domicile, institutional officials should give consideration to such factors as the ownership or lease of a permanently-occupied home in West Virginia, full-time employment within the state, paying West Virginia property tax, filing West Virginia income tax returns, registering of motor vehicles in West Virginia, possessing a valid West Virginia driver's license, and marriage to a person already domiciled in West Virginia. Proof of a number of these actions should be considered only as evidence which may be used in determining whether or not a domicile has been established. Factors militating against the establishment of West Virginia domicile might include such considerations as the student not being self-supporting, being claimed as a dependent on federal or state income tax returns or on the parents' health insurance policy if the parents reside out of state, receiving financial assistance from state student aid programs in other states, and leaving the state when school is not in session.

### **Dependency Status**

A dependent student is one who is listed as a dependent on the federal state income tax return of his or her parent(s) or legal guardian or who receives major financial support from that person. Such a student maintains the same domicile as that of the parent(s) or legal guardian. In the event the parents are divorced or legally separated, the dependent student takes the domicile of the parent with whom he or she lives or to whom he or she has been assigned by court order. However, a dependent student who enrolls and is properly classified as an in-state student maintains that classification as long as the enrollment is continuous and that student does not attain independence and establish domicile in another state. A nonresident student, who becomes independent while a student at an institution of higher education in West Virginia, does not, by reason of such independence alone, attain domicile in this state for admission or fee payment purposes.

### **Change of Residence**

A person who has been classified as an out-of-state student and who seeks resident status in West Virginia must assume the burden of providing conclusive evidence that he or she has established domicile in West Virginia with the intention of making a permanent home in this state. The intent to remain indefinitely in West Virginia is evidenced not only by a person's statements, but also by that person's actions. In making a determination regarding a request for change in residency status, the designated institutional officer shall consider those actions referenced in section two above. The change in classification, if deemed to be warranted, shall be effective for the academic term or semester next following the date of the application for reclassification.

### **Metro Fee**

A metro fee was established in Fall 2016. Those students from bordering counties pay a lesser fee than out-of-state students. Neighboring counties include:

- Frederick County, Maryland
- Washington County, Maryland
- Clarke County, Virginia



- Frederick County, Virginia
- Loudoun County, Virginia

## **Military**

To remain approved for VA's GI Bill programs, schools must charge in-state tuition and fee amounts to "covered individuals." A covered individual is defined in the Choice Act as:

- A Veteran who lives in the state in which the IHL is located (regardless of his/her formal state of residence) and enrolls in the school within three years of discharge from a period of active duty services of 90 days or more.
- A spouse or child using transferred benefits who lives in the state in which the IHL is located (regardless of his/her formal state of residence) and enrolls in the school within three years of the transfer discharge from a period of active duty service of 90 days or more.
- A spouse or child using benefits under the Marine Gunnery Sergeant John David Fry Scholarship who lives in the state in which the IHL is located (regardless of his/her formal state of residence) and enrolls in the school within three years of the Servicemember's death in the line of duty following a period of active duty service 90 days or more.

An individual described above will retain covered individual status as long as he/she remains continuously enrolled (other than during regularly scheduled breaks between terms) at the public IHL. Public IHLs must offer in-state tuition and fees to all covered individuals with Post-9/11 GI Bill and Montgomery GI Bill - Active Duty (MGIB-AD) benefits in order for programs to remain approved for GI Bill benefits for terms beginning after July 1, 2015. VA will not issue payments for any students eligible for the Post-9/11 GI Bill or the MGIB-AD until the school becomes fully compliant.

The residency policy allows veterans and current military service members residing outside of West Virginia to be eligible for in-state tuition. If you are a dependent of a veteran or service member attending Blue Ridge Community and Technical College under any VA Education benefit (i.e. Chapter 33, Chapter 35, MyCAA), you are also eligible for in-state tuition.

## **Aliens**

An alien who is in the United States on a resident visa or who has filed a petition for naturalization in the naturalization court, and who has established a bona fide domicile in West Virginia as defined in section two, may be eligible for in-state residence classification, provided that person is in the state for purposes other than to attempt to qualify for residency status as a student. Political refugees admitted into the United States for an indefinite period of time and without restriction on the maintenance of a foreign domicile may be eligible for an in-state classification as defined in section two. Any person holding a student or other temporary visa cannot be classified as an in-state student. Currently Blue Ridge Community and Technical College is not a SEVIS institution; therefore, we cannot accept students on an F-1 VISA.

## **Former Domicile**

A person who was formerly domiciled in the state of West Virginia and who would have been eligible for an in-state residency classification at the time of his/her departure from the state may be immediately eligible for classification as a West Virginia resident provided such person returns to West Virginia within a one-year period of time and satisfies the conditions of section two of these rules regarding proof of domicile and intent to remain permanently in West Virginia.

## **Appeal Process**

The initial determination of residency classification by the registrar may be appealed to the institutional committee on residency appeals which is established by the President to receive and act on appeals of initial residency decisions. The decision of the institutional committee on residency appeals may be appealed to the president of the institution. The appeal shall end at the institutional level.

## **Expenses**

### **Payment**

The West Virginia Higher Education Policy Commission regulations require the College to operate strictly on a cash basis with all payments and obligations being collected in advance.

If payment is made by check, registration will be considered incomplete until the check covering the required fees has cleared the bank on which it is written. The cashier's office will accept cash, credit cards, money orders, or approved personal checks written for the exact amount of the obligation. All checks must be payable to Blue Ridge Community and Technical College and third party checks will not be accepted. A student's registration may be cancelled when payment is made by a check which is dishonored by the bank. If the returned check is in payment of tuition and fees, the business office is required to declare the fees unpaid and registration cancelled. The return of a check for any reason constitutes late registration, and the applicable late-registration fee shall be assessed. In such case, the student may re-register upon redemption of the unpaid check, payment of the \$10 returned check handling charge, and payment of the applicable late fee of \$25. The returned check fee of \$10 will be collected for each check returned unpaid by the bank upon which it is drawn, unless the drawer obtains an admission of error from the bank.

All student charges are payable at the time of registration for each semester. Students in debt to the College from a previous semester or term will not be permitted to enroll until all obligations are paid. Any outstanding and unpaid financial obligation to the College can result in withholding the student's grades, transcript of credits, diploma, and official reports. Students will not be permitted to attend classes until registration has been completed. In addition, outstanding balances greater than 30 days may be referred to a collection agency in accordance with the Blue Ridge Community and Technical College Collection policy.

Student employees will be required to pay tuition and fees at the same time as other students. The student employee will receive paychecks from the State of West Virginia for work performed during the previous month. All fees and expenses are subject to change without prior notice.

**Enrollment Fees Per Semester—Fall 2017**

|              | <b>West Virginia Students<br/>Enrolled at Blue Ridge Community<br/>and Technical College</b> | <b>Metro Students<br/>Enrolled at Blue Ridge Community<br/>and Technical College*</b> | <b>Out-of-State Students<br/>Enrolled at Blue Ridge Community<br/>and Technical College</b> |
|--------------|--|---|---|
| <b>Hours</b> | <b>Fee</b>   | <b>Fee</b>  | <b>Fee</b>  |
| 1            | \$168.00   | \$178.00  | \$304.00  |
| 2            | \$336.00   | \$356.00  | \$608.00  |
| 3            | \$504.00   | \$534.00  | \$912.00  |
| 4            | \$672.00   | \$712.00  | \$1,216.00  |
| 5            | \$840.00   | \$890.00  | \$1,520.00  |
| 6            | \$1,008.00   | \$1,068.00  | \$1,824.00  |
| 7            | \$1,176.00   | \$1,246.00  | \$2,128.00  |
| 8            | \$1,344.00   | \$1,424.00  | \$2,432.00  |
| 9            | \$1,512.00   | \$1,602.00  | \$2,736.00  |
| 10           | \$1,680.00   | \$1,780.00  | \$3,040.00  |
| 11           | \$1,848.00   | \$1,958.00  | \$3,344.00  |
| 12           | \$2,016.00   | \$2,136.00  | \$3,648.00  |

Rates are subject to approval of the West Virginia Higher Education Policy Commission.

\*Students living in Frederick or Washington counties in Maryland or Clark, Frederick, or Loudoun counties in Virginia will receive a metro fee which is less expensive than out of state.

\*Students receiving veterans benefits will receive the same tuition rate as In-State Students.

## Explanation as to Use of Enrollment Fees—Fall 2017

|  | West Virginia<br>Students<br>(Full-Time Rate) | Metro<br>Students<br>(Full-Time<br>Rate) | Out-of-State<br>Students<br>(Full-Time Rate) |
|--|---|--|--|
| <b>Capital Fee:</b>  | \$108.00                                      | \$108.00                                 | \$228.00                                     |
| Restricted for statewide capital improvement purposes<br>by West Virginia Statute. |   |  |  |
| <b>Technology Fee:</b>   | \$132.00                                      | \$132.00                                 | \$132.00                                     |
| Restricted to defray expenses for the development of<br>college technology.        |   |  |  |
| <b>College Operation Fee:</b>  | \$1,776.00                                    | \$1,896.00                               | \$3,288.00                                   |
| Unrestricted for general operating purposes.                                       |   |  |  |
| <b>TOTAL</b>   | <b>\$2,016.00</b>                             | <b>\$2,136.00</b>                        | <b>\$3,648.00</b>                            |

### Refund Policy

Students who withdraw in accordance with College procedures may receive a refund of tuition and fees in accordance with the schedules outlined below. The refund calculation is based on the amount paid toward tuition and fees. **(No refunds on partial withdrawals)**. Refunds are determined from the first day of the school term, which officially begins with orientation and registration days. The official withdrawal date is certified by the registrar. Refund checks are issued through the State Treasury, and receipt of a refund may take up to six weeks depending upon the date of withdrawal.

To get a 100% refund you must drop ALL classes by the end of add/drop.

#### Regular Session

During first and second weeks 90%

During third and fourth weeks 75%  
 During fifth through eighth weeks 50%  
 Beginning with ninth week No Refund

**Summer Session**

During first 10% of the term 90%  
 From 11% to 25% of the term 75%  
 From 26% to 50% of the term 50%  
 After 50% of the term is completed No Refund

**Special Fees**

|  |              |
|--|--------------|
| Admission Application Fee (nonrefundable)              | \$ 25.00     |
| Board of Governors Transcript Posting Fee (per credit) | 10.00        |
| Diploma Replacement                                    | 20.00        |
| Late Payment   | 25.00        |
| Late Registration                                      | 25.00        |
| Online Course Fees per credit hour                     | 25.00        |
| Orientation Fee  | 25.00        |
| Returned Check Handling Fee                            | 10.00        |
| Science Lab Fee  | 10.00-100.00 |
| Student ID Replacement                                 | 5.00         |
| Transcripts  | 10.00        |
| Verification Services (Clearinghouse)                  | 10.00        |

*Additional fees may be assessed for individual courses. These fees are listed in the comments section in the schedule of classes.*

## **Audit Fees Per Semester**

Enrollment fees for students enrolled in courses for audit (without credit) are the same as if credit were given. (The only exception applies to students who are 65 and over requesting the senior citizen discount.)

## **Reduced Tuition and Fee Program**

### ***WV Residents who are at Least 65 Years of Age***

1. To be eligible for this program the applicant must complete the application/registration form and choose one of the following options:
  1. Register under this program for all classes for credit (\$84/per credit hour).
  2. Register under this program for all classes for noncredit (\$12.50/per credit hour).  
*(A student cannot mix these two options or mix this program with regular tuition course registration.)*
2. A student eligible for this plan may only register in person, following the same guidelines as other degree and/or non-degree seeking students.
3. The total tuition and standard fees for the credit option will be 50 percent of the normal rates charged to state residents.
4. The total tuition and standard fees for the noncredit option will be \$12.50 per credit hour.
5. Students under this plan will be expected to pay full charges for special fees, including laboratory fees, which are required of all other students.
6. Students must pay at time of registration to avoid being dropped for nonpayment.
7. In lieu of a grade, an AU will be entered for courses in the noncredit option.
8. Students may withdraw according to established dates.
9. The standard refund policy applies, as do all other college policies not specifically addressed herein.
10. All College academic policies apply.
11. Students registered under this program cannot pre-register for the next term.

## **Currently Enrolled High School Students**

Students currently enrolled in high school are eligible for reduced tuition rates at \$25 per credit hour.

## Scholarships and Financial Aid

Financial aid for Blue Ridge Community and Technical College students is part of Enrollment Management Services in the offices at 13650 Apple Harvest Drive in Martinsburg. To reach the office by phone, call (304) 260-4380 ext 2106 or visit the website at [www.blueridgectc.edu/financial-aid/](http://www.blueridgectc.edu/financial-aid/). Current students can view and update financial aid status using BRIDGE.

Financial assistance is available based on merit and/or financial need. Awards are given for a period of one academic year, which begins in August, and students must apply for financial aid and/or scholarships each year. The following sections describe guidelines for application, financial aid programs, responsibilities of students and/or parents, and deadlines. More detailed information is available from the Financial Aid Office.

### **Application Process**

Any student who wishes to apply for federal and/or state financial assistance must submit the Free Application for Federal Student Aid (FAFSA) and be admitted to the College in an eligible program. Some certificate programs are eligible for federal aid and the WV HEAPS (Higher Education Assistance for Part-time Students) Grant. All applicants are required to submit the FAFSA and are urged to begin the application process as early as possible after October 1, each year that they will be enrolled. If the student will be enrolled for the Fall, he/she is strongly encouraged to fill out a FAFSA by March 1.

Once the FAFSA is filed with the Department of Education, the application may be selected for a process called verification. The Department of Education randomly selects 30 percent or more of all applicants for verification. Students selected will be notified in writing of required documentation, which includes the verification form, signed copies of student and parent tax return transcripts (for dependent students) and W-2s. Any student with special circumstances, such as loss of employment, extraordinary medical/dental expenses, divorce/separation, or other situations, which could not be reported on the FAFSA, may write a letter to the Financial Aid Office asking for review of his/her circumstances.

### **Federal and State Grant Programs**

#### ***Federal Pell Grant***

A federal grant, which is based on income, family size, and other factors as determined by filing the FAFSA, is for undergraduate students only. The maximum award for 2017-2018 is \$5,920. Pell Grants do not have to be paid back and are available for full and part-time attendance.

#### ***Federal SEOG***

The Federal Education Opportunity grant may be available to students demonstrating exceptional need. Awards are available for full and part-time attendance. Standard awards typically range up to \$750 per year, but can vary based on financial need.

### ***West Virginia Grant Program***

This is a need-based state grant program administered by the Higher Education Policy Commission. Awards are to West Virginia residents and amounts vary by institution. For 2017-2018, the grant amount will range up to \$2,700, based on the Expected Family Contribution and students must be enrolled full-time (12 credit hours or more) each semester. Since it is a need-based program, a FAFSA must be filed by May 1, 2017.

### ***PROMISE Scholarship***

West Virginia PROMISE (Providing Real Opportunities for Maximizing In-state Excellence) is a merit-based scholarship program designed to keep qualified students in West Virginia by making college affordable. It pays 100% of mandatory tuition and fees at Blue Ridge Community and Technical College. It is the full responsibility of the student to ensure adherence to the PROMISE guidelines. For full program details, please refer to the College Foundation of WV website: [www.cfwb.com](http://www.cfwb.com). The FAFSA must be completed by March 1.

### ***Higher Education Assistance for Part-time Student Grant (HEAPS)***

This is a need-based state grant for part-time students in degree, or eligible certificate programs. The award amount is based on tuition charges and is determined by individual schools. A FAFSA is required.

### ***Federal Work Study***

Federal work study jobs help students earn money while attending Blue Ridge Community and Technical College. Undergraduate students with work study jobs may work part time on or off campus while enrolled. Federal work study provides part time jobs for undergraduates with financial need, which allows students to earn money to assist with living expenses. The program encourages community service work and work related to a student's course of study.

If you are interested in obtaining a Federal Work Study job while you are enrolled at Blue Ridge, make sure you apply for aid early. It is encouraged that you complete the FAFSA by March 1 each year. The Financial Aid Office awards funds on a first come, first served basis. Please check your award on your BRIDGE account to verify that you are Federal Work Study eligible. If you feel you may be eligible and have not been awarded, please contact the Financial Aid Office.

You will earn at least the current federal minimum wage. However, you may earn more depending on the type of work you do and the skills required for the position. Students must also meet Satisfactory Academic Progress.

Your total work study award will depend on:

- when you apply,
- your level of financial need, and
- Blue Ridge's funding level.



For a list of Federal Work Study positions, please check our bulletin board located next to the Human Resources Office as well as on the Human Resources Website, <http://www.blueridgectc.edu/about-blueridge/human-resources/faculty-and-staff/>.

***Student and Parent Loans***

The Financial Aid Office processes student and parent loans through the William D. Ford Federal Direct Loan Program funded by the U.S. Department of Education. Students must be enrolled in a minimum of six credit hours in an eligible program to qualify for a Direct Stafford Loan. Federal regulations require that an origination fee be deducted from every Federal Direct Subsidized and Unsubsidized Stafford Loan. For Direct Stafford loans that are first disbursed after October 1, 2017 and prior to October 1, 2017, the origination fee is 1.069%.

Federal Direct PLUS loans also have origination fees. For PLUS Loans first disbursed after October 1, 2016, and prior to October 1, 2017, the origination fee is 4.276%.

***Federal Direct Loans***

After the student has completed the FAFSA, any student interested in student loans will, upon request, be processed for the maximum student loans for which he/she is eligible. Any student who wants a lower amount need only indicate that amount when the loan is accepted. The amount any student may borrow each academic year is based on:

1. Grade level
2. Length of academic program
3. Dependent or independent status
4. Enrollment status (full or part time) must be at least half time
5. Institutional budgets assigned to each student

Listed below are the maximum amounts per year a student may borrow under the Direct Loan Program as an undergraduate seeking a two-year degree:

**Annual Loan Limits for Dependent Students    Annual Loan Limits for Independent Students**

*(effective July 1, 2009)*

*(and dependent students whose parents cannot borrow PLUS)*

|                             | <b>Base Amount</b> | <b>Additional Unsubsidized Loan</b> |                             | <b>Base Amount</b> | <b>Additional Unsubsidized Loan</b> |
|-----------------------------|--------------------|-------------------------------------|-----------------------------|--------------------|-------------------------------------|
| <b>First Year Students</b>  | \$3,500            | \$2,000                             | <b>First Year Students</b>  | \$3,500            | \$6,000                             |
| <b>Second Year Students</b> | \$4,500            | \$2,000                             | <b>Second Year Students</b> | \$4,500            | \$6,000                             |

No student seeking an associate's degree may borrow above \$10,500 each academic year. The amount and type of loan a student may receive varies by his/her total cost of education and the amount of other

financial aid received. Grade level for transfer students for loan processing is based on the total number of hours accepted by Blue Ridge Community and Technical College.

When the loan is being processed, a first-time borrower must sign a Master Promissory Note (MPN) and complete Federal Direct Loan Entrance Counseling. The promissory note and entrance counseling should be signed electronically at [www.studentloans.gov](http://www.studentloans.gov). The electronic confirmation of entrance counseling and completion of an MPN are sent directly to the Financial Aid Office. All loans are disbursed in two payments per semester, usually 30 days after the beginning of each term, and again at the midpoint of the term. All funds are applied to any outstanding obligations to the College before the student receives a refund.

### ***Direct Parent Loan for Undergraduate Students (PLUS)***

Applications for the Parent Loan for Undergraduate Students (PLUS) are available on the Blue Ridge Community and Technical College website. Parent loans are processed based on amount requested, on the student's cost of attendance, and on the amount of other financial aid received. A credit check by the Federal Loan Servicer is required for processing. If a parent's credit is denied, a student can apply for an unsubsidized loan in his/her name.

### ***Alternative Loans***

Other loans may be available to students with demonstrated need or special situations. These require credit checks and are available through private banks, credit unions, or other private lending institutions. Outside loan applications are available online at the lenders' websites.

### ***Loan Repayment Information***

William D. Ford Federal Direct Loans do not have to be repaid until six months after the student graduates or ceases attending on at least a half-time basis. Any student who drops below six hours of enrollment must begin repaying his/her loan six months from that time. Only one six-month grace period is granted to each student. The repayment process for parent loans begins within 60 days after the last disbursement for the year, usually in March if the loan is for two semesters. Current minimum repayment amounts are \$50, depending on the repayment plan. Several repayment plans exist for all loan programs. To view repayment plan options go to [www.studentaid.gov/repay-loans/understand/plans](http://www.studentaid.gov/repay-loans/understand/plans). Exit Counseling must be completed at the time of graduation or when the student goes below half-time enrollment.

Exit Counseling is completed online at [www.studentloans.gov](http://www.studentloans.gov). Academic transcripts will not be released until exit counseling is completed and results electronically received by the Financial Aid Office.

## **Veteran's Re-Education Act**

Eligibility for funding by the Veteran's Re-Education Act is determined by the Department of Veterans Affairs, and awards are given to West Virginia residents who have exhausted all other veteran's benefits and must meet other criteria related to need. Applications may be obtained from the Financial Aid Office.

## **Military and Veterans Administration Education Assistance**

The Veterans Administration provides a number of programs for veterans and service personnel seeking funding for education and/ or training. Please contact the Veterans certifying official at Blue Ridge Community and Technical College to inquire about available assistance. Apply for Veteran Education Benefits at [www.va.gov](http://www.va.gov) or for questions regarding benefits call 1-888-442-4551.

## **Vocational Rehabilitation**

Students with physical or learning disabilities may be eligible for assistance with education expenses through their state department of vocational rehabilitation. Students should contact the local Division of Rehabilitation Services to inquire about programs available.

## ***Disbursements/Refunds***

### **Disbursement of Funds**

Financial aid is awarded for the full academic year; with half available for the fall semester and half for the spring semester. Student payment for tuition and fees is due prior to the start of each semester. Students receiving financial aid to assist with these expenses will have that aid applied first to institutional charges. Purchase of books and supplies through Blue Ridge Community and Technical College's bookstore official vendor may be billed directly to the student account if the student has a credit balance.

### **Refund of Excess Financial Aid**

All financial aid, including loans, is applied to the student account to cover institutional costs. No refund is given to the student until all obligations to the College are met. All Title IV funds awarded (Federal Pell Grant, Federal SEOG and Direct Loans) are refundable according to program regulations. Refund checks for excess financial aid are normally available shortly after funds have been disbursed and on a weekly basis thereafter.

### **Refunds>Returns Due to Withdrawal**

The Financial Aid Office is required by federal statute to recalculate federal financial aid eligibility for students who withdraw, drop out, are dismissed, or take a leave of absence prior to completing 60% of a payment period or term. Federal Title IV financial aid program eligibility must be recalculated in these situations.

If a student leaves the institution prior to completing 60% of a payment period or term, the Financial Aid Office recalculates eligibility for Title IV funds. Recalculation is based on the percentage of aid earned using the following Federal Return of Title IV funds formula:

Percentage of payment period or term completed = the number of days completed up to the withdrawal date divided by the total days in the payment period or term. (Any break of five days or more is not counted as part of the days in the term.) This percentage is also the percentage of earned aid.

Funds are returned to the appropriate federal program based on the percentage of unearned aid using the following formula:

Aid to be returned = 100% of the aid that could be disbursed minus the percentage of earned aid multiplied by the total amount of aid that could have been disbursed during the payment period or term.

If a student earned less aid than was disbursed, the institution would be required to return a portion of the funds and the student would be required to return a portion of funds. Keep in mind that when Title IV funds are returned, the student may owe a balance to the institution.

If a student earned more aid than was disbursed to him or her, the institution would owe the student a post-withdrawal disbursement which must be paid within 30 days of the student's withdraw.

Refunds are allocated in the following order:

1. Unsubsidized Federal Stafford Loan
2. Subsidized Federal Stafford Loan
3. Federal Parent (PLUS) Loan
4. Federal Pell Grant
5. Federal Supplemental Opportunity Grant
6. Other Title IV assistance
7. Other State of West Virginia
8. Private and Institutional aid
9. The student

### **Satisfactory Academic Progress Policy**

The policy for Satisfactory Academic Progress is effective as of July 1, 2011 and supersedes any previous policy. Federal regulations require Blue Ridge Community and Technical College to establish Satisfactory Academic Progress (SAP) standards for all students in eligible degree or certificate programs who wish to receive financial aid. Any student receiving Title IV Financial Aid is required to maintain Satisfactory Academic Progress according to The Compilation of Financial Aid Regulations (34 CFR, through 12/31/95 as published by the Department of Education, section 668.34). Every student is required to complete a certain number of hours attempted to show that he/she is progressing towards a degree in his/her program of study. Each student must also maintain a grade point average consistent with the regulations governing Satisfactory Academic Progress. Satisfactory Academic Progress is required for students to receive financial aid in any of the following programs: Federal Pell Grant, Federal Supplemental Educational Opportunity Grant, Federal Work-Study, Federal Direct Loans, or Parent Loan

for Undergraduate Students (PLUS) and State Grant Programs including the West Virginia Higher Education Grant and Part-time Programs.

Students must satisfy both grade point average and attempted hours standards for progress toward a degree.

### ***Standards Measured by Grade Point Average***

1. All Associate Degree and eligible certificate program students must maintain a minimum of a 2.0 grade point average (GPA). This includes transfers and re-admitted students.
2. Any student admitted or readmitted on academic probation who does not meet grade point average standards may appeal to the Financial Aid Scholarship and Appeals Committee at Blue Ridge Community and Technical College. Please refer to [www.blueridgectc.edu/financial-aid/](http://www.blueridgectc.edu/financial-aid/) for more information.

### ***Standards Measured by Hours Attempted***

As a student progresses through his/her program, he/she must pass at least 67% of credit hours attempted, including transfer and pass/fail hours and the following:

F Failure

I Incomplete

IF Incomplete/Failure

W Withdrawals

R Repeat

The above types of attempted hours are combined with all passing grades in determining progress. Transfer credits accepted by Blue Ridge Community and Technical College will be added to institutional hours to determine total hours attempted.

#### **Example 1**

Attempt 20

Pass 15

$$15 / 20 = 75\%$$

Student is passing

Hours Attempted Standard

#### **Example 2**

Attempt 25

Pass 15

$$15 / 25 = 60\%$$

Student is failing

### ***Standards Measured by Maximum Hours***

Any student in a program leading to an associates degree must complete their degree or certificate program within 150% of the usual hours required by the program. Students who will be at maximum hours within 15 credits are also checked at the end of each semester for continued eligibility.

Students working on a second degree or certificate will receive financial aid ONLY for the coursework needed to complete the degree.

Satisfactory Academic Progress will be evaluated at the end of each semester, including summer term(s). Students must meet all Satisfactory Academic Progress standards. The GPA and percentage standards will be checked at the end of each semester and become effective immediately. Students not in compliance with grade point average and/or percentage standards for the first time will automatically be given a warning period of one semester, during which they will have eligibility for financial aid. Those who are given a warning period will be notified in writing. **Each student is offered only one warning period.** Students failing academic progress after the warning period are suspended from financial aid eligibility and will be notified in writing. Students may appeal suspension of financial aid based on special circumstances which include, but are not limited to, death of a close relative or injury or illness of the student. The student must provide documentation of the appeal circumstances. All appeals are considered on a case-by-case basis and a letter of appeal must be submitted, with documentation, to the Financial Aid Office at least one week prior to the appeal date listed in the suspension letter. A student can only regain eligibility by meeting the institutions current Satisfactory Academic Progress Standards.

### **Blue Ridge Community and Technical College Scholarships**

There are various scholarships available to Blue Ridge Community and Technical College Students. Please visit the website at [www.blueridgectc.edu/financial-aid/](http://www.blueridgectc.edu/financial-aid/).

## **Registration Information**

### **Class Schedule**

Semester class schedules are available at [www.blueridgectc.edu](http://www.blueridgectc.edu). Students are encouraged to refer to the website for the most-up-to-date version of the schedule.

### **Academic Advisement**

Academic advising is a developmental process which assists students in the clarification of their educational and professional goals and in the development of plans for the realization of those goals. It is an ongoing and multifaceted process by which students are assisted in realizing their maximum educational potential through communication and information exchanges with an advisor. An Academic Advisor is initially assigned based on academic interest expressed by the student. It is the responsibility of both the student and his/her Academic Advisor to participate in the advising process equally. The Academic Advisor serves as a resource for course/career planning and academic progress review and as

an agent of referral to other campus services as necessary. The Academic Advisor is not authorized to change established policy of the College. After consultation with an Academic Advisor, it is ultimately the student's responsibility to choose and implement his/her academic program and to see that all specific requirements for that program and all general requirements for graduation from the College have been met in an acceptable and timely manner.

## **BRIDGE**

BRIDGE is a secure online program that provides web-based services for students. BRIDGE can be used to:

- Register for classes
- Add/Drop classes
- Review Charges
- Review & Print Class Schedules
- Review & Print Unofficial Transcripts
- Apply & Review Financial Aid
- Email Instructors
- Pay for tuition
- Review degree evaluation and progress toward graduation through DegreeWorks
- Apply for Graduation
- Order Official Transcripts
- Print Enrollment Verifications
- Update Veteran Classification and Self Identify

To access BRIDGE, go to the Blue Ridge Community and Technical College Home Page and click the "BRIDGE" link. The User Log-on screen requires a "User ID" and "PIN". The User ID is the 9-digit Student Identification Number. If a student does not know his or her Student ID, he or she can click on "look up my SID" on the BRIDGE Homepage. The PIN number is originally set as the student's birthday (MMDDYY) entered with no dashes. Immediately after entering BRIDGE for the first time, the student is prompted to create a new PIN; this pin number is a 6-digit number of the student's choice and cannot be retrieved by the faculty or staff at Blue Ridge Community and Technical College. This new PIN will be used with the User ID to access BRIDGE. From that point forward BRIDGE provides students' access to "Student Services", "Financial Aid" and "Personal Information" screens.

### **General Information**

To register for classes on BRIDGE, the student must log-on using his or her User ID and PIN number. After selecting the Student Services screen, the student will click on Registration and enter the CRN's for the classes for which he or she wishes to register.

### **Alternate PIN**

To register for classes new students must enter an "Alternate PIN" number. This Alternate PIN number must be obtained from attending a live or virtual Orientation session and is not to be confused with the

PIN number used by the student to log-on to BRIDGE. The Alternate PIN is entered on the Registration screen of BRIDGE. This number changes from semester to semester and should be kept through the add/drop period. Continuing students do not use an Alternate Pin Number.

### Course Request Number (CRN)

Class registration on BRIDGE is conducted by entering the Course Request Number (CRN) for each class. The CRN for each class is listed in the Class Schedule. If special permission or approval is required to register for a course, students must see the appropriate person listed in the Schedule of Classes prior to registering.

### Registration Holds

BRIDGE will inform students of any holds on their accounts. Students with outstanding financial or other obligations will not be permitted to register until all obligations are cleared by the appropriate office(s).

### Online Classes

Technology allows some classes to be taught online. Class formats vary as follows (check the comment section of the course schedule):

| Designation<br>(Comments<br>Section) | Definition   |
|--------------------------------------|--|
| Online                               | A fully-online course with all contact hours made via the Internet   |
| Blended: Web & Campus                | 75% or more of the course is delivered online with a few scheduled campus meetings. The course will meet on campus for the first class, then again on dates established by the instructor. The day, time, and location of the on-campus meetings are listed on the course schedule                                       |
| Hybrid: 50% Online                   | Approximately 50% of the course is delivered on-campus and 50% is delivered online. The course will meet on-campus at the day, time and location listed on the course schedule   |
| Web-Assisted                         | All contact hours are made in the classroom, but students complete assignments and homework online, and access course materials online. Use of the web component is mandatory and has an impact on the student's success. (i.e. Requires use of Blackboard, Connect, MyMathLab, WebAssign, MyWritingLab, TurnItIn, Etc.) |

Since the comments field is limited to 28 characters, in some cases only a portion of the designation will fit into the field. Information in the comments field will be listed in the following order, where applicable:

1. Length of term (i.e. First 8 Weeks, Second 8 Weeks, First 5 Weeks, Second 5 Weeks)



2. Special fees
3. Pre-requisites
4. Delivery mode (using one of the designations above)

Online classes are enumerated in the online schedule at [www.blueridgectc.edu](http://www.blueridgectc.edu). The specific format of an online class is defined by the instructor and is available during registration in the comments section of the online schedule.

## **Special Topics Courses**

The College offers courses which fulfill short-term needs not justifying permanent listing in the catalog or which respond to requests received on short notice. Credit given will be from one to four hours, and the course may be repeated as needed by the department. Topics for these courses will be created as needed by each department. Special Topics courses vary in content with each offering. When offered, a Special Topics course title includes a subtitle describing that course's specific content.

## **Variable Credit Courses**

Variable credit courses are listed in the Schedule of Classes with a range of hours the course may be taken. To enter variable credit click on the underlined credit hours for each variable credit course or click on Change Class Options at the bottom of the screen. Enter desired hours (noting allowed range) and click on Submit Changes. Scroll down, check hours, or click Return to Menu, click on Student Detail Schedule and check hours.

## **Maximum of 19 Credits**

Students may register for a maximum of 19 credit hours per semester. A student who wishes to enroll for more than 19 hours must have an overall grade point average of 3.0 or better and secure the written approval of the Academic Advisor and Program Coordinator using the Course Change Form. If the overall grade point average is less than 3.0, students must first petition the Admissions and Credits Committee for permission before proceeding to get required signatures. Approval forms to enroll for more than 19 hours and Admissions and Credits Petition forms are available at the Welcome Desk or online under Current Students and then Registrar Forms.

## **Closed Class**

BRIDGE will indicate if a course is closed by giving a registration error message on the screen. The student can then check other sections of the same course for available openings by scrolling down and clicking on class search. If a class is closed a student may add themselves to the waitlist (if it is not already at capacity).

## **Waitlisting**

If a class is full or closed a student has the option to waitlist themselves in the registration screen in their Bridge account. Once notified the class is full or closed, choose waitlist from the drop down menu. A

maximum of 10 students can be waitlisted for a class. At such a time when a seat becomes available in a course, the first student on the waitlist will be notified via their Blue Ridge Community and Technical College email and they will then have 24 hours to register for the class in their Bridge account. If the 24 hour time expires and the student has taken no action to register in Bridge, they will forfeit their place on the waitlist and the seat becomes available to the next student on the waitlist.

### **Time Conflicts**

If a student requests two courses whose start and/or end time overlap, a time conflict is created. The student can then check other sections of the same course for available openings by scrolling down and clicking on class search. An override may also be obtained from a Division Dean or Program Coordinator. If the Division Dean or Program Coordinator placed the approval in the computer, the student will then be available to register on BRIDGE. If not the student should report to the Enrollment Management Office for processing. Time conflicts require written permission from the instructor of both courses.

### **Other Conflicts**

Students cannot register in BRIDGE for two sections of the same course. This includes special topics courses with the same number, such as 199 or 299. Students should report to their Academic Advisor for approval.

### **Confirm Schedule**

After all CRN numbers have been entered and if there are no registration errors, the student must click Submit Changes. When finished click on Confirm Schedule. Click on Menu then click on Student Detail Schedule to check accuracy.

### **Currently Enrolled, Degree-Seeking Students**

Students who are degree seeking and currently enrolled at Blue Ridge Community and Technical College are the first to register for future semester classes. Early registration takes place in October and March. Students must meet with their Academic Advisor to discuss their class schedule. When registration opens, currently enrolled students can log-on to BRIDGE, select Student Services and then select Registration to register for classes. Students who are not registered for classes for two consecutive semesters, excluding summer terms, will need to reapply prior to the beginning of the semester as a re-admit student.

### **Special Non-Degree Seeking Students**

Registration for Special Non-Degree Seeking Students is on-going. Registration forms will be accepted and held until a set processing date for each semester. There is no application fee and the student is not eligible for financial aid. Students who have applied for admission and who have been admitted into a degree seeking program must register for classes during a scheduled advisement and registration session. Students who have not applied for admission and who have not been admitted will be required to

complete a Special Non-Degree Seeking Student Application (this form may be picked up at the Welcome Desk or online at [www.blueridgectc.edu](http://www.blueridgectc.edu)) and return this form to the Welcome Desk. Payment should be made immediately after the registration process has been completed.

### **Late Registration**

Students who begin registering for classes on or after the Friday before the first day of classes of the semester will be charged a \$25 late registration fee. The student may still register via BRIDGE through the first week of classes. The late registration fee will be charged to the student's account.

### **Add/Drop Period**

The first five class days of the fall and spring semester, and the first four days of summer are known as the Add/Drop period. During this period, classes may be added or dropped from the student's schedule via BRIDGE. A course dropped during this period will not appear on the student's transcript. The student is not required to gain the Academic Advisor's approval for any classes added or dropped from his or her class schedule. (More information on withdrawing from classes is located in the Academic Information section in this catalog).

### **Credits From Other Sources**

A Blue Ridge Community and Technical College student may transfer previous college credits from other higher education institutions or prior learning assessments preceding enrollment. This includes but is not limited to Military credits, CLEP, EDGE, World Education Services (WES) or other applicable transcripts.

### ***Transfer Courses prior to Enrollment***

Blue Ridge Community and Technical College articulates credits from any institution that is accredited by a regional, national, programmatic, or other accredited body recognized by the US Department of Education. There is no time limit on college transcripts; however, there are time limits on certain classes. However, these credits may still transfer. Successful classes from previous institutions transfer. Courses that received a failing or incomplete grade are not articulated. Coursework meeting 70% or more of the learning objectives of the Blue Ridge CTC comparable course will be accepted. Transfer GPA's are calculated into the overall GPA at Blue Ridge Community and Technical College. Transfer credits are included in determining Satisfactory Academic Progress and may place a student on Financial Aid and Academic probation upon enrollment. During the application process, the student is required to have all transcripts from previous institutions sent to Blue Ridge Community and Technical College. Only official copies of transcripts will be accepted. Courses on the West Virginia Core Coursework Transfer Agreement are honored. Credits taken at any West Virginia public institution shall count towards a student's credit residency requirement.

### ***Advanced Placement Tests***

To receive credit for Advanced Placement Tests, students must have the testing service send the AP results directly to Blue Ridge Community and Technical College.

### ***CLEP Tests***

Credit may be awarded by Blue Ridge Community and Technical College for successful completion of many of the CLEP Subject Examinations. Information about CLEP Exams can be found at [www.collegeboard.com/clep](http://www.collegeboard.com/clep).

### ***Courses Taken at Other Institutions while attending Blue Ridge Community and Technical College***

Blue Ridge Community and Technical College students must apply for transfer approval to take a non-Blue Ridge Community and Technical College course prior to enrollment at another institution. To apply for transfer approval, the student must be in good academic standing (institutional and overall GPA of 2.0 or above). No course that a student has attempted at another institution while on suspension shall be accepted by Blue Ridge Community and Technical College as part of the credit hours necessary for graduation. A student who previously enrolled in a Blue Ridge Community and Technical College course may not petition to retake that course at another institution. To receive credit for a non-Blue Ridge Community and Technical College course, the student must complete a Transfer Approval Form making the request. The student will follow all procedures enumerated on that form including signatures of approval. After obtaining the appropriate signatures, the student must submit the completed form to the Registrar's Office. Should any of the signatures not be secured, the student may file a petition with the Blue Ridge Community and Technical College Admissions & Credits Committee. The completed petition along with the completed Transfer Approval Form, and the student's written justification for seeking the course elsewhere, may be submitted to the Blue Ridge Community and Technical College Admissions and Credits Committee for final action. Articulation course agreements do not apply to any repeated Blue Ridge Community and Technical College course in which a student has received a grade of D or F. No D or F grade can be replaced by an equivalent transfer course. Upon approval of the Transfer Approval Form, the student will receive written notification via their Blue Ridge Community and Technical College email address. The student is then responsible for registering and paying for the class at the other institution. When the class has been completed and the other institution has issued a grade to the student, it is the student's responsibility to have an official transcript sent to Blue Ridge Community and Technical College, Office of the Registrar. Once the transcript is received, the Office of the Registrar will post the credits as transfer credit with the grade earned at the other institution.

### ***EDGE Credit***

EDGE is an acronym for Earn A Degree—Graduate Early. This program was created to address classes in high school that meet curriculum requirements for community college credit. There is no charge for these credits. Upon acceptance and enrollment at Blue Ridge Community and Technical College, the student

must request that the EDGE credits earned in high school be posted to his or her transcript. This may be done by filling out the EDGE transcript request form at Orientation.

EDGE courses will only be placed on a student's account if they are degree-seeking students at Blue Ridge Community and Technical College and have graduated from a high school in West Virginia in the past 2 years. Students who delay enrollment up to two years to Blue Ridge Community and Technical College after high school are not eligible to receive EDGE credits. NOTE: These credits are transferable to any West Virginia community and technical college and may not transfer to every West Virginia four-year institution.

### ***Special Examination for Course Credit***

For certain courses a student may have the opportunity to take a special examination for course credit.

- Course credit may not be granted through special examination for courses previously attempted or resulted in a failing grade or withdraw.
- Course credit through special examination is only available to currently enrolled, degree-seeking students in good academic standing.
- Course credit through special examination may be attempted only once per course.
- Course credit through special examination is posted to the transcript as CR and will not affect GPA.
- The Special Examination for Course Credit assesses a fee of \$25 per credit hour. Periodically the College will hold workshops designed to prepare the student for Special Examination for Course Credit. Participation in these workshops requires an additional fee. Participation in these workshops is not required to take a Special Examination for Course Credit.
- Payment of the fee for Special Examination of Course Credit must be made prior to the administration of the exam.
- No money will be refunded if any examination is failed.
- For more information about **Special Examinations for Course Credit** see the Program Coordinator.

# Enrollment

## Academic Load

A semester hour consists of one hour of recitation with two preparation hours per week. Twelve semester hours per semester constitute a minimum full-time academic load. The normal load is 15 hours per semester thus making 60 credit hours in four semesters (two years).

A student wishing to register for more than 19 credits during the semester, including non-Blue Ridge Community and Technical College courses, must complete the Course Change Form and gain the signature of his or her Academic Advisor and Program Coordinator. The student must currently be carrying a 3.0 or higher overall grade point average and demonstrate evidence that current and previously enrolled courses have been successfully completed. In no case may a student enroll for over 23 hours per semester. Any exceptions to this rule must be appealed to the Blue Ridge Community and Technical College Admissions and Credits Committee with documentation and support from the Academic Advisor and the student who desires this exception.

## Academic Probation and Suspension

At the end of each grading period, each student's institutional and cumulative grade point average is calculated. The calculation is determined by dividing the number of earned quality points by the number of quality hours. In the computation of the institutional and cumulative grade point average, a grade of Incomplete will not be included in the quality hours. When the grade of 'I' is replaced by a passing or failing grade, the student's grade point average will be revised by Enrollment Management. However, having a grade of "I" will result in the student not making the Dean's or President's List.

A student whose institutional GPA or cumulative GPA falls below a 2.0 in any semester will be placed on probation. If the student fails to raise their institutional and cumulative GPA's above 2.0 the student will be continued on probation. To be removed from probation, a student must attain BOTH a 2.0 institutional GPA and a cumulative GPA (includes course work attempted from other institutions).

Once a student is continued on probation, they are required to maintain an institutional semester GPA of 2.0 or above. If during any semester, their semester GPA drops below a 2.0, the student will be suspended for one semester (two semesters for second suspension and any other subsequent suspension). During a period of academic suspension, no credits earned at another institution will be accepted at Blue Ridge Community and Technical College. If students are suspended at the end of the spring semester, they are eligible to register for the summer term only if mathematically, they are able to raise both their institutional and cumulative GPA to a 2.0 or higher. The student will continue on probation for the summer term but will need to bring their institutional and cumulative GPA's above a 2.0 to be eligible to register for fall.

The student who has been suspended from the College for the first time must re-apply for admission after one semester by completing an application for admission. The student who has been suspended from the College for two or more times must apply for readmission after one academic year by completing an application for admission. All suspended students must pay a \$25 application fee. Students receiving

federal financial aid must also adhere to a satisfactory academic progress requirement set forth by Financial Aid.

## **Enrollment Verification**

Students requiring verification of enrollment for insurance or other purposes can print their Enrollment Verification directly from their BRIDGE account. This is located under Student Services, Student Records, and National Student Clearinghouse.

## **Repeating Courses**

A student may not repeat a course or courses for credit where the original grade was a C or better. Variable credit courses may be repeated until the maximum hours have been earned.

## **60 Hour Repeat Rule**

A student who earns a D, F, or IF grade in any course completed no later than the semester or summer term that the 60th semester hour is attempted (including transfer hours) may repeat the course prior to receiving an associate degree. The course(s) must be repeated at Blue Ridge Community and Technical College. For each course, the original grade of D, F, or IF shall be disregarded from the GPA and the subsequent grade shall be used for determining the student's GPA. The original grade shall not be deleted from the student's record. If the D, F, or IF is completed after the 61st semester hour is attempted (including transfer hours) both grades will be calculated into the student's GPA.

## **Grading**

### ***Academic Forgiveness Policy***

The Academic Forgiveness Policy does not alter, change, or amend any other existing policies at Blue Ridge Community and Technical College and is formulated to be consistent with Series 22 of the West Virginia Council for Community & Technical Education and supersedes all previous Academic Forgiveness Policies at Blue Ridge Community and Technical College.

Academic Forgiveness is intended for the student who is returning to college with a grade point deficiency. This policy covers only those students who have not been enrolled as a full-time student (12 or more semester credit hours) at any institution of higher learning during the four consecutive academic years immediately preceding the readmission semester. This policy is limited to degree seeking students who have not yet been awarded their first academic degree. Academic Forgiveness will be granted only once for any student. The Academic Forgiveness Policy may be applied after a readmitted student has earned twelve credit hours that apply toward graduation with a minimum GPA of 2.0 (certain programs may have different standards, such as Board of Governors and Technical Studies). These twelve hours must be earned at Blue Ridge Community and Technical College. A student desiring academic forgiveness must complete an Academic Forgiveness Form and file it in the Registrar's Office. This request must certify that the applicant has not been enrolled as a full-time student (twelve or more credit

hours) in any institution of higher learning during the four consecutive academic years immediately preceding the readmission semester. If the student has attended any institution of higher education on a part-time basis during the specified four-year period, the student must have earned at least a 2.0 GPA in all course work attempted.

The Academic Forgiveness Request Form requires the student to indicate whether he or she wishes to exclude from the GPA calculation (1) all F and IF grades; or (2) all F, IF, and D grades earned prior to the four consecutive academic years immediately preceding the beginning of the readmission semester. This includes those grades appearing as transferred grades on the official transcript. If a student chooses to have all D grades excluded from the GPA calculation, it is with the understanding that the courses for which the D grades were earned cannot be used to satisfy any requirements for graduation. When and if all prerequisite conditions have been met, Academic Forgiveness will be granted upon the successful completion of twelve credit hours of courses numbered 100 or above with a minimum GPA of 2.0. The Registrar will then officially calculate the student's current GPA. However, no grade will be removed from the permanent record. The College is not bound by the decision of any other institution to disregard grades earned in college courses. Similarly, students should be aware that other institutions may not recognize Academic Forgiveness extended by Blue Ridge Community and Technical College.

### ***Final Examination***

The policy of the College is to require that final examinations be given at the end of each class term. Final exams are to be given during the last week of class at the regularly scheduled meeting time.

### ***Grade Point Average***

A student's grade-point average is computed on all work that a student has attempted for college credit (including Blue Ridge Community and Technical College credits and transfer credits). Courses with a grade of W and courses taken on a pass/fail or audit basis are not considered courses attempted for college credit in the computation of a student's grade point average. Quality points are based on the point value per semester hour multiplied by the number of hours of course work attempted. A student taking a three-hour course and receiving a grade of C would earn 6 quality points. (C = 2 quality points times 3 hours.) To compute a grade point average, divide the total quality points accumulated by the total credit hours attempted for which college credit is given toward graduation (e.g., 220 quality points accumulated divided by 88 credit hours attempted for college credit =  $(220/88) = 2.50$  GPA).

### ***Grade Reports***

Midterm and final grade reports follow the normal grading system. Midterm and final grades are available on BRIDGE.



## ***Grading System***

### **Summary of Grading System**

| <b>Grade Explanation</b>  | <b>Point Value per Semester Hour</b> |
|---|--------------------------------------|
| A Superior  | 4                                    |
| B Good  | 3                                    |
| C Average   | 2                                    |
| D Below Average, lowest passing grade                                   | 1                                    |
| F Failure   | 0                                    |
| AU Audit*   | 0                                    |
| I Incomplete*   |                                      |
| W Withdraw without grade point penalty*                                 |                                      |
| P Pass*   |                                      |
| IF Failure due to irregular withdrawal from college from a single class |                                      |
| CR Credit only awarded*   |                                      |

*\* Not used in computation of grade point average.*

### ***Auditing Courses (AU grade)***

A student may initially register for a course as an auditor. Declaration of a change in a course from credit status to audit status must be processed within the first 15 class days (Monday–Friday) of a fall or spring academic session or within the first three class days (Monday–Friday) of a summer session. Any later change must be appealed to the Blue Ridge Community and Technical College Admissions and Credits Committee. An auditor is expected to comply with the instructor's attendance policy. Regular College fees are charged for persons auditing a course. No credit is awarded for an audited class.

### ***Incomplete Grades (I grade)***

A grade of incomplete may be given to a student who has satisfactorily completed most of the requirements for a course, but because of illness or other extenuating circumstances, has not completed all of the requirements. Students receiving an incomplete must confer with the instructor prior to the end of the semester to determine the exact deficiencies that are to be made up within the next semester. The instructor and student shall agree on what needs to be submitted and the time line for the student to complete the work. If the student is not available to meet with the professor prior to the end of the

semester for which the incomplete grade is sought, the student must consult with the instructor early in the following semester to determine the requirements and the timetable for completing the work for the course. When the work has been completed, the instructor must complete and return a Grade Change Form to the Welcome Desk with the new grade. Incomplete grades issued during the fall semester must be submitted no later than noon on the Friday before final grades are due for the following spring semester. Incomplete grades issued during the spring semester must be submitted no later than noon on the Friday before final grades are due for the following fall semester. Incomplete grades issued during any summer session must be submitted no later than noon on the Friday before final grades are due for the following fall semester. If the incomplete is not made up in accordance with this time schedule, the grade automatically becomes an IF. When an incomplete grade is changed, the student's grade point average is recomputed. Any exceptions to these procedures must be submitted to the Blue Ridge Community and Technical College Admissions and Credits Committee.

### ***Pass/Fail (P/F grade)***

Students may choose to take elective courses on a pass/fail basis instead of the regular grading system, in accordance with the following:

1. Electives shall be defined as courses not directly required for a degree. Thus, required electives within the major field of concentration would be excluded from the pass/fail option. In the event of change in major fields, the course previously taken on a pass/fail option if applicable to the new major field shall be substituted by approved courses. Required general study courses also will be excluded from the pass/fail option. The ultimate responsibility for correct scheduling rests with the student.
2. A passing grade in the pass/fail option will be equivalent to the normal passing range of A through D in the conventional system.
3. All students are eligible for the pass/fail option with the exception of those currently on academic probation.
4. Students will be limited to 24 hours of pass/fail options, with not more than one course to a maximum of four credit hours being taken during one session.
5. A student must make a declaration for the pass/fail option by the tenth class day of the semester. This decision will be final.

### ***Final Grade Appeals***

In order to successfully appeal a final grade, a student must offer convincing arguments that good cause exists for mandating a change of grade. A grade may be appealed exclusively for the following reasons: discrimination, error in calculation, or that the grade was awarded in an arbitrary or capricious manner. Refer to the Student Handbook section entitled "Grade Appeal Procedures" for the Student Grade Appeals procedure.

## Withdrawal

### *Withdrawal from a Course*

A student may withdraw from a class during the dates posted on the Academic Calendar for each term or part of term. A grade of W will appear on the student's transcript. A W grade does not affect the grade point average (see Grading System in this section). Too many W grades may affect a student's eligibility for future financial aid (see Satisfactory Academic Progress Policy in the Scholarships and Financial Aid section).

### *Procedure to Withdraw from a Course*

1. A student wishing to withdraw from a course after the Add/Drop period must submit a completed **Withdrawal Form** to Blue Ridge Community and Technical College Enrollment Management Office.
2. A completed **Withdrawal Form** includes the date of last attendance and the signatures of the instructor of the course being withdrawn, Student Affairs, and Financial Aid.
3. Failure to submit the completed **Withdrawal Form** by the deadline will result in the grade of IF or F (see Grading System in this Section).
4. There is no refund available for a partial (one or more, but not all classes) withdrawal.

### *Complete Withdrawal*

A student wishing to completely withdraw from the College for all enrolled classes may do so until the date posted in the academic calendar.

### *Procedure to Completely Withdraw*

1. A **Withdrawal Form** requires the signature of various campus officials verifying that the student does not have any outstanding debt or obligation.
2. The completed **Withdrawal Form** must be returned to the Blue Ridge Community and Technical College Enrollment Management Office. **Students who discontinue attending class without following the proper withdrawal procedures will receive a grade of F or IF in the course(s) (see Grading System in this Section).**
3. A refund of tuition may be available if the **Withdrawal Form** is processed during the designated refund period for each semester (*see Refund Policy in the Expenses Section of the Catalog*).

### *Summary of Drop/Withdrawal Dates*

*Dropping a Course during the Add/Drop Period*

**ACTION** Drop a course via BRIDGE

**DATE** First five class days of the fall and spring semesters

GRADE Dropped course does not appear on the transcript

REFUND Potentially, depending on the total registered credit hours (full versus part-time tuition)

*Withdrawal from a Course after the Add/Drop Period*

ACTION Withdraw from a course(s)

DATE Sixth class day through Friday of the final week of class during the fall and spring semesters

GRADE W

REFUND No refund

*Complete Withdrawal*

ACTION Completely withdraw from the College for all enrolled classes

DATE Sixth class day through Friday of the final week of class during the fall and spring semesters

GRADE W

REFUND Potentially, depending on the effective date of the Request for Withdrawal From College form

The withdrawal procedure is incomplete until all necessary signatures have been secured and the appropriate forms returned to Enrollment Management by the specified time stated in the current academic calendar. Any counseling provided to a student from any employee of the College, which is at a variance with established College policies, must be confirmed by the Associate Dean of Students. Although a student may receive advice from any agent of the College, the final responsibility for a decision concerning withdrawal rests with the student, in consultation with the course instructor and Academic Advisor, in accordance with College policies. Prior to withdrawing from a course, those students receiving financial aid should refer to the *Satisfactory Academic Progress Policy in the Scholarships and Financial Aid Section of this Catalog*.

## **Transcripts**

***OFFICIAL ACADEMIC TRANSCRIPT REQUEST - ONLINE*** AVAILABLE 24/7!!!

**Any financial obligations to the college, on behalf of the student, must be satisfied before transcripts will be released.**

**Transcript Ordering**, a service of the National Student Clearinghouse, offers a fast, simple and secure way to order copies of your transcript via the Web. You'll be guided through the easy step-by-step process and receive email updates on your order, which you also be tracked online.

Transcript Ordering complies with all published guidelines of the Family Educational Rights and Privacy Act (FERPA), which protects students' privacy rights in their education records.

Transcripts can be ordered via the Web 24/7 through the National Student Clearinghouse. You can place as many orders as you like in one session using any major credit card. Your card will only be charged

after your order has been completed. Order updates are available via mobile text message and will also be emailed to you. You can also track your order online using your email address and order number.

Students ordering transcripts via the National Student Clearinghouse, who have designated campus pick up, should wait for a call to ensure transcript availability prior to attempting to retrieve the requested transcript.

#### ***OFFICIAL ACADEMIC TRANSCRIPT REQUEST – PAPER***

*Transcripts not ordered through the Clearinghouse require a minimum of three working days for processing.*

##### **STEP 1:**

If you need to request an official copy of your transcript, you will need to download a Transcript Request form. Transcripts are released only upon written request from the student with the student's signature and printed name plainly shown. E-mail requests cannot be accepted.

Transcripts can be ordered via the Web 24/7 through the National Student Clearinghouse. You can place as many orders as you like in one session using any major credit card. Your card will only be charged after your order has been completed. Order updates are available via mobile text message and will also be emailed to you. You can also track your order online using your email address and order number.

##### **STEP 2:**

Be sure to include your name, all previous names, addresses, phone numbers, student ID number (or social security number if you can't remember your C number), dates of attendance, and graduation date (if applicable) on the request.

##### **STEP 3:**

Include the complete address to which the transcript should be sent.

##### **STEP 4:**

Send completed transcript request and payment (\$10 per transcript) to the Office of the Registrar by mailing or faxing your complete form to:

**Office of the Registrar**  
**Blue Ridge CTC**  
13650 Apple Harvest Drive  
Martinsburg, WV 25403  
**FAX:** 304-260-4376

#### ***Financial Obligations***

All financial obligations must be reconciled before a transcript will be released.

#### ***Attention***

Transcripts picked up by students will be stamped ISSUED TO STUDENT. Such a transcript may not be acceptable to the person or institution receiving it.

## **Graduation**

### ***Application for Graduation for Associate Degrees***

Students **MUST** apply for graduation. For associate degrees, students within two semesters of graduation should check with their Academic Advisor to begin the graduation application process, which can be completed in BRIDGE. Generally, students wishing to graduate in May **MUST** apply for graduation by early October of the previous year. Students wishing to graduate in August or December **MUST** apply for graduation by early March of that same year. Specific deadlines for graduation application are listed in the Academic Calendar located in the Blue Ridge Community and Technical College Catalog or online at [www.blueridgectc.edu](http://www.blueridgectc.edu).

### ***Application for Graduation for Certificate Degree Programs***

For certificate programs, students within one semester of graduation should check with their academic advisor to begin the graduation application process.

Ultimately, it is the student's responsibility to initiate the graduation application and evaluation process. Failure to apply for graduation in a timely manner could result in the postponement of graduation for the student.

### ***Minimum Grade Point Average***

A minimum 2.0 grade point average (or a C average) is required for both: 1) all collegiate level course work attempted (overall GPA) and 2) all Blue Ridge Community and Technical College course work attempted (institutional GPA).

### ***Minimum Semester Hours***

The minimum number of semester hours for an associate's degree is 60 semester credit hours of courses numbered 100 and above. The required number of semester hours for each individual associate degree is listed in the Associate Degree Programs section of this catalog.

The minimum number of semester hours for a certificate degree program is 30 semester credit hours of courses numbered 100 and above.

### ***Residence (College) Credit Hours Required***

For an associate's degree, a student must complete at least 24 credit hours of course work institutionally, with the last 12 hours of course work being completed at Blue Ridge Community and Technical College.

For the Board of Governors, Occupational Development, and Technical Studies degrees, a student must complete at least 12 credit hours at a regionally accredited institution and at least 3 credit hours at Blue Ridge Community and Technical College.

For a certificate degree, a student must complete at least 12 credit hours of course work at any regionally accredited institution of higher education.

## **Support Services**

### **Bookstore**

Blue Ridge Community and Technical College has a dedicated bookstore located on the Main Campus and Technology Center. Students can purchase textbooks in the bookstore and can also order online through the website at [www.blueridgectc.edu](http://www.blueridgectc.edu). Textbooks must be picked up at the Technology Center. Other items are also sold within the bookstore including Blue Ridge apparel, software, study aids, etc. The current bookstore hours vary, extended hours may be available throughout the semester for book buyback and sales. Barnes and Noble has a free app for ease of service.

Barnes and Noble Blue Ridge Community and Technical College Book Order Website is [www.blueridgectc.edu/current-students/bookstore/](http://www.blueridgectc.edu/current-students/bookstore/).

### **Student ID Card**

Blue Ridge Community and Technical College students, upon enrollment, are provided a BRIDGE Student ID Card. This card should be visible at all times while on campus and must be presented upon request by administrators or faculty of Blue Ridge Community and Technical College for identification purposes. A \$5.00 fee is charged for the replacement of this card. Students are required to carry this card at all times. The BRIDGE card is property of Blue Ridge Community and Technical College and is nontransferable. Use of this card constitutes acceptance of the terms and conditions in effect at the time of use. Report lost, stolen, or found cards immediately to the Campus Security at 304-260-4380 ext 2250.

### **E2 Campus**

Blue Ridge and Technical College offers the E2 Campus Alert System to notify students of emergency situations and/or emergency closings. To sign-up for E2 Campus, text the word "safety" to #79516. For more information regarding E2 Campus, refer to the Student Handbook, section Student Services.

### **Computer Accounts**

All registered students are assigned a computer account upon registration. Students are required to obtain their account information over BRIDGE. Computer accounts allow students access and use of the Internet, email and various software in computer labs. College computers cannot be accessed without a username and password. For more information, visit the Information Technology Services website at [www.blueridgectc.edu](http://www.blueridgectc.edu).

## Library Services

Although Blue Ridge Community and Technical College does not offer a traditional library, it does offer Research Databases EBSCO Host which provides access to thousands of full-text, peer-reviewed journal articles and other academic resources. The E-Learning department provides support to students conducting research and locating scholarly resources for their coursework. For additional information regarding E-Learning Services, contact the E-Learning Help Desk at [ellearn@blueridgectc.edu](mailto:ellearn@blueridgectc.edu) or call them at 304-260-4380, extension 2349.

## Clubs and Orgs

Blue Ridge Community and Technical College has several clubs and special interest groups which meet the needs of a diverse student body. For a complete listing, refer to the Student Handbook, section Student Services.

## Phi Theta Kappa

Phi Theta Kappa International Honor Society serves to recognize and encourage the academic achievement of two-year college students and provide opportunities for individual growth and development through honors, leadership and service programming. To be eligible to join, a student must have a 3.5 GPA. For further information regarding Phi Theta Kappa, refer to the Student Handbook, section Student Services.

## Developmental Courses

- **ENGL 100** – English, grammar, usage and mechanics are emphasized, as well as academic writing. ENGL 100 is designed to provide a foundation for students as they transition into college-level writing coursework. The course examines each student's writing process, using a cumulative portfolio. Teaching strategies include individualized, conference-based instruction, peer writing workshops, grammar and usage review, academic, and rudimentary training in Microsoft Word and PowerPoint.
- **ENGL 100R** – The focus of this course is to develop college reading skills and vocabulary. Effective comprehension along with an emphasis on the application of these skills in college-level work is the goal. Tutors are available upon request.
- **MATH 100** – Students will learn how to perform operations on real numbers, the implications of exponents and the order of operations and how to evaluate algebraic expressions. The concepts of percents and their applications, introductory geometry, statistics, and problem solving skills will all be incorporated. Students will solve equations in one variable, solve literal equations for a variable, and evaluate/graph inequalities. Students will translate and solve algebraic equations, and learn the skills required to solve application problems in one and two variables. Students will interpret and graph linear equations as well as solving and analyzing systems of equations. Students may also be introduced to operations on polynomials.
- **MATH 100A** – Students will perform operations on polynomials, rational, and radical expressions. Students will use various methods to factor polynomials. Students will solve polynomial, rational and radical equations, and apply these skills to solving application



problems. The concept of functions will be introduced as well as their operations. Students will use interval notation to express the domain and range of a function.

## **Skills 101**

- SKILLS 101 (ENGL 100S and/or MATH 100S)
- SKILLS 101 is an intensive test preparation workshop designed for students who have taken placement testing but did not place into college-level English or mathematics courses and who want the options of restudy and retesting. This workshop will enhance the skills for successful placement into college-level English and mathematics courses. Students may choose to attend the workshops for one or both subject areas. Attendance is not a guarantee of placing into college-level English and/or mathematics when retesting. The workshops are recommended for students who had placement scores close, but not quite at college level, and for students who may have taken developmental English and/or mathematics course(s) and did not complete or failed the course(s).

## **Placement Testing/Assessment**

The standards for assessment and placement established by the West Virginia Council for Community and Technical College Education (Title 135 Series 21) are designed to establish uniform procedures for the placement of students in credit-bearing courses in Mathematics and English which can be applied toward an undergraduate academic degree.

Students may be exempted from taking placement tests/assessments by meeting any of the following criteria:

1. Student has already earned a degree from an accredited college (official transcripts must be submitted to the Office of Admissions).
2. Students who have previously taken and received a passing grade in a college level English and Math course from an accredited college (official transcripts must be submitted to the Office of Admissions).
3. Students with acceptable SAT/ACT scores (official score report must be submitted to the Office of Admissions). See chart below for acceptable scores.
4. Students with acceptable Compass, Accuplacer, or Asset scores from other accredited colleges (official score report must be submitted to the Office of Admission). Visit the Testing Center webpage to view the placement test chart.
5. Students with acceptable WV Grade 11 Assessment scores in English and Mathematics.

Students who do not meet these exemptions have the option of taking the placement tests/assessments. Students may also choose not to take the placement tests/assessments with the understanding that they must start with foundation courses for the subjects which they did not test.

Additional assessments may be available and used for course placement. Please contact the Testing Center about these options.

## **Disability Support Services**

Blue Ridge Community and Technical College is committed to "nondiscrimination" on the basis of disability in the areas of employment, program accessibility, admissions, treatment of students, academic adjustments, financial aid, employment assistance to students, and in nonacademic services. The Office of Student Success works with faculty and staff, as well as a number of community agencies, to arrange for assistance in obtaining appropriate accommodations. Refer to the Student Handbook, section Student Services for further information.

## **Student Conduct**

Students are expected to abide by the rules and regulations set forth in the Student Code of Conduct. The Student Code of Conduct reflects the College community's expectations and standards established for each of its members. The code and student judicial system are founded on principles of fairness and due process, and a commitment to the educational development of students, and are designed to balance the interests of the College community as a whole with the protection of students' individual liberties.

Disciplinary action on campus deals administratively and developmentally with prohibited or unacceptable student behavior in the College community. Any complainant may refer any student or organization to the Office of Student Success. Official College action will be taken when a student's or student group's behavior violates community standards, interferes either with the College's educational purpose, or with its duty to protect and preserve individual health, welfare and property. When the behavior is aggravated or presents a continuing danger to the College community, accused students are subject to separation from the institution.

Thus, the primary purpose of this Code is to serve the interests of both the Blue Ridge Community and Technical College community and the individual student by:

1. Establishing the College's authority to discipline students.
2. Outlining the general rights and responsibilities of students.
3. Asserting the specific standards of conduct expected of students.
4. Describing actions which can be taken when misconduct occurs.
5. Establishing procedures which ensure due process in the adjudication of complaints concerning students.
6. Imposing sanctions and/or providing conflict resolution in the College setting to protect, deter, and educate.

For further information regarding the standards, proscribed conduct and sanctions of students, refer to the Student Code of Conduct.

## **Title IX**

As a recipient of federal funds, Blue Ridge Community and Technical College is required to comply with Title IX of the Higher Education Amendments of 1972 which prohibits discrimination on the basis of sex in education programs or activities. Title IX states that, "No person in the United States shall, on the

basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance." Sexual misconduct, as defined in this policy, is a form of sex discrimination prohibited by Title IX. We encourage members of the campus community who experience any form of sexual misconduct discussed in this policy to contact our Blue Ridge Community and Technical College's Title IX Coordinator, Ann Paull, at 304-260-4380, extension 2126. Also, complaints can be submitted through the Blue Ridge Community and Technical College's website. For more information regarding Title IX, refer to the Blue Ridge Community and Technical College's website or Student Handbook, section Student Code of Conduct.

### **Violation of Student Rights**

Any student who believes that his/her rights were violated by a college employee may take the following actions:

1. Make an informal appeal to that employee's immediate supervisor.
2. If an acceptable solution is not reached, the student may continue informal appeals through organizational channels ending with a written decision from the Vice President of Enrollment Management.
3. If an acceptable solution is not reached at step 2, the student may, within 10 days after the date of the written decision, submit a written appeal to the chairperson of the Student Appellate Hearing Committee. The written appeal will state the circumstances pertaining to the case, the justification for the appeal and the remedy sought. The committee may render a decision on the written petition, request further information and documentation, or conduct a hearing.

The committee will render its decision as soon as possible after completion of the hearing. Any affected party dissatisfied with the decision of the committee may make a written appeal to the campus president within 10 calendar days after the date of the committee's written decision. The campus president, or designee, may, in part, affirm, reverse or modify the committee's decision. The president's decision will be rendered within 30 calendar days and will be final.

# Certificate Programs

## Agribusiness Certificate

The Agribusiness Certificate Program is geared for students seeking a challenging and exciting career in the agricultural industry. Over the course of the certificate program, you will learn concepts in business to include customer service, marketing, and business management. You will also choose between core classes in animal science or food production.

### Program Overview

The Agribusiness Program supplies local agricultural businesses with employees who have training in basic business disciplines as well as animal science or food production. The certificate program will be the first step in a career in agriculture. After completion of the certificate, students can enter the agriculture workforce in entry level positions. Positions many include agriculture retail, agricultural trade organizations, veterinary offices, produce markets, general farming businesses, and animal farming management.

### Career Opportunities

Agribusiness students may find rewarding careers in veterinary offices, farmers markets, farms, or animal science industries. Agribusiness students will have the opportunity to work in any state. Basic business and agriculture courses and training will allow certificate holders to be employed in a variety of industries and localities.

### Curriculum for a Certificate in Agribusiness

General Education Core 9

Agribusiness Core 21

**Total Credit Hours Required 30**

#### General Education Core

- CAS 111 - Information Literacy (3)
- ENGL 110 - ~Technical Writing & Communication (3)
- MATH 101 - ~Introduction to Mathematics (3)

**Subtotal Credit Hours Required 9**

## Agribusiness Core

Students can take any combination of Agribusiness Core Electives to total 21 credit hours.

- AGRB 101 - Agribusiness Introduction (3)
- AGRB 110 - Introduction to Animal Science (3)
- AGRB 112 - Intro to Equestrian Science (3)
- AGRB 113 - Intro to Swine Production (3)
- AGRB 114 - Intro Poultry, Goats, & Llamas (3)
- AGRB 115 - Intro to Cattle Production (3)
- AGRB 116 - Companion Animal Science (3)
- AGRB 120 - Intro to Food Production (3)
- AGRB 122 - Farm to Table & Microgardens (3)
- AGRB 124 - Licensing and Food Safety (3)
- AGRB 126 - Sustainable Agriculture (3)
- AGRB 128 - Intro to Crop Production (3)
- AGRB 130 - Customer Service Excellence (3)
- AGRB 140 - Agribusiness Marketing (3)
- AGRB 150 - Agribusiness Management (3)
- AGRB 160 - Intro to Farm Equipment (3)
- AGRB 170 - Agricultural Govt Relations (3)
- AGRB 292 - Agribusiness Internship (1-4)

**Subtotal Credit Hours Required 21**

## Applied Laboratory Technician Certificate

The Applied Laboratory Technician Certificate program prepares students to work in a variety of high demand laboratory careers. Our graduates will be able to work in manufacturing facilities such as chemical, pharmaceutical, food, or waste water treatment. At the facility they would monitor production processes or act as quality control technicians. Most laboratory technicians work on teams.

Other duties of an Applied Laboratory Technician may include adjusting process equipment to improve production efficiency and output, or collecting samples from production batches which then are tested for impurities and other defects. Applied Laboratory Technicians also test product packaging to make sure it is well designed, durable, and will have a limited impact on the environment.

After completing the Applied Laboratory Technician Certificate Program, the student will be able to do the following:

- Monitor chemical processes and test the quality of products to make sure that they meet standards and specifications.
- Set up and maintain laboratory instruments and equipment.
- Prepare chemical solutions.
- Conduct chemical and physical experiments, tests, and analysis for a variety of purposes.
- Compile results of tests and analysis.

\*The American Chemical Society Publication *Foundations for Excellence in the Chemical Process Industries. Voluntary Industry Standards for Chemical Process Industries Technical Workers* will be the guide to the Blue Ridge Community and Technical College's Chemical Operator Technician Program.

<http://www.bls.gov/ooh/life-physical-and-social-science/chemical-technicians.htm#tab-2>

### Curriculum for a Certificate in Applied Laboratory Technician

|                                    |           |
|------------------------------------|-----------|
| General Education Core             | 7         |
| Applied Laboratory Technician Core | 12        |
| Restricted Electives               | 11        |
| <b>Total Credit Hours Required</b> | <b>30</b> |

#### General Education Core

- ENGL 111 - Applied Technical Writing (4)
- MATH 102 - Technical Mathematics (3)

**Subtotal Credit Hours Required** 7

## Applied Laboratory Technician Core

- LTEC 101 - Laboratory Technician I (3)
- LTEC 102 - Laboratory Technician II (3)
- LTEC 111 - Laboratory Technician III (3)
- LTEC 112 - Laboratory Technician IV (3)

### **Subtotal Credit Hours Required**12

## Restricted Electives

The students can pick any 11 credits with approval from their advisor. Any LTEC course can be used as an restricted elective.

- CAS 111 - Information Literacy (3)
- LTEC 140 - Process Quality (3)
- LTEC 141 - Analytical Instrumentation (3)
- LTEC 142 - Instrument & Process Control (2)
- LTEC 143 - Process Technology-Operation (3)
- LTEC 144 - Process Technology-Systems (3)
- LTEC 160 - Water Operator I (3)
- LTEC 161 - Waste Water Operator I (3)
- LTEC 292 - Internship (1-4)
- ENGL 100 - English Essentials (3)
- MATH 100 - Math Essentials (3)
- MECH 260 - Process Control & Instrumentation (2)

## Baking and Pastry Certificate

If you have the motivation and passion, this sweet program gives you the skills to pursue a career in food service. Our classical, progressive, and artistic baking techniques position you for a promising career in the food service industry.

### Program Overview

Blue Ridge Community and Technical College Culinary Academy's Programs are designed to provide students with the practical knowledge and skills necessary to ensure successful employment in an entry to mid-level position within the food service and hospitality and tourism industry through a certificate or degree program.

To be eligible to earn a Blue Ridge Community and Technical College Certificate the student must be a current degree seeking student or complete the application and admissions process to the college.

Eligibility to earn and receive a Blue Ridge Community and Technical College Certificate does not interfere with the degree-seeking status of the student.

### Career Opportunities

Our program serves up the qualifications for you to begin a food service career in an entry-level bakery or pastry position. If you apply your talent and creativity and continue your education, you will ultimately move up the ladder within the food service industry.

### Curriculum for a Certificate in Baking and Pastry

|                                    |           |
|------------------------------------|-----------|
| General Education Core             | 6         |
| Baking and Pastry Core             | 24        |
| <b>Total Credit Hours Required</b> | <b>30</b> |

### General Education Core

- ENGL 110 - ~Technical Writing & Communication (3)
- MATH 101 - ~Introduction to Mathematics (3)

**Subtotal Credit Hours Required** 6



## Baking and Pastry Core

- CART 100 - Introduction to Culinary Food Service (2)
- CART 115 - Safety and Sanitation in the Food Service Industry (2)
- CART 120 - Bruin Cafe Lecture (1)
- CART 120L - Bruin Cafe Lab (3)
- CART 170 - Bread Fundamentals (1)
- CART 170L - Bread Fundamentals Lab (3)
- CART 212 - Baking Skills and Development (4)
- CART 245 - Cooking Fundamentals I Lecture (1)
- CART 245L - Cooking Fundamentals I Lab (2)
- CART 280 - Cake Design and Professional Decorating (4)
- Free Electives (1)

**Subtotal Credit Hours Required 24**

## Bookkeeping Certificate

The Bookkeeping Certificate is designed to develop the ideal skill set for an individual to become a bookkeeper – a position needed by all businesses. Students will learn and apply basic business, accounting and computer principles used by most small businesses. The goals of the certificate program are to prepare graduates to:

- Understand basic business and financial principles.
- Demonstrate competence in using industry standard business and financial software tools.
- Develop problem-solving and decision-making skills in maintaining an organizations book.
- Effectively record, report and communicate basic financial information.

### Curriculum for a Certificate in Bookkeeping

|                                    |           |
|------------------------------------|-----------|
| General Education Core             | 9         |
| Technical Core                     | 21        |
| <b>Total Credit Hours Required</b> | <b>30</b> |

#### General Education Core

- CAS 111 - Information Literacy (3)
- COMM 202 - ~Fundamentals of Speech (3) **OR**
- COMM 205 - ~Professional Communications (3)
- MATH 101 - ~Introduction to Mathematics (3)

**Subtotal Credit Hours Required 9**

#### Technical Core

- ACCT 180 - Personal Finance (3)
- ACCT 201 - Principles of Accounting I (3)
- ACCT 220 - Payroll Accounting (3) **OR**
- ACCT 261 - Individual Taxation (3)
- ACCT 280 - QuickBooks Accounting (3)
- BUSN 108 - Business Etiquette & Image (3)
- CAS 213 - Excel Complete (3)
- Restricted Electives (3)

**Subtotal Credit Hours Required 21**

## Restricted Electives

Any ACCT course 201 or higher (3) - not used above

- BUSN 205 - Business Ethics (3)
- CAS 100 - Introduction to Keyboarding (2)
- CAS 101 - Documents Processing (3)
- CAS 210 - Outlook Complete (3)
- CAS 211 - Word Complete (3)
- CAS 230 - Office Administration (3)
- LGST 212 - Business Law (3)

## Business and Technology Certificate

Designed to speed entry into a business environment, this certificate degree program equips students with knowledge of the business environment, commonly used computer application software, and trends affecting business and society. Crafted to meet the needs of employers and students alike, this program hones computer literacy, communication, and office administration skills for entry into a new workplace, or continued success within a current business environment.

### Program Overview

The Business and Technology Certificate combines general education and business courses for the purpose of serving students studying business, office technology, and information technology. This certificate assures employers that the student has an introductory knowledge of the business environment, commonly used office technology programs, and up and coming trends affecting business and society.

To be eligible to earn a Blue Ridge Community and Technical College Certificate the student must be a current degree-seeking student or complete the application and admissions process to the college. Eligibility to earn and receive a Blue Ridge Community and Technical College Certificate does not interfere with the degree-seeking status of the student.

### Career Opportunities

Communication and computer literacy skills open the door to a wide range of advancement opportunities in legal, corporate, non-profit, and government office settings.

### Curriculum for a Certificate in Business and Technology

|                                    |           |
|------------------------------------|-----------|
| General Education Core             | 9         |
| Technical Core                     | 21        |
| <b>Total Credit Hours Required</b> | <b>30</b> |

### General Education Core

- CAS 111 - Information Literacy (3)
- COMM 202 - ~Fundamentals of Speech (3) OR
- ENGL 110 - ~Technical Writing & Communication (3)
- ACCT 180 - Personal Finance (3) OR
- MATH 101 - ~Introduction to Mathematics (3) OR
- ECON 123 - ~Contemporary Economics (3)

**Subtotal Credit Hours Required**                      **9**

Technical Core

- BUSN 205 - Business Ethics (3) OR
- IT 105 - Computer Ethics (3)
- Practicum (Completion of CAS 192, CNET 192, CYBR 192, IT 191, or the NOCTI exam) (1)
- Restricted Electives in any ACCT, BUSN, CAS, CGEN, CLAN, CNET, CYBR, CJST, ECON, ENTR, FREN, IT, LGST, MDIA, PSYC, PSCI, SOCI or SPAN (17)

**Subtotal Credit Hours Required                      21**

## **Business Operations Certificate**

This certificate degree program offers students an overview of business operations and its legal, ethical, and regulatory environments. Student exposure can be in basic accounting and customer service functions, nonprofit management or marketing and sales. Verbal and written communication skills for the basis of this program to help make students even more competitive in the job market.

### **Program Goals**

The Business Operations Certificate is designed to lay a foundation of basic business principles required for success in the student's personal or career objectives. This 30 credit program can lead the student to finishing the Associates of Applied Science in Business and beyond to a baccalaureate program.

### Curriculum for a Certificate in Business Operations

General Education Core 9

Business Core 21

**Total Credit Hours Required 30**

### General Education Core

- COMM 202 - ~Fundamentals of Speech (3) OR
- COMM 205 - ~Professional Communications (3)
- ENGL 101 - ~Written English (3)
- MATH 105 - ~Algebra (3) OR
- MATH 108 - ~Pre-Calculus (4) OR
- MATH 114 - ~Elem Probability & Statistics (3) OR
- MATH 154 - ~Finite Mathematics (3)

**Subtotal Credit Hours Required 9**

### Business Core

- BUSN 101 - Introduction to Business (3) OR
- BUSN 201 - Principles of Management (3)
- ACCT 201 - Principles of Accounting I (3) OR
- BUSN 125 - Customer Service Management (3) OR
- BUSN 165 - Consumer Behavior (3) OR
- BUSN 175 - Human Resource Management I (3) OR
- FINC 201 - Principles of Finance I (3)
- BUSN 205 - Business Ethics (3)
- LGST 212 - Business Law (3)
- Any ACCT, BUSN, ECON, or FINC course (9)

**Subtotal Credit Hours Required 21**

## Certificate of Education

The Certificate of Education endorses a graduate's foundational knowledge of the art and science of teaching, contemporary issues in K-12 schooling, and the unique demands of the teaching profession. The curriculum promotes development of effective communication and problem-solving skills as well as an understanding of diversity in society. Graduates will be able to apply academic skills to their workplace experiences.

Students who earn the Education Certificate will be prepared for employment as a teacher's assistant, instructional aide, or paraprofessional in private schools, day care centers, community organizations, or certain public school districts.

### Curriculum for a Certificate of Education

General Education Core 6

Education Core 24

**Total Credit Hours Required 30**

#### General Education Core

- ENGL 101 - ~Written English (3)
- MATH 101 - ~Introduction to Mathematics (3)

**Subtotal Credit Hours Required 6**

#### Education Core

Suggested supplementary endorsement for career-entry: Praxis ParaPro exam delivered by ETS.

- ART 103 - ~Introduction to Visual Arts (3) **OR**
- MUSC 111 - ~Introduction to Music (3)
- PHYS 103 - ~General Physical Science I (4)
- PHYS 104 - ~General Physical Science II (4)
- COMM 202 - ~Fundamentals of Speech (3)
- EDUC 150 - Seminar in Education (1)
- EDUC 200 - Foundations of Education (3)
- GSPE 210 - Fitness for Life (3)
- HIST 101 - ~World History to 1500: Early Man Through the Renaissance (3) **OR**
- HIST 102 - ~World History Since 1500: The Renaissance Through the Present (3)

**Subtotal Credit Hours Required 24**

## Cisco Certified Network Associate (CCNA) Certificate

The Information Technology field is experiencing explosive growth and Cisco Certified professionals are needed throughout the region. This program will provide students with the essential knowledge to install, configure, and operate simple routed LANs and WANs and obtain Cisco™ Certified Network Associate (CCNA) certification.

### Program Overview

The Cisco Certified Network Associate program has been created to address the needs of businesses and organizations within the local West Virginia Community. Information Technology is a growing field in this area and the need for certified technicians is growing at a rapid rate. This program will address this need at a local level and allow for resident businesses and organizations to hire from a local pool of talent as opposed to hiring outside of the local community to address their needs. This program will provide the student with the essential knowledge to install, configure, and operate simple routed LANs and WANs and obtain Cisco™ Certified Network Associate (CCNA) certification. The student will gain knowledge of switched LAN Emulation networks made up of Cisco™ equipment. The program is a focused coverage of Cisco™ router configuration procedures, which will be mapped to exam objectives for the Cisco composite CCNA or Cisco partial ICND 1 and ICND 2 certification exams.

Students seeking a rapid path to employment may enroll in the Cisco Certified Network Associate Certification Program, which will provide the fundamental knowledge and skills required for employment in the Networking portion of the Information Technology field. Those seeking specific technical knowledge and a broader, more marketable understanding of the networking environment can pursue the Cisco Certified Network Associate Certificate option. Both programs are instructed by highly trained and credentialed faculty and incorporate technical modules, hands-on laboratories, and equipment training

Students in the Cisco Certified Network Associate program are subject to Blue Ridge Community and Technical College's requirements for admission, basic skills testing, and appropriate course placement, including developmental education courses, which may not count toward completion of the program. Blue Ridge Community and Technical College requirements regarding academic standards and student conduct also apply.

### Career Opportunities

Blue Ridge Community and Technical College provides the knowledge to gain entry-level jobs in the IT field. The program is an excellent starting point for students who are uncertain of their specific IT paths, but are considering a degree in computer network engineering.

### Curriculum for a Certificate in Cisco Certified Network Associate

|                                    |           |
|------------------------------------|-----------|
| General Education                  | 6         |
| CCNA Core                          | 24        |
| <b>Total Credit Hours Required</b> | <b>30</b> |



## General Education

- COMM 202 - ~Fundamentals of Speech (3) **OR**
- COMM 205 - ~Professional Communications (3) **OR**
- ENGL 101 - ~Written English (3) **OR**
- ENGL 102 - ~Writing for the Arts & Hum (3) **OR**
- ENGL 110 - ~Technical Writing & Communication (3)
- MATH 105 - ~Algebra (3) **OR**
- MATH 106 - ~Trigonometry (3)

**Subtotal Credit Hours Required6**

## CCNA Core

- CNET 121 - Network+ (3)
- CNET 131 - Introduction to Networks (4)
- CNET 141 - Route & Switch Essentials (4)
- CNET 192 - CNET Practicum (2)
- CNET 231 - Scaling Networks (4)
- CNET 241 - Connecting Networks (4)
- CYBR 160 - Security+ (3)

**Subtotal Credit Hours Required24**

## **Cisco Certified Network Professional (CCNP) Certificate**

The Cisco Certified Network Professional program has been created to address the expanding technology needs of businesses and organizations within the local West Virginia community. Designed to create a talent pool within our region, Blue Ridge Community and Technical College will equip students with essential knowledge to install, configure, operate, troubleshoot, and manage advanced routing protocols; campus-wide enterprise networks; advanced switching technologies; network security; Voice over IP (VOIP); and Quality of Service (QoS).

### **Program Overview**

Information Technology is a growing field in this area and the need for certified technicians is growing at a rapid rate. This program will address this need at a local level and allow for resident businesses and organizations to hire from a local pool of talent as opposed to hiring outside of the local community to address their needs.

Blue Ridge Community and Technical College is excited and proud to offer the advanced Cisco networking curriculum leading to the Cisco Certified Network Professional (CCNP) which will work in conjunction with the existing Cisco Certified Network Associate (CCNA) program. This program will provide students with the essential knowledge and experience to install, configure, operate, troubleshoot, and manage; advanced routing protocols, campus-wide enterprise networks, advanced switching technologies, network security, Voice over IP (VOIP), and Quality of Service (QoS). The program is mapped to the exam objectives for the four individual certifications required to obtain the CCNP.

Students seeking a rapid path to employment may enroll in the Cisco Certified Network Professional Certificate program. Those students seeking specific technical knowledge and a broader, more marketable understanding of networking can pursue the Cisco Networking Certificate option. Additionally, students may enroll in the A.A.S. degree, Computer Network Engineering Technologies in order to further augment their potential profitability. All programs are instructed by highly trained and credentialed faculty and incorporate technical modules, hands-on laboratories, and equipment training.

Students in any of the Cisco programs are subject to Blue Ridge Community and Technical College's requirements for admission, basic skills testing, and appropriate course placement, including developmental education courses, which may not count toward the completion of the program. Blue Ridge Community and Technical College requirements regarding academic standards and student conduct also apply.

### **Career Opportunities**

The Blue Ridge Community and Technical College Cisco certified network professional plan of study is designed to speed graduate transition into an entry-level position in networking. Students seeking a broader, more marketable understanding of networking may pursue the Cisco networking certificate option, or enroll in our degree program in computer network engineering technologies to strengthen earning power.

## Curriculum for a Certificate in Cisco Certified Network Professional

|                                    |           |
|------------------------------------|-----------|
| General Education                  | 6         |
| CCNP Core                          | 24        |
| <b>Total Credit Hours Required</b> | <b>30</b> |

### General Education Core

- ENGL 110 - ~Technical Writing & Communication (3)
- MATH 105 - ~Algebra (3)

**Subtotal Credit Hours Required**                      **6**

### CCNP Core

- CNET 192 - CNET Practicum (2)
- CNET 241 - Connecting Networks (4)
- CNET 265 - Advanced Routing (6)
- CNET 266 - Advanced Switching (4)
- CNET 267 - Advanced Troubleshooting (4)
- Restricted Electives in BUSN, CAS, CNET, CJST, CYBR, or IT (4)

**Subtotal Credit Hours Required**                      **24**

## Computer Aided Design Certificate

Blue Ridge Community and Technical College can help you ascend to a career in design. As the only collegiate CAD/BIM program in the Eastern Panhandle, we help you understand principles of design and apply them to government and industry standards. Throughout the program, our expert instructors train you in the techniques and cutting-edge technologies embraced by the industry today.

### Program Overview

The CAD/BIM program is a 30-hour training program in which students will use computer systems in the creation, modification, analysis, or optimization of a design. Computer Aided Design is the process of creating a technical drawing with the use of computer software. CAD software is used to increase the productivity of the designer, improve the quality of design, improve communications through documentation, and to create a database for manufacturing. Building Information Modeling is the creation of documents necessary for the design and construction of residential and commercial buildings, and all the systems within those buildings. Students will utilize state-of-the-art industry recognized software. 3D modeling is emphasized, and equipment such as 3D printers, CNC machinery, laser engravers, and plasma cutters are included in the program to develop the link between design and production.

This certificate program is designed to be diverse, preparing students to enter a variety of CAD and CAD-related fields. Students trained in CAD/BIM may find jobs in architecture, mechanical design, surveying, civil design or geographic information systems.

### Career Opportunities

The knowledge and skills you gain will help you secure entry-level employment on a design and construction team.

### Curriculum for a Certificate in Computer Aided Drafting

|                                    |           |
|------------------------------------|-----------|
| General Education Core             | 12        |
| Technical Core                     | 18        |
| <b>Total Credit Hours Required</b> | <b>30</b> |

#### General Education Core

- CAS 111 - Information Literacy (3)
- ENGL 110 - ~Technical Writing & Communication (3)
- MATH 102 - Technical Mathematics (3)
- Restricted Electives in COMM, ENGL, MATH, PSYC, or SOCI (3)

**Subtotal Credit Hours Required** 12

### Technical Core

- CAD 102 - CAD Applications (2)
- CAD 102L - CAD Applications Lab (2)
- CAD 106 - Intro to Civil CAD & Surveying (2)
- CAD 106L - Intro to Civil CAD Lab (1)
- CAD 108 - Geographic Information Systems (2)
- CAD 201 - 3D Modeling (1)
- CAD 201L - 3D Modeling Lab (2)
- CAD 205 - Building Information Modeling (1)
- CAD 205L - Building Info Modeling Lab (2)
- CAD 292 - CAD Internship (1-4) OR
- Restricted Electives in CAD or MECH (3)

**Subtotal Credit Hours Required 18**

## Computer Application Specialist Certificate

The Computer Applications Certificate combines traditional, professional and business communication with computer applications. Certifications such as Microsoft Word, Excel, and Windows work well with the electives in this certificate program.

To be eligible to earn a Blue Ridge Community and Technical College Certificate the student must be a current degree seeking student or complete the application and admissions process to the college. Eligibility to earn and receive a Blue Ridge Community and Technical College Certificate does not interfere with the degree seeking status of the student.

### Curriculum for a Certificate in Computer Application Specialist

|                                    |           |
|------------------------------------|-----------|
| General Education Core             | 6         |
| Technical Core                     | 24        |
| <b>Total Credit Hours Required</b> | <b>30</b> |

#### General Education Core

- COMM 202 - ~Fundamentals of Speech (3) OR
- ENGL 110 - ~Technical Writing & Communication (3)
- MATH 101 - ~Introduction to Mathematics (3)

**Subtotal Credit Hours Required**                      **6**

#### Technical Core

- BUSN 101 - Introduction to Business (3)
- CAS 192 - Business Support Practicum (1)
- CAS 211 - Word Complete (3)
- CAS 213 - Excel Complete (3)
- CAS 215 - Windows Complete (3)
- BUSN 205 - Business Ethics (3) OR
- IT 105 - Computer Ethics (3)
- Restricted Electives in any ACCT, BUSN, CAS, CNET, CYBR, ECON, IT, or MDIA (8)

**Subtotal Credit Hours Required**                      **24**

## Culinary Arts Certificate

Blue Ridge Community and Technical College Culinary Academy's Programs are designed to provide students with the practical knowledge and skills necessary to ensure successful employment in an entry to mid-level position within the food service and hospitality and tourism industry through a certificate or degree program.

Students will learn classical culinary techniques which include a wide variety of regional cuisines, baking fundamentals from scaling ingredients to designing and constructing elaborate centerpieces, along with courses that build on immersing the student into all aspects of culinary foundations such as nutrition, safety and sanitation, origins of food, food history, food cost, product efficiency, molecular gastronomy, speed, attention to detail and culinary artistry. Practical lab experiences will help to complete the well-rounded student for entry into the workforce. Students will be able to experience the flow of their product from creation to service in this degree program.

Students in the Culinary Art Programs are subject to the Blue Ridge Community and Technical College's requirements for admissions, basic skills testing, and appropriate course placement, including developmental education courses, which may not count toward completion of the program. Blue Ridge Community and Technical College Catalog requirements regarding academic standards, student conduct, and graduation procedures also apply.

### Curriculum for a Certificate in Culinary Arts

|                                    |           |
|------------------------------------|-----------|
| General Education Core             | 6         |
| Culinary Arts Core                 | 24        |
| <b>Total Credit Hours Required</b> | <b>30</b> |

### General Education Core

- ENGL 110 - ~Technical Writing & Communication (3)
- MATH 101 - ~Introduction to Mathematics (3)

**Subtotal Credit Hours Required** 6

### Culinary Arts Core

- CART 100 - Introduction to Culinary Food Service (2)
- CART 115 - Safety and Sanitation in the Food Service Industry (2)
- CART 120 - Bruin Cafe Lecture (1)
- CART 120L - Bruin Cafe Lab (3)
- CART 200 - International Cuisines Lecture (1)
- CART 200L - International Cuisines Lab (2)
- CART 201 - Stocks, Soups, and Sauces (3)
- CART 212 - Baking Skills and Development (4)

- CART 245 - Cooking Fundamentals I Lecture (1)
- CART 245L - Cooking Fundamentals I Lab (2)
- CART 246 - Cooking Fundamentals II (1)
- CART 246L - Cooking Fundamentals II Lab (2)

**Subtotal Credit Hours Required 24**



## **Early Childhood Certificate**

The Early Childhood Certificate Program prepares individuals to work with children from infancy through age eight in diverse learning environments. Students will combine learned theories with practice in actual settings working with young children under the supervision of qualified teachers. Course work includes child growth and development; physical/ nutritional needs of children; care and guidance of children; and communication skills with parents and children. Students will foster the cognitive/language, physical/motor, social/emotional, and creative development of young children.

Throughout the program, there is considerable emphasis placed on developing professional interaction styles consistent with fostering positive staff relationships, communication and collaboration with parents, knowledge of community resources, and multicultural awareness of the diverse populations with whom the student will work.

### **Career Opportunities**

Employment opportunities include preschools, childcare centers, family childcare, and/or other programs for young children. This certificate program can be taken part time or full time, and is designed for students who already work full-time, so classes are offered in the late afternoons and evenings. Because you do not have to follow a set course sequence, you can choose classes that best fit your schedule and specific interests.

The following ECED courses are verified to meet community program requirements for permanent authorization by the West Virginia Department of Education:

- ECED 103 - Early Language and Literacy (3)
- ECED 105 - Child Development (3)
- ECED 107 - Early Childhood Curriculum (3)
- ECED 165 - Assessment of Young Children (3)
- ECED 206 - Family/Community Engagement (3)
- ECED 220 - Early Childhood Inclusion (3)

### Curriculum for a Certificate in Early Childhood

General Education Core 6

Early Childhood Core 24

**Total Credit Hours Required 30**

## General Education Core

- CAHS 210 - Human Growth & Development (3) OR
- ENGL 110 - ~Technical Writing & Communication (3)
- MATH 101 - ~Introduction to Mathematics (3)

**Subtotal Credit Hours Required** 6

## Early Childhood Core

Choose 24 credits with approval from advisor:

- APTR 101 - ACDS: Introductory Child Development (5)
- APTR 102 - ACDS: Planning for the Whole Child (5)
- APTR 103 - ACDS: Facilitation of Learning (5)
- APTR 104 - ACDS: Becoming Independent (5)
- ECED 101 - Found of Early Childhood Ed (3)
- ECED 103 - Early Language and Literacy (3)
- ECED 105 - Child Development (3)
- ECED 106 - Health, Nutrition and Safety (3)
- ECED 107 - Early Childhood Curriculum (3)
- ECED 165 - Assessment of Young Children (3)
- ECED 206 - Family/Community Engagement (3)
- ECED 220 - Early Childhood Inclusion (3)

**Subtotal Credit Hours Required** 24

## **Electric Distribution Engineering Technology Certificate**

Students looking for a fast-track to a highly skilled job should consider a career as a lineworker. The program, which is endorsed by the Utility Workers Union of America Local 102, provides hands-on laboratories, such as pole training and equipment labs, ensuring that you will be ready to enter the workforce upon completion of the program.

### **Program Overview**

The Electric Distribution Engineering Technology program was created through a partnership between Blue Ridge Community and Technical College and Allegheny Energy, providing educational opportunities for a field which has typically been limited to internal apprenticeship opportunities. Through this program, endorsed by the Utility Workers Union of America (UWUA) Local 102, students will learn the skills necessary to become lineworker.

The Electric Lineworker Program is designed to provide the technical skills required for new utility workers. Traditional academic instruction gives students an understanding of the technology fueling today's electrical utilities, while hands-on laboratories, such as pole training areas and equipment labs, ensure that students are prepared for the job on day one.

Students in the Electric Distribution Engineering Technology program are subject to Blue Ridge Community and Technical College's requirements for admission, basic skills testing, and appropriate course placement, including developmental education courses, which may not count toward completion of the program. Blue Ridge Community and Technical College requirements regarding academic standards, student conduct, and graduation procedures also apply.

### **Career Opportunities**

Upon obtaining your certificate, you will be ready to embark upon a career as a lineworker. Lineworkers maintain an astounding 99% hire rate, and earn an average of \$30,000 to \$50,000 per year.

*Note: All salary estimations are based on current position and educational trends. Blue Ridge Community and Technical College cannot guarantee that the projections given will be the salaries students or graduates will ultimately receive.*

## **Curriculum for a Certificate in Electric Distribution Engineering Technology**

General Education Core 7

EDET Technical Core 23

**Total Credit Hours Required 30**

General Education Core

- ENGL 111 - Applied Technical Writing (4)
- MATH 102 - Technical Mathematics (3)

**Subtotal Credit Hours Required 7**

## EDET Technical Core

- EDET 101 - Intro to Line Worker (2)
- EDET 102 - Fundamentals of Electric Power Distribution (2)
- EDET 103 - Heavy Equipment Familiarization (2)
- EDET 120 - Adv Pole Working Workshop (1)
- EDET 121 - Safety for Electrical Line Workers (2)
- EDET 130 - Underground Line Maintenance (2)
- EDET 131 - Substation Basics (2)
- EDET 140 - Overhead Line Maintenance (1)
- EDET 150 - Fundamentals of Electricity (4)
- EDET 180 - Building Better Relationships (2)
- EDET 295 - Practicum Skills Evaluations (1-4)
- MATH 100 - Math Essentials (3) or other approved Restricted Electives

**Subtotal Credit Hours Required 23**

## Food Service Retail Management Certificate

This economical, practical certificate program prepares you with the skills to enter the food service industry as a manager. Over the course of the program, you will learn classical culinary techniques, nutrition, safety and sanitation, food origin and history, molecular gastronomy, and culinary artistry. You will assist in the maintenance of a functional retail operation and become exposed to front and back of the house leadership activities, critical thinking, customer service, and human relations.

### Program Overview

Students will learn classical culinary techniques which include a wide variety of regional cuisines, baking fundamentals from scaling ingredients to designing and constructing elaborate centerpieces, along with courses that build on immersing the student into all aspects of culinary foundations such as nutrition, safety and sanitation, origins of food, food history, food cost, product efficiency, speed, attention to detail and culinary artistry. Practical lab experiences will help to complete the well-rounded student for entry into the workforce. Students will be able to experience the flow of their product from creation to service in this degree program.

Food Service Retail Management students will assist in the maintenance of a functional retail operation and become exposed to front and back of the house leadership activities, critical thinking, customer service and human relations management and finally an entrepreneurial business plan exercise to launch their own food service conception.

To be eligible to earn a Blue Ridge Community and Technical College Certificate the student must be a current degree-seeking student or complete the application and admissions process to the college. Eligibility to earn and receive a Blue Ridge Community and Technical College Certificate does not interfere with the degree-seeking status of the student.

### Career Opportunities

Upon graduation, you will be prepared to take on front and back of house operations and management positions within the industry. If you are an aspiring entrepreneur, completing a business plan within the program will prepare you to launch your own food service empire.

### Curriculum for a Certificate in Food Service Retail Management

|                                     |           |
|-------------------------------------|-----------|
| General Education Core              | 6         |
| Food Service Retail Management Core | 24        |
| <b>Total Credit Hours Required</b>  | <b>30</b> |

### General Education Core

- ENGL 110 - ~Technical Writing & Communication (3)
- MATH 101 - ~Introduction to Mathematics (3)

### Subtotal Credit Hours Required 6

## Food Service Retail Management Core

- BUSN 101 - Introduction to Business (3)
- BUSN 201 - Principles of Management (3)
- CART 115 - Safety and Sanitation in the Food Service Industry (2)
- CART 120 - Bruin Cafe Lecture (1)
- CART 120L - Bruin Cafe Lab (3)
- CART 201 - Stocks, Soups, and Sauces (3)
- CART 204 - Inventory and Purchasing (3)
- CART 245 - Cooking Fundamentals I Lecture (1)
- CART 245L - Cooking Fundamentals I Lab (2)
- CART 246 - Cooking Fundamentals II (1)
- CART 246L - Cooking Fundamentals II Lab (2)

**Subtotal Credit Hours Required 24**

## Forensic Science Certificate

The Certificate in Forensic Science introduces students to the many intricacies involved in applying science and technology to investigate and establish facts relating to criminal law or civil matters. The key principles of criminal forensic science and the human body are the focus of the certificate program. Students are required to select classes within criminal justice and related disciplines that provide the tools to understanding the field of forensics. Students in the program focus on learning the criminal justice system, forensics fundamentals, and criminal investigations. The Forensic Science certificate provides a path for career growth and can assist students meet their academic goals.

### Career Opportunities

Students can look at going into entry level work in hospitals, a private laboratory, coroner's offices, or a pathway into the police academy.

### Curriculum for a Certificate in Forensic Science

General Education Core 12

Forensic Science Core 18

**Total Credit Hours Required 30**

#### General Education Core

- BIOL 100 - The Human Body (3)
- CAS 111 - Information Literacy (3)
- ENGL 101 - ~Written English (3)
- MATH 101 - ~Introduction to Mathematics (3)

**Subtotal Credit Hours Required 12**

#### Forensic Science Core

- CJST 190 - Introduction to Computer Forensics (3)
- CJST 200 - Intro Crim Justice Sys (3)
- CJST 210 - Introduction to Forensic Science (3)
- CJST 220 - Criminal Investigation (3)
- CJST Elective - Any CJST course not used above (3)
- LGST 230 - Criminal Law and Procedure (3)

**Subtotal Credit Hours Required 18**

## Homeland Security Certificate

Designed in response to our nation's growing homeland security needs, the Blue Ridge Community and Technical College certificate in homeland security will equip students with knowledge and preparation for entry-level careers in domestic and international issues. Graduates will emerge from our program with an understanding of criminal justice, government operations, homeland security, terrorist activity, and prevention efforts.

### Program Overview

The Homeland Security Certificate will introduce students to the Department of Homeland Security, domestic and international terrorism issues, and strategies for countering terrorist threats. The key principles of emergency management and disaster planning will be presented. Students are required to select electives within the Criminal Justice course offerings that complement career and academic goals.

To be eligible to earn a Blue Ridge Community and Technical College Certificate the student must be a current degree-seeking student or complete the application and admissions process to the college. Eligibility to earn and receive a Blue Ridge Community and Technical College Certificate does not interfere with the degree-seeking status of the student.

### Career Opportunities

A certificate in homeland security gives graduates the opportunity to work in many different arenas in government, border patrol, police/dispatch, security, and emergency management.

### Curriculum for a Certificate in Homeland Security

General Education Core 15

Homeland Security Core 15

**Total Credit Hours Required 30**

### General Education Core

- CAS 111 - Information Literacy (3)
- ENGL 101 - ~Written English (3)
- MATH 101 - ~Introduction to Mathematics (3)
- PSCI 101 - ~American Federal Government (3)
- PSYC 203 - ~Introduction to Psychology (3) **OR**
- SOCI 203 - ~General Sociology (3)

**Subtotal Credit Hours Required 15**



### Homeland Security Core

- CJST 200 - Intro Crim Justice Sys (3)
- CJST 215 - Introduction to Homeland Security (3)
- CJST 225 - Terrorism (3)
- CJST - Any Criminal Justice course (3)
- LGST 230 - Criminal Law and Procedure (3)

**Subtotal Credit Hours Required 15**

## Information Security Certificate

Blue Ridge Community and Technical College delivers the Information Security Certificate program through courses that are designed to introduce students to programming, security basics, network monitoring, risk assessment, and ethical hacking. These courses, in conjunction with other foundational courses, give students the technical aptitude for a career in information security.

Students will be introduced to security and risk assessment via courses already offered and cataloged by the college in the beginning of their sequence of training.

The programming languages, monitoring, and ethical hacking courses taken after the completion of foundational courses will provide students with the skills and knowledge to obtain industry certifications such as the CompTIA Security+ and the Certified Ethical Hacker professional certifications.

### Curriculum for a Certificate in Information Security

|                                    |           |
|------------------------------------|-----------|
| General Education Core             | 6         |
| Technical Core                     | 24        |
| <b>Total Credit Hours Required</b> | <b>30</b> |

#### General Education Core

- COMM 202 - ~Fundamentals of Speech (3) OR
- COMM 205 - ~Professional Communications (3) OR
- ENGL 110 - ~Technical Writing & Communication (3)
- MATH 105 - ~Algebra (3)

**Subtotal Credit Hours Required**                      **6**

#### Technical Core

- CNET 121 - Network+ (3)
- CYBR 160 - Security+ (3)
- CYBR 192 - Practicum (1)
- CYBR 210 - Intrusion Detection (3)
- CYBR 281 - Ethical Hacking (3)
- IT 185 - Introduction to Linux (3)
- IT 188 - Introduction to Programming Logic (3)
- IT 204 - Windows Fundamentals (3)
- Restricted Electives in any CJST, CNET, CYBR, or IT (2)

**Subtotal Credit Hours Required** **24**

## Instrumentation Certificate

If you seek a hands-on career in the high-tech industry, and quick entry into the job market, consider a certificate as an Instrumentation Technician. Our program prepares you to be an effective, interdisciplinary problem solver. You will learn to apply knowledge of mathematics, science, and engineering used in automated manufacturing, and process control. You will become efficient at controlling a variety fluid processes to control temperature, level and pressure.

### Program Overview

The Instrumentation program supplies local industries with knowledgeable technicians who can operate, maintain, and perform preventative and routine maintenance on process control devices. The program is designed to prepare workers to pass the ISA Instrumentation certification exam.

Students will gain understanding of the technology utilized in processing industries. Hands-on laboratories, in areas such as electricity and electronics, fluid power, and the basics of programmable logic controllers will assure the students are "work ready". This program will give students a skill set that pave the way for a continuation into the Mechatronics A.A.S. program to become a certified technician.

### Career Opportunities

Instrumentation Technicians are in high-demand around the globe, earning an average of \$16 – \$20 per hour, depending on their geographic region. Prospective employers in the region include: Proctor and Gamble, EcoLab, Hood, Rustoleum and other firms in West Virginia, Maryland, Northern Virginia, and Southern Pennsylvania.

*Note: All salary estimations are based on current position and educational trends. Blue Ridge Community and Technical College cannot guarantee that the projections given will be the salaries students or graduates will ultimately receive.*

### Curriculum for a Certificate in Instrumentation

General Education Core 6

Technical Core 24

**Total Credit Hours Required 30**

#### General Education Core

- ENGL 110 - ~Technical Writing & Communication (3)
- MATH 102 - Technical Mathematics (3)

**Subtotal Credit Hours Required 6**

#### Technical Core

- INST 165 - Instrumentation I (2)

- INST 265 - Instrumentation II (3)
- MECH 106 - Electricity & Electronics (2)
- MECH 106L - Electricity & Electronics Lab (2)
- MECH 120 - Fluid Power (3)
- MECH 121 - Safety Awareness & OSHA 10 (2)
- MECH 207 - Advanced Electronics (1)
- MECH 207L - Advanced Electronics Lab (2)
- MECH 230 - Industrial Controls (2)
- MECH 250 - Intro to PLC (Programmable Logic Controllers) (3)
- Restricted Electives in any CAD, INST, MECH, RENG, or ROB (2)

**Subtotal Credit Hours Required 24**

## Justice System Certificate

The Blue Ridge Community and Technical College Certificate in Justice System will help students gain entry-level skills for a variety of positions in criminal justice and law. Blue Ridge Community and Technical College will educate students in the skills of the criminal justice system, forensic science, and criminal investigations.

### Program Overview

The Justice System Certificate will introduce students to the criminal justice system. Topics covered are not limited to, but will include forensic science, corrections, law enforcement, investigations, the juvenile justice system, and careers in the field.

To be eligible to earn a Blue Ridge Community and Technical College Certificate the student must be a current degree-seeking student or complete the application and admissions process to the college.

Eligibility to earn and receive a Blue Ridge Community and Technical College Certificate does not interfere with the degree-seeking status of the student.

### Career Opportunities

Blue Ridge Community and Technical College graduates secure entry-level employment in corrections and victim service agencies, local police and dispatch, as well as retail security and loss prevention. The Justice System Certificate is the perfect stepping-stone to a four-year degree.

### Curriculum for a Certificate in Justice System

|                                    |           |
|------------------------------------|-----------|
| General Education Core             | 15        |
| Justice Core                       | 15        |
| <b>Total Credit Hours Required</b> | <b>30</b> |

### General Education Core

- CAS 111 - Information Literacy (3)
- ENGL 101 - ~Written English (3)
- MATH 101 - ~Introduction to Mathematics (3)
- PSCI 101 - ~American Federal Government (3)
- PSYC 203 - ~Introduction to Psychology (3) OR
- SOCI 203 - ~General Sociology (3)

**Subtotal Credit Hours Required**                      **15**

## Justice Core

- CJST 200 - Intro Crim Justice Sys (3)
- CJST 210 - Introduction to Forensic Science (3)
- CJST 220 - Criminal Investigation (3)
- CJST Elective-Any Criminal Justice course not used above (3)
- LGST 230 - Criminal Law and Procedure (3)

**Subtotal Credit Hours Required                      15**

## Legal Office Assistant Certificate

This hands-on certificate program provides graduates with the basic skills to gain entry-level employment in the fast-paced legal field. Over the course of study students will learn the basics of legal research and writing, document processing, computer applications, and legal assisting.

### Program Overview

The Legal Office Assistant Certificate is the first year of the A.A.S. Paralegal Studies Degree. This certificate also serves secretaries, administrative assistants, and office managers who are interested in law and procedure. This certificate represents the foundation of knowledge that may be applied in a variety of legal office situations.

To be eligible to earn a Blue Ridge Community and Technical College Certificate the student must be a current degree-seeking student or complete the application and admissions process to the college. Eligibility to earn and receive a Blue Ridge Community and Technical College Certificate does not interfere with the degree-seeking status of the student.

### Career Opportunities

Blue Ridge Community and Technical College graduates secure employment in a number of settings, including magistrate courts, circuit/district courts, prosecutor's offices, public defender offices, and private law offices. Graduates may further their education and earning potential by pursuing an associate degree in legal studies or criminal justice.

*Note: All salary estimations are based on current position and educational trends. Blue Ridge Community and Technical College cannot guarantee that the projections given will be the salaries students or graduates will ultimately receive.*

### Curriculum for a Certificate in Legal Office Assistant

|                                    |           |
|------------------------------------|-----------|
| General Education Core             | 15        |
| Legal Office Core                  | 15        |
| <b>Total Credit Hours Required</b> | <b>30</b> |

### General Education Core

- CAS 111 - Information Literacy (3)
- COMM 202 - ~Fundamentals of Speech (3)
- ENGL 101 - ~Written English (3)
- MATH 101 - ~Introduction to Mathematics (3)
- PSYC 203 - ~Introduction to Psychology (3) OR
- SOCI 203 - ~General Sociology (3)

**Subtotal Credit Hours Required**                      **15**

## Legal Office Core

- LGST 100 - Intro to Law & Legal Systems (3)
- LGST 103 - Legal Terminology (3)
- LGST 150 - Legal Research and Writing (3)
- LGST 230 - Criminal Law and Procedure (3)
- LGST Electives (3)

**Subtotal Credit Hours Required 15**



## Machine Operator/Mechatronics Assistant Certificate

### Program Description

If you seek a hands-on career in the high-tech industry, and quick entry into the job market, consider a certificate as a Certified Machine Operator and Mechatronics Assistant. Our program prepares you to be an effective, interdisciplinary problem solver. You will learn to apply knowledge of mathematics, science, and engineering used in manufacturing, distribution, and processing. You will become efficient at operating complex machinery, while troubleshooting and foreseeing production problems before they arise.

### Program Overview

The Assistant Mechatronics program supplies local industries with knowledgeable machine operators who can operate, maintain, and perform preventative and routine maintenance on a variety of industrial equipment. The program is designed to prepare workers to pass the Key Train Applied Technology test, which many local employers required for employment. Program completers can also test to become Siemens Certified Assistant Technicians. This certification is recognized worldwide and will open many employment opportunities.

Students will gain understanding of the technology utilized in modern distribution and processing industries. Hands-on laboratories, in areas such as electricity and electronics, mechanics, fluid power, motor controls, and the basics of programmable logic controllers will assure the students are "work ready". This program will give students a skill set that will make them immediately employable, and also pave the way for a continuation into the Mechatronics A.A.S. program to become a certified technician. Internships are available.

### Career Opportunities

Machine Operators are in high-demand around the globe, earning an average of \$12 – \$16 per hour, depending on their geographic region and the machine they operate. Prospective employers in the region include: EcoLab, Quad Graphics, Ply Gen, Brentwood Industries, American Woodmark, Monoflo, O'Sullivan, Cenetic Landis, Automated Merchandising Systems, New World Pasta, and other firms in West Virginia, Maryland, Northern Virginia, and Southern Pennsylvania.

Many of these employers have tuition assistance programs, which will help the student to continue their education, toward an A.A.S. in Mechatronics.

*Note: All salary estimations are based on current position and educational trends. Blue Ridge Community and Technical College cannot guarantee that the projections given will be the salaries students or graduates will ultimately receive.*

### Curriculum for a Certificate in Machine Operator/Mechatronics Assistant

|                        |    |
|------------------------|----|
| General Education Core | 9  |
| Technical Core         | 21 |

**Total Credit Hours Required**

**30**

General Education Core

- CAS 111 - Information Literacy (3)
- ENGL 110 - ~Technical Writing & Communication (3)
- MATH 102 - Technical Mathematics (3)

**Subtotal Credit Hours Required 9**

Technical Core

- MECH 101 - Introduction to Mechatronics (1)
- MECH 101L - Intro to Mechatronics Lab (2)
- MECH 106 - Electricity & Electronics (2)
- MECH 106L - Electricity & Electronics Lab (2)
- MECH 110 - Mechanical Systems I (3)
- MECH 120 - Fluid Power (3)
- MECH 121 - Safety Awareness & OSHA 10 (2)
- MECH 201 - Systematic Troubleshooting (3)
- MECH 250 - Intro to PLC (Programmable Logic Controllers) (3)

**Subtotal Credit Hours Required 21**

## Medical Assisting Certificate

Our program prepares you with the skills to deliver quality care in a variety of settings. Our balance of academic and clinical components gives you the knowledge and hands-on opportunities to perform administrative and clinical procedures with confidence.

### Program Overview

This certificate program is designed for the student interested in an entry level position as a medical assistant in a medical office. The program provides lecture as well as competency based training in both administrative and clinical procedures. There is also a non-compensated externship experience in which students work in an actual ambulatory care setting. Externship sites may have their own requirements that students must meet prior to their externship experience. Medical assisting certificate students must maintain a grade of "C" or better in all required courses. Students must provide appropriate health records that include a history and physical, required immunizations, and a negative TB test prior to externship. Students must also have current American Heart Association's "Healthcare Provider" CPR certification as well as First Aid certification and meet the program's technical standards. Also, Students will undergo a background check and drug screen prior to externship. Any negative findings may prohibit a student from participating in their externship, and thus not be able to complete the Medical Assisting certificate program. Students who successfully complete the program are required to sit for the American Medical Technologists' national certification exam in medical assisting \*.

To be eligible to earn a Blue Ridge Community and Technical College Certificate the student must be a current degree-seeking student or complete the application and admissions process to the college. Eligibility to earn and receive a Blue Ridge Community and Technical College Certificate does not interfere with the degree-seeking status of the student.

*\* In order to sit for the American Medical Technologists' national certification exam in medical assisting, graduate must have proof of High School diploma or G.E.D.*

### Career Opportunities

As a medical assistant, you will work primarily in outpatient care settings under the direction of physicians.

### Curriculum for a Certificate in Medical Assisting

|                                    |           |
|------------------------------------|-----------|
| General Education Core             | 9         |
| Medical Core                       | 30        |
| <b>Total Credit Hours Required</b> | <b>39</b> |

### General Studies Core

- BIOL 100 - The Human Body (3)
- ENGL 110 - ~Technical Writing & Communication (3)

- MATH 101 - ~Introduction to Mathematics (3)

**Subtotal Credit Hours Required                    9**

### Medical Core

- CAHS 141 - Intro to Pharmacology (3)
- MAST 101 - Introduction to Medical Assisting (3)
- MAST 102 - Medical Terminology (3)
- MAST 105 - Insurance Billing & Coding (3)
- MAST 106 - Medical Office Management (2)
- MAST 106L - Medical Office Management Lab (1)
- MAST 202 - Clinical Medical Assistant I (2)
- MAST 202L - Clinical Medical Assistant I Lab (1)
- MAST 206 - Clinical Medical Assistant II (2)
- MAST 206L - Clinical Medical Assistant II Lab (1)
- MAST 214 - MA Review and Certification Prep (2)
- MAST 216 - Clinical & Administrative Externship (4)
- PLBT 101 - Phlebotomy (3)

**Subtotal Credit Hours Required                    30**

## Medical Coding Specialist Certificate

This certificate degree program will prepare the student to become a specialist in Medical Coding. The Medical Coding Specialist will review patients' records and assign alphanumeric codes for each diagnosis and procedure codes performed by the medical provider. Through detailed instruction including professional practicum experience, the student will possess the expertise in ICD10 and CPT coding systems and will gain knowledge in medical terminology, disease processes and pharmacology. Student may sit for National Credentialing testing with AHIMA (American Health Information Management Association) or AAPC (American Academy of Professional Coders).

### Curriculum for an Certificate in Medical Coding Specialist

General Education Core 12

Medical Coding Core 18

**Total Credit Hours Required 30**

#### General Education Core

- BIOL 100 - The Human Body (3)
- CAS 111 - Information Literacy (3)
- ENGL 110 - ~Technical Writing & Communication (3)
- MATH 101 - ~Introduction to Mathematics (3)

**Subtotal Credit Hours Required 12**

#### Medical Coding Core

- CAHS 142 - Pathophysiology of Disease (3)
- HIM 101 - Health Info Management (2)
- HIM 102 - Classification Sys 1 ICD-10 (3)
- HIM 201 - Classification Sys II CPT (3)
- HIM 201L - Practicum I: ICD 10 CM & CPT 4 (2)
- HIM 203 - Basic Pharmacology for HIM (2)
- MAST 102 - Medical Terminology (3)

**Subtotal Credit Hours Required 18**

## Network Specialties Certificate

The Networking Specialties Certificate degree program is designed to address the needs of businesses and organizations within the local community. The field of Information Technology is growing regionally, and the need for certified technicians is advancing at a rapid rate. This course of study will provide the advanced training required to install, configure, and operate simple routed LANs and WANs, and to obtain the Cisco™ Certified Network Associate(CCNA) certification. The program also provides the essential knowledge and skills required for employment in the Networking portion of the Information Technology Field.

The student will gain knowledge of switched LAN Emulation networks made up of Cisco™ equipment. The program is a focused coverage of Cisco™ router configuration procedures, which will be mapped to the exam objectives and prepare you for Cisco Exam 640-802 or for Cisco Exam 640-822 and 640-816. This program will also provide students with the knowledge to implement security on network devices, design, implement, manage, and troubleshoot wireless, as well as, design campus and enterprise network infrastructures. These courses will be mapped to the exam objectives for the CCNA: Security, CCNA: Wireless, and CCDS certification exams.

### Program Outcomes

Students completing the Networking Specialties Certificate in Computer Network Engineering will:

- Understand technical focused aspects of semi-advanced security features to secure data and network communications.
- Develop the necessary understanding and hands-on skills to create and maintain basic Virtualized Cloud based VM networks.
- Develop knowledge and hands-on skills of specialized aspects of networks, going deeper into CCNA focused security, wireless networks, voice and data hybrid networks, and effective approaches to creating well designed networks.
- Develop the necessary communication skills to be able to coordinate and work on a team project, how to troubleshoot logical and design errors along with technical errors, and be able to provide clear and effective documentation of a project to aid future work such as maintenance and upgrades.
- Possess the necessary knowledge and experience to obtain the industry recognized core CCNA and three CCNA specialization certifications.

Curriculum for a Certificate in Networking Specialties

General Education Core 6

Technical Core 24

**Total Credit Hours Required 30**

### General Education Core

- ENGL 101 - ~Written English (3) **OR**
- ENGL 110 - ~Technical Writing & Communication (3)
- MATH 105 - ~Algebra (3) **OR**
- MATH 106 - ~Trigonometry (3)

**Subtotal Credit Hours Required 6**

### Technical Core

- CNET 192 - CNET Practicum (2)
- CNET 241 - Connecting Networks (4)
- CNET 250 - CCNA Security (4)
- CNET 251 - CCNA: Wireless (4)
- CNET 270 - Intro to Virtualization (4)
- Restricted Electives-see list (6)

**Subtotal Credit Hours Required 24**

### Restricted Electives

Choose 6 credits of restricted electives from the list below:

- CYBR 160 - Security+ (3)
- CYBR 190 - Security Assessment (3)
- CYBR 210 - Intrusion Detection (3)
- CYBR 220 - Wireless Security (3)
- CYBR 250 - Internet Security (3)
- CYBR 280 - Network Defense and Countermeasures (3)

## Organizational Leadership Development Certificate

For students currently employed and wanting to boost leadership potential, the organizational leadership development certificate accelerates professional goals. The Blue Ridge Community and Technical College leadership-training program takes a practical look at organizational culture and its effect on employee behavior; human resource functions; and the techniques and communication skills necessary in a team-oriented business environment.

### Program Overview

The Certificate in Organizational Leadership Development focuses on the study of leadership in organizations in which students develop an understanding of how an organization operates. Students will learn how leadership is important in every organization, how change impacts the individual and the organization, and how the role of a leader is a major function of management.

To be eligible to earn a Blue Ridge Community and Technical College Certificate the student must be a current degree-seeking student or complete the application and admissions process to the college. Eligibility to earn and receive a Blue Ridge Community and Technical College Certificate does not interfere with the degree-seeking status of the student.

### Career Opportunities

Blue Ridge Community and Technical College Certificate in Organizational Leadership development will give graduates the strategies needed to run an effective team environment. The practical knowledge received will increase advancement opportunities in a range of fields, and serve as a stepping-stone to an associate degree.

### Curriculum for a Certificate in Organizational Leadership Development

|                                    |           |
|------------------------------------|-----------|
| General Education Core             | 9         |
| Leadership Core                    | 21        |
| <b>Total Credit Hours Required</b> | <b>30</b> |

### General Education Core

- COMM 202 - ~Fundamentals of Speech (3) OR
- COMM 205 - ~Professional Communications (3)
- ENGL 101 - ~Written English (3)
- MATH 101 - ~Introduction to Mathematics (3)

**Subtotal Credit Hours Required**9



Leadership Core

- BUSN 205 - Business Ethics (3)
- Workforce Development Leadership Development Program (18)

**Subtotal Credit Hours Required**21

## **Paramedicine Certificate**

The Paramedicine Certificate is designed for students who are interested in pursuing jobs in the out of hospital setting. Prior to application to the Paramedicine program, all students are required to have taken the Emergency Medical Technician-Basic (EMT-B) or Emergency Medical Technician (EMT) course, which meets the U.S. Department of Transportation's National EMS Education Standards for EMT-B or EMT and possess a current card. The clinical concentration within the Paramedic degree meets the U.S. Department of Transportation's National EMS Education Standards for Paramedic. Successful completion of the program qualifies the graduate to sit for the National Registry Examination for Paramedic. It is intended for the clinical concentration of the EMS Program will prepare the graduate for a volunteer or paid career as a nationally certified Paramedic.

Admission to the Paramedic is made after admission to the College and successful completion of the "Pre-entrance Examination" prior to enrollment in any of the advanced clinical level EMSP courses in the Paramedic Program (200-level EMSP courses), and the student must complete the following and submit to the EMS Program Coordinator:

An application to the Paramedicine Program;

1. A photocopy of current CPR (Healthcare Provider Course) certification;
2. Current EMT-B or EMT card from either: National Registry, West Virginia, Maryland, or Virginia.
3. Submission to the EMS Clinical Coordinator of a completed immunization record prior to participation in any EMS Practicum course;
4. Submission to the EMS Clinical Coordinator of yearly PPD results (or chest X-ray, if appropriate).
5. Successfully completed a urine drug screen and national criminal background check.

Students in the Paramedicine Certificate are subject to Blue Ridge Community and Technical College's requirements for admissions. Blue Ridge Community and Technical College Catalog requirements regarding academic standards, student conduct, and graduation procedures also apply.

### **Blue Ridge CTC Paramedic Program Goal**

To prepare competent entry level Paramedics in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains.

### **EMS TECHNICAL STANDARDS**

The following activities are examples of the kind of activities in which a student in the Paramedic program will be required to perform in order to successfully complete the program.

1. **Critical Thinking:** Paramedic students should possess critical thinking ability sufficient for clinical judgment. For example: the paramedic student must be able to prioritize the care of the critically injured or ill patient.
2. **Interpersonal Skills:** Paramedic students shall possess interpersonal abilities sufficient to interact with individuals, families, groups, etc. from a variety of social, emotional, cultural and

intellectual backgrounds. For example: student shall establish rapport with clients/patients and health care team members.

3. **Communication Skills:** Paramedic students shall possess communication abilities sufficient for interaction with others in verbal and written forms. For example: providing verbal encode to medical direction from the field and documentation of patient care.
4. **Mobility:** Paramedic students shall possess physical abilities sufficient to move from room to room, maneuver in small spaces, stand and walk for extensive periods of time and lift average size adults with help. For example: transferring patients on to stretchers, loading and unloading stretchers into the ambulance and moving about the scene to search and discover patients.
5. **Motor Skills:** Paramedic students shall possess gross and fine motor abilities sufficient to provide safe and effective care. For example: calibrate and use designated equipment, insertion of tubes and initiation of intravenous and intraosseous infusions and administration of medications.
6. **Hearing:** Paramedic students shall possess auditory ability sufficient to monitor and assess health needs. For example: hear monitor alarms, emergency signals, and cries for help and auscultate breath and bowel sounds.
7. **Visual:** Paramedic students shall possess visual ability sufficient for observation and assessment necessary for care. For example: observe patient/client responses to treatment, use of designated equipment and assessment of patient.
8. **Tactile:** Paramedic students shall possess tactile ability sufficient for physical assessment. For example: perform palpation and percussion, assessment of skin vital signs.
9. **Weight Bearing:** Paramedic students shall possess ability to lift and manipulate/move 45-50 pounds on a daily basis. For example: position patients/clients, carry designated equipment.
10. **Cognitive Abilities:** Paramedic students shall possess ability to be oriented to time, place and person and organize responsibilities, make decisions and function effectively in critical situation. For example: student shall assess client/patient complaints and implement appropriate plans for care.
11. **Occupational Exposures:** Paramedic students may be exposed to communicable diseases/ and or body fluids, toxic substances, medicinal preparations and latex. Students shall use appropriate precautions at all times. For example: student maybe be assigned a client/patient with a communicable disease and shall provide total care using universal precautions.
12. **Driving Skills/Abilities:** Paramedic students must have a valid Driver's License in order to complete their coursework at Blue Ridge Community and Technical College.

#### Curriculum for a Certificate in Paramedicine

General Education Core 8

EMS Core 38

**Total Credit Hours Required 46**

## General Education Core

- BIOL 120 - ~Human Anatomy & Physiology I (3)
- BIOL 121 - ~Human Anatomy & Phys I Lab (1)
- BIOL 122 - ~Human Anatomy & Physiology II (3)
- BIOL 123 - ~Human Anatomy & Phys II Lab (1)

### **Subtotal Credit Hours Required**8

## EMS Core

- EMSP 101 - Introduction to EMS (3)
- EMSP 103 - EMS Operations (3)
- EMSP 104 - EMS Practicum (1)
- EMSP 104L - EMS Lab I (1)
- EMSP 201 - Advanced Airway Management and Patient Assessment (3)
- EMSP 202 - Pathophysiology of Shock & Trauma Resuscitation (3)
- EMSP 203 - Pre-Hospital Pharmacology (3)
- EMSP 204 - EMS Practicum II (2)
- EMSP 204L - EMS Lab II (1)
- EMSP 205 - Medical Emergencies I (3)
- EMSP 205L - Medical Emergencies I Lab (1)
- EMSP 206 - EMS Practicum III (2)
- EMSP 206L - EMS Lab III (1)
- EMSP 207 - Medical Emergencies II (3)
- EMSP 208 - Special Patients & Situations (3)
- EMSP 209 - EMS Practicum IV (2)
- EMSP 209I - EMS Internship (1)
- EMSP 210 - Paramedic Capstone (2)

### **Subtotal Credit Hours Required** 38

## Professional Development Certificate

### Program Overview

The Professional Development Certificate provides an incentive for Blue Ridge Community and Technical College students to enhance their experience by participating in a series of educational courses in a specialized area. Along with core courses for each specialized certificate is a balanced curriculum with coursework in communication, social and cultural awareness, and scientific and quantitative reasoning. The coursework is essential to prepare students seeking to expand their knowledge and competencies.

The certificate is designed to be completed in one year of full-time enrollment at Blue Ridge Community and Technical College. Concentrations are offered in the following areas: Public Relations, Social Sciences, and General Education. The specific course requirements for each Professional Development Certificate concentration are outlined below.

### Career Opportunities

The Professional Development Certificate demonstrates to employers a student's commitment to finishing a degree and the acquisition of knowledge of core subjects, including communication, social and cultural awareness, and scientific and quantitative reasoning. The coursework is essential to prepare students seeking to expand their professional competencies.

### Curriculum for a Certificate in Professional Development

|                                    |           |
|------------------------------------|-----------|
| General Education Core             | 12        |
| Specialty Track                    | 18        |
| <b>Total Credit Hours Required</b> | <b>30</b> |

#### General Education Core

- COMM 202 - ~Fundamentals of Speech (3)
- ENGL 101 - ~Written English (3) OR
- ENGL 110 - ~Technical Writing & Communication (3)
- MATH 101 - ~Introduction to Mathematics (3) OR
- MATH 105 - ~Algebra (3) OR
- MATH 106 - ~Trigonometry (3) OR
- MATH 108 - ~Pre-Calculus (4) OR
- MATH 114 - ~Elem Probability & Statistics (3) OR
- MATH 154 - ~Finite Mathematics (3) OR
- MATH 207 - ~Calculus I (4)
- PSYC 203 - ~Introduction to Psychology (3) OR
- SOCI 203 - ~General Sociology (3)

**Subtotal Credit Hours Required**                      **12**

## Specialty Tracks:

**You must select ONE of the following specialty tracks:**

### General Education Track

- Choose ANY credited courses 100 or above

**Subtotal Credit Hours Required                      18**

### Public Relations Track

- COMM 205 - ~Professional Communications (3)
- PSCI 100 - ~Introduction to Political Ideology (3)
- PSCI 101 - ~American Federal Government (3)
- SOCI 215 - ~Human Relations (3)
- Free Electives (100 level or above) (6)

**Subtotal Credit Hours Required 18**

### Social Science Track

- HIST 101+ - Any History 101 or above (3)
- PHIL 101 - Introduction to Philosophy (3)
- PSYC 203 - ~Introduction to Psychology (3)
- Free Electives (100 level or above) (9)

**Subtotal Credit Hours Required                      18**

## Renewable Energy Systems Certificate

The Renewable Energy program gives students skillsets in site evaluation, installation, servicing, and system modeling of Photovoltaic, Wind Turbine, Solar Thermal, and Geo-Thermal systems. Students also develop communication skills needed to communicate with inspectors as well as co-workers and customers in a professional manner.

### Program Overview

The Renewable Energy program supplies local industries with knowledgeable technicians who can design, specify, and install appropriate renewable energy equipment and the systems that regulate and control that equipment. The certificate is aligned with the green energy and sustainability management sector, which needs professionals with a broad skill set focused on sustainability, as well as technical capabilities. The certificate can help students build additional skills in such areas as project development, sustainability assessment, systems engineering and strategic planning.

Hands-on laboratories, in areas such as electricity and electronics, and CAD assure the students are "work ready".

### Career Opportunities

Renewable Energy installers are in high demand. According to the U.S. Energy Information Administration, by 2040, 63 percent of the nation's electricity will be generated by lower-carbon options, including 16 percent from renewables. This shift will result in double-digit demand for sustainability specialists, planners, and installation workers. Graduates can expect to earn an average of \$13 – \$18 per hour, depending on their geographic region, and their willingness to travel to large project installations. Prospective employers in the region include: Mountain View Solar, Milestone Solar, Millennium 3 Energy (MD), and Geostellar.

*Note: All salary estimations are based on current position and educational trends. Blue Ridge Community and Technical College cannot guarantee that the projections given will be the salaries students or graduates will ultimately receive.*

### Curriculum for a Certificate in Renewable Energy Systems

General Education Core 9

Technical Core 21

**Total Credit Hours Required 30**

General Concentration Core

- CAS 111 - Information Literacy (3)
- ENGL 110 - ~Technical Writing & Communication (3)
- MATH 102 - Technical Mathematics (3)

**Subtotal Credit Hours Required 9**

Technical Core

- CAD 210 - Green Building Design (2)
- CAD 210L - Green Building Design Lab (1)
- MECH 106 - Electricity & Electronics (2)
- MECH 106L - Electricity & Electronics Lab (2)
- MECH 121 - Safety Awareness & OSHA 10 (2)
- MECH 201 - Systematic Troubleshooting (3)
- RENG 101 - Renewable Energy Technology (1)
- RENG 101L - Renewable Energy Tech Lab (2)
- RENG 201 - Solar Thermal Energy (1)
- RENG 201L - Solar Thermal Energy Lab (2)
- Restricted Electives in CAD, INST, MECH, RENG, or ROB (3)

**Subtotal Credit Hours Required**21



## Robotics Certificate

If you seek a hands-on career in the high-tech industry, and quick entry into the job market, consider a certificate as a Certified Robotics Technician. Our program prepares you to be an effective, interdisciplinary problem solver. You will learn to apply knowledge of mathematics, science, and engineering used in automated manufacturing, and distribution. You will become efficient at controlling a robotic device to sort, stack, assemble, paint and perform other automated functions.

### Program Overview

The Robotics program supplies local industries with knowledgeable robotic technicians who can operate, maintain, and perform preventative and routine maintenance on various robotic devices. The program is designed to prepare workers to pass the Kuka Robotics Technology certification exam.

Students will gain understanding of the technology utilized in modern distribution and processing industries. Hands-on laboratories, in areas such as electricity and electronics, mechanics, fluid power, and the basics of programmable logic controllers will assure the students are "work ready". This program will give students a skill set that paves the way for a continuation into the Mechatronics A.A.S. program to become a certified technician.

### Career Opportunities

Robotics Technicians are in high-demand around the globe, earning an average of \$16 – \$20 per hour, depending on their geographic region. Prospective employers in the region include: EcoLab, Quad Graphics, Monoflo, O'Sullivan, New World Pasta and other firms in West Virginia, Maryland, Northern Virginia, and Southern Pennsylvania.

*Note: All salary estimations are based on current position and educational trends. Blue Ridge Community and Technical College cannot guarantee that the projections given will be the salaries students or graduates will ultimately receive.*

### Curriculum for a Certificate in Robotics

General Education Core 6

Technical Core 24

**Total Credit Hours Required 30**

#### General Concentration Core

- ENGL 110 - ~Technical Writing & Communication (3)
- MATH 102 - Technical Mathematics (3)

**Subtotal Credit Hours Required 6**

### Technical Core

- MECH 106 - Electricity & Electronics (2)
- MECH 106L - Electricity & Electronics Lab (2)
- MECH 110 - Mechanical Systems I (3)
- MECH 120 - Fluid Power (3)
- MECH 201 - Systematic Troubleshooting (3)
- MECH 250 - Intro to PLC (Programmable Logic Controllers) (3)
- ROB 210 - Robotics I (2)
- ROB 220 - Robotics II (3)
- Restricted Electives in CAD, INST, MECH, RENG, or ROB (3)

**Subtotal Credit Hours Required**24

## Systems Networking Certificate

Students seeking entry into the field of advanced networking should consider a certificate in systems networking. The Blue Ridge program trains students in both the Cisco and Microsoft realms, providing essential knowledge about both parts of a functional corporate network. The program provides the background required for employment in the networking portion of the IT field. Blue Ridge will equip students with the training required to install, configure, and operate routed LANs and WANs, and help obtain the Cisco™ Certified Network Professional (CCNP) certification.

### Program Overview

The Systems Networking certificate degree program is designed to address the needs of businesses and organizations within the local community. The field of Information Technology is growing regionally, and the need for certified technicians is advancing at a rapid rate. This course of study will provide the training required to install, configure, and operate simple routed LANs and WANs, and to obtain the Cisco™ Certified Network Associate (CCNA) certification. The program also provides the essential knowledge and skills required for employment in the Networking portion of the Information Technology field.

The student will gain knowledge of switched LAN Emulation networks made up of Cisco™ equipment. The program is a focused coverage of Cisco™ router configuration procedures, which will be mapped to exam objectives for the Cisco composite CCNA or Cisco partial ICND 1 and ICND 2 certification exams. This program will also provide students with the knowledge to troubleshoot and repair desktop personal computers, to install, maintain and manage Windows desktop operating systems, and manage, install, maintain, and troubleshoot Windows Server implementations. These additional courses will be mapped to the exam objectives for Microsoft associate level Windows Server domain administration exam.

Students in any program are subject to Blue Ridge Community and Technical College's requirements for admission, basic skills testing, and appropriate course placement, including developmental education courses, which may not count toward the completion of the program. Blue Ridge Community and Technical College requirements regarding academic standards and student conduct also apply.

### Career Opportunities

A wide range of government agencies and industries seek professionals in network design, network administration, and network engineering.

### Curriculum for a Certificate in Systems Networking

|                                    |           |
|------------------------------------|-----------|
| General Education Core             | 6         |
| Technical Core                     | 24        |
| <b>Total Credit Hours Required</b> | <b>30</b> |

### General Education Core

- ENGL 101 - ~Written English (3) **OR**
- ENGL 110 - ~Technical Writing & Communication (3)
- MATH 105 - ~Algebra (3) **OR**
- MATH 106 - ~Trigonometry (3)

**Subtotal Credit Hours Required6**

### Technical Core

- CNET 121 - Network+ (3)
- CNET 192 - CNET Practicum (2)
- CNET 241 - Connecting Networks (4)
- IT 204 - Windows Fundamentals (3)
- IT 270 - Instl,Config,Admin Win Oper Sy (3)
- IT 289 - Plan & Maintain MWS Infastruct (3)
- IT 290 - Manage & Maintain MWS (3)
- IT 291 - Implmnt, Mge&Mntain MWS Infact (3)

**Subtotal Credit Hours Required24**

## Technical Studies Certificate

This program is exclusively designed for students or prospective students currently employed by an employer who is working with Blue Ridge Community and Technical College. Our program allows employers to customize a course of study for their employees, while giving them the skill sets to use technology effectively; sharpen communication skills; and develop practical problem solving strategies.

### Program Overview

The Blue Ridge Community and Technical College can customize this certificate degree for employers. Associate degree programs requiring additional credits for completion are also available.

Goals of the Technical Studies Program include:

- To increase the abilities of employees to use technology effectively and responsibly.
- To increase abilities of employees to communicate information effectively through reading, writing, speaking, and listening.
- To develop employee's abilities to solve problems through understanding, reasoning, research, and productive teamwork.
- To assist those employed in the workforce to understand that education is a life-long process.

Degree programs implemented under this degree designation will include instruction consistent with the following components and categories.

*This program is only for individuals whose employer is working with Blue Ridge Community and Technical College to ensure completion of this degree.*

### Career Opportunities

Completing this degree will enhance your professional skill sets and increase your opportunities for upward mobility.

### Curriculum for a Certificate in Technical Studies

|  |           |
|--|-----------|
| Component I – General Education Core   | 6         |
| Component II – Technical Core          | 6         |
| Component III – Occupational Specialty | 9         |
| Component IV – On-the-Job Training     | 9         |
| <b>Total Credit Hours Required</b>     | <b>30</b> |

## Component I – General Education Core

### Communication and Life Skills

- ENGL 101 - ~Written English (3) OR
- ENGL 110 - ~Technical Writing & Communication (3)

### Critical & Analytical Thinking

- MATH 100+ OR
- Restricted Electives (3)

**Subtotal Credit Hours Required                    6**

*Note: Electives must be taken from the General Education core competency.*

## Component II – Technical Core

Each program of study must include a general technical core that meets the goal of developing skills that may be applied to a variety of occupations or that may be specific to an occupation (6)

**Subtotal Credit Hours Required                    6**

## Component III – Occupational Specialty

The component consists of technical specialty courses specific to an occupational area. Industry based education and training programs are to be converted to college credit at the ratio of 15:1 and at a rate consistent with the lab hour/credit ratio of the degree granting institution for laboratory credit. (9)

**Subtotal Credit Hours Required                    9**

## Component IV – On-the-Job Training

The component consists of a paid or unpaid OJT, internship, or practicum performed in a business or industry setting in the occupational area. The on-the-job training component is to be converted to credit hours at a ratio of 150:1 with the maximum of 2,080 contact hours allowable. A statement of the total number of contact hours experience through on-the-job training will be placed on the college record. (9)

**Subtotal Credit Hours Required                    9**

## Technology Systems Certificate

The Blue Ridge Community and Technical College Certificate in Technology Systems strengthens skills in professional and business communication and information technology. Blue Ridge Community and Technical College combines oral and written communications with core technology classes and electives, equipping students with a grasp of technology systems. Certifications such as A+, CIW, and MCAS complement the electives in this program, enhancing the impact of this credential.

### Program Overview

The Technology System Certificate combines traditional professional and business communication with information technology. Certification such as A+, CIW, and MCAS work well with the restricted electives in this program; therefore, enhancing the credential that a Technology System Certificate provides.

To be eligible to earn a Blue Ridge Community and Technical College Certificate the student must be a current degree-seeking student or complete the application and admissions process to the college. Eligibility to earn and receive a Blue Ridge Community and Technical College Certificate does not interfere with the degree-seeking status of the student.

### Career Opportunities

Whether students are seeking a career as a network professional, or currently working as a business manager or other IT professional, the Blue Ridge Community and Technical College Certificate in Technology Systems will help graduates implement high-functioning business and technology systems in the workplace. The certificate program ties in closely with the Information Technology A.A.S. degree, thus helping existing IT students expand their body of knowledge in networking and business.

### Curriculum for a Certificate in Technology Systems

|                                    |           |
|------------------------------------|-----------|
| General Education Core             | 9         |
| Technology Core                    | 21        |
| <b>Total Credit Hours Required</b> | <b>30</b> |

### General Education Core

- ENGL 110 - ~Technical Writing & Communication (3)
- IT 111 - Info Lit for IT Professionals (3)
- MATH 105 - ~Algebra (3)

**Subtotal Credit Hours Required**9

## Technology Core

- CNET 121 - Network+ (3)
- CYBR 160 - Security+ (3)
- IT 180 - A+ Hardware Essentials (3)
- IT 181 - A+ Software Essentials (3)
- IT 188 - Introduction to Programming Logic (3)
- IT 204 - Windows Fundamentals (3)
- IT 269 - Project Management (3)

**Subtotal Credit Hours Required**21



# Associate of Arts

## Liberal Arts, A.A.

Blue Ridge Community and Technical College's Liberal Arts program features a balanced and flexible curriculum with coursework in communication, scientific and quantitative reasoning, and social and cultural awareness. A Liberal Arts Degree positions students for success in a variety of fields/careers and communicates to employers that A.A. graduates are knowledgeable individuals capable of making informed decisions.

### Program Overview

The Associate of Arts in Liberal Arts is ideal for students who seek a broad-based education, plan to continue their education at four-year institutions, or want to increase their opportunities for career advancement. The skills and competencies mastered in the liberal arts degree are applicable to a variety of baccalaureate degrees and careers. The Associate of Arts in Liberal Arts sets students on a path to gain the skills most valued by both institutions of higher education and employers. To be successful in the university setting and in the world of work, students/employees must be able to communicate clearly, work with others, think critically, and appreciate diversity. All these skills can be gained through the balanced, flexible coursework included in the Associate of Arts in Liberal Arts Degree.

### A.A. Liberal Arts Mission/Program Goals:

1. Assist students in gaining a better understanding of themselves and their relationships with others.
2. Encourage students to become and remain informed citizens.
3. Inspire students to become lifelong learners to keep pace with today's global economy.
4. Support students in their efforts to understand and embrace diversity in an ever-changing, complex world.
5. Provide the tools and experiences necessary to successfully transition into other educational institutions or into the workforce.

### A.A. Liberal Arts Learner Outcomes:

1. Students will the interpersonal and evaluative skills necessary to effectively participate in a group and both provide and receive constructive feedback.
2. Students will ways in which lifelong learning and aesthetic interests are important for living a balanced, enjoyable life.
3. Students will he academic and social skills necessary for successful transition to other colleges/universities or into the workforce.
4. Students will ethical principles in both written and oral communication.
5. Students will insight into an appreciation of the arts and their place in today's society.
6. Students the complex cultural texture of today's world.

### Career Opportunities

The breadth of skills mastered in the A.A. program will prepare students for success as they pursue a bachelor's degree or seek employment in a variety of fields.

Curriculum for an Associate of Arts Degree in Liberal Arts

Program Core 15

Concentration 45

**Total Credit Hours Required 60**

### Program Core

- ART 103 - ~Introduction to Visual Arts (3) **OR**
- MUSC 111 - ~Introduction to Music (3)
- ENGL 101 - ~Written English (3)
- ENGL 102 - ~Writing for the Arts & Hum (3)
- HIST 101 - ~World History to 1500: Early Man Through the Renaissance (3) **OR**
- HIST 102 - ~World History Since 1500: The Renaissance Through the Present (3)
- PSYC 203 - ~Introduction to Psychology (3) **OR**
- SOCI 203 - ~General Sociology (3)

**Subtotal Credit Hours Required 15**

### Concentration

Choose one concentration for completion of the program:

#### Open Transfer Concentration

- BIOL 101 - ~General Biological Science I (4)
- BIOL 102 - ~General Biological Science II (4)
- COMM 202 - ~Fundamentals of Speech (3)
- ENGL 204 - ~Sur of American Lit (3) **OR**
- ENGL 208 - ~Survey of World Literature I (3)
- HIST 101 - ~World History to 1500: Early Man Through the Renaissance (3) **OR**
- HIST 102 - ~World History Since 1500: The Renaissance Through the Present (3)
- MATH 101 - ~Introduction to Mathematics (3) **OR**
- MATH 105 - ~Algebra (3) **OR**
- MATH 106 - ~Trigonometry (3) **OR**
- MATH 114 - ~Elem Probability & Statistics (3) **OR**
- MATH 154 - ~Finite Mathematics (3)
- PSCI 100 - ~Introduction to Political Ideology (3) **OR**
- PSCI 101 - ~American Federal Government (3) **OR**
- PSCI 102 - ~State & Local Government (3)
- Restricted Electives in ACCT @, 201, 202, ART @, BIOL @, BUSN @, CHEM @, COMM @, CAS 111, ECON @, EDUC, ENGL 101:299, GEOG @, GSPE @, HIST @, LANG @, MATH 101, MATH 105, MATH 106, MATH 114, MATH 154, MATH 207, MUSC @, NURS @, PHIL @, PHYS @, PSCI @, PSYC @, SOCI @ (16)
- Free Electives (6)

**Subtotal Credit Hours Required45**

**History Concentration**

- CGEN 100 - First Year Experience (3)
- BIOL 101 - ~General Biological Science I (4)
- BIOL 102 - ~General Biological Science II (4)
- COMM 202 - ~Fundamentals of Speech (3)
- ENGL 204 - ~Sur of American Lit (3) \*\*OR
- ENGL 208 - ~Survey of World Literature I (3) \*\*
- ECON 123 - ~Contemporary Economics (3) OR
- ECON 205 - ~Principles of Macroeconomics (3)
- GSPE 210 - Fitness for Life (3)
- HIST 201 - ~US History to 1877 (3)
- HIST 202 - ~US History Since 1877 (3)
- HIST 206 - American Women's History (3)
- HIST 207 - African American History (3)
- LANG 111 - Spanish I (3)
- LANG 112 - Spanish II (3)
- MATH 101 - ~Introduction to Mathematics (3)
- PSCI 101 - ~American Federal Government (3)

**Subtotal Credit Hours Required45**

Note(s): **Each course can be used to fulfill only one requirement.**

**Students who intend to transfer out-of-state should work with their academic advisor to determine the appropriate course selections based on their intended major and potential transfer institutions.**

# Associate of Applied Science

## Accounting, A.A.S.

This two-year program prepares students to enter the workforce directly in technician, paraprofessional, and future accounting supervisory positions. The program includes accounting and business skills as well as college transfer and supporting courses.

### Program Overview

Accounting technicians and paraprofessionals are the financial record keepers of a business and examine, analyze and interpret accounting data for the purpose of sharing financial data and reporting financial performance. Duties may include recording financial activity and preparing internal and external financial reports. Responsibilities include updating and maintaining accounting records, processing expenditures, receipts, payables, receivables, and payroll. They may also analyze, verify, prepare and communicate financial information. Excellent reading skills and a combination of interest and ability to concentrate on detail, an analytical mind, good judgment and absolute integrity are necessary for success in the field of accounting.

### Program Outcomes

- Prepare students to directly enter the workforce in accounting positions
- Collect, prepare, analyze, and interpret financial information to produce financial reports and schedules.
- Describe and follow GAAP and government regulations, including taxation
- Design and use models to make critical decisions, and arrive at valid and reliable conclusions using quantitative data appropriately.
- Demonstrate technological proficiency in accounting and tax software, bank reconciliations, journals, and ledgers.

### Career Opportunities

There is a wide range of employment possibilities for accounting paraprofessionals. Job titles may include accounting clerk, auditing clerk, financial analyst, bookkeeper, bank teller, budget analyst, payroll clerk, accounting assistant, loan clerk, tax preparer, and account representative. Typical places of employment include accounting departments in governmental agencies, financial institutions, not for profit, private business and public accounting firms.

Salary Ranges: \$25,000 - \$40,000

*Note: All salary estimations are based on current position and educational trends. Blue Ridge and The School of Professional Studies and University Transfer cannot guarantee that the projections given will be the salaries students or graduates will ultimately receive.*

## Curriculum for an Associate of Applied Science in Accounting

General Education Core 18

Accounting Core 21

Business Core 15

Restricted Electives 6

**Total Credit Hours Required 60**

### General Education Core

- COMM 202 - ~Fundamentals of Speech (3) OR
- COMM 205 - ~Professional Communications (3)
- ECON 123 - ~Contemporary Economics (3) OR
- ECON 205 - ~Principles of Macroeconomics (3)
- ENGL 101 - ~Written English (3)
- MATH 101 - ~Introduction to Mathematics (3)
- PSCI 101 - ~American Federal Government (3) OR
- PSCI 102 - ~State & Local Government (3)
- PSYC 203 - ~Introduction to Psychology (3) OR
- SOCI 203 - ~General Sociology (3)

**Subtotal Credit Hours Required 18**

### Accounting Core

- ACCT 180 - Personal Finance (3)
- ACCT 201 - Principles of Accounting I (3)
- ACCT 202 - Principles of Accounting II (3)
- ACCT 220 - Payroll Accounting (3)
- ACCT 261 - Individual Taxation (3)
- ACCT 280 - QuickBooks Accounting (3)
- ACCT 292 - Field Experience (3)

**Subtotal Credit Hours Required 21**

## Business Core

- BUSN 108 - Business Etiquette & Image (3)
- Any Business (BUSN) course not listed elsewhere (6)
- CAS 111 - Information Literacy (3)
- CAS 213 - Excel Complete (3)

**Subtotal Credit Hours Required 15**

## Restricted Electives

Choose 6 credits of Restricted Electives from the list below:

- ACCT - Any Accounting course not used elsewhere
- BIOL 101 - ~General Biological Science I (4)
- BIOL 102 - ~General Biological Science II (4)
- CAS - Any Computer Application Specialist course not used elsewhere
- CHEM 127 - ~General, Organic & Biochem I (4)
- CHEM 128 - ~General, Organic & Biochem II (4)
- ECON 206 - ~Principles of Microeconomics (3)
- ENGL 102 - ~Writing for the Arts & Hum (3)
- ENGL 204 - ~Sur of American Lit (3)
- ENGL 208 - ~Survey of World Literature I (3)
- HIST 101 - ~World History to 1500: Early Man Through the Renaissance (3)
- HIST 102 - ~World History Since 1500: The Renaissance Through the Present (3)
- LGST 212 - Business Law (3)
- MATH - Any Math course not used elsewhere (MATH 101 to 299)

## Agribusiness, A.A.S.

The goal of this degree is to provide students with knowledge that will prepare them for entry-level positions or the opportunity to start their own business in a variety of agricultural businesses. This degree may assist students in finding employment in agribusiness that include nursery and landscaping, farm management, and financial and insurance organizations. Students will pursue courses in business practices as well as electives in animal or plant sciences.

### Curriculum for an Associate of Applied Science in Agribusiness

General Education Core 28

Agribusiness Core 32

**Total Credit Hours Required 60**

#### General Education Core

- BIOL 101 - ~General Biological Science I (4)
- BIOL 102 - ~General Biological Science II (4)
- CAS 111 - Information Literacy (3)
- CHEM 127 - ~General, Organic & Biochem I (4)
- CHEM 128 - ~General, Organic & Biochem II (4)
- ENGL 110 - ~Technical Writing & Communication (3)
- MATH 101 - ~Introduction to Mathematics (3)
- SOCI 203 - ~General Sociology (3)

**Subtotal Credit Hours Required 28**

#### Agribusiness Core

Students can take any combination of Agribusiness electives to a total of 32 credit hours:

- AGRB 101 - Agribusiness Introduction (3)
- AGRB 110 - Introduction to Animal Science (3)
- AGRB 112 - Intro to Equestrian Science (3)
- AGRB 113 - Intro to Swine Production (3)
- AGRB 114 - Intro Poultry, Goats, & Llamas (3)
- AGRB 115 - Intro to Cattle Production (3)
- AGRB 116 - Companion Animal Science (3)
- AGRB 120 - Intro to Food Production (3)
- AGRB 122 - Farm to Table & Microgardens (3)
- AGRB 124 - Licensing and Food Safety (3)
- AGRB 126 - Sustainable Agriculture (3)
- AGRB 128 - Intro to Crop Production (3)
- AGRB 130 - Customer Service Excellence (3)
- AGRB 140 - Agribusiness Marketing (3)

- AGRB 150 - Agribusiness Management (3)
- AGRB 160 - Intro to Farm Equipment (3)
- AGRB 170 - Agricultural Govt Relations (3)
- AGRB 210 - Princ of Animal Science (3)
- AGRB 212 - Princ of Equine Science (3)
- AGRB 217 - Animal Nutrition (3)
- AGRB 226 - Princ of Sustainable Ag (3)
- AGRB 228 - Princ of Crop Production (3)
- AGRB 240 - Agribusiness Marketing (3)
- AGRB 250 - Principles of AGRB Mgmt (3)
- AGRB 270 - State and Local Government (3)
- AGRB 292 - Agribusiness Internship (1-4)

**Subtotal Credit Hours Required 32**



## Applied Laboratory Technician, A.A.S.

The Applied Laboratory Technology degree program is geared for students seeking a challenging career as a laboratory technician assistant. Students in this program will learn to:

- Operate laboratory equipment
- Conduct routine sample analysis
- Conduct analyses that evaluate product quality and consistency
- Operate equipment and instrumentation for quality assurance procedures

### Program Overview

The Applied Laboratory Technology, A.A.S. degree program is a continuation of the Applied Laboratory Technician Certificate program. This program trains students to work in a manufacturing facility conducting routine quality assurance testing and sampling. The Applied Laboratory Technology, A.A.S. degree program gives students the ability to choose two different concentrations at the time of admissions. The **Microbiology Concentration** will train students to become a microbiology laboratory quality assurance analyst. Students will be able to perform routine microbiological tasks required in a manufacturing setting. The **Analytical Concentration** will train students to become quality assurance technicians in a manufacturing setting. Students will develop problem-solving skills that are needed to work in a complex manufacturing environment.

Curriculum for an Associate of Applied Science in Applied Laboratory Technology

|                                    |           |
|------------------------------------|-----------|
| General Education Core             | 15        |
| Applied Laboratory Technician Core | 12        |
| Concentration                      | 33        |
| <b>Total Credit Hours Required</b> | <b>60</b> |

### General Education Core

- CAS 111 - Information Literacy (3)
- COMM 205 - Professional Communications (3)
- ENGL 110 - Technical Writing & Communication (3)
- MATH 105 - Algebra (3)
- SOCI 215 - Human Relations (3)

**Subtotal Credit Hours Required 15**

## Applied Laboratory Technology Core

- LTEC 101 - Laboratory Technician I (3)
- LTEC 102 - Laboratory Technician II (3)
- LTEC 111 - Laboratory Technician III (3)
- LTEC 112 - Laboratory Technician IV (3)

### **Subtotal Credit Hours Required12**

## Concentration

Choose one concentration for completion of the program:

### Analytical Concentration

- LTEC 140 - Process Quality (3)
- LTEC 141 - Analytical Instrumentation (3)
- LTEC 143 - Process Technology-Operation (3)
- LTEC 144 - Process Technology-Systems (3)
- LTEC 211 - Federal Lab Safety & Regs (3)
- LTEC 250 - Adv QC Lab Practices: GLP (3)
- LTEC 260 - Adv QC in Manufacturing: GMP (3)
- LTEC 270 - Lab Reporting Methods: GDP (3)
- Restricted Electives - Choose from List with Advisor (9)

### **Subtotal Credit Hours Required33**

### Microbiology Concentration

- BIOL 101 - ~General Biological Science I (4)
- BIOL 102 - ~General Biological Science II (4)
- BIOL 220 - Microbiology (3)
- BIOL 221 - Microbiology Lab (1)
- LTEC 201 - Industrial Microbiology (4)
- LTEC 211 - Federal Lab Safety & Regs (3)
- LTEC 250 - Adv QC Lab Practices: GLP (3)
- LTEC 260 - Adv QC in Manufacturing: GMP (3)
- LTEC 270 - Lab Reporting Methods: GDP (3)
- Restricted Electives - Choose from List with Advisor (5)

### **Subtotal Credit Hours Required33**

## Restrictive Electives

Students must choose Restricted Electives from this list:

- EDET 181 - Conflict Resolution (2)
- ENGL 100 - English Essentials (3)
- LTEC 142 - Instrument & Process Control (2)
- LTEC 292 - Internship (1-4)
- MATH 100 - Math Essentials (3)
- MATH 100A - Algebra Essentials (3)
- MATH 101 - ~Introduction to Mathematics (3)
- MATH 102 - Technical Mathematics (3)
- MATH 114 - ~Elem Probability & Statistics (3)
- MECH 102 - Technical Physics (2)
- MECH 102L - Technical Physics Lab (2)
- MECH 260 - Process Control & Instrumentation (2)

## **Applied Technology, A.A.S.**

If you have a trade and hope to increase your earning potential, consider a degree in applied technology. Specially designed for trade professionals (in areas such as carpentry, HVAC, surgical technology, culinary arts, automotive, masonry, agriculture, or information technology), the Blue Ridge Community and Technical College Degree in Applied Technology gives credit to students with existing national certifications and accelerates their path to additional certifications.

### **Program Overview**

The Associate of Applied Science Degree in Applied Technology is a broad-spectrum technical studies degree program designed to accommodate the transfer of credit for students from a variety of technical, trade, and skills-based backgrounds. It is a useful option for individuals who wish to earn an applied degree, and who have been trained in areas such as carpentry, automotive, masonry, agriculture, information technology, or other technical trades.

Students complete 12 hours of required general education courses, as well as 15 hours of coursework from restricted content areas. Technical electives used to complete the program of study can be a combination of credits earned from previous college coursework, trade-based training, or vocational studies, and will be evaluated on a case-by-case basis. Additional technical electives can be selected by the student under the guidance of his or her academic advisor.

Student may not complete a Board of Governors A.A.S. and this degree.

### **Career Opportunities**

Upon earning an applied technology associate degree, students will excel in their chosen field because of enhanced skills. The skills earned from an applied technology degree can potentially earn a student over \$1 million in extra income over a lifetime.

*Note: All salary estimations are based on current position and educational trends. Blue Ridge Community and Technical College cannot guarantee that the projections given will be the salaries students or graduates will ultimately receive.*

### **Curriculum for an Associate of Applied Science in Applied Technology**

|                                    |           |
|------------------------------------|-----------|
| General Education Core             | 9         |
| Restricted Coursework              | 15        |
| Field Experience                   | 3         |
| Technical Electives                | 33        |
| <b>Total Credit Hours Required</b> | <b>60</b> |

## General Education Core

- ENGL 110 - ~Technical Writing & Communication (3)
- MATH 105 - ~Algebra (3)
- CAS 111 - Information Literacy (3)

**Subtotal Credit Hours Required**9

## Restricted Coursework

- Communication and Life Skills (6)  
(e.g. English, Speech, Business Communications, Music)
- Social Awareness (3)  
(e.g. Psychology, Sociology, Government, Economics)
- Critical and Analytical Thinking (6)  
(e.g. Math, Biology, Chemistry, Project Management)

**Subtotal Credit Hours Required** 15

## Field Experience

- CGEN 292 - Field Experience (1-6)

**Subtotal Credit Hours Required**3

## Technical Electives

- Transfer credits and/or any combination of electives (33)

**Subtotal Credit Hours Required** 33

## **Baking and Pastry, A.A.S.**

Our program will feed you the practical skills and techniques to ensure rapid employment in food service, hospitality, or tourism industries. Our experiential approach gives you the opportunity to flow a product from creation to service over the course of the program.

### **Program Overview**

Blue Ridge Community and Technical College Culinary Academy's Programs are designed to provide students with the practical knowledge and skills necessary to ensure successful employment in an entry to mid-level position within the food service and hospitality and tourism industry through a certificate or degree program.

Students will learn baking essentials which include a wide variety of classical and modern dessert techniques and presentations along with baking fundamentals from scaling ingredients to designing and constructing elaborate centerpieces, along with courses that build on immersing the student into all aspects of culinary foundations such as nutrition, safety and sanitation, origins of food, food history, food cost, product efficiency, molecular gastronomy, speed, attention to detail and culinary artistry. Practical lab experiences will help to complete the well-rounded student for entry into the workforce. Students will be able to experience the flow of their product from creation to service in this degree program.

Students in the Culinary Art Programs are subject to the Community and Technical College's requirements for admissions, basic skills testing, and appropriate course placement, including developmental education courses, which may not count toward completion of the program. Blue Ridge Community and Technical College Catalog requirements regarding academic standards, student conduct, and graduation procedures also apply.

### **Career Opportunities**

You will be qualified to pursue and succeed in entry to mid-level positions within a variety of industries.

### **Curriculum for an Associate of Applied Science in Baking and Pastry**

General Education Core 15

Baking and Pastry Core 45

#### **Total Credit Hours Required 60**

#### **General Education Core**

- BUSN 201 - Principles of Management (3) **OR**
- BUSN 205 - Business Ethics (3)
- CAS 111 - Information Literacy (3)
- ENGL 110 - ~Technical Writing & Communication (3)
- GSPE 210 - Fitness for Life (3)
- MATH 101 - ~Introduction to Mathematics (3)

#### **Subtotal Credit Hours Required 15**

Baking and Pastry Core

- CART 100 - Introduction to Culinary Food Service (2)
- CART 110 - Molecular Gastronomy (3)
- CART 115 - Safety and Sanitation in the Food Service Industry (2)
- CART 120 - Bruin Cafe Lecture (1)
- CART 120L - Bruin Cafe Lab (3)
- CART 170 - Bread Fundamentals (1)
- CART 170L - Bread Fundamentals Lab (3)
- CART 203 - Culinary Nutrition (3)
- CART 212 - Baking Skills and Development (4)
- CART 245 - Cooking Fundamentals I Lecture (1)
- CART 245L - Cooking Fundamentals I Lab (2)
- CART 280 - Cake Design and Professional Decorating (4)
- CART 292 - Culinary Arts Internship (1–6)
- CART 294 - International Pastries and Desserts (4)
- CART 295 - Pastry Showpieces (4)
- MATH 100 - Math Essentials (3)

**Subtotal Credit Hours Required 45**

- Free Elective (1)

## Board of Governors, A.A.S.

Exclusively designed for the adult learner, the Board of Governor's Degree gives students the flexibility to design their degree and earn it at a faster pace. By using a portfolio process, past work, learning, college, or military experience can potentially count towards college credits. For students out of high school for at least two years and not holding a previous degree, the pace and flexibility of the program will accelerate studies in general education subjects such as: business, criminal justice, information technology, and natural sciences.

### Program Overview

The Board of Governors A.A.S. requires 60 credit hours, which includes a general education core of 21 credit hours and 39 credit hours of general electives. The structure of the degree assures flexibility in program design to meet the individual needs of adult students. The required general education courses assure the development of essential skills and competencies necessary for an associate level graduate. The general electives category allows students to demonstrate and document a defined occupational proficiency.

Students are encouraged to explore various options for obtaining credit for prior learning experiences including standardized exams, challenge exams, credential validation, and portfolio credit. Students who choose to earn credit for college-level learning acquired through professional work experience or other life experiences must complete CGEN 110 - Portfolio Development I and CGEN 111 - Portfolio Development II. ENGL 101 - ~Written English, must be completed with grade of C or better before registering for CGEN 110. There is a \$300 fee to submit a portfolio. There is a \$10 per credit fee for posting credits to the transcript. The portfolio provides the opportunity for equating documented, college level, experiential learning to college credit. College courses successfully completed at regionally accredited institutions may be transferred into the program and applied toward the 60-credit requirement.

Students in the Board of Governors A.A.S. Program are subject to Blue Ridge Community and Technical College's requirements for admissions, basic skills testing, and appropriate course placement, including developmental education courses, which may not count toward completion of the program. Blue Ridge Community and Technical College Catalog requirements regarding academic standards, student conduct, and graduation procedures also apply.

### Career Opportunities

This degree program allows students to speed their entry into, or upward mobility in, a variety of business, criminal justice, technology, or scientific fields.

### Curriculum for an Associate of Applied Science Degree in Board of Governors

|                                    |           |
|------------------------------------|-----------|
| General Education                  | 21        |
| General Electives                  | 39        |
| <b>Total Credit Hours Required</b> | <b>60</b> |



## General Education Required Areas

### Communications\* 6 Credit Hours

**Typical Courses:** English, Grammar, Composition, Communications

- COMM 202 - ~Fundamentals of Speech (3)
- COMM 205 - ~Professional Communications (3)
- ENGL 101 - ~Written English (3) \*
- ENGL 102 - ~Writing for the Arts & Hum (3)
- ENGL 110 - ~Technical Writing & Communication (3)

*Note: \*Three credit hours must be ENGL 101 or ENGL 110*

### Social Sciences/Humanities 6 Credit Hours

**Typical Courses:** Business, Economics, Geography, Political Science, Sociology, Art, Music, History, Language

- CGEN 100 - First Year Experience (3)
- CGEN 101 - Career Transition (3)
- ECON 123 - ~Contemporary Economics (3)
- ECON 205 - ~Principles of Macroeconomics (3)
- PSCI 100 - ~Introduction to Political Ideology (3)
- PSCI 101 - ~American Federal Government (3)
- PSYC 203 - ~Introduction to Psychology (3)
- SOCI 203 - ~General Sociology (3)
- ART 103 - ~Introduction to Visual Arts (3)
- MUSC 111 - ~Introduction to Music (3)

### Mathematics/Science 6 Credit Hours

**Typical Courses:** Intro to Math, College Algebra, Finite Math, Biology, Human Growth & Development, Anatomy & Physiology, Nutrition, Forensic Science

- BIOL 120 - ~Human Anatomy & Physiology I (3)
- BIOL 121 - ~Human Anatomy & Phys I Lab (1)
- BIOL 122 - ~Human Anatomy & Physiology II (3)
- BIOL 123 - ~Human Anatomy & Phys II Lab (1)
- BIOL 220 - Microbiology (3)
- BIOL 221 - Microbiology Lab (1)
- CAHS 210 - Human Growth & Development (3)
- MATH 101 - ~Introduction to Mathematics (3)
- MATH 105 - ~Algebra (3)
- MATH 106 - ~Trigonometry (3)
- MATH 154 - ~Finite Mathematics (3)
- EDET 201 - Fundamentals of Electricity I (2)
- EDET 202 - Fundamentals of Electricity II (2)

## Computer Literacy 3 Credit Hours

**Typical Courses:** Information Literacy, Understanding Computers

- CAS 110 - Understanding Computers (3)
- CAS 111 - Information Literacy (3)

## **Business Operations, A.A.S.**

The Associate of Applied Science in Business introduces students to foundational business theories and practices related to planning, communication, marketing, human relations, and management. This degree is geared toward the student who may not be pursuing a baccalaureate degree. Students are exposed to the legal and ethical considerations influencing business today and develop effective communication, critical thinking and technical skills needed in the workplace. The program allows students to focus on a specific concentration that best meet their personal and career goals while preparing for employment opportunities in finance, sales, human resources, or marketing.

*All graduates of this program will be able to:*

- Communicate in a professional manner through online and in person communication
- Evaluate both professional conduct and corporate conduct for ethical issues
- Apply classroom skills to their career in a field experience environment

### Curriculum for an Associate of Applied Science in Business

General Education Core 18

Business Core 15

Concentration 27

**Total Credit Hours Required 60**

#### General Education Core

- ART 103 - ~Introduction to Visual Arts (3) **OR**
- MUSC 111 - ~Introduction to Music (3)
- ENGL 101 - ~Written English (3)
- ENGL 102 - ~Writing for the Arts & Hum (3)
- HIST 101 - ~World History to 1500: Early Man Through the Renaissance (3) **OR**
- HIST 102 - ~World History Since 1500: The Renaissance Through the Present (3) **OR**
- HIST 201 - ~US History to 1877 (3) **OR**
- HIST 202 - ~US History Since 1877 (3)
- MATH 105 - ~Algebra (3) **OR**
- MATH 108 - ~Pre-Calculus (4) **OR**
- MATH 114 - ~Elem Probability & Statistics (3) **OR**
- MATH 154 - ~Finite Mathematics (3)
- PSYC 203 - ~Introduction to Psychology (3) **OR**
- SOCI 203 - ~General Sociology (3)

**Subtotal Credit Hours Required 18**

## Business Core

- BUSN 101 - Introduction to Business (3)
- BUSN 108 - Business Etiquette & Image (3)
- BUSN 205 - Business Ethics (3)
- BUSN 292 - Field Experience (1-6)
- BUSN 295 - Capstone Research (1)
- LGST 212 - Business Law (3)

**Subtotal Credit Hours Required 15**

## Concentration

Choose one concentration for completion of the program:

### Digital Marketing Concentration

- BUSN 165 - Consumer Behavior (3)
- BUSN 231 - Marketing (3)
- BUSN 234 - Social Media Marketing (3)
- BUSN 245 - Advertising (3)
- COMM 202 - ~Fundamentals of Speech (3) OR
- COMM 205 - ~Professional Communications (3)
- ECON 123 - ~Contemporary Economics (3) OR
- ECON 205 - ~Principles of Macroeconomics (3) OR
- PSCI 101 - ~American Federal Government (3)
- MDIA 104 - Web Page Design (3)
- MDIA 106 - Site Designer (3)
- Restricted Elective in MDIA (3)

**Subtotal Credit Hours Required 27**

### Finance Concentration

- ACCT 201 - Principles of Accounting I (3)
- ACCT 202 - Principles of Accounting II (3)
- COMM 202 - ~Fundamentals of Speech (3) OR
- COMM 205 - ~Professional Communications (3)
- ECON 205 - ~Principles of Macroeconomics (3)
- ECON 206 - ~Principles of Microeconomics (3)
- ECON 210 - Money and Banking (3)
- FINC 201 - Principles of Finance I (3)
- FINC 202 - Principles of Finance II (3)
- PSCI 101 - ~American Federal Government (3)

**Subtotal Credit Hours Required27**

Human Resources Concentration

- BUSN 175 - Human Resource Management I (3)
- BUSN 160 - Organizational Behavior (3)
- BUSN 201 - Principles of Management (3)
- BUSN 255 - Teamwork & Managing Teams (3)
- BUSN 273 - Human Resources Management II (3)
- BUSN 277 - HR Compensation & Benefits (3)
- COMM 202 - ~Fundamentals of Speech (3) OR
- COMM 205 - ~Professional Communications (3)
- ECON 123 - ~Contemporary Economics (3) OR
- ECON 205 - ~Principles of Macroeconomics (3) OR
- PSCI 101 - ~American Federal Government (3)
- SOCI 215 - ~Human Relations (3)

**Subtotal Credit Hours Required27**

Sales and Service Concentration

- BUSN 120 - Principles of Sales I (3)
- BUSN 125 - Customer Service Management (3)
- BUSN 165 - Consumer Behavior (3)
- BUSN 201 - Principles of Management (3)
- BUSN 220 - Principles of Sales II (3)
- BUSN 245 - Advertising (3)
- COMM 202 - ~Fundamentals of Speech (3)
- COMM 205 - ~Professional Communications (3)
- ECON 123 - ~Contemporary Economics (3) OR
- ECON 205 - ~Principles of Macroeconomics (3) OR
- PSCI 101 - ~American Federal Government (3)

**Subtotal Credit Hours Required27**

## **Computer Application Specialist, A.A.S.**

Business and information technology fields continue to expand with the growing need for quality computer application specialists. The computer application specialist degree introduces students to foundational business theories and practices related to business planning, human relations, and management. The computer application specialist degree also introduces students to essential web design software, basic troubleshooting, help desk technical skills, and business-centered office applications such as, document processing, spreadsheets, databases, presentation software. This degree incorporates vendor certification training, specifically in Microsoft Office certifications, for students preparing for entry-level employment or career advancement in a variety of occupations within the business and information technology fields.

### **Program Overview**

A student pursuing an Associate of Applied Science degree in Computer Application Specialist must complete the requirements for the general education core and the technology core. The student must then complete the requirements for the special track they have chosen. With the exceptional growth being experienced in the Eastern Panhandle, well-trained computer specialist support personnel are essential for business and industry. The Computer Application Specialist A.A.S. degree provides students with the training needed for employment upon graduation.

Students completing the Associate of Applied Science degree in Computer Application Specialist will understand and be able to demonstrate basic skills in writing, reading, math, and decision-making, basic desktop support skills, web page design skills, possess skills in business ethics, office management, and basic accounting procedures, possess skills in communication, word processing, spreadsheets, database management, presentations, publication design, and computerized accounting and successfully obtain employment within the ever-changing information technology field.

### **Career Opportunities**

Students in the computer application specialist degree program complete hands-on activities that help develop computer application fluency, business theories, and fundamental technical skills. They complete project-based activities which will incorporate Internet research skills and electronic presentation skills to prepare for the work environment. Upon earning a degree, computer application specialist graduates may pursue entry-level employment in a variety of business, government, educational, and IT settings. A Blue Ridge Community and Technical College training in business planning, human relations, management, web design, troubleshooting, and business office applications will add value to any workplace.

Curriculum for an Associate of Applied Science in Computer Application Specialist

General Education Core 18

Support Track 42

**Total Credit Hours Required 60**

## General Education Core

- BUSN 205 - Business Ethics (3) **OR**
- IT 105 - Computer Ethics (3)
- CAS 111 - Information Literacy (3)
- COMM 202 - ~Fundamentals of Speech (3) **OR**
- COMM 205 - ~Professional Communications (3)
- ENGL 110 - ~Technical Writing & Communication (3)
- MATH 101 - ~Introduction to Mathematics (3)
- PSYC 203 - ~Introduction to Psychology (3) **OR**
- SOCI 203 - ~General Sociology (3)

**Subtotal Credit Hours Required 18**

## Support Tracks:

**You must select ONE of the following support tracks:**

### Business Support Track

- ACCT 201 - Principles of Accounting I (3)
- BUSN 101 - Introduction to Business (3)
- BUSN 108 - Business Etiquette & Image (3)
- CAS 192 - Business Support Practicum (1)
- CAS 210 - Outlook Complete (3)
- CAS 211 - Word Complete (3)
- CAS 212 - PowerPoint Complete (3)
- CAS 213 - Excel Complete (3)
- CAS 214 - Access Complete (3)
- CAS 215 - Windows Complete (3)
- CAS 230 - Office Administration (3)
- CAS 292 - Field Experience (1-6)
- MDIA 101 - Introduction to Media Studies (3)
- Restricted Electives in any ACCT, BUSN, CAS, CYBR, IT or MDIA (5)

**Subtotal Credit Hours Required 42**

### Computer Support Track

- ACCT 201 - Principles of Accounting I (3)
- CAS 191 - Computer Support Practicum (1)
- CAS 211 - Word Complete (3)
- CAS 214 - Access Complete (3)
- CAS 292 - Field Experience (1-6)
- CYBR 160 - Security+ (3)
- IT 180 - A+ Hardware Essentials (3)

- IT 181 - A+ Software Essentials (3)
- IT 188 - Introduction to Programming Logic (3)
- IT 204 - Windows Fundamentals (3)
- IT 210 - Help Desk Technician (3)
- IT 270 - Instl,Config,Admin Win Oper Sy (3)
- MDIA 101 - Introduction to Media Studies (3)
- MDIA 104 - Web Page Design (3)
- Restricted Electives in any ACCT, BUSN, CAS, CNET, CYBR, IT, or MDIA (2)

**Subtotal Credit Hours Required 42**

### Media Support Track

- CAS 217 - Data File Management (3)
- CAS 292 - Field Experience (1-6)
- IT 188 - Introduction to Programming Logic (3)
- MDIA 101 - Introduction to Media Studies (3)
- MDIA 102 - Intro to Adobe Photoshop (3)
- MDIA 103 - Advanced Photoshop & Animate (3)
- MDIA 104 - Web Page Design (3)
- MDIA 106 - Site Designer (3)
- MDIA 107 - Into to Illustrator/InDesign (3)
- MDIA 121 - Intro to Digital Photography (3)
- MDIA 192 - Media Support Practicum (1)
- MDIA 202 - Video Production (3)
- Restricted Electives in any ACCT, BUSN, CAS, MDIA, IT (8)

**Subtotal Credit Hours Required 42**



## **Computer Network Engineering Technologies, A.A.S.**

The Blue Ridge Community and Technical College computer network engineering technologies degree is a solid choice for students considering an advanced technology career. The program offers a flexible environment where students can develop the skills to enter a rapidly changing networking workforce. Designed for students with an in-depth knowledge of Cisco or Microsoft networking, the Blue Ridge Community and Technical College program develops network fluency and troubleshooting skills. The emphasis on networking technology complements a variety of certification training choices.

### **Program Overview**

The Computer Network Engineering program offers an associate of applied science degree, incorporating vendor certification training, for students preparing for entry-level employment or advancement in a variety of occupations, courses, and professional certificate programs within the networking field. The program will offer students a solid background in networking technology complemented by an array of certification training choices. All courses leading toward certification are taught by certified instructors.

The program offers a flexible environment where students can develop the background necessary to enter a rapidly changing and growing networking workforce and/or transfer to a four-year institution for further undergraduate education. Students in the Computer Network Engineering Technologies Program are subject to the Blue Ridge Community and Technical College's requirements for admissions, basic skills testing, and appropriate course placement. Blue Ridge Community and Technical College Catalog requirements regarding academic standards, student conduct, and graduation procedures also apply.

Students in this program will complete hands-on activities that will help to develop network fluency and troubleshooting skills. They complete project-based activities which will incorporate Internet research skills and electronic presentation skills to prepare for the work environment.

An internship in a networking or information technology related area is required for graduation. Students are expected to locate their internship site. Detailed information of the internship requirements and expectations is available from the student's advisor.

### **Program Outcomes**

Students completing the Associate of Applied Science Degree in Computer Network Engineering will:

- Understand various physical and software technologies that allow modern networks to share not just data, but video and voice communications as well over the same, single network.
- Understand technical Focused aspects of security to varying degrees, depending on their desired path of study.
- Develop knowledge and hands-on skills central to core networking concepts, such as router and switch configuration and operations, network traffic path selection, networking best practice, troubleshooting techniques, and developing rationally designed networks and supportive reasoning.
- Develop the necessary communication skills to coordinator working on a team project, how to troubleshoot logical and design errors along with technical errors, and be able to provide clear and effective documentation of a project to aid future work such as maintenance and upgrades.

- Possess the necessary knowledge and experience to obtain varying industry recognized certifications, at minimum the core CCNA certification, potentially the CCNA specialization certifications, core CCNP level certification, or MCSA certification, dependent on their desired path of study.

### **Career Opportunities**

Blue Ridge Community and Technical College will equip graduates with the skills to design, administer, and maintain network systems in a variety of settings. With completed degree and certifications, graduates may earn \$40,000–\$50,000 annually in entry-level network support positions with a future potential of earning more than \$80,000.

*Note: All salary estimations are based on current position and educational trends. Blue Ridge Community and Technical College cannot guarantee that the projections given will be the salaries students or graduates will ultimately receive.*

### Curriculum for an Associate of Applied Science in Computer Network Engineering Technologies

General Education Core 19

Technical Core 21

Specialty Track 20

**Total Credit Hours Required 60**

#### General Education Core

- COMM 202 - ~Fundamentals of Speech (3)
- ENGL 110 - ~Technical Writing & Communication (3)
- IT 105 - Computer Ethics (3)
- IT 111 - Info Lit for IT Professionals (3)
- MATH 105 - ~Algebra (3)
- 4 credits of Science Electives in BIOL, CHEM, or PHYS

**Subtotal Credit Hours Required 19**

#### Technical Core

- CNET 121 - Network+ (3)
- CNET 131 - Introduction to Networks (4)
- CNET 141 - Route & Switch Essentials (4)
- CNET 192 - CNET Practicum (2)
- CNET 231 - Scaling Networks (4)
- CNET 241 - Connecting Networks (4)

**Subtotal Credit Hours Required21**

Specialty Tracks:

**You must select ONE of the following focused tracks:**

Networking Professional Track

- CNET 265 - Advanced Routing (6)
- CNET 266 - Advanced Switching (4)
- CNET 267 - Advanced Troubleshooting (4)
- CNET 292 - Field Experience (1-6)
- Restricted Electives-see list (3)

**Subtotal Credit Hours Required20**

Networking Specialties Track

- CNET 250 - CCNA Security (4)
- CNET 251 - CCNA: Wireless (4)
- CNET 270 - Intro to Virtualization (4)
- CNET 292 - Field Experience (1-6)
- Restricted Electives-see list (3)

**Subtotal Credit Hours Required20**

Systems Networking Track

- IT 185 - Introduction to Linux (3)
- IT 204 - Windows Fundamentals (3)
- IT 270 - Instl,Config,Admin Win Oper Sy (3)
- IT 289 - Plan & Maintain MWS Infastruct (3)
- CNET 292 - Field Experience (1-6)
- Restricted Electives-see list (3)

**Subtotal Credit Hours Required20**

Restricted Electives

Below is a list of courses that qualify as restricted electives above:

- CYBR 160 - Security+ (3)
- CYBR 190 - Security Assessment (3)

- CYBR 210 - Intrusion Detection (3)
- CYBR 220 - Wireless Security (3)
- CYBR 250 - Internet Security (3)
- CYBR 284 - Tactical Perimeter Defense (3)
- IT 185 - Introduction to Linux (3)
- IT 270 - Instl,Config,Admin Win Oper Sy (3)
- IT 289 - Plan & Maintain MWS Infastruct (3)

## **Criminal Justice, A.A.S.**

### **Program Outcomes**

Students completing the Associate of Applied Science Degree in Criminal Justice will be able to:

- Possess the basic skills of writing, reading for information, critical thinking, and applied mathematics necessary to be successful in the criminal justice field.
- Discuss the history and philosophy of the components of the criminal justice system.
- Understand the roles and responsibilities of various criminal justice practitioners.
- Demonstrate knowledge of current issues, concepts, and theories of criminal justice.
- Exhibit professional conduct in a criminal justice organization including legal and ethical responsibilities.
- Demonstrate knowledge of career options in the criminal justice field
- Successfully obtain employment or promotion within the criminal justice field including but not limited to:
  - Law enforcement agencies
  - Correctional institutions
  - Court systems
  - Private security agencies

### Curriculum for an Associate of Applied Science in Criminal Justice

General Education Core 24

Criminal Justice Core 21

Specialty Track 15

**Total Credit Hours Required 60**

#### General Education Core

- CAS 111 - Information Literacy (3)
- COMM 202 - ~Fundamentals of Speech (3)
- ENGL 101 - ~Written English (3)
- ENGL 102 - ~Writing for the Arts & Hum (3)
- MATH 101 - ~Introduction to Mathematics (3)
- PSCI 101 - ~American Federal Government (3)
- PSYC 203 - ~Introduction to Psychology (3)
- SOCI 203 - ~General Sociology (3)

**Subtotal Credit Hours Required 24**

## Criminal Justice Core

- BUSN 108 - Business Etiquette & Image (3)
- CJST 200 - Intro Crim Justice Sys (3)
- CJST 210 - Introduction to Forensic Science (3)
- CJST 220 - Criminal Investigation (3)
- CJST 292 - Field Experience (1–6)
- LGST 200 - Legal Ethics (3)
- LGST 230 - Criminal Law and Procedure (3)

**Subtotal Credit Hours Required 21**

## Specialty Tracks:

The tracks within the AAS Criminal Justice degree offers flexibility for you and your advisor to design your own Criminal Justice Program. **You must select ONE of the following specialty tracks:**

### Forensic Science Track

- BIOL 101 - ~General Biological Science I (4)
- CHEM 125 - ~Introduction to College Chemistry (4)
- CJST 190 - Introduction to Computer Forensics (3)
- CJST 280 - Criminal Investigation II with Lab (4)

**Subtotal Credit Hours Required 15**

### Homeland Security Track

- CJST 190 - Introduction to Computer Forensics (3)
- CJST 215 - Introduction to Homeland Security (3)
- CJST 225 - Terrorism (3)
- CJST 232 - Immigration Law (3)
- CJST 245 - Bioterrorism and Weapons of Mass Destruction (3)

**Subtotal Credit Hours Required 15**

## Law Enforcement & Corrections Track

- CJST 240 - Police Organization & Mgmt (3)
- CJST 250 - Juvenile Justice System (3)
- CJST 260 - The Correctional System (3)
- CJST 280 - Criminal Investigation II with Lab (4)
- CJST Electives (2)

**Subtotal Credit Hours Required**15

## **Culinary Arts, A.A.S.**

If you need practical knowledge and skills necessary to enter a career in the food service and hospitality industry, consider a degree in Culinary Arts. Students learn classical culinary techniques in a wide variety of cuisines. Baking fundamentals include the basics and allow students to work up to creating elaborate culinary centerpieces. This program provides foundations in nutrition, safety and sanitation, origins of food, and more.

### **Program Overview**

Blue Ridge Community and Technical College Culinary Academy's Programs are designed to provide students with the practical knowledge and skills necessary to ensure successful employment in an entry to mid-level position within the food service and hospitality and tourism industry through a certificate or degree program.

Students will learn classical culinary techniques which include a wide variety of regional cuisines, baking fundamentals from scaling ingredients to designing and constructing elaborate centerpieces, along with courses that build on immersing the student into all aspects of culinary foundations such as nutrition, safety and sanitation, origins of food, food history, food cost, product efficiency, molecular gastronomy, speed, attention to detail and culinary artistry. Practical lab experiences will help to complete the well-rounded student for entry into the workforce. Students will be able to experience the flow of their product from creation to service in this degree program.

Students in the Culinary Art Programs are subject to the Community and Technical College's requirements for admissions, basic skills testing, and appropriate course placement, including developmental education courses, which may not count toward completion of the program. Blue Ridge Community and Technical College Catalog requirements regarding academic standards, student conduct, and graduation procedures also apply.

### **Career Opportunities**

If you choose a degree in Culinary Arts, you will be prepared for entry to mid-level positions within the industry. You can seek positions within food service, hospitality and tourism.

Curriculum for an Associate of Applied Science in Culinary Arts

General Education Core 15

Culinary Arts Core 45

**Total Credit Hours Required 60**

General Education Core

- BUSN 201 - Principles of Management (3) OR
- BUSN 205 - Business Ethics (3)
- CAS 111 - Information Literacy (3)



- GSPE 210 - Fitness for Life (3)
- ENGL 110 - ~Technical Writing & Communication (3)
- MATH 101 - ~Introduction to Mathematics (3)

**Subtotal Credit Hours Required15**

### Culinary Arts Core

- CART 100 - Introduction to Culinary Food Service (2)
- CART 110 - Molecular Gastronomy (3)
- CART 115 - Safety and Sanitation in the Food Service Industry (2)
- CART 120 - Bruin Cafe Lecture (1)
- CART 120L - Bruin Cafe Lab (3)
- CART 200 - International Cuisines Lecture (1)
- CART 200L - International Cuisines Lab (2)
- CART 201 - Stocks, Soups, and Sauces (3)
- CART 203 - Culinary Nutrition (3)
- CART 212 - Baking Skills and Development (4)
- CART 231 - Garde Manger and Cold Presentations (4)
- CART 245 - Cooking Fundamentals I Lecture (1)
- CART 245L - Cooking Fundamentals I Lab (2)
- CART 246 - Cooking Fundamentals II (1)
- CART 246L - Cooking Fundamentals II Lab (2)
- CART 292 - Culinary Arts Internship (1–6)
- CART 296 - Ala Carte (4)
- MATH 100 - Math Essentials (3)

**Subtotal Credit Hours Required45**

## **Cyber Security, A.A.S.**

As cyber-crime evolves, the need to protect sensitive information is more critical than ever. The Blue Ridge Community and Technical College Cyber Security program allows you to choose between network security hardware or a network security application track, addressing the needs of government agencies, organizations, and businesses throughout West Virginia and the D.C. metropolitan region. The curriculum explores risk, threat, and security assessments, and teaches students how to safeguard businesses, develop security policy, and respond to incidents.

### **Program Overview**

Modern technology has made business use of computer technology essential. As technology continues to evolve and progress, there is an emphasis placed on safeguarding an organization's or a company's information. The Cyber Security program has been created to address the needs of government agencies, organizations, and the private sector within the local West Virginia community and DC Metropolitan area. The Cyber Security program offers an Associate of Applied Science Degree, incorporating vendor certification training, for students preparing for entry-level employment or advancement in a variety of occupations and courses in Cyber Security.

The program offers students the opportunity to select one of two tracks; Network Security Hardware or Network Security Application. These two tracks will provide the student with the knowledge to enter the Cyber Security workforce and/or transfer to a four-year institution for further undergraduate education. Students will complete hands-on activities that will provide an overview of basic principles and security concepts related to active mitigation of known common threats. The curriculum discusses risk, threat, and security assessments and utilizing them to develop security policy, business continuity, disaster recovery, and incident response planning. The program also covers security methods, controls and procedures, ethics, laws, and computer forensics. In addition, the program describes the use of cryptography as a tool, software development processes, and protection. Students will develop an understanding of the information assurance progression and how they can apply this knowledge to support their organization.

Students in the Cyber Security Program are subject to the Blue Ridge Community and Technical College's requirements for admissions, basic skills testing, and appropriate course placement, including developmental education courses, which may not count toward completion of the program. Blue Ridge Community and Technical College Catalog requirements regarding academic standards, student conduct, and graduation procedures also apply.

### **Career Opportunities**

The need for cyber security analysts expands into industries from financial services, manufacturing, government agencies, utilities, healthcare, and retail. Student knowledge of security methods, controls and procedures, ethics, laws, and computer forensics makes a Blue Ridge Community and Technical College graduate an asset to any workplace. With certifications, an estimated entry-level salary is between \$55,000–\$84,900.

*Note: All salary estimations are based on current position and educational trends. Blue Ridge Community and Technical College cannot guarantee that the projections given will be the salaries students or graduates will ultimately receive.*

## Curriculum for an Associate of Applied Science in Cyber Security

General Education Core 15

Technical Core 33

Restricted Electives 12

**Total Credit Hours Required 60**

### General Education Core

- COMM 202 - ~Fundamentals of Speech (3)
- ENGL 110 - ~Technical Writing & Communication (3)
- IT 105 - Computer Ethics (3)
- IT 111 - Info Lit for IT Professionals (3)
- MATH 105 - ~Algebra (3)

**Subtotal Credit Hours Required 15**

### Technical Core

- CNET 121 - Network+ (3)
- CNET 131 - Introduction to Networks (4)
- CNET 141 - Route & Switch Essentials (4)
- CYBR 125 - Principles of Incident Response and Disaster Recovery (3)
- CYBR 160 - Security+ (3)
- CYBR 192 - Practicum (1)
- CYBR 210 - Intrusion Detection (3)
- CYBR 284 - Tactical Perimeter Defense (3)
- CYBR 292 - Field Experience (3-6)
- IT 185 - Introduction to Linux (3)
- IT 269 - Project Management (3) **OR**
- CYBR 290 - Applied Cybersecurity Concepts (3)

**Subtotal Credit Hours Required 33**

## Restricted Electives

Choose 12 credits from the following list:

- CNET 231 - Scaling Networks (4)
- CNET 241 - Connecting Networks (4)
- CNET 250 - CCNA Security (4)
- CYBR 220 - Wireless Security (3)
- CYBR 250 - Internet Security (3)
- CYBR 281 - Ethical Hacking (3)
- CYBR 283 - Computer Forensics (3)
- CYBR 290 - Applied Cybersecurity Concepts (3)
- CYBR 291 - Applied Cybersecurity Implemen (3)
- IT 188 - Introduction to Programming Logic (3)
- IT 193 - Intro to Programming C# (3)
- IT 243 - Programming with Python (3)

## **Digital Media Specialist, A.A.S.**

As technology has changed, computer-based media has become a popular communication technology. The digital media specialist degree introduces students to essential web design software, basic troubleshooting, help desk technical skills, and business-centered official applications such as, document processing, spreadsheets, databases, and presentation software. The digital media specialist degree also introduces students to computer graphic design software and computer programming, animation, and web design. The course focuses on informational, business, commercial, entertainment, and gamed-based applications. This degree incorporates vendor certification training, specifically in Adobe certifications, for students preparing for entry-level employment or career advancement in a variety of occupations within the digital media field.

### **Program Overview**

A student pursuing an Associate of Applied Science degree in Digital Media Specialist must complete the requirements for the general education core and the technology core. With the exceptional growth being experienced in the Eastern Panhandle, well-trained digital media specialist support personnel are essential for business and industry. The Digital Media Specialist A.A.S. degree provides students with the training needed for employment upon graduation.

Students completing the Associate of Applied Science degree in Digital Media Specialist will understand and be able to demonstrate basic skills in writing, reading, math, and decision-making and communication, graphic design skills, web page design skills, presentation and publication design skills, and business-centered office applications to successfully obtain employment within the ever-changing information technology field.

### **Career Opportunities**

Students in the digital media specialist degree program complete hands-on activities that help develop computer application fluency, design theories, and fundamentals technical skills. They complete project-based activities, which incorporate publication and document creation and design skills, electronic presentation skills and web design skills to prepare for the work environment. Upon earning a degree, digital media specialist graduates may pursue entry-level employment in a variety of business, government, and educational institutions. A Blue Ridge Community and Technical College training in graphic design, web design, and publication development and design applications will add value to any workplace.

Curriculum for an Associate of Applied Science in Digital Media Specialist

General Education Core 15

Technical Core 45

**Total Credit Hours Required 60**

### General Education Core

- BUSN 205 - Business Ethics (3) OR
- IT 105 - Computer Ethics (3)
- CAS 111 - Information Literacy (3)
- ENGL 110 - ~Technical Writing & Communication (3)
- MATH 101 - ~Introduction to Mathematics (3)
- MDIA 101 - Introduction to Media Studies (3)

**Subtotal Credit Hours Required15**

### Technical Core

- BUSN 101 - Introduction to Business (3)
- CAS 211 - Word Complete (3)
- CAS 213 - Excel Complete (3)
- CAS 214 - Access Complete (3)
- CAS 215 - Windows Complete (3)
- CAS 217 - Data File Management (3)
- CAS 220 - Publications Design (3)
- CAS 230 - Office Administration (3)
- MDIA 102 - Intro to Adobe Photoshop (3)
- MDIA 103 - Advanced Photoshop & Animate (3)
- MDIA 104 - Web Page Design (3)
- MDIA 106 - Site Designer (3)
- MDIA 108 - Multimedia Presentation Develo (3)
- MDIA 192 - Media Support Practicum (1)
- MDIA 292 - Field Experience (1-4)
- Restricted Elective in ACCT 201, BUSN, CAS, IT, MDIA (2)

**Subtotal Credit Hours Required45**

## **Electric Distribution Engineering Technology, A.A.S.**

Climbing toward your future? Elevate your career options as a line worker! This experiential program will prepare you with the technical skills, knowledge, and safety techniques in this rapidly-growing profession.

### **Program Overview**

The Electric Distribution Engineering Technology program was created through a partnership between Blue Ridge Community and Technical College and Allegheny Energy, providing educational opportunities for a field which has typically been limited to internal apprenticeship opportunities. Through this program, endorsed by the Utility Workers Union of America (UWUA) Local 102, students will learn the skills necessary to become lineworker.

The Electric Lineworker program is designed to provide the technical skills required for new utility workers. Traditional academic instruction gives students an understanding of the technology fueling today's electrical utilities, while hands-on laboratories, such as pole training areas and equipment labs, ensure that students are prepared for the job on day one.

Students seeking a fast-track to employment may enroll in the Electric Lineworker Certificate Program, which provides the fundamental skills required for employment in the electric utility field. Those seeking specific technical knowledge with a broader understanding of the electrical utility environment can pursue an Associate of Applied Science Degree. Both programs are taught by highly trained and credentialed faculty and include technical modules, hands-on laboratories, equipment training and paid internships.

Students in the Electric Distribution Engineering Technology program are subject to Blue Ridge Community and Technical College's requirements for admission, informed consent form, basic skills testing, and appropriate course placement, including developmental education courses, which may not count toward completion of the program. Blue Ridge CTC requirements regarding academic standards, student conduct, and graduation procedures also apply.

### **Career Opportunities**

Upon graduation, you will be prepared to enter into a career as a line worker. Students graduating with this degree have a 99% hire rate and earn an average income of \$30,000 to \$50,000 per year.

*Note: All salary estimations are based on current position and educational trends. Blue Ridge Community and Technical College cannot guarantee that the projections given will be the salaries students or graduates will ultimately receive.*

Curriculum for an Associate of Applied Science in Electric Distribution Engineering Technology

General Education Core 17

EDET Technical Core 43

**Total Credit Hours Required 60**

## General Education Core

- CAS 111 - Information Literacy (3)
- COMM 205 - ~Professional Communications (3)
- ENGL 111 - Applied Technical Writing (4)
- EDET 180 - Building Better Relationships (2)
- EDET 181 - Conflict Resolution (2)
- MATH 102 - Technical Mathematics (3)

**Subtotal Credit Hours Required17**

## EDET Technical Core

- EDET 101 - Intro to Line Worker (2)
- EDET 102 - Fundamentals of Electric Power Distribution (2)
- EDET 103 - Heavy Equipment Familiarization (2)
- EDET 120 - Adv Pole Working Workshop (1)
- EDET 121 - Safety for Electrical Line Workers (2)
- EDET 130 - Underground Line Maintenance (2)
- EDET 131 - Substation Basics (2)
- EDET 140 - Overhead Line Maintenance (1)
- EDET 150 - Fundamentals of Electricity (4)
- EDET 151 - Circuit Analysis (4)
- EDET 293 - Practical Line Work Internship II (4)
- EDET 295 - Practicum Skills Evaluations (1-4)
- 17 credits of Restricted Electives in MATH 100, ENGL 100, SOCI 215, EDET, RENG, MECH, CAD

**Subtotal Credit Hours Required43**



## **Electric Utility Technology, A.A.S.**

### **Power Systems Institute in Partnership with FirstEnergy**

Established by FirstEnergy in 2000, the **Power Systems Institute (PSI)** is a unique, two-year program that combines classroom learning with hands-on training. Students enrolled in the PSI program at Blue Ridge Community and Technical College have the opportunity to earn an **Associate of Applied Science in Electric Utility Technology**. This program, offered in partnership with FirstEnergy and Blue Ridge Community and Technical College, is a pre-employment program. Students are not guaranteed employment; however, students with the right grades, skills and attitude will have the potential to be hired by FirstEnergy. Financial Aid may be available for qualified students.

### **Steps in the Selection Process**

1. **Program Orientation**  
This is your opportunity to learn more about the program and decide if a career as a lineworker is right for you.
2. **Technical Evaluation**  
Prospective students are evaluated on a series of hands-on activities that are performed on the job.
3. **Placement Testing**  
Transcript review and/or placement testing in reading, math and writing is completed before prospective students register for classes.
4. **Background Screening**  
Prospective students must successfully pass a background screen consisting of criminal and driving history.
5. **Physical Capabilities Assessment**  
Strength and endurance is tested to ensure prospective students are right for this type of work.
6. **D.O.T. Physical**  
Prospective students must provide a completed Medical Examiners Certificate.
7. **Climbing Course**  
Prospective students learn the basics of climbing wood poles and are evaluated for enrollment in the PSI program.
8. **Interview**  
Prospective students participate in an interview with FirstEnergy management.

Curriculum for an Associate of Applied Science in Electric Utility Technology

General Education Core 29

EUT Technical Core 31

**Total Credit Hours Required 60**

## General Education Core

- ACCT 180 - Personal Finance (3)
- BUSN 160 - Organizational Behavior (3)
- CAS 111 - Information Literacy (3)
- CGEN 101 - Career Transition (3)
- COMM 205 - ~Professional Communications (3)
- ECON 123 - ~Contemporary Economics (3)
- ENGL 111 - Applied Technical Writing (4)
- MATH 102 - Technical Mathematics (3)
- MECH 102 - Technical Physics (2)
- MECH 102L - Technical Physics Lab (2)

**Subtotal Credit Hours Required29**

## EUT Technical Core

- BUSN 108 - Business Etiquette & Image (3)
- EDET 150 - Fundamentals of Electricity (4)
- EDET 151 - Circuit Analysis (4)
- EDET 155 - Positive Workplace Comm (5)
- EUT 101 - Overhead Lines Technology I (3)
- EUT 102 - Overhead Lines Technology II (3)
- EUT 201 - Overhead Lines Technology III (3)
- EUT 202 - Overhead Lines Technology IV (3)
- MATH 100 - Math Essentials (3)

**Subtotal Credit Hours Required31**

## **Food Service Retail Management, A.A.S.**

This degree program nourishes you with the skills and confidence to enter the service industry as a manager. Over your course of study, you will learn classical culinary techniques, nutrition, safety and sanitation, food origin and history, and culinary artistry. As a component of your hands-on training, you will help maintain a functional retail operation and learn front and back of the house leadership activities, critical thinking, customer service, and human relations.

### **Program Overview**

Blue Ridge Community and Technical College Culinary Academy's Programs are designed to provide students with the practical knowledge and skills necessary to ensure successful employment in an entry to mid-level position within the food service and hospitality and tourism industry through a certificate or degree program.

Students will learn classical culinary techniques which include a wide variety of regional cuisines, baking fundamentals from scaling ingredients to designing and constructing elaborate centerpieces, along with courses that build on immersing the student into all aspects of culinary foundations such as nutrition, safety and sanitation, origins of food, food history, food cost, product efficiency, molecular gastronomy, speed, attention to detail and culinary artistry. Practical lab experiences will help to complete the well-rounded student for entry into the workforce. Students will be able to experience the flow of their product from creation to service in this degree program.

Food Service Retail Management students will assist in the maintenance of a functional retail operation and become exposed to front and back of the house leadership activities, critical thinking, customer service and human relations management and finally an entrepreneurial business plan exercise to launch their own food service conception.

Students in the Culinary Art Programs are subject to the Community and Technical College's requirements for admissions, basic skills testing, and appropriate course placement, including developmental education courses, which may not count toward completion of the program. Blue Ridge Community and Technical College Catalog requirements regarding academic standards, student conduct, and graduation procedures also apply.

### **Career Opportunities**

Upon graduation, you will be ready to enter the exciting culinary workforce. You will be prepared for both front and back of the house operations as well as management positions. If entrepreneurship is a more appetizing option, you will be prepared to launch your own food service business upon completion of your own business plan.

### **Curriculum for an Associate of Applied Science in Food Service Retail Management**

|                                     |           |
|-------------------------------------|-----------|
| General Education Core              | 15        |
| Food Service Retail Management Core | 45        |
| <b>Total Credit Hours Required</b>  | <b>60</b> |

## General Education Core

- BUSN 201 - Principles of Management (3)
- BUSN 205 - Business Ethics (3)
- CAS 111 - Information Literacy (3)
- ENGL 110 - ~Technical Writing & Communication (3)
- MATH 101 - ~Introduction to Mathematics (3)

**Subtotal Credit Hours Required15**

## Food Service Retail Management Core

- BUSN 101 - Introduction to Business (3)
- CART 100 - Introduction to Culinary Food Service (2)
- CART 115 - Safety and Sanitation in the Food Service Industry (2)
- CART 120 - Bruin Cafe Lecture (1)
- CART 120L - Bruin Cafe Lab (3)
- CART 200 - International Cuisines Lecture (1)
- CART 200L - International Cuisines Lab (2)
- CART 201 - Stocks, Soups, and Sauces (3)
- CART 203 - Culinary Nutrition (3)
- CART 204 - Inventory and Purchasing (3)
- CART 212 - Baking Skills and Development (4)
- CART 231 - Garde Manger and Cold Presentations (4)
- CART 245 - Cooking Fundamentals I Lecture (1)
- CART 245L - Cooking Fundamentals I Lab (2)
- CART 246 - Cooking Fundamentals II (1)
- CART 246L - Cooking Fundamentals II Lab (2)
- CART 292 - Culinary Arts Internship (1–6)
- CART 296 - Ala Carte (4)
- MATH 100 - Math Essentials (3)

**Subtotal Credit Hours Required45**

## **Health Information Management, A.A.S.**

This program provides students with a diverse blend of course work in administrative technology and information management. Students interested in medical coding, health information regulations, and computer applications in the healthcare setting will find this career track rewarding. Upon successful completion of this program, students will be eligible to sit for the certifying examination, RHIT (Registered Health Information Technician).

### Curriculum for an Associate of Applied Science in Health Information Management

General Education Core 23

HIM Core 37

**Total Credit Hours Required 60**

#### General Education Core

- BIOL 120 - ~Human Anatomy & Physiology I (3)
- BIOL 121 - ~Human Anatomy & Phys I Lab (1)
- BIOL 122 - ~Human Anatomy & Physiology II (3)
- BIOL 123 - ~Human Anatomy & Phys II Lab (1)
- CAS 111 - Information Literacy (3)
- COMM 205 - ~Professional Communications (3)
- ENGL 110 - ~Technical Writing & Communication (3)
- MATH 101 - ~Introduction to Mathematics (3)
- PSYC 203 - ~Introduction to Psychology (3)

**Subtotal Credit Hours Required 23**

#### HIM Core

- CAHS 142 - Pathophysiology of Disease (3)
- HIM 101 - Health Info Management (2)
- HIM 102 - Classification Sys 1 ICD-10 (3)
- HIM 201 - Classification Sys II CPT (3)
- HIM 201L - Practicum I: ICD 10 CM & CPT 4 (2)
- HIM 202 - Computers in Healthcare (2)
- HIM 202L - Practicum II: ICD 10/PCS (2)
- HIM 203 - Basic Pharmacology for HIM (2)
- HIM 204 - Healthcare Law & Ethics (3)
- HIM 205 - Performance Improvement/HC (3)
- HIM 207 - Advanced Coding (3)
- HIM 208 - Practicum III: Externship (3)
- HIM 209 - Capstone (2)

- HIM 210 - Healthcare Statistics (1)
- MAST 102 - Medical Terminology (3)

**Subtotal Credit Hours Required**37

## Healthcare Professions, A.A.S.

In the face of an aging population, new treatments and technologies, allied health careers are on the rise. Our healthcare professions degree program positions you for success in a variety of medical fields. Our program acquaints you with medical knowledge and terminology, and refines your communications and life skills, social awareness, and critical and analytical thinking abilities. Within the program, you may select a concentration in Hospital, Paramedicine, or Physical Therapy. The curriculum within each concentration emphasizes practical skills and hands-on learning. The Medical Lab Technician concentration is available only to students who are employed in the industry through a contracted course.

### Program Overview

This program prepares individuals to work in a variety of health care settings. Individuals may work in hospitals, clinics, home health agencies and physicians' offices.

### Career Opportunities

Upon achieving a degree, you may seek employment in hospitals, clinics, home health agencies, or physicians' offices. If you seek a more specific career path in fields such as nursing, medical assisting, paramedicine, or physical therapist assisting, explore other health science degree programs here.

### Curriculum for an Associate of Applied Science in Healthcare Professions

General Education Core 17

Concentration 43

**Total Credit Hours Required 60**

#### General Education Core

- BIOL 120 - ~Human Anatomy & Physiology I (3)
- BIOL 121 - ~Human Anatomy & Phys I Lab (1)
- BIOL 122 - ~Human Anatomy & Physiology II (3)
- BIOL 123 - ~Human Anatomy & Phys II Lab (1)
- ENGL 101 - ~Written English (3) **OR**
- ENGL 110 - ~Technical Writing & Communication (3)
- MATH 101 - ~Introduction to Mathematics (3) **OR**
- MATH 114 - ~Elem Probability & Statistics (3)
- PSYC 203 - ~Introduction to Psychology (3)

**Subtotal Credit Hours Required 17**

Choose a Concentration:

Choose a concentration in Hospital, Paramedic, or Physical Therapy Assisting. The Medical Laboratory Technician concentration is for contracted training only.

### Hospital Concentration

This concentration is for students who wish to apply to the nursing program or for students interested in general hospital knowledge.

- BIOL 220 - Microbiology (3)
- BIOL 221 - Microbiology Lab (1)
- CAHS 171 - Advanced Patient Care (4)
- CGEN 101 - Career Transition (3)
- CHEM 127 - ~General, Organic & Biochem I (4)
- Restricted Electives (28) - See List

**Subtotal Credit Hours Required 43**

### Hospital Concentration Restricted Electives

Choose 28 credits from this list (with advisor approval):

- ART 103 - ~Introduction to Visual Arts (3)
- CAHS 105 - Science for Allied Health (3)
- CAHS 140 - Intro to Healthcare (3)
- CAHS 141 - Intro to Pharmacology (3)
- CAHS 142 - Pathophysiology of Disease (3)
- CAHS 143 - Spanish for Healthcare (3)
- CAHS 210 - Human Growth & Development (3)
- CHEM 128 - ~General, Organic & Biochem II (4)
- COMM 202 - ~Fundamentals of Speech (3)
- ENGL 102 - ~Writing for the Arts & Hum (3)
- ENGL 204 - ~Sur of American Lit (3)
- HIST 101 - ~World History to 1500: Early Man Through the Renaissance (3)
- HIST 102 - ~World History Since 1500: The Renaissance Through the Present (3)
- MAST 102 - Medical Terminology (3)
- MUSC 111 - ~Introduction to Music (3)
- NURS 111 - Introduction to Nursing (2)
- PSCI 101 - ~American Federal Government (3)
- SOCI 203 - ~General Sociology (3)



## Medical Laboratory Technician Concentration

This concentration is for contracted training, students must be employed with specific medical agencies in order to complete these courses and clinical hours.

- MLT 101 - Intro to Medical Laboratory Technician (2)
- MLT 102 - Medical Laboratory Techniques (2)
- MLT 200 - Hematology/Coagulation (3)
- MLT 201 - Applied Immunology (3)
- MLT 202 - Medical Microbiology (4)
- MLT 203 - Immunohematology (3)
- MLT 204 - Clinical Chemistry (3)
- MLT 205 - Review & Certification Preparation (4)
- MLT 210 - Clinical Practice I-Internship (4)
- MLT 211 - Clinical Practice II-Internship (4)
- PLBT 101 - Phlebotomy (3)

**Subtotal Credit Hours Required 43**

## Paramedic Concentration

This concentration is for students who wish to complete the Paramedic program or general pre-hospital knowledge.

- CAHS 140 - Intro to Healthcare (3)
- CAHS 141 - Intro to Pharmacology (3)
- CGEN 101 - Career Transition (3)
- COMM 202 - Fundamentals of Speech (3)
- EMSP 101 - Introduction to EMS (3)
- EMSP 102 - Emergency Medical Technician (6)
- EMSP 102L - Emergency Medical Technician Lab (2)
- EMSP 103 - EMS Operations (3)
- EMSP 104 - EMS Practicum (1)
- MAST 102 - Medical Terminology (3)
- Free Electives (13)

**Subtotal Credit Hours Required 43**

## Physical Therapy Assistant Concentration

This concentration is for students who wish to apply for the physical therapy assisting program.

- CAHS 140 - Intro to Healthcare (3)
- CAHS 141 - Intro to Pharmacology (3)
- CAS 111 - Information Literacy (3)
- CGEN 101 - Career Transition (3)
- COMM 202 - ~Fundamentals of Speech (3)
- MAST 102 - Medical Terminology (3)
- PTA 108 - Patho of Disease for PTA (3)
- PTA 109 - Physics for PTA (1)
- Free Elective (21)

**Subtotal Credit Hours Required 43**

## **Human Services, A.A.S.**

An associate's degree in Human Services offers graduates the opportunity to make a positive impact on the lives and people in their communities. Students will be able to promote awareness and obtain knowledge and specific skills needed to work in the human and social services fields. The program introduces students to services related to human development concepts and trains them to work with at-risk socioeconomic populations, including the elderly, children, persons with mental health or physical handicaps, and those experiencing problems with addictive disorders.

- Potential Career Opportunities for Human Services Graduates:
- Case manager
- Health department worker
- Human services worker
- Mental health associate
- Rehabilitation counselor
- Psychiatric rehabilitation specialist
- Social services worker
- Social work assistant
- Community Outreach worker
- Addiction counselor
- Victim advocate

**Upon successful completion of program requirements, graduates will be able to:**

- Demonstrate knowledge of the historical development and scope of human services.
- Define the human service systems, which include individuals, families, groups, organizations, and communities within the society and their interaction.
- Apply skills, strategies, and techniques for service delivery.
- Demonstrate knowledge and skills in the administrative aspects of service delivery.
- Analyze service problems, select appropriate strategies, services, or interventions, and evaluate outcomes.
- Demonstrate the ability to identify and analyze service needs, plan appropriate services and intervention strategies for various populations, implement services, and evaluate outcomes of services.
- Demonstrate sensitivity and show an understanding of respect for individuals and groups with ethnic, cultural, gender and racial differences.
- Apply critical thinking skills to problem solve in human service practices.
- Demonstrate effective written and oral communication skills that represent competence and professionalism in the human services field.
- Exemplify the values, attitudes, and ethical standards of the human services profession and the ability to follow its ethical guidelines.
- Develop awareness of one's own values, personalities, reaction patterns, interpersonal styles, limitations, and self-care practices.
- Apply interventions with individual clients and therapeutic groups as it relates to drug and alcohol addictions.

## Curriculum for an Associate of Applied Science in Human Services

General Education Core 27

Human Services Core 18

Track 15

**Total Credit Hours Required 60**

### General Education Core

- BIOL 101 - ~General Biological Science I (4)
- BIOL 102 - ~General Biological Science II (4)
- COMM 202 - ~Fundamentals of Speech (3)
- ENGL 101 - ~Written English (3)
- ENGL 102 - ~Writing for the Arts & Hum (3)
- MATH 105 - ~Algebra (3)
- PSCI 101 - ~American Federal Government (3)
- PSYC 203 - ~Introduction to Psychology (3)
- SOCI 203 - ~General Sociology (3)

**Subtotal Credit Hours Required 27**

\*\* Science Credit - 2+2 transfer agreements require 6 credits of lecture and 2 credits of lab for a total of 8 credits. Check with your advisor to ensure proper science placement.

### Human Services Core

- HSRV 101 - Intro to Human Services & SW (3)
- HSRV 201 - Interview, Intake, Case Mgmt (3)
- HSRV 210 - Ethics, Values, Cultural Compt (3)
- HSRV 220 - Practicum/Field Work I (3)
- PSYC 205 - Abnormal Psychology (3)
- SOCI 205 - Social Problems (3)

**Subtotal Credit Hours Required 18**

### Specialty Tracks:

The tracks within the AAS Human Services degree offers flexibility for you and your advisor to design your own program. **You must select ONE of the following specialty tracks:**

### General Track

- ECON 123 - ~Contemporary Economics (3)
- HSRV 230 - Community Org & Advocacy (3)
- HSRV 240 - Research in Human Services (3)
- HSRV 250 - Crisis Intervention (3)

- HSRV 292 - Practicum/Field Work II (3)

**Subtotal Credit Hours Required 15**

#### Addiction Disorders Track

- HSRV 250 - Crisis Intervention (3)
- HSRV 260 - Introduction to Addiction (3)
- HSRV 270 - Psychopharm of Addiction (3)
- HSRV 292 - Practicum/Field Work II (3)
- PSYC 240 - Social Psych of Substance Use (3)

**Subtotal Credit Hours Required 15**

## **Information Technology, A.A.S.**

The Blue Ridge Community and Technical College Information Technology Degree program prepares students for achievement in a high-demand field. The program's flexibility gives students a background in computer technology, an array of vendor certification training choices, and numerous internship opportunities. The IT degree will hone student skills in troubleshooting and repair, hardware, networking, web development, and basic programming.

### **Program Overview**

The Information Technology program offers an associate of applied science degree, incorporating vendor certification training, for students preparing for entry-level employment or advancement in a variety of occupations, courses, and professional certificate programs in information technology. The program will offer students a solid background in computer technology complemented by a full array of vendor certification training choices. All courses leading toward certification are taught by certified instructors.

The program offers a flexible environment where students can develop the background necessary to enter the rapidly changing information technology workforce and/or transfer to a four-year institution for further undergraduate education. Students in the Information Technology Program are subject to the Blue Ridge Community and Technical College's requirements for admissions, basic skills testing, and appropriate course placement. Blue Ridge Community and Technical College Catalog requirements regarding academic standards, student conduct, and graduation procedures also apply.

Students in this program will complete hands-on activities that will help to develop computer fluency and transferable computer troubleshooting skills. They complete project-based activities which will incorporate Internet research skills and electronic presentation skills to prepare for the work environment. By completing these activities students will also develop a conceptual understanding of and obtain functional skills in computer hardware, networking, web development and basic programming.

An internship in an office technology related area is required for graduation. Students are expected to locate their internship site. Detailed information of the internship requirements and expectations is available from the student's advisor.

### **Career Opportunities**

Classroom training, internships, and certification opportunities will enable graduates to pursue entry-level positions in computer repair, computer networking, consulting, help desk support, training, or programming. Upon earning an IT degree with certifications, graduates in entry-level network support positions can earn approximately \$40,000–\$50,000 annually with a potential of eventually earning \$60,000 or more.

For graduates seeking a four-year degree, Blue Ridge Community and Technical College has partnered with various four-year institutions to assist students in achieving this goal. These agreements provide students the opportunity to complete their degrees at Blue Ridge Community and Technical College while pursuing bachelor's degrees with other institutions. Students are able to fulfill their degree requirements at Blue Ridge Community and Technical College with the accessibility of online forums to connect them to their four-year institutions.

*Note: All salary estimations are based on current position and educational trends. Blue Ridge Community and Technical College cannot guarantee that the projections given will be the salaries students or graduates will ultimately receive.*

## Curriculum for an Associate of Applied Science in Information Technology

|                                    |           |
|------------------------------------|-----------|
| General Education Core             | 15        |
| Technical Core                     | 22        |
| Restricted Electives               | 23        |
| <b>Total Credit Hours Required</b> | <b>60</b> |

### General Education Core

- COMM 202 - ~Fundamentals of Speech (3)
- ENGL 110 - ~Technical Writing & Communication (3)
- IT 105 - Computer Ethics (3)
- IT 111 - Info Lit for IT Professionals (3)
- MATH 105 - ~Algebra (3)

**Subtotal Credit Hours Required 15**

### Technical Core

- CNET 121 - Network+ (3)
- CYBR 160 - Security+ (3)
- IT 180 - A+ Hardware Essentials (3)
- IT 181 - A+ Software Essentials (3)
- IT 188 - Introduction to Programming Logic (3)
- IT 191 - Practicum (1)
- IT 269 - Project Management (3)
- IT 292 - Field Experience (3)

**Subtotal Credit Hours Required 22**

### Restricted Electives

Choose 23 credits from the list below:

- BUSN 101 - Introduction to Business (3)
- BUSN 105 - Business Communication (3)
- BUSN 108 - Business Etiquette & Image (3)
- BUSN 125 - Customer Service Management (3)
- BUSN 205 - Business Ethics (3)
- BUSN 250 - Management and Leadership (3)
- BUSN 255 - Teamwork & Managing Teams (3)
- CNET - Any course in Computer Network Engineering Technology (not used above)
- CYBR - Any course in CyberSecurity (not used above)
- IT - Any course in Information Technology (not used above)

## **Mechatronics, A.A.S.**

Our degree program is geared for students seeking a challenging and exciting career as a high-tech problem-solver. Over the course of the program, you will learn to apply concepts in mathematics, science, and engineering to install, program, control, and maintain automated equipment commonly used in manufacturing, distribution, and processing.

### **Program Overview**

The Mechatronics program supplies local industries with maintenance technicians, who can install, service, repair and maintain a variety of industrial automation equipment. The first year of the program prepares the student to be a certified machine operator. After completing the first year, and taking the Siemens certification exam, the student will be ready to enter the employment market and gain valuable on-the-job experience. This will give the student a chance to apply their new skill set, and obtain greater insight into industry practices.

Students will gain understanding of the technology utilized in modern distribution and processing industries. Hands-on laboratories, in areas such as electricity and electronics, mechanics, fluid power, motor controls, and quality controls will ensure that students are prepared for the job on day one. Computer Aided Design and Networking are included. Internships are available.

### **Career Opportunities**

Mechatronic specialists often find rewarding careers in the automotive, aerospace, medical device, and heavy equipment industries. Local employment opportunities abound within this field at companies such as: EcoLab, Essroc, Quad Graphics, Macy's Distribution, Fed-Ex, U.S. Silica, Ply Gem, Monoflo, O'Sullivan, Cenetic Landis, Automated Merchandising Systems, New World Pasta, and other firms in West Virginia, Maryland, Northern Virginia, and Southern Pennsylvania.

### Curriculum for an Associate of Applied Science in Mechatronics

|                                    |           |
|------------------------------------|-----------|
| General Education Core             | 16        |
| Technical Core                     | 44        |
| <b>Total Credit Hours Required</b> | <b>60</b> |

### General Education Core

- CAS 111 - Information Literacy (3)
- ENGL 110 - ~Technical Writing & Communication (3)
- MATH 102 - Technical Mathematics (3)
- MECH 102 - Technical Physics (2)
- MECH 102L - Technical Physics Lab (2)
- IT 105 - Computer Ethics (3) **OR**
- IT 269 - Project Management (3) **OR**



- PSYC 203 - ~Introduction to Psychology (3) OR
- SOCI 203 - ~General Sociology (3)

**Subtotal Credit Hours Required 16**

## Technical Core

- CAD 201 - 3D Modeling (1)
- CAD 201L - 3D Modeling Lab (2)
- CGEN 200 - Learning Online (1)
- MECH 101 - Introduction to Mechatronics (1)
- MECH 101L - Intro to Mechatronics Lab (2)
- MECH 106 - Electricity & Electronics (2)
- MECH 106L - Electricity & Electronics Lab (2)
- MECH 110 - Mechanical Systems I (3)
- MECH 120 - Fluid Power (3)
- MECH 121 - Safety Awareness & OSHA 10 (2)
- MECH 201 - Systematic Troubleshooting (3)
- MECH 210 - Mechanical Systems II (3)
- MECH 230 - Industrial Controls (2)
- MECH 250 - Intro to PLC (Programmable Logic Controllers) (3)
- MECH 255 - Adv PLC & Int Automation (2)
- MECH 260 - Process Control & Instrumentation (2)
- MECH 270 - Manufac Proc & Quality Control (3)
- MECH 280 - Integrated Manufacturing Systems (1)
- MECH 280L - Integrated Manuf Systems Lab (2)
- MECH 292 - Internship (1-4)
- Restricted Electives in any CAD, INST, MECH, RENG, ROB (2)

**Subtotal Credit Hours Required 44**

## **Medical Assisting, A.A.S.**

Medical assistants perform valuable administrative and clinical duties on the healthcare team. If you seek a meaningful career in patient care, you will welcome the possibilities for growth in this rising field. Our program prepares you for an entry-level job in healthcare and helps you contribute directly to the well-being of your community. Our program includes an externship experience—an added preparation for life in the working world.

### **Program Overview**

The Medical Assisting program is a career-oriented program that prepares students to work primarily in ambulatory care settings under the direction of a physician. The program is comprised of clinical and non-clinical components, with lecture as well as competency based experiences in performing administrative and clinical procedures. General education and program requirements are designed for students interested in pursuing management positions within physician offices. There is also a non-compensated externship experience in which students work in an actual ambulatory care setting. Externship sites may have their own requirements that students must meet prior to their externship experience. Medical Assisting degree students must maintain a grade of "C" or better in all required courses. Students must provide appropriate health records that include a history and physical, required immunizations, and a negative TB test prior to externship. Students must also have current American Heart Association's "Healthcare Provider" CPR certification as well as First Aid certification and meet the program's technical standards. Also, students will undergo a background check and drug screen prior to externship. Any negative findings may prohibit a student from participating in their externship, and thus not be able to complete the Medical Assisting degree program. Students who successfully complete the program are required to sit for the American Medical Technologists' national certification exam in medical assisting \*.

*\* In order to sit for the American Medical Technologists' national certification exam in medical assisting, graduate must have proof of High School diploma or G.E.D.*

### **Mission Statement**

Blue Ridge Community and Technical College's Medical Assisting Program is committed to providing learner-centered career programs for a diverse student population to pursue professional administrative and clinical medical education within the college's service area. These programs are designed to provide graduates with the opportunity to obtain entry-level jobs in allied health careers, and in so doing, contribute to the growth and development of their communities.

### **Program Goals**

The following goals are the primary purposes for the Medical Assisting Program:

1. Prepare competent, entry-level allied health professionals in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains.
2. Prepare students to be eligible for, take, and pass nationally recognized certification exams.
3. Prepare graduates to obtain jobs in allied health fields.
4. Prepare graduates who can function in and contribute to the well-being of their communities.

## Outcomes

Students will be able to:

1. Demonstrate understanding of content areas of the curriculum in medical assisting. These content areas are anatomy and physiology, medical terminology, medical law and ethics, psychology, communication, medical assisting administrative procedures, medical assisting clinical procedures, and professional components.
2. Apply knowledge from content areas to competencies in administrative, clinical, and general skills of medical assisting.
3. Analyze essential elements of core content areas and competencies.
4. Critically evaluate patient care and administrative scenarios and use appropriate judgment within the scope of practice of medical assistants.
5. Display a professional commitment to the ethical, legal, and compassionate practice of medicine in diverse communities.
6. Demonstrate hands-on competency in administrative, clinical, and general skills of medical assisting.
7. Communicate effectively with all members of healthcare teams, patients and others associated with the medical profession.
8. Function as a competent, professional member of a healthcare team both administratively and clinically.
9. Continue to learn and grow in healthcare professions and life.
10. Contribute to the development and growth of their communities in creative ways.

## Career Opportunities

As a medical assistant, your busy schedule may include greeting patients, answering telephone calls, scheduling appointments, and filing medical records. Your clinical work may include serving as a liaison between doctor and patient, preparing patients for exams, administering medications, and drawing blood.

## Curriculum for an Associate of Applied Science in Medical Assisting

General Education Core 21

Medical Core 39

### Total Credit Hours Required 60

#### General Education Core

- BIOL 100 - The Human Body (3)
- CAS 111 - Information Literacy (3)
- CGEN 100 - First Year Experience (3)
- COMM 202 - ~Fundamentals of Speech (3)
- ENGL 110 - ~Technical Writing & Communication (3)
- MATH 101 - ~Introduction to Mathematics (3)
- PSYC 203 - ~Introduction to Psychology (3)

**Subtotal Credit Hours Required 21**

## Medical Core

- CAHS 141 - Intro to Pharmacology (3)
- MAST 101 - Introduction to Medical Assisting (3)
- MAST 102 - Medical Terminology (3)
- MAST 105 - Insurance Billing & Coding (3)
- MAST 106 - Medical Office Management (2)
- MAST 106L - Medical Office Management Lab (1)
- MAST 202 - Clinical Medical Assistant I (2)
- MAST 202L - Clinical Medical Assistant I Lab (1)
- MAST 206 - Clinical Medical Assistant II (2)
- MAST 206L - Clinical Medical Assistant II Lab (1)
- MAST 214 - MA Review and Certification Prep (2)
- MAST 216 - Clinical & Administrative Externship (4)
- PLBT 101 - Phlebotomy (3)
- Electives in CAHS, EMSP, NURS, MLT, or PLBT 102 (9)

**Subtotal Credit Hours Required 39**

## **Occupational Development, A.A.S.**

By earning a degree as a child development specialist, you will elevate children's learning and sense of self in today's world. If you seek a rewarding career working with children in schools or child-care facilities, our program will equip you with the communication skills, developmental knowledge, and confidence to succeed in this field.

Our program carries an apprenticeship requirement, which integrates into the formal higher education curriculum of academically sound "Registered Apprenticeship Programs" (RAPs), which are recommended by the United States Bureau of Apprenticeship and Training (BAT). For guidance completing the apprenticeship portion of the program, contact the local United States Bureau of Apprenticeship Coordinator and refer them to the Apprenticeship for Child Development Specialist website at [www.wvacds.org](http://www.wvacds.org).

### **Program Overview**

The Associate of Applied Science degree in Occupational Development—Child Care Specialist is designed to provide special career training for those individuals who have completed a Registered Apprenticeship Program (RAP) in Child Development through the U.S. Department of Labor's Office of Apprenticeship.

There is a growing need in the United States for childcare at daycare centers. Some employers are making a collaborative effort to provide dependent care for their employees by establishing centers or expanding existing ones. Job opportunities for this degree include employment in community childcare facilities and in individual homes.

Students in the Occupational Development Program are subject to the Blue Ridge Community and Technical College's requirements for admissions, basic skills testing, and appropriate course placement, including developmental education courses, which may not count toward completion of the program. Blue Ridge Community and Technical College Catalog requirements regarding academic standards, student conduct, and graduation procedures also apply.

### **Career Opportunities**

Upon degree completion, you will enjoy increased wages and solid job security. You will be qualified to seek a fulfilling career in child care facilities as a director or as a classroom aide in an elementary school.

### **Curriculum for an Associate of Applied Science in Occupational Development**

|   |           |
|---|-----------|
| Component I - General Education                             | 15        |
| Component II - Classroom Instruction in the Occupation      | 15        |
| Component III - On the Job Training (OJT) in the Occupation | 30        |
| <b>Total Credit Hours Required</b>                          | <b>60</b> |

*\* Requirements for receiving APTR (ACDS Courses) 30 Credits are a valid certificate of completion of ACDS classes from the United States Department of Labor, Bureau of Apprenticeship and Training. For information on the ACDS Program, contact West Virginia Apprenticeship for Child Development Services visit [www.wvacds.org](http://www.wvacds.org).*

### Component I - General Education

- CAHS 210 - Human Growth & Development (3)
- COMM 202 - ~Fundamentals of Speech (3) OR
- COMM 205 - ~Professional Communications (3)
- ENGL 101 - ~Written English (3) OR
- ENGL 110 - ~Technical Writing & Communication (3)
- ECED 105 - Child Development (3)
- MATH 101 - ~Introduction to Mathematics (3)

**Subtotal Credit Hours Required15**

### Component II - Classroom Instruction in the Occupation

- ECED 101 - Found of Early Childhood Ed (3) OR
- ECED 103 - Early Language and Literacy (3) OR
- ECED 106 - Health, Nutrition and Safety (3) OR
- ECED 107 - Early Childhood Curriculum (3) OR
- ECED 165 - Assessment of Young Children (3) OR
- ECED 206 - Family/Community Engagement (3) OR
- ECED 220 - Early Childhood Inclusion (3) \*Choose 9 credits from ECED courses
- ENGL 100 - English Essentials (3) OR
- MATH 100 - Math Essentials (3) OR
- Restricted Electives (6)

**Subtotal Credit Hours Required15**

### Component III - On-the-Job-Training (OJT) in the Occupation

- Apprenticeship for Child Development OR
- Direct Support Specialist (30)

**Subtotal Credit Hours Required30**

## **Paralegal Studies, A.A.S.**

The Associate of Applied Science Degree in Paralegal Studies is a program designed to provide students with a balance between theory and practice, enabling graduates to step immediately into opportunities in the growing legal community. The program is designed to prepare individuals for employment at all levels of the law-administration, trial, appellate, and government.

### **Program Outcomes**

Students completing the Associate of Applied Science Degree in Paralegal Studies will be able to:

- Possess the basic skills of writing, reading for information, critical thinking and learning, and applied mathematics necessary to be successful in the legal field.
- Exhibit knowledge of legal terminology to communicate with professionals in the legal field.
- Assist attorneys with client interviews, legal research, and preparation of documents and pleadings for trial.
- Exhibit knowledge of appropriate ethical behavior within the legal field.
- Successfully obtain employment or promotion within the paralegal field including but not limited to: law offices, investigator, claims analyst compliance officer, and legal advocate.

### Curriculum for an Associate of Applied Science in Paralegal Studies

General Education Core 18

Paralegal Core 42

**Total Credit Hours Required 60**

#### General Education Core

- CAS 111 - Information Literacy (3)
- COMM 202 - ~Fundamentals of Speech (3)
- ENGL 101 - ~Written English (3)
- MATH 101 - ~Introduction to Mathematics (3)
- PSCI 101 - ~American Federal Government (3)
- PSYC 203 - ~Introduction to Psychology (3) **OR**
- SOCI 203 - ~General Sociology (3)

**Subtotal Credit Hours Required 18**

## Paralegal Core

- BUSN 108 - Business Etiquette & Image (3)
- CAS 101 - Documents Processing (3) **OR**
- CAS 211 - Word Complete (3)
- LGST 100 - Intro to Law & Legal Systems (3)
- LGST 103 - Legal Terminology (3)
- LGST 150 - Legal Research and Writing (3)
- LGST 200 - Legal Ethics (3)
- LGST 210 - Laws of Domestic Relations (3)
- LGST 212 - Business Law (3)
- LGST 213 - American Court System (3)
- LGST 220 - Civil Litigation (3)
- LGST 230 - Criminal Law and Procedure (3)
- LGST 292 - Field Experience (1-6)
- LGST - Restricted Electives in Legal Studies (6)

**Subtotal Credit Hours Required 42**



## **Paramedic, A.A.S.**

The Paramedic Program is a 60 Credit Hour Associate of Applied Science Degree program that is designed for students who are interested in pursuing jobs in the out of hospital setting.

Prior to application to the Paramedic program, all students are required to have taken either the Emergency Medical Technician-Basic (EMT-B) course or the new Emergency Medical Technician (EMT) course, which meets the U.S. Department of Transportation's National Standard Curriculum for EMT-B or EMT and possess a current card. The clinical concentration within the EMS degree meets the U.S. Department of Transportation's National EMS Education Standards for Paramedic. Successful completion of the program qualifies the graduate to sit for the National Registry Examination for Paramedic. It is intended for the clinical concentration of the Paramedic Program will prepare the graduate for a volunteer or paid career as a nationally certified Paramedic.

Admission to the Paramedic Program is made after admission to the College and successful completion of the "Pre-Entrance Exam" prior to enrollment in any of the advanced clinical level EMSP courses in the Paramedic Program (200-level EMSP courses), and the student must complete the following and submit to the EMS Program Coordinator:

1. An application to the Paramedic Program;
2. A photocopy of current CPR (Healthcare Provider Course) certification;
3. Current EMT-B or EMT card from either: National Registry, West Virginia, Maryland, Pennsylvania, or Virginia.
4. Submission to the EMS Clinical Coordinator of a completed immunization record prior to participation in any EMS Practicum course;
5. Submission to the EMS Clinical Coordinator of annual PPD results (or chest X-ray, if appropriate).
6. Successfully completed a urine drug screen and national criminal background check.

Students in the Paramedic Program are subject to Blue Ridge Community and Technical College's requirements for admissions, basic skills testing, and appropriate course placement, including mandated developmental courses, which are not counted toward completion of the program. Blue Ridge Community and Technical College Catalog requirements regarding academic standards, student conduct, and graduation procedures also apply.

### **Blue Ridge CTC Paramedic Program Goal**

To prepare competent entry level Paramedics in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains.

### **EMS TECHNICAL STANDARDS**

The following activities are examples of the kind of activities in which a student in the Paramedic Program will be required to perform in order to successfully complete the program.

1. **Critical Thinking:** Paramedic students should possess critical thinking ability sufficient for clinical judgment. For example: the paramedic student must be able to prioritize the care of the critically injured or ill patient.

2. **Interpersonal Skills:** Paramedic students shall possess interpersonal abilities sufficient to interact with individuals, families, groups, etc. from a variety of social, emotional, cultural and intellectual backgrounds. For example: student shall establish rapport with clients/patients and health care team members.
3. **Communication Skills:** Paramedic students shall possess communication abilities sufficient for interaction with others in verbal and written forms. For example: providing verbal encode to medical direction from the field and documentation of patient care.
4. **Mobility:** Paramedic students shall possess physical abilities sufficient to move from room to room, maneuver in small spaces, stand and walk for extensive periods of time and lift average size adults with help. For example: transferring patients on to stretchers, loading and unloading stretchers into the ambulance and moving about the scene to search and discover patients.
5. **Motor Skills:** Paramedic students shall possess gross and fine motor abilities sufficient to provide safe and effective care. For example: calibrate and use designated equipment, insertion of tubes and initiation of intravenous and intraosseous infusions and administration of medications.
6. **Hearing:** Paramedic students shall possess auditory ability sufficient to monitor and assess health needs. For example: hear monitor alarms, emergency signals, and cries for help and auscultate breath and bowel sounds.
7. **Visual:** Paramedic students shall possess visual ability sufficient for observation and assessment necessary for care. For example: observe patient/client responses to treatment, use of designated equipment and assessment of patient.
8. **Tactile:** Paramedic students shall possess tactile ability sufficient for physical assessment. For example: perform palpation and percussion, assessment of skin vital signs.
9. **Weight Bearing:** Paramedic students shall possess ability to lift and manipulate/move 45-50 pounds on a daily basis. For example: position patients/clients, carry designated equipment.
10. **Cognitive Abilities:** Paramedic students shall possess ability to be oriented to time, place and person and organize responsibilities, make decisions and function effectively in critical situation. For example: student shall assess client/patient complaints and implement appropriate plans for care.
11. **Occupational Exposures:** Paramedic students may be exposed to communicable diseases/ and or body fluids, toxic substances, medicinal preparations and latex. Students shall use appropriate precautions at all times. For example: student maybe be assigned a client/patient with a communicable disease and shall provide total care using universal precautions.
12. **Driving Skills/Abilities:** Paramedic students must have a valid Driver's License in order to complete their coursework at Blue Ridge Community and Technical College.

Curriculum for an Associate of Applied Science in Paramedic

General Education Core 20

EMS Core 40

**Total Credit Hours Required 60**

### General Education Core

- BIOL 120 - ~Human Anatomy & Physiology I (3)
- BIOL 121 - ~Human Anatomy & Phys I Lab (1)
- BIOL 122 - ~Human Anatomy & Physiology II (3)
- BIOL 123 - ~Human Anatomy & Phys II Lab (1)
- COMM 202 - ~Fundamentals of Speech (3)
- ENGL 110 - ~Technical Writing & Communication (3)
- MATH 101 - ~Introduction to Mathematics (3)
- PSYC 203 - ~Introduction to Psychology (3)

**Subtotal Credit Hours Required                      20**

### EMS Concentration

- EMSP 101 - Introduction to EMS (3)
- EMSP 103 - EMS Operations (3)
- EMSP 104 - EMS Practicum (1)
- EMSP 104L - EMS Lab I (1)
- EMSP 201 - Advanced Airway Management and Patient Assessment (3)
- EMSP 202 - Pathophysiology of Shock & Trauma Resuscitation (3)
- EMSP 203 - Pre-Hospital Pharmacology (3)
- EMSP 204 - EMS Practicum II (2)
- EMSP 204L - EMS Lab II (1)
- EMSP 205 - Medical Emergencies I (3)
- EMSP 205L - Medical Emergencies I Lab (1)
- EMSP 206 - EMS Practicum III (2)
- EMSP 206L - EMS Lab III (1)
- EMSP 207 - Medical Emergencies II (3)
- EMSP 208 - Special Patients & Situations (3)
- EMSP 209 - EMS Practicum IV (2)
- EMSP 209I - EMS Internship (1)
- EMSP 210 - Paramedic Capstone (2)
- EMSP 211 - Field Research and Evaluation (2)

**Subtotal Credit Hours Required                      40**

## **Physical Therapist Assisting, A.A.S.**

The Physical Therapist Assisting (PTA) program is a 1 + 1 program. One year of prerequisites must be completed prior to starting the Fall semester of the technical phase. Because students apply on March 1<sup>st</sup> each year, students may be enrolled in prerequisites during the Spring semester and still apply. The midterm grades for those spring semester courses will be used to determine acceptance. Acceptance would be contingent upon the successful completion of those spring courses. If prerequisites are still left over to compete during any summer term, those students will NOT be considered for acceptance until the following year. In ALL prerequisite coursework, each student must earn a C or better. Once in the technical phase of this PTA program, it will last one year plus one five-week summer session. Once in the program, each student must maintain at least a 75% test average in order to keep their spot in the program. Admission to the PTA program is competitive and twenty students will be admitted to the PTA program each Fall.

A numerical score sheet is used to select 20 students for each class. Points are assigned for grades in all prerequisite courses, volunteer experience, the brief narrative written on the application, and previous degrees earned. For students who use EDGE credits for any of the prerequisite courses, a grade of "B" will be assigned. Students who have previously earned an associate's or a bachelor's degree qualify for additional points. Degrees earned at the end of the spring semester of which the student has applied to the technical phase, WILL still allow the student to earn the extra points for the degree. Acceptance would be contingent upon the student actually earning the degree. The minimum requirement for volunteer hours is 20 total hours split between two distinctly different practice settings. Students are asked NOT to complete much over the 20-hour requirement so that we do not overwhelm clinical sites. The total score for the PTA score sheet for acceptance is composed of: 60% letter grades in prerequisite courses, 10% volunteer hours, 15% written essay on application, and 15% past degrees obtained. The 20 students with the highest scores are chosen.

The completed application packet must be submitted to the program coordinator by March 1<sup>st</sup> for the next entering class. Late applications are accepted only if space allows.

The Program's mission is to prepare graduates to be licensed as Physical Therapist Assistants and work in any health care setting so that the physical therapy needs of the citizens in our service region can be met.

Although technical competence is the predominant goal, broader academic abilities are also desired for PTA graduates. The general studies component of the curriculum provides the avenue for developing effective speaking, writing, and thinking skills to form a foundation for lifelong learning.

To fulfill this mission, the Program will:

1. Provide students with a program of study that will assist them in developing the knowledge and skills necessary to pass the National Physical Therapist Assistant Licensure Examination.
2. Hold high expectations for student acquisition of academic and clinical skills, and professional behaviors so that our graduates possess entry level skills.
3. Maintain contact with health care providers and consumers in our service region to ensure that the Program remains relevant and continues to serve the needs of all communities of interest.

## **Graduate Goals**

Upon successful completion of the PTA program the graduate is expected to:

- Exhibit conduct that reflects practice standards that are legal, ethical and safe.
- Implement a plan of care established by the physical therapist.
- Demonstrate competence in performing data collection through tests, measurements and observations.
- Use verbal, non-verbal, and written communication in an effective, appropriate and capable manner.
- Demonstrate professional behavior through attendance, promptness, and the ability to assume appropriate responsibility.
- Demonstrate the cognitive knowledge basic to physical therapy intervention.

## **Student Abilities**

To meet these goals, the student must be able to:

- Obtain information during class time and outside of class from lecture, text, computer-based, and video formats.
- Obtain information from the medical record.
- Produce written responses to assignments.
- Compose progress notes for the medical record.
- Complete in-class small group assignments.
- Receive and transmit information to the instructors, classmates, supervising physical therapists, and patients.
- Perform physical therapy techniques in high (standing), medium (sitting), and low (squatting, stooping) body positions.
- Operate equipment with knobs, switches, touch pads, and touch screens.
- Lift and position classmates, patients, and equipment.
- Assist and guard classmates and patients while they practice standing, walking, and moving into and out of wheelchairs.
- Assist classmates and patients while they perform therapeutic exercises.
- Perform physical therapy techniques and move about the clinical facility for up to 8 hours a day, 40 hours a week.
- Assess the patient's verbal and nonverbal response to treatment.
- Complete multi-step work assignments.

This program will prepare students to sit for the national PTA licensure examination which is required to practice in most states. This program will also prepare the PTA students to work in a variety of physical therapy settings including; acute care, outpatient orthopedics, skilled nursing, rehabilitation center, and nursing home.

The students will have a total of 4 clinical education experiences. Each of these experiences will occur in a different setting so that the PTA student will be well rounded and prepared to work in any setting after graduation. The students will be evaluated by their clinical instructors while in the clinic or hospital.

BRCTC is accredited by the Higher Learning Commission; a member of North Central Association of Colleges and Schools (See Mark of Affiliation in the footnote of this page.) The PTA program at Blue Ridge CTC is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE), 1111 North Fairfax Street, Alexandria, Virginia 22314. Telephone: (703) 706-3245; email: accreditation@apta.org website: <http://www.capteonline.org>

| Graduating Class | # Applied | # Accepted | Admission Rate | Graduation Rate | Licensure Pass Rate | Employment Rate |
|------------------|-----------|------------|----------------|-----------------|---------------------|-----------------|
| Class of 2013    | 27        | 20         | 74%            | 95%             | 100%                | 95%             |
| Class of 2014    | 46        | 20         | 43%            | 95%             | 95%                 | 95%             |
| Class of 2015    | 46        | 20         | 43%            | 90%             | 89%                 | 100%            |
| Class of 2016    | 49        | 20         | 41%            | 90%             | 88%                 | n/a             |

Dr. Chrystal McDonald is the program coordinator. You can reach her at 304-260-4380, ext 3408 with any questions or complaints about the PTA program. Michele Sheely is the clinical coordinator, and she can be reached at 304-260-4380, ext 3313.

#### Career Opportunities

As a Physical Therapist Assistant, you'll work alongside a Physical Therapist, helping patients recovering from injuries and other health conditions regain their ability to move and thrive.

#### Curriculum for an Associate of Applied Science in Physical Therapist Assisting

|                                    |           |
|------------------------------------|-----------|
| Prerequisites and Support Core     | 30        |
| Technical Core                     | 41        |
| <b>Total Credit Hours Required</b> | <b>71</b> |

#### Prerequisites and Support Core

- BIOL 120 - ~Human Anatomy & Physiology I (3)
- BIOL 121 - ~Human Anatomy & Phys I Lab (1)
- BIOL 122 - ~Human Anatomy & Physiology II (3)
- BIOL 123 - ~Human Anatomy & Phys II Lab (1)
- CAHS 141 - Intro to Pharmacology (3)
- CAS 111 - Information Literacy (3)
- ENGL 110 - ~Technical Writing & Communication (3)
- MATH 101 - ~Introduction to Mathematics (3)
- PTA 108 - Patho of Disease for PTA (3)
- PTA 109 - Physics for PTA (1)
- PSYC 203 - ~Introduction to Psychology (3)
- MAST 102 - Medical Terminology (3)

**Subtotal Credit Hours Required**                      **30**

## Technical Core

- PTA 101 - Intro to Physical Therapy (2)
- PTA 102 - Patient & Professional Relationship (2)
- PTA 103 - Intro to Patient Care (3)
- PTA 104 - Physical Agents (4)
- PTA 105 - Kinesiology (3)
- PTA 106 - Clinical Education I (1)
- PTA 107 - Clinical Education II (3)
- PTA 201 - Therapeutic Exercise (4)
- PTA 202 - Orthopedics (4)
- PTA 203 - Neurology (4)
- PTA 204 - Clinical Education III (5)
- PTA 205 - Capstone Seminar (1)
- PTA 206 - Clinical Education IV (5)

**Subtotal Credit Hours Required**                      **41**

## Software Development Engineering, A.A.S.

This program prepares students with practical skills and knowledge for entry-level positions within software engineering profession. Software engineering relates to the concept, design, implementation, deployment, and maintenance of software. The program will provide the theoretical fundamentals of software development along with the hands on practical aspects and competencies required by the industry. The program is designed to support innovation through the application of software engineering principles that provides with a solution focused skill set to real world business needs and scenarios.

### Curriculum for an Associate of Applied Science in Software Development Engineering

General Education Core 16

SDE Core 44

**Total Credit Hours Required 60**

#### General Education Core

- COMM 202 - ~Fundamentals of Speech (3)
- ENGL 110 - ~Technical Writing & Communication (3)
- IT 105 - Computer Ethics (3)
- IT 111 - Info Lit for IT Professionals (3)
- MATH 108 - ~Pre-Calculus (4)

**Subtotal Credit Hours Required 16**

#### SDE Core

- IT 188 - Introduction to Programming Logic (3)
- IT 192 - Introduction to Programming in Visual Basic (3) OR
- IT 243 - Programming with Python (3)
- IT 193 - Intro to Programming C# (3)
- IT 194 - Introduction to Programming Java (3)
- IT 204 - Windows Fundamentals (3)
- MDIA 104 - Web Page Design (3)
- SDE 201 - Mobile App Development I (3)
- SDE 202 - Mobile App Development II (3)
- SDE 204 - Advanced Database (3)
- SDE 208 - Systems Engineering (3)
- SDE 209 - Applied App Development (4)
- SDE 292 - Field Experience (4)
- Free Electives (6)

**Subtotal Credit Hours Required 44**



## Technical Studies, A.A.S.

This program is exclusively designed for students or prospective students currently employed by an employer who is working with Blue Ridge Community and Technical College. Our program allows employers to customize a course of study for their employees, while giving them the skill sets to use technology effectively; sharpen communication skills; and develop practical problem solving strategies.

### Program Overview

The Blue Ridge Community and Technical College can customize this degree program for employers. Certificate programs are also available.

Goals of the Technical Studies Program include:

- To increase the abilities of employees to use technology effectively and responsibly.
- To increase abilities of employees to communicate information effectively through reading, writing, speaking, and listening.
- To develop employee's abilities to solve problems through understanding, reasoning, research, and productive teamwork.
- To assist those employed in the workforce to understand that education is a life-long process.

Degree programs implemented under this degree designation will include instruction consistent with the following components and categories.

### Curriculum for AAS in Technical Studies

*This program is only for individuals whose employer is working with Blue Ridge Community and Technical College to ensure completion of this degree.*

### Career Opportunities

Completing this degree will enhance your professional skill sets and increase your opportunities for upward mobility.

### Curriculum for an Associate of Applied Science in Technical Studies

|  |           |
|--|-----------|
| Component I – General Education Core   | 15        |
| Component II – Technical Core          | 12        |
| Component III – Occupational Specialty | 18        |
| Component IV – On-the-Job Training     | 15        |
| <b>Total Credit Hours Required</b>     | <b>60</b> |

## Component I – General Education Core

### Communication and Life Skills

- ENGL 101 - ~Written English (3) OR
- ENGL 110 - ~Technical Writing & Communication (3)
- Restricted Electives in CAS, COMM, ENGL, ESL, LANG (6)

### Social Awareness

- PSYC 203 - ~Introduction to Psychology (3) OR
- SOCI 203 - ~General Sociology (3) OR
- Restricted Electives in ECON, HIST, PSCI, PSYC, SOCI (3)

### Critical & Analytical Thinking

- MATH 101 - ~Introduction to Mathematics (3) OR
- Restricted Electives in MATH (3)

*Note: Electives must be taken from the General Education core competency.*

## Component II – Technical Core

Each program of study must include a general technical core that meets the goal of developing skills that may be applied to a variety of occupations or that may be specific to an occupation. (12)

**Subtotal Credit Hours Required                    12**

## Component III – Occupational Specialty

The component consists of technical specialty courses specific to an occupational area. Industry based education and training programs are to be converted to college credit at the ratio of 15:1 and at a rate consistent with the lab hour/credit ratio of the degree granting institution for laboratory credit. (18)

**Subtotal Credit Hours Required                    18**

## Component IV – On-the-Job Training

The component consists of a paid or unpaid OJT, internship, or practicum performed in a business or industry setting in the occupational area. The on-the-job training component is to be converted to credit hours at a ratio of 150:1 with the maximum of 2,080 contact hours allowable. A statement of the total number of contact hours experience through on-the-job training will be placed on the college record. (15)

**Subtotal Credit Hours Required                    15**

# Associate of Science

## Business Administration, A.S.

The Associate of Science Degree in Business is for students who, upon graduation, plan to go on to the baccalaureate degree program. This program provides a solid foundation in general education curriculum while developing social awareness and the communication and critical thinking skills needed to be successful in college and in business. Students also acquire a basic understanding of accounting, economics, marketing, business law, and management that will serve them well in future studies and their careers.

### Curriculum for an Associate of Science in Business Administration

General Education Core 36

Business Core 24

#### **Total Credit Hours Required 60**

#### General Education Core

- ART 103 - ~Introduction to Visual Arts (3) **OR**
- MUSC 111 - ~Introduction to Music (3)
- BIOL 101 - ~General Biological Science I (4) **AND**
- BIOL 102 - ~General Biological Science II (4) **OR**
- PHYS 103 - ~General Physical Science I (4) **AND**
- PHYS 104 - ~General Physical Science II (4)
- COMM 202 - ~Fundamentals of Speech (3)
- ENGL 101 - ~Written English (3)
- ENGL 102 - ~Writing for the Arts & Hum (3)
- ENGL 204 - ~Sur of American Lit (3) **OR**
- ENGL 208 - ~Survey of World Literature I (3)
- GSPE 210 - Fitness for Life (3)
- HIST 101 - ~World History to 1500: Early Man Through the Renaissance (3) **OR**
- HIST 102 - ~World History Since 1500: The Renaissance Through the Present (3)
- MATH 105 - ~Algebra (3) **OR**
- MATH 108 - ~Pre-Calculus (4) **OR**
- MATH 114 - ~Elem Probability & Statistics (3) **OR**
- MATH 154 - ~Finite Mathematics (3)
- PSCI 101 - ~American Federal Government (3)
- PSYC 203 - ~Introduction to Psychology (3) **OR**
- SOCI 203 - ~General Sociology (3)

#### **Subtotal Credit Hours Required 36**

\*\* Science Credit - 2+2 transfer agreements require 6 credits of lecture and 2 credits of lab for a total of 8 credits. Check with your advisor to ensure proper science placement.

## Business Core

- ACCT 201 - Principles of Accounting I (3)
- ACCT 202 - Principles of Accounting II (3)
- BUSN 201 - Principles of Management (3)
- BUSN 205 - Business Ethics (3)
- BUSN 231 - Marketing (3)
- ECON 205 - ~Principles of Macroeconomics (3)
- ECON 206 - ~Principles of Microeconomics (3)
- LGST 212 - Business Law (3)

**Subtotal Credit Hours Required                      24**

## Education, A.S.

The Associate of Science in Education addresses introductory topics related to teaching and learning and prepares students for transfer to an upper-division program leading to professional licensure or certification. Students will complete general education courses to target communication skills, critical thinking and problem solving skills, and to sharpen social awareness. Students will also gain foundational knowledge about the education system and teaching as a profession in preparation for admittance to a pre-licensure program. Students select from the following specializations: Social Studies (5-Adult), General Science (5-Adult), Biology (9-Adult), Mathematics (5-Adult), English (5-Adult), Elementary (K-6), Physical Education, or PreK-K..

### Admission Requirements to the Associate of Science (AS) Education Program

- Overall GPA of 2.00.
- Be eligible to enroll in MATH 101 and ENGL 101 and be exempt or have completed ENGL 100R.
- Be a degree seeking student in the General Studies, Education concentration degree.

### Graduation Requirements from the Associate of Science (AS) Education Program

- Overall Cumulative GPA of 2.75.
- Passing scores on the Praxis Core Exams: Reading 156, Writing 162, and Math 150.
- A satisfactory portfolio.
- A "C" or better in all required courses.

### Curriculum for an Associate of Science in Education

#### Professional Education Core 12

Concentration 48-53

**Total Credit Hours Required 60-65**

#### Professional Education Core

- EDUC 150 - Seminar in Education (1)
- EDUC 200 - Foundations of Education (3)
- EDUC 220 - Soci & Psyc Cond of Learning (4)
- EDUC 292 - Praxis Core Prep (1)

**Subtotal Credit Hours Required 9**

Choose a Concentration:

### Biology (9-Adult)

- ART 103 - ~Introduction to Visual Arts (3) **OR**
- MUSC 111 - ~Introduction to Music (3)
- BIOL 101 - ~General Biological Science I (4)
- BIOL 102 - ~General Biological Science II (4)
- BIOL 120 - ~Human Anatomy & Physiology I (3)
- BIOL 122 - ~Human Anatomy & Physiology II (3)
- CHEM 125 - ~Introduction to College Chemistry (4)
- BIOL 220 - Microbiology (3)
- BIOL 221 - Microbiology Lab (1)
- COMM 202 - ~Fundamentals of Speech (3)
- ECON 123 - ~Contemporary Economics (3) **OR**
- ECON 205 - ~Principles of Macroeconomics (3) **OR**
- PSCI 101 - ~American Federal Government (3)
- EDUC 260 - Survey of Exceptional Child (3)
- ENGL 101 - ~Written English (3)
- ENGL 102 - ~Writing for the Arts & Hum (3)
- GEOL 101 - ~Geological Sciences (4)
- GSPE 210 - Fitness for Life (3)
- HIST 101 - ~World History to 1500: Early Man Through the Renaissance (3) **OR**
- HIST 102 - ~World History Since 1500: The Renaissance Through the Present (3)
- HIST 201 - ~US History to 1877 (3) **OR**
- HIST 202 - ~US History Since 1877 (3)
- MATH 114 - ~Elem Probability & Statistics (3)

**Subtotal Credit Hours Required 56**

### Elementary (K-6)

Either/or options in the Elementary (K-6) specialization represent specific requirements for corresponding four-year programs. Students **MUST** choose General Education courses with the approval of their advisor based on the university to which they choose to transfer.

- ART 103 - ~Introduction to Visual Arts (3) **OR**
- MUSC 111 - ~Introduction to Music (3) **OR**
- ECED 103 - Early Language and Literacy (3)
- BIOL 101 - ~General Biological Science I (4)
- PHYS 103 - ~General Physical Science I (4) **OR**
- CHEM 125 - ~Introduction to College Chemistry (4)
- PHYS 104 - ~General Physical Science II (4) **OR**
- GEOL 101 - ~Geological Sciences (4)
- CAHS 210 - Human Growth & Development (3) **OR**
- GSPE 210 - Fitness for Life (3)

- COMM 202 - ~Fundamentals of Speech (3)
- EDUC 260 - Survey of Exceptional Child (3)
- ENGL 101 - ~Written English (3)
- ENGL 102 - ~Writing for the Arts & Hum (3)
- ENGL 204 - ~Sur of American Lit (3) OR
- ENGL 208 - ~Survey of World Literature I (3) OR
- HIST 201 US History to 1877 (3) OR
- HIST 202 US History Since 1877 (3)
- GEOG 105 - ~World Cultural Geography (3)
- HIST 101 - ~World History to 1500: Early Man Through the Renaissance (3) OR
- HIST 102 - ~World History Since 1500: The Renaissance Through the Present (3)
- HIST 201 - ~US History to 1877 (3) OR
- HIST 202 - ~US History Since 1877 (3)
- MATH 101 - ~Introduction to Mathematics (3) OR
- MATH 232 - Math for Elem Teachers I (3)
- MATH 105 - ~Algebra (3) OR
- MATH 233 - Math for Elem Teachers II (3)
- PSCI 101 - ~American Federal Government (3) OR
- PSYC 203 - ~Introduction to Psychology (3)

**Subtotal Credit Hours Required 51**

#### English (5-Adult)

- ART 103 - ~Introduction to Visual Arts (3) OR
- MUSC 111 - ~Introduction to Music (3)
- PHYS 103 - ~General Physical Science I (4) AND
- PHYS 104 - ~General Physical Science II (4)
- COMM 202 - ~Fundamentals of Speech (3)
- ECON 123 - ~Contemporary Economics (3) OR
- ECON 205 - ~Principles of Macroeconomics (3) OR
- PSCI 101 - ~American Federal Government (3)
- EDUC 260 - Survey of Exceptional Child (3)
- ENGL 101 - ~Written English (3)
- ENGL 102 - ~Writing for the Arts & Hum (3)
- ENGL 204 - ~Sur of American Lit (3)
- ENGL 207 - Teach Rdg & Young Adult Lit (3)
- ENGL 208 - ~Survey of World Literature I (3)
- ENGL 301 Intro to Literary Studies (to be completed at Shepherd) (3)
- GSPE 210 - Fitness for Life (3)
- HIST 101 - ~World History to 1500: Early Man Through the Renaissance (3) OR
- HIST 102 - ~World History Since 1500: The Renaissance Through the Present (3)
- MATH 101 - ~Introduction to Mathematics (3) OR
- MATH 105 - ~Algebra (3) OR
- MATH 154 - ~Finite Mathematics (3)
- Electives-Choose with Advisor (6)

**Subtotal Credit Hours Required53**

General Science (5-Adult)

- ART 103 - ~Introduction to Visual Arts (3) **OR**
- MUSC 111 - ~Introduction to Music (3)
- BIOL 101 - ~General Biological Science I (4)
- BIOL 102 - ~General Biological Science II (4)
- BIOL 120 - ~Human Anatomy & Physiology I (3)
- BIOL 122 - ~Human Anatomy & Physiology II (3)
- CHEM 125 - ~Introduction to College Chemistry (4)
- COMM 202 - ~Fundamentals of Speech (3)
- EDUC 260 - Survey of Exceptional Child (3)
- ENGL 101 - ~Written English (3)
- ENGL 102 - ~Writing for the Arts & Hum (3)
- GEOL 101 - ~Geological Sciences (4)
- GSPE 210 - Fitness for Life (3)
- HIST 101 - ~World History to 1500: Early Man Through the Renaissance (3) **OR**
- HIST 102 - ~World History Since 1500: The Renaissance Through the Present (3)
- HIST 201 - ~US History to 1877 (3) **OR**
- HIST 202 - ~US History Since 1877 (3)
- MATH 114 - ~Elem Probability & Statistics (3)
- SOCI 203 - ~General Sociology (3)

**Subtotal Credit Hours Required52**

Mathematics (5-Adult)

- ART 103 - ~Introduction to Visual Arts (3) **OR**
- MUSC 111 - ~Introduction to Music (3)
- COMM 202 - ~Fundamentals of Speech (3)
- ECON 205 - ~Principles of Macroeconomics (3)
- EDUC 260 - Survey of Exceptional Child (3)
- ENGL 101 - ~Written English (3)
- ENGL 102 - ~Writing for the Arts & Hum (3)
- ENGL 204 - ~Sur of American Lit (3) **OR**
- ENGL 208 - ~Survey of World Literature I (3) **OR**
- HIST 201 - ~US History to 1877 (3) **OR**
- HIST 202 - ~US History Since 1877 (3)
- GSPE 210 - Fitness for Life (3)
- HIST 101 - ~World History to 1500: Early Man Through the Renaissance (3) **OR**
- HIST 102 - ~World History Since 1500: The Renaissance Through the Present (3)
- IT 188 - Introduction to Programming Logic (3)
- MATH 108 - ~Pre-Calculus (4)
- MATH 114 - ~Elem Probability & Statistics (3)
- MATH 207 - ~Calculus I (4)



- PHYS 201 - General Physics I (4)
- Restricted Electives-Choose with Advisor (6)

**Subtotal Credit Hours Required51**

Physical Education (K-12)

- ART 103 - ~Introduction to Visual Arts (3) OR
- MUSC 111 - ~Introduction to Music (3)
- BIOL 101 - ~General Biological Science I (4) OR
- PHYS 103 - ~General Physical Science I (4)
- BIOL 102 - ~General Biological Science II (4) OR
- PHYS 104 - ~General Physical Science II (4)
- BIOL 120 - ~Human Anatomy & Physiology I (3)
- CAHS 210 - Human Growth & Development (3)
- COMM 202 - ~Fundamentals of Speech (3)
- EDUC 260 - Survey of Exceptional Child (3)
- EMSP 100 - Emergency Medical Responder (3)
- EMSP 100L - EMR Lab (1)
- ENGL 101 - ~Written English (3)
- ENGL 102 - ~Writing for the Arts & Hum (3)
- GSPE 210 - Fitness for Life (3)
- GEOG 105 - ~World Cultural Geography (3) OR
- PSYC 203 - ~Introduction to Psychology (3) OR
- SOCI 203 - ~General Sociology (3)
- HIST 101 - ~World History to 1500: Early Man Through the Renaissance (3) OR
- HIST 102 - ~World History Since 1500: The Renaissance Through the Present (3)
- HIST 201 - ~US History to 1877 (3) OR
- HIST 202 - ~US History Since 1877 (3)
- MATH 101 - ~Introduction to Mathematics (3) OR
- MATH 105 - ~Algebra (3) OR
- MATH 154 - ~Finite Mathematics (3)
- PSCI 101 - ~American Federal Government (3) OR
- ECON 123 - ~Contemporary Economics (3) OR
- ECON 205 - ~Principles of Macroeconomics (3)
- Electives-Choose with Advisor (3)

**Subtotal Credit Hours Required54**

PreK-K

- ART 103 - ~Introduction to Visual Arts (3) OR
- MUSC 111 - ~Introduction to Music (3)
- BIOL 101 - ~General Biological Science I (4) OR
- PHYS 103 - ~General Physical Science I (4)
- BIOL 102 - ~General Biological Science II (4) OR
- PHYS 104 - ~General Physical Science II (4)
- COMM 202 - ~Fundamentals of Speech (3)
- ECON 123 - ~Contemporary Economics (3) OR
- ECON 205 - ~Principles of Macroeconomics (3) OR
- PSCI 101 - ~American Federal Government (3)
- EDUC 204 - Development of Infant & Child (3)
- EMSP 100 - Emergency Medical Responder (3)
- EMSP 100L - EMR Lab (1)

- ENGL 101 - ~Written English (3)
- ENGL 102 - ~Writing for the Arts & Hum (3)
- ENGL 204 - ~Sur of American Lit (3) **OR**
- ENGL 208 - ~Survey of World Literature I (3) **OR**
- HIST 201 - ~US History to 1877 (3) **OR**
- HIST 202 - ~US History Since 1877 (3)
- HIST 101 - ~World History to 1500: Early Man Through the Renaissance (3) **OR**
- HIST 102 - ~World History Since 1500: The Renaissance Through the Present (3)
- GSPE 210 - Fitness for Life (3)
- MATH 105 - ~Algebra (3)
- MATH 108 - ~Pre-Calculus (4) **OR**
- MATH 114 - ~Elem Probability & Statistics (3) **OR**
- MATH 154 - ~Finite Mathematics (3)
- PSYC 203 - ~Introduction to Psychology (3)
- Electives-Choose with Advisor (6)

**Subtotal Credit Hours Required54**

#### Social Studies (5-Adult)

- ART 103 - ~Introduction to Visual Arts (3) **OR**
- MUSC 111 - ~Introduction to Music (3)
- PHYS 103 - ~General Physical Science I (4) **AND**
- PHYS 104 - ~General Physical Science II (4)
- COMM 202 - ~Fundamentals of Speech (3)
- ECON 205 - ~Principles of Macroeconomics (3)
- ECON 206 - ~Principles of Microeconomics (3)
- EDUC 260 - Survey of Exceptional Child (3)
- ENGL 101 - ~Written English (3)
- ENGL 102 - ~Writing for the Arts & Hum (3)
- GEOG 105 - ~World Cultural Geography (3)
- GSPE 210 - Fitness for Life (3)
- HIST 101 - ~World History to 1500: Early Man Through the Renaissance (3) **OR**
- HIST 102 - ~World History Since 1500: The Renaissance Through the Present (3)
- HIST 201 - ~US History to 1877 (3)
- HIST 202 - ~US History Since 1877 (3)
- MATH 101 - ~Introduction to Mathematics (3) **OR**
- MATH 105 - ~Algebra (3) **OR**
- MATH 154 - ~Finite Mathematics (3)
- PSCI 101 - ~American Federal Government (3)
- PSYC 203 - ~Introduction to Psychology (3)

**Subtotal Credit Hours Required53**

## General Studies, A.S.

The Associate of Science degree in General Studies fulfills general education and introductory level core requirements that are transferable to specific baccalaureate programs at four-year colleges and universities. Students graduating with an A.S. in General Studies follow specific concentration and direct their scholarship at the two-year level towards four-year degrees in fields related to sciences and mathematics. Each concentration leads to building specific career-related skills based on tailored course work and advised choice of credit-bearing free electives.

The degree offers sound preparation for students who wish to enhance critical thinking and problem solving skills, writing skills, and an awareness of social context to be applied to practical workplace experiences. The skills mastered through completions of an A.S. in General Studies will aid students in future studies, in the workplace, and in positioning themselves for success within their chosen career fields. The objectives of the degree program are to prepare graduates to:

- Analyze and evaluate information from quantitative and/or qualitative sources to solve problems in conventional and innovative ways
- Demonstrate effective expression of ideas in writing and through discussion to general and specialized audiences
- Describe how diverse perspectives might affect interpretations of problems in politics, society, and human relationships
- Identify basic terminology, practices, and the scope of specific fields of study

### Curriculum for an Associate of Science Degree in General Studies

Program Core                    9

Concentration                51-53

**Total Credit Hours Required 60-62**

#### Program Core

- ENGL 101 - ~Written English (3)
- ENGL 102 - ~Writing for the Arts & Hum (3)
- HIST 101 - ~World History to 1500: Early Man Through the Renaissance (3) **OR**
- HIST 102 - ~World History Since 1500: The Renaissance Through the Present (3)

**Subtotal Credit Hours Required 9**

## Concentration

Choose one concentration for completion of the program:

### Education Concentration

- ART 103 - ~Introduction to Visual Arts (3) **OR**
- MUSC 111 - ~Introduction to Music (3)
- COMM 202 - ~Fundamentals of Speech (3)
- ECON 205 - ~Principles of Macroeconomics (3) **OR**
- PSCI 101 - ~American Federal Government (3) **OR**
- SOCI 203 - ~General Sociology (3)
- EDUC 150 - Seminar in Education (1)
- EDUC 200 - Foundations of Education (3)
- EDUC 220 - Soci & Psyc Cond of Learning (4)
- EDUC 260 - Survey of Exceptional Child (3)
- ENGL 100 - English Essentials (3)
- ENGL 100R - Reading Essentials (3)
- ENGL 204 - ~Sur of American Lit (3) **OR**
- ENGL 208 - ~Survey of World Literature I (3) **OR**
- HIST 201 - ~US History to 1877 (3) **OR**
- HIST 202 - ~US History Since 1877 (3)
- GSPE 210 - Fitness for Life (3)
- MATH 100 - Math Essentials (3)
- MATH 101 - ~Introduction to Mathematics (3)
- Science Electives-BIOL, CAHS, CHEM, GEOL, PHYS (Choose with Advisor-see list) (8)
- Restricted Electives (Choose with Advisor) (6)

### **Subtotal Credit Hours Required 52**

#### Restricted Elective Options (choose with advisor)

- ECON 123 - ~Contemporary Economics (3)
- EDUC 204 - Development of Infant & Child (3)
- EDUC 292 - Praxis Core Prep (1)
- ENGL 207 - Teach Rdg & Young Adult Lit (3)
- EMSP 100 - Emergency Medical Responder (3)
- EMSP 100L - EMR Lab (1)
- GEOG 105 - ~World Cultural Geography (3)
- GEOL 101 - ~Geological Sciences (4)
- IT 188 - Introduction to Programming Logic (3)
- PSYC 203 - ~Introduction to Psychology (3)
- PHYS 201 - General Physics I (4)

### Forensic Investigative Accounting Concentration

- ACCT 201 - Principles of Accounting I (3)
- ACCT 202 - Principles of Accounting II (3)
- BIOL 101 - ~General Biological Science I (4) **OR**
- PHYS 103 - ~General Physical Science I (4) **OR**
- PHYS 104 - ~General Physical Science II (4)
- BUSN 101 - Introduction to Business (3)
- BUSN 201 - Principles of Management (3)
- CAS 211 - Word Complete (3)
- CAS 212 - PowerPoint Complete (3)
- CAS 213 - Excel Complete (3)
- CAS 214 - Access Complete (3)
- CJST 200 - Intro Crim Justice Sys (3)
- COMM 202 - ~Fundamentals of Speech (3)
- ECON 205 - ~Principles of Macroeconomics (3)
- IT 111 - Info Lit for IT Professionals (3)
- IT 180 - A+ Hardware Essentials (3)
- MATH 105 - ~Algebra (3)
- MATH 114 - ~Elem Probability & Statistics (3)
- PSYC 203 - ~Introduction to Psychology (3)

**Subtotal Credit Hours Required 52**

### Mathematics Concentration

- ART 103 - ~Introduction to Visual Arts (3) **OR**
- MUSC 111 - ~Introduction to Music (3) **OR**
- PHIL 101 - Introduction to Philosophy (3)
- BIOL 101 - ~General Biological Science I (4)
- BIOL 102 - ~General Biological Science II (4)
- ECON 205 - ~Principles of Macroeconomics (3) **OR**
- ECON 206 - ~Principles of Microeconomics (3)
- ENGL 110 - ~Technical Writing & Communication (3)
- ENGL 208 - ~Survey of World Literature I (3)
- HIST 201 - ~US History to 1877 (3) **OR**
- HIST 202 - ~US History Since 1877 (3)
- MATH 105 - ~Algebra (3)
- MATH 106 - ~Trigonometry (3)
- MATH 108 - ~Pre-Calculus (4)
- MATH 114 - ~Elem Probability & Statistics (3)
- MATH 207 - ~Calculus I (4)
- PSCI 101 - ~American Federal Government (3)
- PSYC 203 - ~Introduction to Psychology (3) **OR**
- SOCI 203 - ~General Sociology (3)
- Restricted Electives (Choose with Advisor) (6)

**Subtotal Credit Hours Required 53**

## Natural Sciences Concentration

- ART 103 - ~Introduction to Visual Arts (3) **OR**
- MUSC 111 - ~Introduction to Music (3) **OR**
- PHIL 101 - Introduction to Philosophy (3)
- BIOL 101 - ~General Biological Science I (4)
- BIOL 102 - ~General Biological Science II (4)
- CHEM 127 - ~General, Organic & Biochem I (4)
- CHEM 128 - ~General, Organic & Biochem II (4)
- ECON 205 - ~Principles of Macroeconomics (3) **OR**
- ECON 206 - ~Principles of Microeconomics (3)
- ENGL 208 - ~Survey of World Literature I (3)
- MATH 105 - ~Algebra (3)
- MATH 106 - ~Trigonometry (3)
- MATH 108 - ~Pre-Calculus (4)
- MATH 114 - ~Elem Probability & Statistics (3)
- MATH 207 - ~Calculus I (4)
- PSCI 101 - ~American Federal Government (3)
- PSYC 203 - ~Introduction to Psychology (3) **OR**
- SOCI 203 - ~General Sociology (3)
- Science Electives-BIOL, CAHS, CHEM, GEOL, PHYS (Choose with Advisor) (4)

**Subtotal Credit Hours Required 52**

## Sociology Concentration

- ART 103 - ~Introduction to Visual Arts (3) **OR**
- MUSC 111 - ~Introduction to Music (3)
- BIOL 101 - ~General Biological Science I (4) **AND**
- BIOL 102 - ~General Biological Science II (4) **OR**
- PHYS 103 - ~General Physical Science I (4) **AND**
- PHYS 104 - ~General Physical Science II (4)
- CJST 200 - Intro Crim Justice Sys (3)
- CJST 220 - Criminal Investigation (3) **OR**
- CJST 250 - Juvenile Justice System (3)
- CJST 240 - Police Organization & Mgnt (3)
- CJST 260 - The Correctional System (3)
- ECON 205 - ~Principles of Macroeconomics (3)
- ENGL 204 - ~Sur of American Lit (3) **OR**
- ENGL 208 - ~Survey of World Literature I (3)
- GSPE 210 - Fitness for Life (3)
- HIST 207 - African American History (3)
- LGST 230 - Criminal Law and Procedure (3)
- MATH 101 - ~Introduction to Mathematics (3) **OR**
- MATH 105 - ~Algebra (3)
- PSYC 203 - ~Introduction to Psychology (3)
- PSYC 205 - Abnormal Psychology (3)

- SOCI 203 - ~General Sociology (3)
- SOCI 205 - Social Problems (3)

**Subtotal Credit Hours Required**53

# Associate of Science in Nursing

## Nursing A.S.N.

**\*\*Application requirements have changed for the fall 2017 cohort. Please check with the Nursing Department for updated criteria!**

### Program Overview

The Associate of Science Degree in Nursing (ASN) is designed to prepare the graduate to take the National Council Licensure Examination (NCLEX-RN) for registered nurses and to enter a career as a beginning practitioner of nursing. It is intended that the courses in nursing will provide the students with an awareness of the value and dignity of people and a view of the patient as an integrated, unique individual requiring nursing knowledge and skill.

### Mission Statement

The mission of the Blue Ridge Community and Technical College Associate of Science in Nursing Program is to enhance the health status of the region by educating professional nurses for entry into practice as caring and competent nurse generalists.

### Student Learning Outcomes

Upon completing the Associate of Science in Nursing Program, the graduate will:

#### *Caring*

1. Provide compassionate nursing care to patients regardless of different values, beliefs, culture, and lifestyles.

#### *Communication*

2. Demonstrate appropriate verbal, non-verbal, therapeutic, and professional communication skills.

#### *Clinical Judgment*

3. Utilize the nursing process to apply knowledge of nursing science and disease processes; critical thinking skills; and evidence based findings to demonstrate proficiency in planning safe and effective patient care.

#### *Professionalism*

4. Provide nursing care according to legal, ethical and professional standards.

### State Accreditation

West Virginia Board of Examiners for Registered Professional Nurses

90 MacCorkle Avenue, SW • Charleston, WV 25303 • (304) 558-3596

### National Accreditation

Accreditation Commission for Education in Nursing, Inc.



3343 Peachtree Rd NE • Suite 850 • Atlanta, GA 30326 • (404) 975-5000

Fax (404) 975 - 5020 • Email [info@acenursing.org](mailto:info@acenursing.org) • [www.acenursing.org](http://www.acenursing.org)

## **APPLICATION FOR ADMISSION TO THE NURSING PROGRAM**

### **Nursing Application Fall 2017**

#### *Application Deadlines*

The deadline for nursing applications will be each year on January 31<sup>st</sup>. Refer to the Current Nursing A.S.N. description for details.

*To be considered for admission into the Nursing ASN Program students must:*

- Be a degree seeking student in Healthcare Professions, A.A.S.
- Have a GPA of 2.5 or better.
- Have completed or be registered to take ENGL 101 and MATH 114 by the semester of application.
- Receive a "C" or better in all required course for the program.
- Achieve a 58.7% or higher on the Test of Essential Academic Skills (TEAS) composite score.
- Be enrolled in or have completed NURS 111 - Introduction to Nursing (2).

#### *Pre-Requisites*

#### *TEAS Test*

Steps to register for the TEAs Test:

1. Go to [www.blueridgectc.edu](http://www.blueridgectc.edu) home page;
2. Click on "Current Students" at the top of the page;
3. Click on "Register for an Exam" on the left side of the page;
4. Follow instructions to pay for and sign up for the TEAS test;
5. All tests are given in the testing center on the first floor;
6. After testing, and receiving the required grade of 58.7% overall composite score, the registrar will open up NURS 111 for you to register for the course.

Students may only take the TEAS Test twice a year, with a 30-day minimum between tests. A composite score of 58.7 on the TEAS test is required to be eligible for admission.

#### *Decision Criteria and Process*

Failure to fully complete the application, provide truthful information, send required documentation, or failure to report ANY felony or misdemeanor conviction, plea of nolo contendere or pending court cases in this application will result in immediate disqualification and/or dismissal from the Nursing Program and any subsequent application may not be considered. Information provided to the Department of Nursing is confidential and is used only for selection purposes.

After application, transcripts will be reviewed by the Program Director. If an applicant does not meet all the academic pre-requisite courses they will not be considered for admission. Both admitted and non-

eligible students will be notified via the BRCTC email provided on the application. Applications for non-admitted applicants are not retained.

Criteria and scoring for admission decisions are available on the application form. Scores are ranked from highest to lowest, and the top 48 students are offered admission to the nursing program. Students must accept the admission within 14 business days of the email date or their placement will be offered to the next qualified student. There is no waiting list for admission. Accepted students must attend nursing orientation scheduled before the end of the application semester. Students not attending orientation will have acceptance revoked and offered to another student.

#### *Core Performance Standards*

Because the Nursing Program seeks to provide a safe environment for nursing students and their patients, students will be required to demonstrate physical and emotional fitness to meet the essential requirements of the nursing program. Such essential requirements include freedom from communicable disease, the ability to perform certain physical tasks, and suitable emotional fitness. Any appraisal measures used to determine such physical and emotional fitness will be in compliance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, so as not to discriminate against any individual on the basis of handicap.

The essential requirements of the nursing program with examples of activities required of students during their nursing education are listed in the Essential Requirements of Nursing Programs document. This document is based on The Americans with Disabilities Act: Implications for Nursing Education. Southern Regional Education Board (March 1993), [www.sreb.org](http://www.sreb.org).

#### *Special Requirements for Nursing Majors*

- Submission of completed health data requirement prior to beginning of first semester following acceptance into the program.
- Submission of yearly PPD results (or chest x-ray, if appropriate).
- Evidence of CPR certification.
- Undergo a criminal background check and urine drug screening.
- Adhere to the policies and procedures in the Nursing Student Handbook and Policy Manuals.
- Special fees for standardized testing and clinical courses are required in addition to tuition.
- Obtain physical examination and proof of immunity to communicable diseases.

#### *Progression*

In order to progress and graduate, the student enrolled in the ASN program must:

- Receive a C or better in all courses required for the nursing program.
- Maintain a minimum of 2.5 cumulative grade point average.
- Complete all course work within three years of admission into the program.

#### *Ratio Clock to Credit Hour*

The ratio of theory clock hour to credit hour is 1:1. The ratio of clinical and lab clock to credit hours is 3:1. The ratio of internship to credit hours is 5:1. A clock hour equals 50 minutes.

### *Graduation*

Upon successful completion of the program, graduates are eligible to apply to any state Board of Nursing to take the NCLEX-RN examination. Each state has individual requirements of applicants for licensure for examination.

### **Eligibility for Licensure**

The nursing law of West Virginia addresses criteria for application for licensure. The West Virginia Board of Examiners for Registered Professional Nurses has the power to deny opportunity to procure licenses through testing if the applicant has willfully committed a felony under the laws of West Virginia.

### **Career Options**

Our growing population yields a high demand for skilled nurses. The Bureau of Labor Statistics estimates that career opportunities for nurses are expected to grow 22% between now and 2018, giving nursing students peace of mind that they can secure jobs in settings including hospitals, clinical practices, nursing homes, home healthcare, or in military service.

### **Reportable Statistics**

*Information based on academic year 2014-15:*

NCLEX Pass Rate: 92.8%

Completion of Program: 95%

Graduates obtaining jobs after graduation: 100%

### Curriculum for an Associate of Science in Nursing Degree (ASN)

General Education Core 25

Nursing Core

Laboratory Credits to Clock Hours - 1:2

Clinical Credits to Clock Hours (Instructor Led) - 1:3 35

Preceptorship/Capstone (Agency Dependent) - 1:5

Total Clinical Clock Hours - 589.5

**Total Credit Hours Required 60**

This major requires 60 credits over five semesters.

## PreAdmission Requirements

*To be considered for admission into the Nursing ASN Program students must:*

- Be a degree seeking student in Healthcare Professions, A.A.S.
- Have a GPA of 2.0 or better.
- Be eligible to take ENGL 101 and MATH 114 by the semester of application.
- Receive a "C" or better in all required course for the program.
- Achieve a 58.7% or higher on the Test of Essential Academic Skills (TEAS) composite score.
- Be enrolled in or complete NURS 111 - Introduction to Nursing (2).

## General Education Core

- BIOL 120 - ~Human Anatomy & Physiology I (3)
- BIOL 121 - ~Human Anatomy & Phys I Lab (1)
- BIOL 122 - ~Human Anatomy & Physiology II (3)
- BIOL 123 - ~Human Anatomy & Phys II Lab (1)
- BIOL 220 - Microbiology (3)
- BIOL 221 - Microbiology Lab (1)
- CHEM 125 - ~Introduction to College Chemistry (4) OR
- CHEM 127 - ~General, Organic & Biochem I (4)
- ENGL 101 - ~Written English (3)
- MATH 114 - ~Elem Probability & Statistics (3)
- PSYC 203 - ~Introduction to Psychology (3)

**Subtotal Credit Hours Required 25**

## Nursing Core

- NURS 111 - Introduction to Nursing (2)
- NURS 115 - Nursing Care I (5)
- NURS 135 - Nursing Care II (9)
- NURS 215 - Nursing Care III (9)
- NURS 240 - Nursing Care IV (10)

**Subtotal Credit Hours Required 35**

## Suggested Course Progression

Pre-admit semester courses must be completed before starting the Nursing Program and must be enrolled or in progress before an application is submitted. General education classes may be taken before the suggested semester but must be completed by the semester listed in order to progress forward in the Nursing Program. However, nursing (NURS) class must be taken in the order and semester listed below.

## Pre-Admit Semester

- BIOL 120 - ~Human Anatomy & Physiology I (3)

- BIOL 121 - ~Human Anatomy & Phys I Lab (1)
- ENGL 101 - ~Written English (3)
- MATH 114 - ~Elem Probability & Statistics (3)
- NURS 111 - Introduction to Nursing (2)

#### First Fall Semester

- BIOL 122 - ~Human Anatomy & Physiology II (3)
- BIOL 123 - ~Human Anatomy & Phys II Lab (1)
- NURS 115 - Nursing Care I (5)
- PSYC 203 - ~Introduction to Psychology (3)

#### First Spring Semester

- CHEM 125 - ~Introduction to College Chemistry (4) **OR**
- CHEM 127 - ~General, Organic & Biochem I (4)
- NURS 135 - Nursing Care II (9)

#### Second Fall Semester

- BIOL 220 - Microbiology (3)
- BIOL 221 - Microbiology Lab (1)
- NURS 215 - Nursing Care III (9)

#### Second Spring Semester

- NURS 240 - Nursing Care IV (10)

# Certification

## Applied Laboratory Technician Skill Set Certificate

Blue Ridge Community Technical College is providing a tremendous opportunity to individuals that have already earned an Associate or Bachelor's degree and would like to enter into a career as an applied laboratory technician or quality control technician.

### Applied Laboratory Technician Core

- LTEC 101 - Laboratory Technician I (3)
- LTEC 102 - Laboratory Technician II (3)
- LTEC 111 - Laboratory Technician III (3)
- LTEC 112 - Laboratory Technician IV (3)

### Applied Laboratory Technician Restrictive Electives

- LTEC 140 - Process Quality (3)
  - LTEC 141 - Analytical Instrumentation (3)
  - LTEC 143 - Process Technology-Operation (3)
  - LTEC 144 - Process Technology-Systems (3)
- (Others as approved by advisor)

If you have taken college chemistry you may qualify in as few as four courses.

Each enrollment is individualized to accommodate transfer courses.

Make an appointment today to review your transcripts and develop your individual Applied Laboratory Skill Set education plan

Call Paul Emanuel 304-260-4380 ext. 3420 or Cynthia Hull 304-260-4380 ext. 2405.

pemanuel@blueridgectc.edu or chull@blueridgectc.edu

## Career Advancement Continuing Education

Blue Ridge Community and Technical College offers many classroom and online non-credit course training opportunities. These courses begin continuously through-out the year. For a complete list of current course offerings go to our Career Advancement Registration site: <http://blueridgectc.augusoft.net>

Some our training courses include:

- Computer User Certificate
- Personal Trainer Certification
- Animal Care Nursing Assistant
- Pet Grooming Professional
- Real Estate Pre-licensing for West Virginia
- ServSafe Training
- Health Care Provider CPR
- ESL for the Workplace
- Bartending

- Hundreds of online course choices
- Plus 50 Courses
- Master Chef Courses
- OSHA Safety Training
- CCNA Bootcamp
- American Management Association Certificates in Supervision and General Management
- WV Notary

## **Cisco CCDA**

### Vendor Certification Tracks

Several course offerings in our Information Technology, Office Technology, and Computer Applications Specialist program curricula are directly aligned to industry-level certification exams. These courses not only allow you to earn credit toward your degree or certificate, they also prepare you to take a targeted vendor exam and earn certification to validate your knowledge and skills to a potential or current employer. For detailed information on specific exams or certifications visit the CompTIA<sup>®</sup>, Microsoft<sup>®</sup>, Pearson Vue or Certiport websites for objectives, skill sets, and sample questions. Below is a list of courses that corresponds to a professional exam.

### Program Requirements

These six courses individually lead to specific Cisco Network certifications. Combined, they encompass all of the material needed to obtain the Cisco Certified Design Associate certification.

- CNET 121 - Network+ (3)
- CNET 131 - Introduction to Networks (4)
- CNET 141 - Route & Switch Essentials (4)
- CNET 231 - Scaling Networks (4)
- CNET 241 - Connecting Networks (4)
- CNET 255 - Cisco Certified Design Associate (4)

## **Cisco CCNA**

### Vendor Certification Tracks

Several course offerings in our Information Technology, Office Technology, and Computer Applications Specialist program curricula are directly aligned to industry-level certification exams. These courses not only allow you to earn credit toward your degree or certificate, they also prepare you to take a targeted vendor exam and earn certification to validate your knowledge and skills to a potential or current employer. For detailed information on specific exams or certifications visit the CompTIA<sup>®</sup>, Microsoft<sup>®</sup>, Pearson Vue or Certiport websites for objectives, skill sets, and sample questions. Below is a list of courses that corresponds to a professional exam.

### Program Requirements

These five courses lead to the Cisco Certified network Associate (CCNA) certification. Topics covered in these courses include; the ability to install, configure, operate, and troubleshoot medium-size routed and switched networks, including implementation and verification of connections to remote sites in a WAN.

- CNET 121 - Network+ (3)
- CNET 131 - Introduction to Networks (4)
- CNET 141 - Route & Switch Essentials (4)
- CNET 231 - Scaling Networks (4)
- CNET 241 - Connecting Networks (4)

## **Cisco CCNA: Security**

### Vendor Certification Tracks

Several course offerings in our Information Technology, Office Technology, and Computer Applications Specialist program curricula are directly aligned to industry-level certification exams. These courses not only allow you to earn credit toward your degree or certificate, they also prepare you to take a targeted vendor exam and earn certification to validate your knowledge and skills to a potential or current employer. For detailed information on specific exams or certifications visit the CompTIA®, Microsoft®, Pearson Vue or Certiport websites for objectives, skill sets, and sample questions. Below is a list of courses that corresponds to a professional exam.

### Program Requirements

These six courses individually lead to specific Cisco Network certifications. Combined, they encompass all of the material needed to obtain the Cisco Certified Network Associate Security certification.

- CNET 121 - Network+ (3)
- CNET 131 - Introduction to Networks (4)
- CNET 141 - Route & Switch Essentials (4)
- CNET 231 - Scaling Networks (4)
- CNET 241 - Connecting Networks (4)
- CNET 250 - CCNA Security (4)



## Cisco CCNA: Wireless

### Vendor Certification Tracks

Several course offerings in our Information Technology, Office Technology, and Computer Applications Specialist program curricula are directly aligned to industry-level certification exams. These courses not only allow you to earn credit toward your degree or certificate, they also prepare you to take a targeted vendor exam and earn certification to validate your knowledge and skills to a potential or current employer. For detailed information on specific exams or certifications visit the CompTIA<sup>®</sup>, Microsoft<sup>®</sup>, Pearson Vue or Certiport websites for objectives, skill sets, and sample questions. Below is a list of courses that corresponds to a professional exam.

### Program Requirements

These six courses individually lead to specific Cisco Network certifications. Combined, they encompass all of the material needed to obtain the Cisco Certified Network Associate Wireless certification.

- CNET 121 - Network+ (3)
- CNET 131 - Introduction to Networks (4)
- CNET 141 - Route & Switch Essentials (4)
- CNET 231 - Scaling Networks (4)
- CNET 241 - Connecting Networks (4)
- CNET 251 - CCNA: Wireless (4)

## Cisco CCNP

### Vendor Certification Tracks

Several course offerings in our Information Technology, Office Technology, and Computer Applications Specialist program curricula are directly aligned to industry-level certification exams. These courses not only allow you to earn credit toward your degree or certificate, they also prepare you to take a targeted vendor exam and earn certification to validate your knowledge and skills to a potential or current employer. For detailed information on specific exams or certifications visit the CompTIA<sup>®</sup>, Microsoft<sup>®</sup>, Pearson Vue or Certiport websites for objectives, skill sets, and sample questions. Below is a list of courses that corresponds to a professional exam.

### Program Requirements

These eight courses individually lead to specific Cisco Network certifications. Combined, they encompass all of the material needed to obtain the Cisco Certified Network Professional certification.

- CNET 131 - Introduction to Networks (4)
- CNET 141 - Route & Switch Essentials (4)
- CNET 231 - Scaling Networks (4)
- CNET 241 - Connecting Networks (4)
- CNET 265 - Advanced Routing (6)

- CNET 266 - Advanced Switching (4)
- CNET 267 - Advanced Troubleshooting (4)

## **CIW: Certified Internet Webmaster**

### Vendor Certification Tracks

Several course offerings in our Information Technology, Office Technology, and Computer Applications Specialist program curricula are directly aligned to industry-level certification exams. These courses not only allow you to earn credit toward your degree or certificate, they also prepare you to take a targeted vendor exam and earn certification to validate your knowledge and skills to a potential or current employer. For detailed information on specific exams or certifications visit the CompTIA®, Microsoft®, Pearson Vue or Certipoint websites for objectives, skill sets, and sample questions. Below is a list of courses that corresponds to a professional exam.

### Program Requirements

Several course offerings in our Media Studies program curricula are directly aligned to industry-level certification exams. These courses not only allow you to earn credit toward your degree or certificate, they also prepare you to take a targeted vendor exam and earn certification to validate your knowledge and skills to a potential or current employer. For detailed information on specific exams or certifications visit the CompTIA®, Microsoft®, Pearson Vue or Certipoint websites for objectives, skill sets, and sample questions. Below is a list of courses that corresponds to a professional exam.

- MDIA 104 - Web Page Design (3)
- MDIA 105 - Internet Foundation (4)
- MDIA 106 - Site Designer (3)

## **CompTIA A+® Certification**

### Vendor Certification Tracks

Several course offerings in our Information Technology, Office Technology, and Computer Applications Specialist program curricula are directly aligned to industry-level certification exams. These courses not only allow you to earn credit toward your degree or certificate, they also prepare you to take a targeted vendor exam and earn certification to validate your knowledge and skills to a potential or current employer. For detailed information on specific exams or certifications visit the CompTIA®, Microsoft®, Pearson Vue or Certipoint websites for objectives, skill sets, and sample questions. Below is a list of courses that corresponds to a professional exam.

### Program Requirements

These two courses map to the CompTIA A+ Certification exams (two exams).

- IT 180 - A+ Hardware Essentials (3)
- IT 181 - A+ Software Essentials (3)

## **CompTIA Network+® Certification**

### Vendor Certification Tracks

Several course offerings in our Information Technology, Office Technology, and Computer Applications Specialist program curricula are directly aligned to industry-level certification exams. These courses not only allow you to earn credit toward your degree or certificate, they also prepare you to take a targeted vendor exam and earn certification to validate your knowledge and skills to a potential or current employer. For detailed information on specific exams or certifications visit the CompTIA®, Microsoft®, Pearson Vue or Certiport websites for objectives, skill sets, and sample questions. Below is a list of courses that corresponds to a professional exam.

### Program Requirements

This single course maps to the CompTIA Network+ certification exam.

- CNET 121 - Network+ (3)

## **CompTIA Project+® Certification**

### Vendor Certification Tracks

Several course offerings in our Information Technology, Office Technology, and Computer Applications Specialist program curricula are directly aligned to industry-level certification exams. These courses not only allow you to earn credit toward your degree or certificate, they also prepare you to take a targeted vendor exam and earn certification to validate your knowledge and skills to a potential or current employer. For detailed information on specific exams or certifications visit the CompTIA®, Microsoft®, Pearson Vue or Certiport websites for objectives, skill sets, and sample questions. Below is a list of courses that corresponds to a professional exam.

### Program Requirements

This single course maps to the CompTIA Project+ certification exam.

- IT 269 - Project Management (3)

## **CompTIA Security® + Certification**

### Vendor Certification Tracks

Several course offerings in our Information Technology, Office Technology, and Computer Applications Specialist program curricula are directly aligned to industry-level certification exams. These courses not only allow you to earn credit toward your degree or certificate, they also prepare you to take a targeted vendor exam and earn certification to validate your knowledge and skills to a potential or current

employer. For detailed information on specific exams or certifications visit the CompTIA®, Microsoft®, Pearson Vue or Certiport websites for objectives, skill sets, and sample questions. Below is a list of courses that corresponds to a professional exam.

### Program Requirements

This single course maps to the CompTIA Security+ certification exam.

- CYBR 160 - Security+ (3)

### Dental Assisting Program

This 60-hour Dental Assisting Program prepares students for entry level positions in a variety of health care settings including dentist offices, hospitals and other similar facilities, familiarizing the student with all areas of pre-clinical dental assisting and training in the professional skills required to function as an assistant in the dental practice. It covers the history of dentistry and dental assisting; introduction to the dental office; the legal aspects of dentistry and dental assisting; and policies and guidelines. Clinical aspects in oral anatomy, dental equipment, tooth structure, primary and permanent teeth, oral cavity and related structures, proper patient positioning, dental hand-pieces, dental anesthesia, sterilization and asepsis. This program does not include a national or state certification objective which, in most states, requires 1 to 2 years of training or education.

If you seek a career in a high-growth field, our eight-week program prepares you for success as a dental assistant. As a key member of the healthcare team, you'll work hand in hand with dentists and hygienists to provide quality and corrective dental care. Over the course of your work day, you'll manage a variety of clinical and administrative responsibilities, such as sterilizing instruments, ordering supplies, and other office duties.

*What are my career options?*

Working in one of the fastest growing medical field careers, you can pursue employment in a dentist or orthodontist office, clinic, or hospital setting. Depending on the needs of your work environment, you may have the opportunity to work flexible hours.

This course is eligible for college credit after successful completion of the program.

**Fee: \$1,199 (Textbooks included)**

**Course Contact Hours - 60 hrs.**

### Registration Information

This special program requires a separate registration process.

Contact:

Sue Reneker

304-260-4380 ext 2302

sreneker@blueridgectc.edu

- CAHS 154 - Dental Assisting (1–12)

## **EKG Technician Certification Program**

This comprehensive 60-hour EKG Technician Certification Program prepares students to function as EKG Technicians and to take the American Society of Phlebotomy Technician (ASPT) - Electrocardiograph (EKG) Technician exam. This course will include important practice and background information on anatomy of the heart and physiology, medical disease processes, medical terminology, medical ethics, legal aspects of patient contact, laboratory assisting, electrocardiography and echocardiography. Additionally, students will practice with equipment and perform hands-on labs including introduction to the function and proper use of the EKG machine, the normal anatomy of the chest wall for proper lead placement, 12-lead placement and other clinical practices.

As our population's healthcare needs continue to grow, certification as an EKG/cardiovascular technician gives you the chance to save and strengthen patients' lives. Working closely with a physician, you'll find and identify patients' heart irregularities.

*What are my career options?*

Our 10-week, part-time program gives you the knowledge of state-of-the-art imaging technology to diagnose cardiac and vascular ailments in patients and prepares students to successfully sit for the national certification exam. Our graduates pursue employment in physicians' offices, hospitals, and clinic settings.

This course is eligible for college credit after the successful completion of the program.

**Fee: \$999 (Textbooks included)**

**Course Contact Hours - 60 hrs.**

### Registration Information

This special program requires a separate registration process.

Contact:

Sue Reneker

304-260-4380 ext 2302

sreneker@blueridgectc.edu

- CAHS 150 - EKG Technician (1–12)

## **Entrepreneurship Skill Set**

Blue Ridge Community and Technical College's Entrepreneurship Skill Set Certificate provides the basic knowledge and skills needed to start a new business or career. The certificate can be completed in less than a year or longer at a slower pace. There is no better way to supplement your business than by enhancing your own education.

For more information on the Entrepreneurship Skill Set Certificate contact Cynthia Hull 304-260-4380 ext. 2405.

### Program Requirements

- ENTR 100 - Intro to Entrepreneurship (3)
- ENTR 115 - Marketing for Small Business (2)
- ENTR Courses (4)

**Subtotal Credit Hours Required**12

## **Entrepreneurship Skill Set– Real Estate**

Blue Ridge Community and Technical College's Entrepreneurship Skill Set Certificate provides the basic knowledge and skills needed to start a new business or career in real estate. Licensed real estate agents, brokers and small business owners will benefit from the knowledge and skills obtained. Courses are led by skilled instructors who are not only experts in their field, but are business owners themselves. The certificate can be completed in less than one year or longer at a slower pace. There is no better way to supplement your business than by enhancing your own education.

For more information on the Entrepreneurship Skill Set Certificate contact Cynthia Hull 304-260-4380 ext. 2405.

### Program Requirements

Students are required to complete 12 college credit hours in any of the following approved courses in order to receive the College Skill Set Certificate.

- ENTR 100 - Intro to Entrepreneurship (3)
- ENTR 115 - Marketing for Small Business (2)
- ENTR 135 - WV Real Estate Pre-Licensing (6)
- ENTR Courses

## **IC3 (Internet and Computer Core Certification®)**

### Vendor Certification Tracks

Several course offerings in our Information Technology, Office Technology, and Computer Applications Specialist program curricula are directly aligned to industry-level certification exams. These courses not only allow you to earn credit toward your degree or certificate, they also prepare you to take a targeted vendor exam and earn certification to validate your knowledge and skills to a potential or current employer. For detailed information on specific exams or certifications visit the CompTIA®, Microsoft®, Pearson Vue or Certiport websites for objectives, skill sets, and sample questions. Below is a list of courses that corresponds to a professional exam.

## Program Requirements

This single course maps to the IC3 certification exam.

- CAS 111 - Information Literacy (3)

## **MCSA (Microsoft® Certified Systems Administrator)**

### Vendor Certification Tracks

Several course offerings in our Information Technology, Office Technology, and Computer Applications Specialist program curricula are directly aligned to industry-level certification exams. These courses not only allow you to earn credit toward your degree or certificate, they also prepare you to take a targeted vendor exam and earn certification to validate your knowledge and skills to a potential or current employer. For detailed information on specific exams or certifications visit the CompTIA®, Microsoft®, Pearson Vue or Certiport websites for objectives, skill sets, and sample questions. Below is a list of courses that corresponds to a professional exam.

## Program Requirements

These five courses, individually, lead to specific Microsoft certifications. Combined, they encompass all of the material needed to obtain the Microsoft Certified Systems Administrator Security certification.

- IT 204 - Windows Fundamentals (3)
- IT 270 - Instl,Config,Admin Win Oper Sy (3)
- IT 289 - Plan & Maintain MWS Infastruct (3)
- IT 290 - Manage & Maintain MWS (3)
- IT 291 - Implmnt, Mge&Mntain MWS Infact (3)

## **Medical Billing and Coding Program**

This combined 80-hour billing and coding course offers the skills needed to resolve insurance billing problems, manually file claims using the ICD-10 and CPT-4 catalog procedures to complete common insurance forms, trace delinquent claims, appeal denied claims and use generic forms to streamline billing procedures. The course covers the following areas:

- CPT-4 (Introduction, Guidelines, Evaluation and Management).
- Specialty fields (such as surgery, radiology and laboratory).
- ICD-10 (introduction and guidelines).
- Basic claims processes for medical insurance and third party reimbursements.

Students will learn how to find the service and codes using CPT and ICD-10 manuals. After obtaining the suggested practical work experience (6 months to 2 years), students who complete this course could be qualified to sit for the American Academy of Professional Coders (AAPC) - Certified Professional Coder Exam (CPC or CPC - H Apprentice); the American Health Information Management Association (AHIMA) Certified Coding Associate (CCA) exam; and/or other National Certification Exams.

In light of new federal requirements for electronic medical records, the healthcare industry needs medical billers and coders now more than ever. Medical billing professionals keep records, calculate patient charges, and maintain files of payments made to accounts. If you seek a detail-oriented role in a healthcare setting, consider enrolling in our 13-week, part-time program today.

*What are my career options?*

As a medical biller and coder, you'll use codes to keep track of patient illness, treatments, bills, and invoices. Work environments include hospitals, emergency rooms, or physicians' offices.

This course is eligible for college credit after the successful completion of the program.

**Fee: \$1,899 (Textbooks included)**

**Course Contact Hours - 80 hrs.**

### Registration Information

This special program requires a separate registration process.

Contact:

Sue Reneker

304-260-4380 ext 2302

sreneker@blueridgectc.edu

- CAHS 151 - Medical Coding/Billing (1–12)

### **MOS (Microsoft® Office Specialist)**

#### Vendor Certification Tracks

Several course offerings in our Information Technology, Office Technology, and Computer Applications Specialist program curricula are directly aligned to industry-level certification exams. These courses not only allow you to earn credit toward your degree or certificate, they also prepare you to take a targeted vendor exam and earn certification to validate your knowledge and skills to a potential or current employer. For detailed information on specific exams or certifications visit the CompTIA®, Microsoft®, Pearson Vue or Certiport websites for objectives, skill sets, and sample questions. Below is a list of courses that corresponds to a professional exam.

#### Program Requirements

Several course offerings in our Computer Applications program curricula are directly aligned to industry-level certification exams. These courses not only allow you to earn credit toward your degree or certificate, they also prepare you to take a targeted vendor exam, and earn certification to validate your knowledge and skills to a potential or current employer. For detailed information on specific exams or certifications visit the CompTIA®, Microsoft®, Pearson Vue or Certiport websites for objectives, skill sets, and sample questions. Below is a list of courses that corresponds to a professional exam.



- CAS 210 - Outlook Complete (3)
- CAS 211 - Word Complete (3)
- CAS 212 - PowerPoint Complete (3)
- CAS 213 - Excel Complete (3)
- CAS 214 - Access Complete (3)

## **Pharmacy Technician Program**

This comprehensive 60-hour course will prepare students to enter the pharmacy field and to take the Pharmacy Technician Certification Board's PTCB exam. Technicians work in hospitals, home infusion pharmacies, community pharmacies and other health care settings while working under the supervision of a registered pharmacist. Course content includes medical terminology specific to the pharmacy, reading and interpreting prescriptions, and defining drugs by generic and brand names. Students will learn dosage calculations, I.V. flow rates, drug compounding, dose conversions, dispensing of prescriptions, inventory control and billing and reimbursement.

As our population grows and ages, skilled pharmacy professionals must supply the demand. Within 10 weeks Fast Track training for pharmacy technician will prepare you to work in a pharmacy, performing substantial duties such as retrieving drugs in the correct dosage, form and strength, filling prescriptions, and preparing medications for dispensing to patients. The program also prepares students to sit for the national certification exam.

*What are my career options?*

As a pharmacy technician, you will work in a pharmacy, filling prescriptions under the direction of a pharmacist. You may choose to work in retail pharmacies, mail order pharmacies, home infusion pharmacies, as well as long term care facilities, hospitals, and clinics.

This course is eligible for college credit after the successful completion of the program.

**Fee: \$1,199 (Textbooks included)**

**Course Contact Hours - 60 hrs.**

Registration Information

This special program requires a separate registration process.

Contact:

Sue Reneker

304-260-4380 ext 2302

sreneker@blueridgectc.edu

- CAHS 152 - Pharmacy Technician (1–12)

## **Phlebotomy Technician Program**

This 90-hour Phlebotomy Technician Program prepares professionals to collect blood specimens from clients for the purpose of laboratory analysis. Students will become familiar with all aspects related to

blood collection and develop comprehensive skills to perform venipunctures completely and safely. Classroom and lab work includes terminology, anatomy and physiology; blood collection procedures; specimen hands-on practice; and training in skills and techniques to perform puncture methods. Note: This 90-hour program does not include clinical rotations.

The phlebotomy technician is a vital member of the clinical lab team; whose main function is to obtain patients' blood specimens. The field of phlebotomy has greatly expanded in the past several years and this team member's role has recently been brought into sharper focus. Our part-time, 13-week program gives you the skills to collect blood specimens and create a stress-free patient environment.

*What are my career options?*

As a phlebotomy technician, you can pursue employment in a variety of settings, including hospitals, health centers, medical group practices, HMO's, public health facilities, veteran hospitals and insurance carriers.

This course is eligible for college credit after the successful completion of the program.

**Fee: \$1,799 (Textbooks included)**

**Course Contact Hours - 90 hrs.**

#### Registration Information

This special program requires a separate registration process.

Contact:

Sue Reneker

304-260-4380 ext 2302

sreneker@blueridgectc.edu

- CAHS 153 - Phlebotomy Technician (1-12)

# Course Descriptions

## Accounting

### **ACCT 180 - Personal Finance (3)**

This course offers a study of personal financial management. Students are equipped with the tools to make informed decisions related to spending, saving, borrowing, and investing to achieve financial goals now and in the future.

Prerequisite(s): MATH 100 - Math Essentials (3) or placement

### **ACCT 192 - Accounting Practicum (1)**

This course will cover testing methodologies and study techniques to assist in preparing the student to successfully pass the QuickBooks Certified User Exam.

Prerequisite(s): ACCT 201 - Principles of Accounting I (3)

Corerequisite(s): ACCT 280 - QuickBooks Accounting (3)

### **ACCT 199 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

### **ACCT 201 - Principles of Accounting I (3)**

A study of the fundamental theory and principles of accounting concepts for reporting financial information to business users. The course stresses the relationship between the rules by which financial statements are prepared and the use of financial statement information for decision making. This course covers accounting terms, organization of accounts, the accounting cycle, working papers, and financial statements. This study continues in ACCT 202.

Prerequisite(s): MATH 100 - Math Essentials (3) or placement

### **ACCT 202 - Principles of Accounting II (3)**

This course continues and concludes the fundamental study of financial accounting and then introduces the study of theory and principles of managerial and cost accounting concepts. The course stresses the use of accounting information for decision making and role of managerial accounting in a business environment. This course covers budgeting, costs systems, accounting for corporations, and financial statement analysis.

Prerequisite(s): ACCT 201 - Principles of Accounting I (3) and CAS 111 - Information Literacy (3)

### **ACCT 220 - Payroll Accounting (3)**

This course covers the underlying payroll theory, application, and compliance with various state and federal payroll regulations. Presents accounting systems and methods used in computing and recording payroll. Students will complete a comprehensive payroll simulation for a fictitious company's payroll activities for a full quarter, including payroll transactions, pay processing, and tax form completion.

Prerequisite(s): ACCT 201 - Principles of Accounting I (3)

### **ACCT 230 - Intermediate Accounting I (3)**

An in-depth study of the theory and principles, along with the application of accounting concepts for reporting financial information. The accounting conceptual framework, information systems and components of the financial statements will be emphasized. This study continues in ACCT 231.

Prerequisite(s): ACCT 202 - Principles of Accounting II (3)

**ACCT 231 - Intermediate Accounting II (3)**

A continuation of ACCT 230. An in-depth study of the theory and principles, along with the application of accounting concepts for reporting financial information. The accounting conceptual framework, information systems and components of the financial statements will be emphasized. Specifically, this course will cover accounting theory and practice for assets, liabilities and equity.

Prerequisite(s): ACCT 230 - Intermediate Accounting I (3)

**ACCT 250 - Managerial Accounting (3)**

A focus on the fundamental concepts of managerial accounting. Includes the analysis of internal accounting information with emphasis on use of such data for performance evaluation, control, cost analysis, capital budgeting, cash flows, and cost information.

Prerequisite(s): ACCT 201 - Principles of Accounting I (3)

**ACCT 260 - Income Tax (3)**

A study of the Internal Revenue Code and regulations for individuals, partnerships and corporations. An in depth study and application of the IRC for income, deductions, expenses and tax credits for individual and small business.

Prerequisite(s): ACCT 201 - Principles of Accounting I (3)

**ACCT 261 - Individual Taxation (3)**

Introduces students to the basic issues and concepts of individual taxation principles. Students observe federal tax laws as applied to the preparation of the Form 1040 and related schedules. Tax preparation software is utilized for case projects.

Prerequisite(s): ACCT 201 - Principles of Accounting I (3)

**ACCT 262 - Business Taxation (3)**

This course introduces students to the fundamentals of tax law regarding business federal income taxation. Planning issues of estates and gift taxation are part of this course. Tax preparation software is utilized for case projects.

Prerequisite(s): ACCT 261 - Individual Taxation (3)

**ACCT 280 - QuickBooks Accounting (3)**

This course offers a study of the application of general purpose accounting software, Quick Books. In this course, the student will learn to create companies, enter and process data, generate reports and complete the accounting cycle for small businesses. Then the student will complete several comprehensive projects where they will create a new company, record transactions, and produce reports for various types of fictitious companies. The student will be required to take a national competency test, the Quick Books Certified User exam.

Prerequisite(s): ACCT 201 - Principles of Accounting I (3) and CAS 111 - Information Literacy (3)

**ACCT 292 - Field Experience (3)**

Field experience allows students to practice knowledge and essential skills learned in a real work setting beyond the boundaries of campus. Students will be required to complete 50 hours working in the field per credit hour enrolled and a required 1 credit live or online course. The course component will direct students in compiling an employment career portfolio. Must complete 50% of degree requirements.

**ACCT 299 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

## **Agribusiness**

### **AGRB 101 - Agribusiness Introduction (3)**

This course presents a basic introduction to Agribusiness and Agriculture. Students will gain basic understanding of various topics in Agribusiness.

### **AGRB 110 - Introduction to Animal Science (3)**

Students will survey the major disciplines in animal and veterinary sciences. Emphasis will be on terminology and the study of breeds of livestock and identification.

### **AGRB 112 - Intro to Equestrian Science (3)**

Students will focus on the basic understanding of equine science and management. Topics will include the history and future of equine, breeds, health and basic management.

### **AGRB 113 - Intro to Swine Production (3)**

Students will focus on the basic understanding of swine science production and management. Topics will include breeding, health, and overall management.

### **AGRB 114 - Intro Poultry, Goats, & Llamas (3)**

Students will survey poultry, goats and llamas. Emphasis will be on terminology, study of breeds, and identification.

### **AGRB 115 - Intro to Cattle Production (3)**

Students will focus on the basic understanding of cattle science, production and management. Topics will include breeding, health, and overall management.

### **AGRB 116 - Companion Animal Science (3)**

Students will explore the basic physiology, nutrition, and genetics of companion animals. This course will also explore basic handling, training, behavior and health issues.

### **AGRB 120 - Intro to Food Production (3)**

This course will provide training in food production management with emphasis on large and small-scale food preparation and kitchen operations.

### **AGRB 122 - Farm to Table & Microgardens (3)**

Students will learn the basics of creating microgardens and the fundamentals to produce products almost anywhere. Students will also study how to take their product from the farm to the table.

### **AGRB 124 - Licensing and Food Safety (3)**

Students will study the approved procedures for food safety to include handling of utensils and equipment, food protection, and hygiene. Study will also include discussions in state licensing guidelines.

### **AGRB 126 - Sustainable Agriculture (3)**

Students will study techniques such as crop rotation, soil fertility, erosion prevention, and limiting pests. Larger and more productive harvests are the ultimate goal.

### **AGRB 128 - Intro to Crop Production (3)**

Students will focus on the basic understanding of crop science, production, rotation and protection. Topics will include types of crops, types of pesticides, and modern rotation practices.

**AGRB 130 - Customer Service Excellence (3)**

Students will experience what it means to give and receive excellent customer service. Tips, tricks, and techniques from the nation's best companies will be shared.

**AGRB 140 - Agribusiness Marketing (3)**

This course will introduce concepts in Agriculture marketing. Students will examine the links between producers and consumers and rapidly changing factors that affect the marketplace.

**AGRB 150 - Agribusiness Management (3)**

This course will provide an overview of the agribusiness decision-making processes. Financial statements and budgeting will be analyzed.

**AGRB 160 - Intro to Farm Equipment (3)**

Students will study and learn about basic farm equipment. Repair and safety techniques will be taught to assist the student with basic machine repairs.

**AGRB 170 - Agricultural Govt Relations (3)**

This course presents an introduction to state and local governments and the influence on the agricultural industry. Students will gain an understanding of governmental regulations and the relationships as it relates to the agricultural industry.

**AGRB 199 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

**AGRB 210 - Princ of Animal Science (3)**

Students will survey the major disciplines in animal and veterinary science. Emphasis will be on terminology and the study of different breeds and identification.

**AGRB 212 - Princ of Equine Science (3)**

Students will focus on the understanding of equine science and management. Topics will include history and future of equine breeds, health and management.

Prerequisite(s): ENGL 101 - ~Written English (3) or ENGL 110 - ~Technical Writing & Communication (3)

**AGRB 217 - Animal Nutrition (3)**

Students will study, learn and practice basic animal nutrition for a variety of animal breeds. Course will include lecture and practical experience.

Prerequisite(s): MATH 101 - ~Introduction to Mathematics (3)

**AGRB 226 - Princ of Sustainable Ag (3)**

Students will study techniques such as crop rotation, limiting pests, soil fertility and erosion prevention. Larger and more productive harvests are the goal.

**AGRB 228 - Princ of Crop Production (3)**

Students will focus on crop science, production, rotation and protection of crops. Topics will include types of crops, types of pesticides and modern rotation principles.

**AGRB 240 - Agribusiness Marketing (3)**

This course will introduce concepts in agriculture marketing. Students will examine the links between producers and consumers and the rapidly changing factors that affect the marketplace.

**AGRB 250 - Principles of AGRB Mgmt (3)**

This course will provide an overview of the agribusiness decision-making processes. Financial statements and budgeting will be analyzed.

**AGRB 270 - State and Local Government (3)**

This course will examine state and local governments and the influence on the Agricultural industry. Students will gain an understanding of regulations and relationships.

**AGRB 292 - Agribusiness Internship (1-4)**

The course represents approved internship opportunities in Agribusiness.

Prerequisite(s): AGRB 101 - Agribusiness Introduction (3)

**AGRB 299 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

**Applied Laboratory Technician**

**LTEC 101 - Laboratory Technician I (3)**

This course is the introductory course to chemistry concepts. This course will also introduce instrumentation, industrial processes and the science that is needed to be a successful Applied Laboratory Technician.

Corerequisite(s): MATH 100 - Math Essentials (3) or placement

**LTEC 102 - Laboratory Technician II (3)**

This course will continue the discussion of chemistry concepts with a focus on molecular compounds, chemical reactions, acids & bases, and an introduction to organic chemistry concepts. A WorkKeys NCRC Certificate Examination will be conducted at the end of this course.

Prerequisite(s): LTEC 101 - Laboratory Technician I (3)

Corerequisite(s): MATH 101 - ~Introduction to Mathematics (3) or MATH 102 - Technical Mathematics (3)

**LTEC 111 - Laboratory Technician III (3)**

This course presents a basic introduction to industrial safety health and environmental health concepts. Students will be able to discuss and recognize the various hazards that exist in a manufacturing environment. The students will discuss remediation of spills and unsafe conditions. This course will also do OSHA 30 certification that will include OSHA's history. Students will learn about creating a safety culture within diverse organizations.

**LTEC 112 - Laboratory Technician IV (3)**

Students will continue with basic laboratory principles and will be able to use various types of analytical equipment that an applied laboratory technician will operate in a manufacturing setting. The student will be able to identify various types of process equipment and describe what each piece of equipment does within the manufacturing

process.

Prerequisite(s): LTEC 101 - Laboratory Technician I (3) and LTEC 102 - Laboratory Technician II (3)

**LTEC 120 - Biology for Technicians I (4)**

This course will introduce Applied Laboratory Technology A.A.S. students to cells; genetics; and evolution & diversity with an emphasis on laboratory applications and techniques. Topics include: cell structure; patterns of inheritance; and evolution of microbial life. Students will also be able to, function successfully within laboratory settings, including use of basic equipment (microscopes, measurement devices, and computer technologies), and utilizing appropriate safety protocols for manufacturing quality control. This course has an emphasis biological topics needed for quality control/ quality assurance in microbiologic laboratories.

**LTEC 121 - Biology for Technicians II (4)**

This course is a continuation of LTEC 120 - Biology for Technicians I (4) for students in the Applied Laboratory Technology A.A.S. This course will introduce students to ecology and animal structure & function; with an emphasis on laboratory applications and techniques. Topics include: communities and ecosystems and nervous, sensory, and locomotor systems. Students will also be able to, function successfully within laboratory settings, including use of basic equipment (microscopes, measurement devices, and computer technologies), and utilizing appropriate safety protocols for manufacturing quality control. This course has an emphasis on quality control/ quality assurance within manufacturing for biology.

Prerequisite(s): LTEC 120 - Biology for Technicians I (4)

**LTEC 140 - Process Quality (3)**

This course will describe the concepts and tools that manufacturers use for quality control in a manufacturing setting. The students will be able to describe the different management systems that are used to develop a quality control program. The students will be able to develop and interpret quality control charts. Students will be able to create a quality control chart and the statistical calculations that are needed to do so.

**LTEC 141 - Analytical Instrumentation (3)**

The students will further explore the different analytical testing methods that are used in the industry. The students will be able to complete testing on FT-IR, Spectrophotometer, HPLC, and GC-MS instruments.

Prerequisite(s): LTEC 101 - Laboratory Technician I (3) and LTEC 102 - Laboratory Technician II (3)

**LTEC 142 - Instrument & Process Control (2)**

Students learn the instruments and process variables that are important for managing the flow of manufacturing processes. The student will understand how different environmental variables impact the manufacturing process and how control loops are managed.

Prerequisite(s): LTEC 102 - Laboratory Technician II (3)

**LTEC 143 - Process Technology-Operation (3)**

This course will discuss the following topics: procedure writing, communication, shift change, maintenance, and other topics that Applied Laboratory Technicians and Quality Control Technicians must understand.

**LTEC 144 - Process Technology-Systems (3)**

Applied Laboratory Technician students learn the many different systems that an applied laboratory technician will encounter including, but not limited to, water systems, electrical systems, and refrigeration systems.

**LTEC 160 - Water Operator I (3)**



This course prepares students to take the West Virginia Water Operator I test. The test is administered by the State of West Virginia by Environmental Engineering Division District Office.

**LTEC 161 - Waste Water Operator I (3)**

This course prepares students to take the West Virginia Waste Water Operator I test. The test is administered by the State of West Virginia by Environmental Engineering Division District Office.

**LTEC 199 - Special Topics (1-4)**

A special topic (ST) course has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

**LTEC 200 - Microbiology for Technicians (4)**

This course is for Applied Laboratory Technology A.A.S. students and is an introduction to general microbiology for microbiology manufacturing technicians with an emphasis on manufacturing applications and techniques. Overview of cell structure, cell metabolism, genetics, bacterial growth & control, bacterial cultivation, bacterial isolation, bacterial classification, identification of the major groups of bacteria, and identification of infections and immunity; as these topics apply to quality control in manufacturing. The course includes an introduction to viruses, protozoa, fungi, and algae. In both the laboratory and lecture, students will demonstrate an understanding of basic microbiology as it applies to quality control in manufacturing. Students are introduced to safety procedures specific to microbiology laboratory procedures. Students will demonstrate basic laboratory skills and application of these skills performing lab based activities.

Prerequisite(s): LTEC 121 - Biology for Technicians II (4)

**LTEC 201 - Industrial Microbiology (4)**

In this course for Applied Laboratory Technology A.A.S. students, students will be able to understand the physiology, nutrition, and growth of microorganisms that are important to various industries, microbiological safety procedures are also emphasized. Students learn diseases specific to laboratory production workers. The students will also understand how to control microbial growth in industrial production processes and also understand the application of microorganisms in production of cells, primary and secondary metabolites.

Prerequisite(s): LTEC 200 - Microbiology for Technicians (4)

**LTEC 211 - Federal Lab Safety & Regs (3)**

This course is for Applied Laboratory Technology A.A.S. students. This course will build on the knowledge gained in LTEC 111: Laboratory Technician III with an emphasis on manufacturing applications and techniques. The students will be asked to apply some of the safety concepts learned in LTEC 111, like, handling equipment safely, handling, storing and disposing of chemicals safely, using emergency equipment, as well as safety planning. This course will also discuss OSHA's Laboratory Safety Guidance document and 29 CFR 1910 as it pertains to laboratory safety. The students will be able to discuss all the physical, chemical, and biological hazards discussed in OSHA's Laboratory Safety Guidance document.

Prerequisite(s): LTEC 111 - Laboratory Technician III (3)

**LTEC 250 - Adv QC Lab Practices: GLP (3)**

This course is for Applied Laboratory Technology A.A.S. students. Good Laboratory Practices (GLP) is essential knowledge for quality control technicians within a manufacturing setting. Topics include: quality assurance in GLP; standard operating procedures for GLP work; inspections: procedural, process, and facility; report and data audits; and quality assurance and contract research organization: GLP studies. Good Laboratory Practices, techniques for the QA professional is aimed at: chemists, clinicians, ecotoxicologists, operation managers, pharmaceutical process managers, quality assurance officers, technicians, and toxicologists.

Prerequisite(s): LTEC 112 - Laboratory Technician IV (3)

**LTEC 260 - Adv QC in Manufacturing: GMP (3)**

This course is for Applied Laboratory Technology A.A.S. students. Good Manufacturing Practices (GMP) are guidelines that provide a system of processes, procedures, and documentation to assure that the product produced has the identity, strength, composition, quality, and purity that it is represented to possess. This course is an introduction to the principles and practices of Good Manufacturing Practices (GMP). The student will use 21 CFR 211 as a tool to identify the best practices in manufacturing of food, drugs, biologics, and medical devices.

Prerequisite(s): LTEC 112 - Laboratory Technician IV (3)

**LTEC 270 - Lab Reporting Methods: GDP (3)**

This course is for Applied Laboratory Technology A.A.S. students. Good documentation serves both production and compliance needs. This practice is Good Documentation Practices (GDPs) and collectively are the set of activities that enable you to record your data and hand-written entries in a legible, traceable, and reproducible manner. Students will be able to understand and use identifiers such as identification numbers and control numbers as it relates to manufacturing quality control laboratory work. The students will be able to use or create documents such as specification documents, standard operating procedure documents, logbooks, and quality manuals. The Applied Laboratory Technology A.A.S. students will be able to create or interpret materials handling documentation, maintenance documentation, quality control documentation, quality assurance documentation, production documentation, and validation documentation.

Prerequisite(s): LTEC 112 - Laboratory Technician IV (3)

**LTEC 292 - Internship (1-4)**

Students obtain practical experience in the chemical manufacturing industry, chemical laboratory, or water treatment industry. The student engages in on-the-site activities of a practical nature. Interns learn how to translate classroom theory and methods into professional skills. Activities are under the supervision of trained personnel. Application for the internship must be made to the Applied Laboratory Technician program manager.

Prerequisite(s): LTEC 101 - Laboratory Technician I (3) and LTEC 102 - Laboratory Technician II (3)

**LTEC 299 - Special Topics (1-4)**

A special topic (ST) course has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

**Apprenticeship**

**APTR 101 - ACDS: Introductory Child Development (5)**

This basic course is an overview of the “pieces” of development in young children, including emotional, social, mental, and physical development. The focus is on the relationship between stages of growth in separate areas of development and the activities, which promote development.

**APTR 102 - ACDS: Planning for the Whole Child (5)**

This course is a continuation of the study of child development, but in contrast to the first semester, will look at the child as a whole. The focus will be on the integration within the child of the different areas of development. Typical behavior exhibited as a child progresses through stages and the unique characteristics of individual children will be analyzed. Planning appropriate curriculum according to developmental levels will be emphasized. Health and safety issues that arise when children reach new levels of ability will be explored.

**APTR 103 - ACDS: Facilitation of Learning (5)**

This course emphasizes the role of the teacher in fostering optimum development through a.) positive interactions with children, b.) effective individual and group management techniques, c.) appropriate classroom design, and d.) curriculum planning. An understanding of discipline as the development of self-control will be emphasized.

**APTR 104 - ACDS: Becoming Independent (5)**

This course will assist the apprentice in managing and administering a quality environment for young children. Problem solving about concerns that arise in daily operation will be practiced.

**APTR 105 - Apprenticeship in Child Development (12)**

This course provides the apprentice with 4,000 hours of supervised on-the-job training in participating childcare programs. Formal instruction is integrated with direct experience in early education settings where apprentices reflect and critically analyze their experiences. A portfolio is used to document the apprentice's learning/work throughout the apprenticeship program.

**Art**

**ART 103 - ~Introduction to Visual Arts (3)**

This is an introductory course designed to give insight into the nature of the visual arts and the relationship to the human condition. The course includes a study of the functions of various forms of art in which students are exposed to a variety of visual arts experiences to promote a deeper understanding of and appreciation for the role of the visual arts in contemporary society.

**ART 105 - Creativity, Color, & Design I (3)**

This course introduces and explores human creativity, the creative process, color theory, color formulation, design, composition, the role of creativity in society, aesthetic approaches worldwide, and outlets for personal creative expression. Classroom and home studio exercises help students analyze approaches and principles of creativity, color, composition, design, and execution. Individuals gain a working understanding of creativity and aesthetics, color and design, pigment and optical color systems.

**ART 115 - Drawing I (3)**

This course introduces general drawing and compositional principles. Students will train their eyes and hands, develop powers of observation and learn to translate what they see on to paper. A variety of materials will be used: charcoal, pastel, and pencil. Drawing techniques covered are gestural line, contour "blind" drawing, still life, perspective. Students will focus on the elements of good drawing such as proportion, shading and modeling, line, and composition. As skills develop, students explore the expressive potential of different materials. Students will also look at various works of art to critique and analyze their composition/historical value and develop a portfolio of their studies and drawings.

Pre-requisite/Co-requisite(s): Students are responsible for purchasing art supplies.

**ART 199 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

**ART 205 - Creativity, Color, & Design II (3)**

This course explores the human creativity, art materials and media, the creative process, color theory, color formulation, design, composition, the role of creativity in society, aesthetic approaches worldwide, and outlets for personal creative expression. Classroom and home studio exercises help students analyze approaches and principles of creativity, color, composition, design, and execution. Individuals gain a working understanding of creativity and aesthetics, color and design, pigment and optical color systems.

**ART 215 - Drawing II (3)**

This course is a continuation of Drawing I with an introduction to color dynamics and precision drawing as used in creative expression with an emphasis on composition. Students become more skilled with visual elements and drawing principles. A broader range of materials and techniques will be used. Subject matter will include still life, landscape, and imagined subjects. It is expected that students will spend a minimum of three additional clock hours per week on work outside the scheduled class time for each studio class.

Pre-requisite/Co-requisite(s): Students are responsible for purchasing art supplies.

### **ART 299 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

### **Allied Health Science**

#### **CAHS 105 - Science for Allied Health (3)**

This is a one-semester preparatory course designed for students who plan to enroll in CAHS courses in the future. The course reviews basic principles of chemistry, cell biology, cell processes, and basic math skills with applications to biology and chemistry. Reading, writing, and study skills are emphasized throughout the course.

#### **CAHS 140 - Intro to Healthcare (3)**

This course is a foundation course for selected allied health programs. The course introduces students to a variety of health occupations and assists students in acquiring the basic knowledge skills, and professional behaviors needed to work and interact with clients in a healthcare setting.

#### **CAHS 141 - Intro to Pharmacology (3)**

This course provides information on a variety of medications that are commonly administered in the healthcare setting. Major drug categories associated with body systems will be reviewed. Students will learn about drug pharmacokinetics, dosage, preparation, administration and interactions.

#### **CAHS 142 - Pathophysiology of Disease (3)**

Pathophysiology of diseases will build upon previously learned knowledge of normal anatomy and normal physiology. This course will discuss pathologies and abnormalities that are deviations from the norm. For all pathologies, we will discuss: causes, signs and symptoms, diagnosis, diagnostic tests, treatments, and prognosis. The pathologies will be organized according to body system, including: cardiovascular, respiratory, immune, gastrointestinal, urinary, reproductive, endocrine, nervous, musculoskeletal, and integumentary. Other topics will include infectious diseases, neoplasms, hereditary diseases, diseases of the blood, and mental/cognitive disorders.

#### **CAHS 143 - Spanish for Healthcare (3)**

Medical Spanish for HealthCare Providers has been designed for healthcare practitioners and all individuals who interact with Hispanic patients who have limited English communication skills. Emphasis will be placed on communication and phrases needed to complete a patient assessment, and explain medical procedures.

#### **CAHS 150 - EKG Technician (1–12)**

This comprehensive Certified EKG Technician Program prepares students to function as EKG/Cardiovascular Technicians and to take the American Society of Phlebotomy Technician (ASPT) - Electrocardiograph (EKG) Technician exam in addition to other National Certification Exams. This course will include important practice and background information on anatomy of the heart and physiology, medical disease processes, medical terminology, medical ethics, legal aspects of patient contact, laboratory assisting, respiratory therapy assisting, electrocardiology and echo cardiology. Additionally, students will practice with equipment and perform hands-on labs including introduction to the function and proper use of the EKG machine, the Holter monitor, the normal anatomy of the chest wall for proper lead placement, echo cardiology, 12-lead placement and other clinical practices. EKG

Technicians also analyze printed readings of EKG test, measuring various “peaks and troughs” and determining normal vs. abnormal EKG. The EKG/Cardiovascular Technician Certification Program includes a graded final exam to help prepare students for the ASPT-EKG Technician Exam. This course is eligible for college credit after successful completion of the program.

#### **CAHS 151 - Medical Coding/Billing (1–12)**

This billing and coding course offers the skills needed to solve insurance billing problems, how to manually file claims (using the CPT and ICD-9 manual), complete common insurance forms, trace delinquent claims, appeal denied claims and use generic forms to streamline billing procedures. The course covers the following areas: CPT (introduction, guidelines, evaluation and management), specialty fields (surgery, radiology, and laboratory), ICD-9 (introduction and guidelines) and basic claims processes for medical insurance and third party reimbursement. Students will learn how to find the service and codes using coding manuals (CPT, ICD-9, and HCPCS). Students who complete this course could be qualified to sit for the American Academy of Professional Coders (AAPC) - Certifies Professional Coder Exam (CPC or CPC-H - Apprentice); the American Health Information Association (AHIMA) Certified Coding Associate (CCA) exam; and/or other National Certification Exams. This course is eligible for college credit after successful completion of the program.

#### **CAHS 152 - Pharmacy Technician (1–12)**

This comprehensive course will prepare students to enter the pharmacy field and to take the Pharmacy Technician Certification Board’s PTCB exam. Technicians work in hospitals, home infusion pharmacies, community pharmacies and other health care settings - working under the supervision of a registered pharmacist. Course content includes medical terminology specific to the pharmacy, reading and interpreting prescriptions and defining drugs by generic and brand names. Students will learn dosage calculations, I.V. flow rates, drug compounding, dose conversions, dispensing of prescriptions, inventory control billing and reimbursement. The pharmacy Technician Certification Program includes a graded final exam to help prepare students for the PTCB exam. This course is eligible for college credit after successful completion of the program.

#### **CAHS 153 - Phlebotomy Technician (1–12)**

The Phlebotomy Technician Certification Program prepares professionals to collect blood specimens from clients for the purpose of laboratory analysis. Students will become familiar with all aspects related to blood collection and develop comprehensive skills to perform venipunctures completely and safely. Classroom work includes terminology, anatomy and physiology; blood collection procedures; specimen hands-on practice; and training in skills and techniques to perform puncture methods. The program also includes lab exercises, live blood draws, work with a training arm and other exercises intended to prepare students to function as an entry level Phlebotomy Technician. This course is eligible for college credit after successful completion of the program.

#### **CAHS 154 - Dental Assisting (1–12)**

The Dental Assisting program prepares students for entry level positions in a variety of health care settings including dentist offices, hospitals and other similar facilities, familiarizing the student with all areas of pre-clinical dental assisting and training in the professional skills required to function as an assistant in the dental practice. It covers the following key areas and topics - Administrative aspects: the history of dentistry and dental assisting; introduction to the dental office; the legal aspects of dentistry and dental assisting; policies and guidelines. Clinical aspects: introduction to oral anatomy; dental equipment, operation, and maintenance; introduction to tooth structure; primary and permanent teeth; the oral cavity and related structures; proper patient positioning; dental hand pieces; dental anesthesia; sterilization; maintaining sterility and asepsis. This program does not include a national or state certification objective which in most states require 1 to 2 years of training or education. This course is eligible for college credit after successful completion of the program.

#### **CAHS 155 - ICD-10 Medical Coding Course (1-12)**

This course is part of our CCI Fast- Track Allied Health coursework. This program will include a detailed review of both ICD-10 (diagnostic coding) and ICD-10-PCS (inpatient procedural coding system). Additional program elements include differences between ICD-9 and ICD-10; federal regulation / compliance; using the ICD-10 Manual; how and when to use the ICD-10-PCS; issues surrounding the implementation of ICD-10. Documentation

challenges; analyzing electronic coding tools; coding from chart notes; coding from operative reports; and detailed hands on coding exercises and case studies using ICD-10. This course is ideal for experienced students interested in a career in medical coding and for current coding professionals looking for an update and review of the issues and challenges they will face with the upcoming ICD-10 adoption.

#### **CAHS 171 - Advanced Patient Care (4)**

This hands-on course is designed to provide skills and performance for providers working in a healthcare setting. Students will demonstrate patient care skills maintaining safety, comfort, and caring behaviors while applying appropriate standards of care.

#### **CAHS 199 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

#### **CAHS 210 - Human Growth & Development (3)**

A course for students in the health sciences that explores the basic principles of human growth & development throughout the life span. Prenatal development, as well as physical, emotional, mental, and social changes in children, adolescents, and adults will be reviewed. The multiple factors that influence development & shape personality will be considered.

#### **CAHS 299 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

### **Biology**

#### **BIOL 100 - The Human Body (3)**

This is a survey course of basic Human Anatomy & Physiology. It is designed for students who need a rudimentary understanding of the human body and its organ systems but not in the detail that would be expected of a selective admissions healthcare program. This course will not substitute for BIOL 120 - ~Human Anatomy & Physiology I (3), BIOL 121 - ~Human Anatomy & Phys I Lab (1), BIOL 122 - ~Human Anatomy & Physiology II (3), or BIOL 123 - ~Human Anatomy & Phys II Lab (1).

#### **BIOL 101 - ~General Biological Science I (4)**

This is semester one of a two-semester general biology course which, with BIOL 102, satisfies the Liberal Arts requirement. This is an integrated lecture and laboratory course dealing with both plants and animals, related to our environment from molecule to biosphere. This course focuses on molecular and cellular biology, patterns of inheritance and genetics, biotechnology, and mechanisms of evolution.

#### **BIOL 102 - ~General Biological Science II (4)**

This is semester two of a two-semester general biology course which, with BIOL 101, satisfies the Liberal Arts science requirement. This is an integrated lecture and laboratory course dealing with both plants and animals, related to our environment from molecule to biosphere. This course focuses on plant and animal structure and function, the dynamics of populations, communities and ecosystems, and human impact on the biosphere.

Prerequisite(s): BIOL 101 - ~General Biological Science I (4)

#### **BIOL 120 - ~Human Anatomy & Physiology I (3)**

One course in a two-course sequence that provides a detailed review of the human organism, this course will provide a brief overview of the human body and the chemical basis for activities occurring within the body, a detailed review of the cell, tissues, the integumentary, skeletal, muscular, and nervous systems as well as an overview of the

human senses.

Corequisite(s): BIOL 121 - ~Human Anatomy & Phys I Lab (1)

**BIOL 121 - ~Human Anatomy & Phys I Lab (1)**

A laboratory course in human anatomy and physiology to be taken concurrently with BIOL 120.

Corequisite(s): BIOL 120 - ~Human Anatomy & Physiology I (3)

**BIOL 122 - ~Human Anatomy & Physiology II (3)**

The second course in a two-course sequence that provides a detailed review of the human organism, this course provides a detailed review of cardiovascular, lymphatic, immune, respiratory, digestive, urinary, and reproductive systems.

Prerequisite(s): BIOL 120 - ~Human Anatomy & Physiology I (3) and BIOL 121 - ~Human Anatomy & Phys I Lab (1)

Corequisite(s): BIOL 123 - ~Human Anatomy & Phys II Lab (1)

**BIOL 123 - ~Human Anatomy & Phys II Lab (1)**

A laboratory course in human anatomy and physiology to be taken concurrently with BIOL 122.

Prerequisite(s): BIOL 120 - ~Human Anatomy & Physiology I (3) and BIOL 121 - ~Human Anatomy & Phys I Lab (1)

Corequisite(s): BIOL 122 - ~Human Anatomy & Physiology II (3)

**BIOL 199 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

**BIOL 220 - Microbiology (3)**

A course for students in the health and life sciences, to be taken concurrently with the 1-credit laboratory. The course will emphasize the impact of microorganisms on human health and disease, including identification and control pathogens, the mechanisms of pathogenicity and disease transmission, host resistance, and immunity. Other aspects of microbiology will also be considered, including basic microbial metabolic activities and their role in nutrient cycling and as experimental subjects; biotechnology and recombinant DNA will be introduced.

Prerequisite(s): CHEM 125 - ~Introduction to College Chemistry (4) or CHEM 127 - ~General, Organic & Biochem I (4)

Corequisite(s): BIOL 221 - Microbiology Lab (1)

**BIOL 221 - Microbiology Lab (1)**

A laboratory course in microbiological identification and experimentation techniques, to be taken concurrently with BIOL 220.

Prerequisite(s): CHEM 125 - ~Introduction to College Chemistry (4) or CHEM 127 - ~General, Organic & Biochem I (4)

Corequisite(s): BIOL 220 - Microbiology (3)

**BIOL 299 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

**Business**

### **BUSN 101 - Introduction to Business (3)**

This course provides an overview of the complex building blocks of business including administration, management, finance, labor, marketing, law and ethics. These aspects are considered in reference to local and global markets, e-commerce, and evolving technology and trends.

Corequisite(s): ENGL 100 - English Essentials (3) or placement scores

### **BUSN 105 - Business Communication (3)**

This course examines the process of communication and the challenges to and effective practices of communicating in a business environment. Topics include listening skills and verbal, nonverbal, and written communications. The dynamics of communicating in a group, global, and culturally diverse environment are also investigated. Students apply a systematic approach to plan and create effective letters, memos, reports, presentations, electronic and other forms of business communication.

Prerequisite(s): ENGL 100 - English Essentials (3) or placement scores

### **BUSN 108 - Business Etiquette & Image (3)**

This course provides students a hands-on opportunity to develop the professional image needed to succeed in business. Activities range from the handshake and making introductions to telephone etiquette and table manners. Topics also include professional dress, conduct at work, managing technology, networking, interviewing, and resume development. This course is recommended for second year students.

Prerequisite(s): ENGL 100 - English Essentials (3) or placement

### **BUSN 120 - Principles of Sales I (3)**

This course is an introduction to the principles of selling, the role of the professional salesperson in the marketing process, and sales management. The importance of relationship building and ethical behavior are stressed as students develop techniques for prospecting and qualifying buyers, identifying and overcoming objectives, and closing a sale. Characteristics of the local as well as the global market are discussed.

Prerequisite(s): ENGL 100 - English Essentials (3) or placement

### **BUSN 125 - Customer Service Management (3)**

This course goes beyond just talking about service to analyzing the strategies that enable a business to attract, satisfy, and retain customers profitably. The focus is not identifying service problems, but solving them. Students discover the importance management, communication, and training play in meeting customers' needs.

Prerequisite(s): ENGL 100 - English Essentials (3) or placement

### **BUSN 160 - Organizational Behavior (3)**

This course examines the behavior of individuals and individuals in groups in organizations, and how the two affect the overall performance of an organization. Students consider the impact of individual attitude, motivation, job satisfaction, and communication on the organization. Group dynamics, leadership, organizational culture, and change are also addressed.

Prerequisite(s): ENGL 100 - English Essentials (3) or placement

### **BUSN 165 - Consumer Behavior (3)**

This course studies the complex nature of buying decisions and how attitudes and perceptions, social class and family status, and technology and marketing influence those decisions. Consumers are considered as an individual and as members of groups making decisions on sales, advertising, and new product development. Students learn to



be more effective marketing managers as well as more savvy consumers.

Prerequisite(s): ENGL 100 - English Essentials (3) or placement

**BUSN 175 - Human Resource Management I (3)**

This course covers the components of human resource management from organizational assessment to manpower planning including recruitment and selection, training and development, and evaluation and compensation. The impact of employment laws, ethical considerations, global competition, and rapid technological advances on small and large organizations are also considered.

Prerequisite(s): ENGL 100 - English Essentials (3) or placement

**BUSN 199 - Special Topics (1-4)**

Special topic courses may be offered from time to time dependent upon current trends, employer needs, and student interests. The course description, objectives, and credit hours for each will vary based upon the topic and schedule.

**BUSN 201 - Principles of Management (3)**

This course examines the basic functions of management – planning, organizing, coordinating, and controlling - in a business organization. Students study management theory and practice in order to identify their own management style and appreciate the complex nature of management. The impact of social responsibility, corporate culture, and technological advances on management is also considered.

Prerequisite(s): BUSN 101 - Introduction to Business (3) and ENGL 100 - English Essentials (3) or placement scores

**BUSN 205 - Business Ethics (3)**

This course considers business actions and decisions in relation to moral principles and values. Beginning with an introduction to ethical theory and the personal credo, students apply a systematic approach to ethical decision making. That approach is then applied to business situations involving employee relations, consumer affairs, finance, government, and international competition. The role and expectations of business in society, both locally and globally, are discussed.

Prerequisite(s): ENGL 100 - English Essentials (3) or placement scores

**BUSN 220 - Principles of Sales II (3)**

This class is a continuation of BUSN 120 - Principles of Sales I (3). Overall goals include honing sales techniques, dealing with rejection, meeting sales goals and performance in a sales career

Prerequisite(s): BUSN 120 - Principles of Sales I (3)

**BUSN 231 - Marketing (3)**

This course provides an in-depth study of the four pillars of marketing: product, price, placement, and promotion. These aspects are considered in reference to local and global markets, e-commerce, and evolving technology and trends. Students put newly acquired knowledge to work in the development of a marketing plan.

Prerequisite(s): ENGL 100 - English Essentials (3) or placement scores

**BUSN 234 - Social Media Marketing (3)**

Social media has changed the way businesses now retract and retain customers. Students will learn how businesses have adapted to the internet in order to sell their product and services.

Prerequisite(s): BUSN 231 - Marketing (3)

### **BUSN 245 - Advertising (3)**

This course addresses the basic theories, processes, and techniques of the most visible aspect of marketing communications. Local and global markets, e-commerce, and evolving technology and trends are considered as students plan and implement a successful advertising campaign using a variety of media vehicles.

Prerequisite(s): ENGL 100 - English Essentials (3) or placement scores

### **BUSN 250 - Management and Leadership (3)**

This course empowers students to assess their leadership potential by studying successful leaders of the past and present. With a focus on business, students consider the skills required to set goals for an organization and direct the actions of others to achieve them. Nontraditional texts are utilized to prepare students for lifelong learning after college.

Prerequisite(s): ENGL 100 - English Essentials (3) or placement scores

### **BUSN 255 - Teamwork & Managing Teams (3)**

This course examines how managers create, develop, and maintain quality, high-performance teams in the workplace. Students work in teams throughout the semester to develop skills relevant to individual and team performance. Topics include creating the culture for teamwork, team dynamics, team problem solving, and managing teams.

Prerequisite(s): ENGL 100 - English Essentials (3) or placement scores

### **BUSN 273 - Human Resources Management II (3)**

This class is more in depth of BUSN 175 - Human Resource Management I (3). Topics include collective bargaining, small and large HR considerations, benefits, layoffs and other crises in HR.

Prerequisite(s): BUSN 175 - Human Resource Management I (3)

### **BUSN 277 - HR Compensation & Benefits (3)**

This course covers concepts such as retirement plans-self funded and company funded, 401 (k)'s, insurance, IRA's, Social Security. Students will also work on planning to implement benefits for a company.

Prerequisite(s): BUSN 175 - Human Resource Management I (3)

### **BUSN 292 - Field Experience (1-6)**

This course serves as the capstone in experiential learning for Business majors. Students work in a professional business environment applying their academic learning while gaining real-world experience and career development. Students will also prepare for and complete a standardized competency and skills assessment exam.

Prerequisite(s): Students must have completed over half of the requirements for an associate degree, have a 2.0 overall GPA, and get prior approval from the Field Experience facilitator.

### **BUSN 294 - Business Practicum (1-6)**

For Business majors already working full-time in an approved professional business environment, this course serves as the capstone in experiential learning. Students apply their academic learning to a minimum of 150 hours of special projects or expanded responsibilities on the job acquiring new skills and expanding career development.

### **BUSN 295 - Capstone Research (1)**

This class is taken in the final semester of the students studies. The student will define a problem in their concentration, apply research techniques to look for ways to solve the problem and offer a solution.

Prerequisite(s): 48 credit hours completed

#### **BUSN 299 - Special Topics (1-4)**

Special topic courses may be offered from time to time dependent upon current trends, employer needs, and student interests. The course description, objectives, and credit hours for each will vary based upon the topic and schedule.

#### **Chemistry**

#### **CHEM 100 - Chemical Science (4)**

This course is designed primarily for future elementary school teachers. It introduces the student to the basic concepts of chemistry including atoms, radioactivity, bonding, chemical equations, solutions, acids and bases, and some aspects of organic and biochemistry. The latter part of the course is devoted to the study of chemical science as it applies to the elementary school: mini lectures, demonstrations, experiments, games, textbook and journal reviews are presented by the students. The lab portion emphasizes learning by discovery and by student-designed (or modified) experiments.

#### **CHEM 125 - ~Introduction to College Chemistry (4)**

This course is for students with little or no prior background in chemistry, whose program (AS Nursing, for example) requires one semester of chemistry, or who require preparation for additional coursework in chemistry. Emphasis is on calculations and measurement, dimensional analysis, formulas, and equations, stoichiometry, atomic structure and molecular geometry, gas laws and solutions.

Prerequisite(s): MATH 100 - Math Essentials (3) or placement

#### **CHEM 127 - ~General, Organic & Biochem I (4)**

This course is designed as the first in a one year sequence of courses intended for nursing or other allied health students who intend to transfer to a four year academic institution which requires a two semester sequence course in General, Organic and Biochemistry (GOB). This course will include an overview of the Metric System, Scientific Notation, Temperature Scales, Density, Atoms, Structure, Isotopes, Electrons, Periodic Table, Chemical Formulae, Types of Chemical Reactions, Quantification of Chemical Reactions, Mass, Moles, Energy, Kinetic, Potential, Law of Conservation of Energy, Thermochemistry, Matter, pH, Fission, Fusion, Functional Groups and Names, and General Organic Reactions to Form Functional Groups. This course sequence could also provide an eight credit General Education Science sequence. The course consists of a lecture portion and a laboratory portion.

Prerequisite(s): MATH 100 - Math Essentials (3) or placement

#### **CHEM 128 - ~General, Organic & Biochem II (4)**

This course is designed as the second course in a one year sequence of courses intended for nursing or other allied health students who intend to transfer to a four year academic institution which requires a two semester sequence course in General, Organic and Biochemistry (GOB). This course will include an overview of Alcohols, Reactions, Aldehydes and Ketones, Organic Acids, Amines, Aromatic Compounds, Heterocyclic Compounds, DNA, Hyper-, Iso-, Hypotonic Solutions, Metabolic Disorders, Complex Carbohydrates, Proteins, Lipids, Nucleic Acids, Body Fluids, Blood, Clotting Chemistry, Respiratory Exchange, Metabolic and Respiratory Acidosis and Ketosis. This course sequence could also provide an eight credit General Education Science sequence. The course consists of a lecture portion and a laboratory portion.

Prerequisite(s): CHEM 127 - ~General, Organic & Biochem I (4)

#### **CHEM 199 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

#### **CHEM 299 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

#### **Communication**

#### **COMM 199 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

#### **COMM 202 - ~Fundamentals of Speech (3)**

This course equips the student with the necessary tools to construct, deliver, and analyze public communication messages.

#### **COMM 205 - ~Professional Communications (3)**

This course examines the process of communication and the challenges to and effective practices of communicating in a business and professional environment. Topics include listening skills and verbal, nonverbal, and written communications. The dynamics of communicating in a group, in a global society, and in culturally diverse environments is also investigated. Students apply a systematic approach to plan and create effective letters, memos, reports, presentations, electronic and other forms of business and professional communication.

Prerequisite(s): ENGL 100 - English Essentials (3) or Placement Test Scores

#### **COMM 220 - Intro to Intercultural Comm (3)**

COMM 220: Introduction to Intercultural Communications examines the practical application of theory and research in the area of intercultural communications. The course topics, activities, theory, and research are designed to develop skills and strategies needed to deal effectively with challenges in a broad variety of interaction contexts. The course will cover topics including perception, convergence, communication and culture, linguistic and technology differences, ecological influences on culture, dimensions of cultural difference, stereotyping, intercultural challenges, adaptation and culture shock, and diversity management.

#### **COMM 299 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

#### **Computer Aided Design**

#### **CAD 101 - Intro to Engineering Graphics (2)**

Introduction to Engineering Graphics will introduce communication practices commonly used in the engineering environment. This includes basic sketching, orthographic projection, working drawings, basic dimensioning, pictorial drawings, ANSI standards. Students will receive an introduction to CAD and its application to engineering problem solving.

#### **CAD 102 - CAD Applications (2)**

CAD Applications will be a continuation of CAD 101 - Intro to Engineering Graphics (2). This course will be a software based class that will prepare the student to produce accurate 2D and 3D drawings following ANSI standards. The class will focus on tools, editing, layers, dimensions and tolerances, and plotting to produce

orthographic, section, auxiliary, isometric and oblique drawings. CAD 102L - CAD Applications Lab (2) is the laboratory portion of this class.

Corerequisite(s): CAD 201L - 3D Modeling Lab (2)

**CAD 102L - CAD Applications Lab (2)**

This is the laboratory portion of CAD Applications will be a continuation of CAD 101- Introduction to Engineering Graphics. This course will be a software based class that will prepare the student to produce accurate 2D and 3D drawings following ANSI standards. The class will focus on tools, editing, layers, dimensions and tolerances, and plotting to produce orthographic, section, auxiliary, isometric and oblique drawings.

Corerequisite(s): CAD 102 - CAD Applications (2)

**CAD 106 - Intro to Civil CAD & Surveying (2)**

Introduction to Civil CAD and Surveying will introduce the student to the use of computer aided design in a variety of civil engineering applications including; property description, road layout, cut and fill calculations, and topography. Included will be an introduction to surveying, which will introduce the basics of accurately measuring distances, bearing and topography to describe a property.

Corerequisite(s): CAD 106L - Intro to Civil CAD Lab (1)

**CAD 106L - Intro to Civil CAD Lab (1)**

This is the laboratory component of Introduction to Civil CAD and Surveying. This course will introduce the student to the use of computer aided design in a variety of civil engineering applications including; property description, road layout, cut and fill calculations, and topography. Included will be an introduction to surveying, which will introduce the basics of accurately measuring distances, bearing and topography to describe a property .

Corerequisite(s): CAD 106 - Intro to Civil CAD & Surveying (2)

**CAD 108 - Geographic Information Systems (2)**

Geographic Information Systems are a growing part of every aspect of technology and engineering. In this course the student will explore the building blocks of this complex worldwide system including elements of GIS, analysis of spatial information, real-world applications, map creation and analysis. Primary objective is to investigate interactive GIS application rather than develop expert users.

Prerequisite(s): CAD 106 - Intro to Civil CAD & Surveying (2)

**CAD 199 - Special Topics (1-4)**

A special topics course (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

**CAD 201 - 3D Modeling (1)**

In this course students will learn to use 3D modeling software to develop parametric design solutions for various engineering problems. Students will develop designs, learn and apply ANSI (American National Standards Institute) standards, explore finite element analysis, and develop working, assembly and presentation drawings.

Corerequisite(s): CAD 201L - 3D Modeling Lab (2)

**CAD 201L - 3D Modeling Lab (2)**

In this course students will learn to use 3D modeling software to develop parametric design solutions for various engineering problems. In the lab component students will develop designs, learn and apply ANSI (American National Standards Institute) standards, explore finite element analysis, and develop working, assembly and presentation drawings.

Corerequisite(s): CAD 201 - 3D Modeling (1)

### **CAD 205 - Building Information Modeling (1)**

Building Information Modeling will introduce the student to the use of 3D modeling software to create architectural drawings and documentation. Students will develop residential and commercial models.

Corerequisite(s): CAD 205L - Building Info Modeling Lab (2)

### **CAD 205L - Building Info Modeling Lab (2)**

This is the lab component of Building Information Modeling. This course will introduce the student to the use of 3D modeling software to create architectural drawings and documentation. Students will develop residential and commercial models as well as plot and landscaping plans.

Corerequisite(s): CAD 205 - Building Information Modeling (1)

### **CAD 210 - Green Building Design (2)**

Understanding the concepts of green building is essential for anyone in the architecture/construction/alternative energy industry. Many municipalities and non-profit organizations have developed rating systems to quantify the level of green building strategies used in construction projects. The best known rating system is LEED (Leadership in Energy & Environmental Design). In this course, the LEED green building rating system, design strategies, and building construction techniques for meeting those regulations will be incorporated into the students commercial and residential designs.

Corerequisite(s): CAD 210L - Green Building Design Lab (1)

### **CAD 210L - Green Building Design Lab (1)**

Understanding the concepts of green building is essential for anyone in the architecture/construction/alternative energy industry. Many municipalities and non-profit organizations have developed rating systems to quantify the level of green building strategies used in construction projects. The best known rating system is LEED (Leadership in Energy & Environmental Design). In this hands on course, the LEED green building rating system, design strategies, and building construction techniques for meeting those regulations will be incorporated into the students commercial and residential designs.

Corerequisite(s): CAD 210 - Green Building Design (2)

### **CAD 292 - CAD Internship (1-4)**

The CAD internship is a working relationship between the student, an employer and the instructor, whereby the student will serve a predetermined number of hours working for a local firm as a CAD operator, surveying technician, GIS technician or other related career field.

### **CAD 299 - Special Topics (1-4)**

A special topics course (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

### **Computer Application Specialist**

### **CAS 100 - Introduction to Keyboarding (2)**

Emphasis is placed on the development of speed and accuracy in the operation of the computer keyboard. Basic document production including letters, memos, reports, and tables are covered. This course is offered for those who seek to build basic keyboarding skills.

### **CAS 101 - Documents Processing (3)**

This course is an intermediate keyboarding class emphasizing further development of typing speed and accuracy, as well as the proper formatting and editing of business documents.

Prerequisite(s): CAS 100 Keyboarding or successful completion of the Special Exam for Course Credit.

### **CAS 110 - Understanding Computers (3)**

This basic course helps students become literate in the terminology and usage of computers. The course covers a description of the hardware and software of a computer system, a brief history of computers, and the following topics on the personal computer: Windows®, file management, word processing, electronic spreadsheet, and online learning.

### **CAS 111 - Information Literacy (3)**

This course covers a variety of introductory computing knowledge including how personal computers work, hardware components, operating systems, and the most popular productivity applications including word processing, spreadsheets, and presentation software. Students will also be introduced to Internet and e-mail essentials, and will become familiar with networking basics. This course aligns with the Internet and Computing Core Certification (IC3) which demonstrates that a recipient has a clear understanding of the knowledge and application of computers and technology in the modern world.

### **CAS 191 - Computer Support Practicum (1)**

This course will cover testing methodologies and study techniques to assist in preparing students for the Microsoft Technology Associate (MTA) certification exam.

Prerequisite(s): IT 270 - Instl,Config,Admin Win Oper Sy (3)

### **CAS 192 - Business Support Practicum (1)**

This course will cover testing methodologies and study techniques to assist in preparing students for the Internet and Computing Core (IC3) certification exam.

Prerequisite(s): CAS 111 - Information Literacy (3)

### **CAS 199 - Special Topics (1-6)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

### **CAS 210 - Outlook Complete (3)**

This course uses a case method, problem solving approach to learning the full scope of the features of Microsoft Office Outlook. Skills covered include creating and managing messages, scheduling appointments and events, creating and managing contacts, and sending and managing tasks, and logging personal notes.

Prerequisite(s): CAS 111 - Information Literacy (3)

### **CAS 211 - Word Complete (3)**

This course provides comprehensive training in the use of Microsoft® Office Word®. It is directly aligned with the Microsoft® Office Specialist certification exam which serves to validate an individual's skills and knowledge of the

Office software. Topics covered include creating and designing documents, incorporating table, charts, graphics, pictures and other media to enhance a document, and sharing, securing and printing documents.

Prerequisite(s): CAS 111 - Information Literacy (3)

**CAS 212 - PowerPoint Complete (3)**

This course provides comprehensive training in the use of Microsoft® Office PowerPoint®. It is directly aligned with the Microsoft® Office Specialist certification exam which serves to validate an individual's skills and knowledge of the Office software. Topics covered include creating and designing presentations, using charts, graphics, sound, and other media to enhance a presentation and sharing and delivering presentations.

Prerequisite(s): CAS 111 - Information Literacy (3)

**CAS 213 - Excel Complete (3)**

This course provides comprehensive training in the use of Microsoft® Office Excel®. It is directly aligned with the Microsoft® Office Specialist certification exam which serves to validate an individual's skills and knowledge of the Office software. Topics covered include creating and designing spreadsheets, using charts, graphics, formulas, protecting, sharing and delivering spreadsheet presentations.

Prerequisite(s): CAS 111 - Information Literacy (3)

**CAS 214 - Access Complete (3)**

This course provides comprehensive training in the use of Microsoft® Office Access®. It is directly aligned with the Microsoft Office Specialist certification exam which serves to validate an individual's skills and knowledge of the Office software. Topics covered include creating and designing databases, manage data relationships, building tables, using charts, graphs, graphics as well as designing creating and modifying queries, forms, and reports queries and modifying queries as well as using charts, graphs, graphics to enhance data analysis.

Prerequisite(s): CAS 111 - Information Literacy (3)

**CAS 215 - Windows Complete (3)**

This course provides comprehensive training in the use of Microsoft® Office Windows®. It is directly aligned with the Microsoft® Office Specialist certification exam which serves to validate an individual's skills and knowledge of the Office software. Topics covered include organizing files and folders, personalizing the Windows workspace, searching for files and folders, managing system resources, using Windows and the Internet, and managing a networked environment.

Prerequisite(s): CAS 111 - Information Literacy (3)

**CAS 216 - Visio Complete (3)**

This lecture/lab course will provide the student with an in-depth knowledge and ability to work with the Microsoft® Visio® software. Through a combination of lectures and class projects, students will learn to visualize, explore and communicate complex information using Visio. Students will work with the wide range of templates including business process flowcharts, network diagrams, workflow diagrams, database models, and software diagrams used to streamline business processes, track projects and resources, chart organizations, map networks, diagram building sites, and optimize systems.

**CAS 217 - Data File Management (3)**

In this course, students will use software tools to collaborate and share ideas and engage with people. They will discover incentive ways to work together using the Internet and other file transfer options. Topics covered include organizing and connecting information, people, and projects, and creating new experiences using Microsoft Share Point and other data file management applications.



Prerequisite(s): CAS 111 - Information Literacy (3)

**CAS 220 - Publications Design (3)**

Using Microsoft Publisher software, students in this course discover the world of desktop publishing through a practical, hands-on approach using current design software to publish their own pamphlets, newsletters, letterheads, flyers, business cards, announcements, and advertisements. Basic publishing processes, design, and layout will be studied.

Prerequisite(s): CAS 111 - Information Literacy (3)

**CAS 230 - Office Administration (3)**

This course is designed to provide the student with concepts and procedures necessary to develop hands on skills for the digital office environment. Other areas of study include critical thinking, sound reasoning, ethical decision making, high productivity and efficient use of technical office tools.

Prerequisite(s): CAS 111 - Information Literacy (3)

**CAS 240 - Computerized Accounting (3)**

This course is an introduction to a computerized accounting in a business office. The student will develop and maintain accounting records for a small business using a current software program.

Prerequisite(s): ACCT 201 - Principles of Accounting I (3)

**CAS 292 - Field Experience (1-6)**

This is a capstone course in experimental learning. A student participates in an intensive internship, externship, or cooperative with an appropriate agency, company, or organization.

Prerequisite(s): CAS 192 - Business Support Practicum (1); must have completed over half of the requirements for certificate or degree completion; 2.0 GPA.

**CAS 299 - Special Topics (1-6)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

**Computer Networking Configur**

**CNC 101 - Information Technology Fund (3)**

This is a hybrid course comprised of: live on-line instructor led instruction, 24/7 cloud based labs that use real operating systems, live one-on-one tutoring and mentoring, group mentoring, certification exam preparation with simulation software and one technician hands-on Saturday. Get introduced to the world of Information technology (IT). Learn essential IT skills. Learn the basics of computer hardware, software, mobile computing and networking. Learn about operating systems, files and folders, basic desktop and network configurations. Install software. This course helps prepare the student for the CompTIA IT Fundamentals certificate exam. It provides the basic skills that a student that is new to desktop and network configurations needs to be successful in more advanced courses.

**CNC 102 - Computer Configuration & Mgmt (6)**

This is a hybrid course comprised of: live on-line instructor led, 24/7 cloud based labs that use real operating systems, live one-on-one tutoring/mentoring, group mentoring, certification exam preparation with simulation software and one technician hands-on Saturday. The student will build working level skills configuring and troubleshooting desktop operating systems and get an introduction to network operating systems. Learn about cloud

and mobile technologies. Learn troubleshooting best practices. Develop professional technician skills. Keep computers and operating systems running smoothly with proper management skills. This can be used as preparation for the CompTIA A+ exams (220-901 and 220-902).

### **CNC 103 - Network Configuration & Mgmt (6)**

This is a hybrid course comprised of: live on-line instructor led instruction, 24/7 cloud based labs that use real operating systems, live one-on-one tutoring/mentoring, group mentoring, certification exam preparation with simulation software and one technician hands-on Saturday. Learn about network technologies. Learn TCP/IP, DHCP, DNS, OSI Model, IPv4, IPv6, etc. The student will build working level skills configuring and troubleshooting Windows Server 2008 and 2012. Students will learn basic Linux server skills. Students will gain the knowledge and skills required for: troubleshooting, configuring and managing common network devices, understanding basic network design and connectivity, understanding and maintaining network documentation, identifying network limitations and weaknesses, implementing network security, standards and protocols.

### **CNC 201 - Adv. Windows Server 2012 Mgt (6)**

This is a hybrid course comprised of: live on-line instructor led instruction, 24/7 cloud based labs that use real operating systems, live one-on-one tutoring and mentoring, group mentoring, certification exam preparation with simulation software. The student will build working level skills required to install, configure and manage Server 2012. Some of the key features of this course are: plan for a server installation, server roles, Windows PowerShell, disk and storage management, quotas, NTFS, Domain Controller, Active Directory, Hyper-V, virtual disks, DHCP, DNS, Active Directory Domain Services, Group Policy, GPO and UAC. This course can be used to prepare for Microsoft Certified Solution Associate Exams #70-411 and 70-412.

### **CNC 202 - Network Security & Rsk Mgt (6)**

This is a hybrid course comprised of: live on-line instructor led instruction, 24/7 cloud based labs that use real operating systems, live one-on-one tutoring and mentoring, group mentoring, certification exam preparation with simulation software. The student will build working level skills configuring and troubleshooting the security parameters of a typical client server network. Key elements: network security competency, compliance and operational security, threats and vulnerabilities, host security, access control, identity management and cryptography. This course can be used as a preparation for the CompTIA Security+ Exam #SYO-401. CNC 201 is a prerequisite for CNC 202.

### **CNC 203 - Interconnect Cisco NW Device (6)**

This is a hybrid course comprised of: live on-line instructor led instruction, 24/7 cloud based labs that use real operating systems, live one-on-one tutoring and mentoring, group mentoring, certification exam preparation with simulation software and one technician hands-on Saturday. The student will build working level skills configuring and troubleshooting routed network environments using Cisco network devices. Some of the things students will learn how to do: secure Cisco networks, develop a security infrastructure, recognize threats and vulnerabilities, mitigate security threats, and develop proper methodologies for solving problems. This course can be used to prepare for the Cisco CCNA exam.

## **Computer Network Engineering**

### **CNET 121 - Network+ (3)**

This custom designed course begins with a brief review of hardware, operating systems, and other principles helpful to networking students. It then moves on to comprehensive networking skills sets, all of which prepare the student to complete the CompTIA Network+ exam. Throughout the course, students are introduced to invaluable study techniques and industry resources, all of which are geared toward laying the foundation for efficient adult learning.

Corerequisite(s): CAS 111 - Information Literacy (3) or IT 111 - Info Lit for IT Professionals (3)

### **CNET 131 - Introduction to Networks (4)**

This course begins with a brief overview of hardware, operating systems, and other principles helpful to networking students. It then moves on to comprehensive networking skill sets, all of which prepare the CNET 121 student to complete their CompTIA Network+ exam. Throughout the course, students are introduced to invaluable study techniques and industry resources, all of which are geared toward laying the foundation for efficient adult IT learning.

Prerequisite(s): CNET 121 - Network+ (3)

#### **CNET 141 - Route & Switch Essentials (4)**

This is the second course in a sequence leading to the Cisco Certified Network Associate (CCNA) certification. This course covers introductory local area network design, which includes building basic switched networks and beginner implementation of two network routing protocols. Students will engage in challenging hands-on lab activities including skill building and troubleshooting practice. Course sequence mapped to the CCNA Certification: CNET 131 - Introduction to Networks (4), CNET 141 - Route & Switch Essentials (4), CNET 231 - Scaling Networks (4), and CNET 241 - Connecting Networks (4).

Corerequisite(s): CNET 131 - Introduction to Networks (4) Pre-requisite/Co-requisite(s): CNET 131 - Introduction to Networks (4)

#### **CNET 192 - CNET Practicum (2)**

This course will cover testing methodologies and study techniques to assist in preparing students to successfully pass the CCENT/CCNA certification exam.

Prerequisite(s): CNET 241 - Connecting Networks (4)

#### **CNET 199 - Special Topics (1-6)**

This course is being added due to needing the ability to provide special one-time course offerings as special topics courses. These may be courses offered as a test-case scenario to determine their viability of being created into a new course or as specific one-time offer courses needed for the needs of a business or organization.

#### **CNET 231 - Scaling Networks (4)**

This is the third course in a sequence leading to the Cisco Certified Network Associate (CCNA) Certification. This course covers hierarchical switched network design, wireless fundamentals, a third routing protocol, and more advanced routing configurations. Students will engage in challenging hands-on lab activities including, skill building and troubleshooting practice. Course sequence mapped to the CCNA Certification: CNET 131 - Introduction to Networks (4), CNET 141 - Route & Switch Essentials (4), CNET 231 - Scaling Networks (4), and CNET 241 - Connecting Networks (4).

Prerequisite(s): CNET 141 - Route & Switch Essentials (4)

#### **CNET 241 - Connecting Networks (4)**

This is the fourth course in a sequence leading to the Cisco Certified Network Associate (CCNA) Certification. This course covers wide area network design and implementation, network systems logging, introductory VPN security, and troubleshooting methodology. Students will engage in challenging hands-on lab activities including, skill building and troubleshooting practice. Course sequence mapped to the CCNA Certification: CNET 131 - Introduction to Networks (4), CNET 141 - Route & Switch Essentials (4), CNET 231 - Scaling Networks (4), and CNET 241 - Connecting Networks (4).

Corerequisite(s): CNET 231 - Scaling Networks (4) Pre-requisite/Co-requisite(s): CNET 231 - Scaling Networks (4)

#### **CNET 250 - CCNA Security (4)**

This course is aligned with the Cisco Certified Network Associate (CCNA): Security certification. The course covers methodologies and techniques for hardening routers and switches; as well as, developing tunneling and end point security solutions. Students will engage in challenging hands-on lab activities including skill building and troubleshooting practice.

Prerequisite(s): CNET 192 - CNET Practicum (2) and CNET 241 - Connecting Networks (4)

**CNET 251 - CCNA: Wireless (4)**

This course is aligned with the Cisco Certified Network Associate (CCNA): Wireless certification. This course covers a wide variety of wireless technology and how to configure, maintain, and troubleshoot it, as well as implementation methodologies for adding wireless to a wired local area network. Students will engage in challenging hands-on lab activities including skill building and troubleshooting practice.

Prerequisite(s): CNET 192 - CNET Practicum (2) and CNET 241 - Connecting Networks (4)

**CNET 255 - Cisco Certified Design Associate (4)**

This course aligns with the Cisco Certified Design Associate (CCDA) certification. This course covers the research and design elements of network infrastructure, as well as, the methodologies of implementing differing design elements into a single network infrastructure design. Students will engage in challenging hands-on lab activities including skill building and troubleshooting practice.

Prerequisite(s): CNET 192 - CNET Practicum (2) and CNET 241 - Connecting Networks (4)

**CNET 265 - Advanced Routing (6)**

This is the first course in a sequence leading to the Cisco Certified Network Professional (CCNP) certification. This course covers advanced routing protocols and configurations for use in the enterprise network, as well as, IPv6 transitioning strategies. Students will engage in challenging hands-on lab activities including; skill building and troubleshooting practice. Course sequence mapped to CCNP: CNET 265, CNET 266, CNET 267.

Prerequisite(s): CNET 192 - CNET Practicum (2) and CNET 241 - Connecting Networks (4)

**CNET 266 - Advanced Switching (4)**

This is the second course in a sequence leading to the Cisco Certified Network Professional (CCNP) certification. This course covers layer three switching, advanced switching techniques, as well as, implementing wireless and voice into the switched network. Students will engage in challenging hands-on lab activities including; skill building and troubleshooting practice. Course sequence mapped to CCNP certification: CNET 265, CNET 266, CNET 267.

Prerequisite(s): CNET 192 - CNET Practicum (2) and CNET 241 - Connecting Networks (4)

**CNET 267 - Advanced Troubleshooting (4)**

This is the third course in a sequence leading to the Cisco Certified Network Professional (CCNP) certification. This course covers a wide variety of troubleshooting techniques in order to maintain networks, as well as, methodologies for working with larger enterprise networks and their advanced configurations. Students will engage in challenging hands-on lab activities including skill building and troubleshooting practice. Course sequence mapped to CCNP certification: CNET 265, CNET 266, CNET 267.

Prerequisite(s): CNET 265 - Advanced Routing (6) and CNET 266 - Advanced Switching (4)

**CNET 270 - Intro to Virtualization (4)**

This hands-on course explores the installation, configuration, and management of VMware Vsphere with consists of VMware ESXi and VMware vCenter Server. The course is based on the current versions of the software. This course also explores new features within VMware vCenter server and VMware ESXi with relation to the previous

versions. Completion of this course helps to prepare students for taking VMware Certified professional exams.

Prerequisite(s): CNET 121 - Network+ (3)

**CNET 292 - Field Experience (1-6)**

This is a capstone course in experiential learning. A student participates in an intensive internship, externship, or cooperative with an appropriate agency, company or organization.

Prerequisite(s): CNET 192 - CNET Practicum (2)

**CNET 299 - Special Topics (1-6)**

This course is being added due to needing the ability to provide special one-time course offerings as special topics courses. These may be courses offered as a test-case scenario to determine their viability of being created into a new course or as specific one-time offer courses needed for the needs of a business or organization.

**Criminal Justice**

**CJST 120 - Defensive Driving and Firearms Safety (3)**

Major roles of the law enforcement official are to operate a motor vehicle and handle firearms safely. This course will deliver in lecture format the cognitive knowledge necessary to accomplish this task and then culminate with a practical laboratory at professional driving and firearms range.

**CJST 121 - Assertive Driving and Marksmanship (3)**

This course provides instruction in how to use a motor vehicle as a tool to stop the flight of an offender or defense from an assailant. Additional instruction in the mastery of firearms will also be addressed.

Prerequisite(s): CJST 120.

**CJST 190 - Introduction to Computer Forensics (3)**

This course presents a basic introduction to the history of web-based criminal activity, laws surrounding computer forensic investigation, the techniques and principles used by computer forensic practitioners in the collection of digital evidence, the documentation of the procedures used during a computer-based investigation, and the preservation of computer/cyber evidence for use in legal procedures.

Prerequisite(s): ENGL 100 - English Essentials (3) or proper placement scores

**CJST 192 - Criminal Justice Practicum (1)**

This course will cover testing methodologies and study techniques to assist in preparing students to successfully pass a certifying exam.

Prerequisite(s): CJST 200 - Intro Crim Justice Sys (3) and LGST 230 - Criminal Law and Procedure (3)

**CJST 199 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

**CJST 200 - Intro Crim Justice Sys (3)**

This course provides the students with a survey of law enforcement as well as the role, history, development, and constitutional aspects of law enforcement and public safety. A review of agencies involved in the process of administration of justice.

Corequisite(s): ENGL 100 - English Essentials (3) or placement scores

**CJST 210 - Introduction to Forensic Science (3)**

An introduction to the utilization of scientific methods and instrumentation in the analysis of physical evidence at crime scenes and in the laboratory. The course covers fingerprints, cast and mold development, blood and other body fluids, hair, fibers, paint, glass and plastic fragments, ballistics, and specialized instrumentation.

**CJST 211 - Examination of Questionable Documents (3)**

This course focuses on a specialty area of forensic science, that of the examination of questionable documents. Topics covered will be paper and ink analysis, forged documents, and handwriting comparisons.

**CJST 212 - Intro to Serial Murder (3)**

This course will introduce students to the phenomenon of serial murder including; the differences between serial, spree, and mass murderers; theories of serial murder; types of killers; psychology of killers; and individual case studies on specific killers.

Prerequisite(s): ENGL 100 - English Essentials (3) or proper placement scores

**CJST 215 - Introduction to Homeland Security (3)**

This course is designed as an overview of the administrative, legislative, and operational elements of homeland security programs and processes including a review of homeland security history, policies, and programs.

Prerequisite(s): CJST 200 - Intro Crim Justice Sys (3)

**CJST 220 - Criminal Investigation (3)**

This course examines the fundamental principles and theories of criminal investigation, with concentration on the following subjects: report writing; sources of information: witnesses, complainants, victims, observation, physical description, identification, interviews, interrogation, modus operandi, informants, surveillance, undercover techniques, crime scene search, collection, preservation, and processing of physical evidence; raids, arrest, search, seizure, and case preparation.

Prerequisite(s): CJST 200 - Intro Crim Justice Sys (3)

**CJST 225 - Terrorism (3)**

This course acquaints the Criminal Justice student with the concept of terrorism at both the international and domestic levels. Topics include the history of terrorism, terrorism today and terrorism in the future. Response measures taken to terrorist threats will also be examined.

Prerequisite(s): CJST 200 - Intro Crim Justice Sys (3)

**CJST 231 - Criminal Trial Law (3)**

This course is intended to take the knowledge gained in criminal justice courses and provide an opportunity to apply the knowledge and skills using actual case studies as well as text materials. The class will examine each part of a criminal case with the focus of actually prosecuting or defending at trial. The class will examine: police investigations; initial charges; preliminary hearings; grand jury practice, arraignments and bond; pre-trial suppression and discovery hearings; witness preparation and examination; trial tactics; sentencing strategies; and appeals. A mock trial may be held at the end of the class.

Prerequisite(s): CJST 200 - Intro Crim Justice Sys (3) and LGST 230 - Criminal Law and Procedure (3)

**CJST 232 - Immigration Law (3)**

This course will focus on a specialized area of the legal system -- that of immigration law and practices. The course covers various federal agencies that oversee and enforce United States Immigration Law. Focus is upon visa application, process, consideration of non-immigrant and immigrant status, removal grounds and procedures, and forms of relief from removability. Various forms are introduced. Students will complete asylum applications and are given the opportunity to attend a removal procedure.

Prerequisite(s): CJST 200 - Intro Crim Justice Sys (3)

**CJST 240 - Police Organization & Mgmt (3)**

This course examines the basic principles of organization and management. Federal, state, county, and municipal law enforcement agencies will be reviewed and compared with government and business administration. The important areas of leadership, planning, discipline, and contemporary police management problems will be analyzed.

Prerequisite(s): CJST 200 - Intro Crim Justice Sys (3)

**CJST 241 - Criminal Profiling (3)**

This course focuses on the criminal investigation specialty of criminal profiling. Specific case studies will be used in class to demonstrate the process by which a profile of serial criminals are developed and used.

**CJST 243 - Critical Issues in Criminal Justice (3)**

This course examines specific and controversial issues related to crime and the criminal justice system in a debate and discussion format. While the exact topics may change, some topics may include capital punishment, Megan's law, sentencing, and domestic abuse.

Prerequisite(s): ENGL 100 - English Essentials (3) or proper placement scores

**CJST 245 - Bioterrorism and Weapons of Mass Destruction (3)**

This course will center on Weapons of Mass Destruction and their potential use by terrorists. The student will explore the origins, development and weaponization of Chemical, Biological, Nuclear and Radiological Systems and Devices. The class will focus on the preparation and execution of plans and policies to counter this threat.

Prerequisite(s): CJST 200 - Intro Crim Justice Sys (3)

**CJST 250 - Juvenile Justice System (3)**

This course provides an overview of the juvenile justice system. Focus will be on the juvenile offender, the juvenile courts system, and the juvenile detention system.

Prerequisite(s): CJST 200 - Intro Crim Justice Sys (3)

**CJST 253 - State Police Academy Basic Training (3)**

This course is designed for law enforcement personnel who have completed the State Police Academy Basic Police Training Course. Upon presentation of the certificate of completion from the State Police Academy Basic Police Training Course, and having earned 15 credit hours at BRCTC, the student is eligible for 3.0 credit hours (without grade) in CJST 253 to be used as an elective in the A.A.S. Criminal Justice degree. See the Criminal Justice Academic Advisor for more information.

**CJST 260 - The Correctional System (3)**

This course covers the court and jury system, probation and parole, and correctional institutions including jails and the non-institutional treatment of offenders. In addition, legal procedures, which affect the liberties of inmates, clients, and the correctional staff within the institutional and community settings, will be covered.

Prerequisite(s): CJST 200 - Intro Crim Justice Sys (3)

**CJST 280 - Criminal Investigation II with Lab (4)**

This course is designed to cover the more technical aspects of investigation and evidence collection. Topics will include interviewing, evidence gathering, pattern interpretation, classification of evidence, and packaging of evidence, submitting fingerprints, taking and lifting of fingerprints, analyzing evidence, and searching and filing procedures. Times will be devoted to laboratory work in the classroom.

Prerequisite(s): CJST 200, CJST 220.

**CJST 292 - Field Experience (1-6)**

With practical experience in local and regional correctional facilities, courts systems, security, and police facilities or other related organizations, students learn how to translate classroom theory and methods into professional skills and opportunities.

Prerequisite(s): CJST 200 - Intro Crim Justice Sys (3); must have completed over half of the requirements for certificate or degree completion; and have an overall GPA above 2.0.

**CJST 293 - Criminal Justice On-the-Job-Training (1-13)**

This course is designed to award credit to those persons who have participated in a supervised on-the-job training program in criminal justice. Credit is awarded upon receipt of a letter from the on-site supervisor stating successful completion of on-the-job training assignments and the total number of actual hours involved in the training.

Hours (Credit hours earned for On-the-Job Training are calculated as 1 credit hour = 150 actual hours. Therefore a student must work 1950 actual hours to receive 13 credit hours.)

**CJST 299 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

**Culinary Arts**

**CART 100 - Introduction to Culinary Food Service (2)**

A comprehensive overview of food service operational equipment, identification, and maintenance. An introduction to culinary terminology, theory and history as well as how food moves through an operation. This course will also familiarize the student with essential food handling, safety and storage guidelines encountered within the industry. This course also provides an overview of the professionalism in the culinary industry and career opportunities leading into a career pathway to the Food Service Industry.

Prerequisite(s): Required major in Culinary Arts, Food Service Retail Management, Baking and Pastry, or Entrepreneurship is required.

**CART 110 - Molecular Gastronomy (3)**

Trendy and cutting edge cuisine describes this course best; experience the new tools and theories on food. You'll never think of food the same way. In this course you will use all of your senses and explore the science of flavor with laboratory activities and demonstrations that are integrated into weekly lectures and labs.

Prerequisite(s): CART 212 - Baking Skills and Development (4)

**CART 115 - Safety and Sanitation in the Food Service Industry (2)**



The Safety and Sanitation in the Food Service Industry course follows the format of the National Restaurant Association Educational Foundation ServSafe® Program. The course is designed as an industry-based program that prepares students for careers in the restaurant and foodservice industry. The emphasis of this program is to educate the students about the responsibilities of a foodservice manager and the food service worker have to the public in providing safe and sanitary food to the consumer.

Prerequisite(s): Required major in Culinary Arts, Food Service Retail Management, Baking and Pastry, or Entrepreneurship is required.

#### **CART 116 - Servsafe Alcohol (1)**

This course provides practical, yet comprehensive, knowledge that assists all front-of-the-house staff in learning what they need to know to serve alcohol responsibly. Lessons are reinforced with guides, charts, exercises and case studies to make concepts much more memorable.

#### **CART 120 - Bruin Cafe Lecture (1)**

This course is designed to teach the practice and implementation of management principles as they relate specifically to front-of-the-house operations. The students will be assigned to production teams which will, in turn, rotate through a variety of jobs including: linen preparation, table preparation, dining room set-up and decor, buffet preparation, beverage preparation, and service.

Prerequisite(s): CART 115 - Safety and Sanitation in the Food Service Industry (2)

Corerequisite(s): CART 120L - Bruin Cafe Lab (3)

#### **CART 120L - Bruin Cafe Lab (3)**

This continues the development of Retail skills in a supervised laboratory setting. Specific skills are correlated to lecture content in CART 120 - Bruin Cafe Lecture (1).

Prerequisite(s): CART 115 - Safety and Sanitation in the Food Service Industry (2)

Corerequisite(s): CART 120 - Bruin Cafe Lecture (1)

#### **CART 170 - Bread Fundamentals (1)**

This course provides an introduction to the principles and techniques of the art and craft of bread making. Topics include formulas and techniques associated with naturally leavened loaves, hearth breads, focaccia, flat breads, rolls and other breads utilizing a variety of grains. Upon completion, students should be able to prepare classical and specialty breads that meet or exceed the expectations of restaurant and retail establishments.

Prerequisite(s): CART 115 - Safety and Sanitation in the Food Service Industry (2)

Corerequisite(s): CART 170L - Bread Fundamentals Lab (3)

#### **CART 170L - Bread Fundamentals Lab (3)**

This continues the development of Baking Fundamental skills in a supervised laboratory setting. Specific skills are correlated to lecture content in CART 170.

Prerequisite(s): CART 115 - Safety and Sanitation in the Food Service Industry (2)

Corerequisite(s): CART 170 - Bread Fundamentals (1)

#### **CART 199 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

#### **CART 200 - International Cuisines Lecture (1)**

This course will explain the impact of International Cuisines in the world today. We will explain the influences of religion and discuss specific ingredients, cooking methods and presentations that make each cuisine unique.

Prerequisite(s): CART 115 - Safety and Sanitation in the Food Service Industry (2)

Corerequisite(s): CART 200L - International Cuisines Lab (2)

### **CART 200L - International Cuisines Lab (2)**

This Lab course will allow students to practice, create and utilize basic and advanced cooking principles specific to each culture or country.

Prerequisite(s): CART 115 - Safety and Sanitation in the Food Service Industry (2)

Corerequisite(s): CART 200 - International Cuisines Lecture (1)

### **CART 201 - Stocks, Soups, and Sauces (3)**

This course provides an introduction to the principles and techniques of basic stocks, Mother (leading) sauces and soups along with varied thickening agents. Special emphasis will be placed on preparation, sanitation, and the finished product.

Prerequisite(s): CART 212 - Baking Skills and Development (4)

### **CART 203 - Culinary Nutrition (3)**

A study of functions, sources, and requirements of nutrients. Emphasis is placed on meeting the nutritional needs of individuals of all ages in a variety of situations. Teaches the principles of adapting recipes and menus to accommodate a variety of dietary and nutritional needs including but not limited to: texture, nutrients, and allergies.

Prerequisite(s): CART 115 - Safety and Sanitation in the Food Service Industry (2), CART 245 - Cooking Fundamentals I Lecture (1), and CART 245L - Cooking Fundamentals I Lab (2)

### **CART 204 - Inventory and Purchasing (3)**

This course is an introduction to inventory and purchasing, the purchasing function, quality standards in purchasing, the procurement process and supplier selection and inventory control. This course will be taught using the National Restaurant Association Manage First Program. At the end of the course, the student will take a national certification exam.

Prerequisite(s): CART 115 - Safety and Sanitation in the Food Service Industry (2)

### **CART 212 - Baking Skills and Development (4)**

This course provides the student with the necessary fundamental skills for beginner baking. In this class students will produce simple yeast dough's, quick breads, pies, cakes, cookies, and other baked goods found in corner bakeries, restaurants, and food markets. Instruction includes classification of ingredients and their function, baking terminology, culinary and bakery tool and equipment use, and recipe conversions. Information from this course supports the student's development into more advanced baking and pastry coursework.

Prerequisite(s): CART 115 - Safety and Sanitation in the Food Service Industry (2)

### **CART 231 - Garde Manger and Cold Presentations (4)**

The cold station in any restaurant is one that encompasses a wide number of techniques. From butchering to garnishing and into charcuterie this course will cover all aspects of the responsibilities associated with the art of Garde Manger. Students will prepare marinades, cold sauces, forcemeats, mousses, hot and cold hors d'oeuvres, sandwiches, and cold dishes using tools and equipment commonly found in commercial kitchens. Techniques in proper cold buffet presentations will also be taught.

Prerequisite(s): CART 212 - Baking Skills and Development (4)

**CART 245 - Cooking Fundamentals I Lecture (1)**

This course builds on the CART 100 - Introduction to Culinary Food Service (2) by engaging the student in practical application of learned terminology and theories. Students will learn meat, produce and ingredient identification essential to the industry. In addition we will introduce Knife Handling; Principles of Cooking; Basic Cooking Skills; Mise en Place; Plating; Reinforce Food Safe Practices; Industry Terminology; Weights & Measures; Equipment Identification, Care and Use; Food Costing and standard Inventory Control and Receiving Practices.

Prerequisite(s): Required major in Culinary Arts, Food Service Retail Management, Baking and Pastry, or Entrepreneurship is required.

**CART 245L - Cooking Fundamentals I Lab (2)**

This course is the lab component for CART 245 - Cooking Fundamentals I Lecture (1) and builds on the CART 100 - Introduction to Culinary Food Service (2) by engaging the student in practical application of learned terminology and theories. Students will learn meat, produce and ingredient identification essential to the industry. In addition we will introduce Knife Handling; Principles of Cooking; Basic Cooking Skills; Mise en Place; Plating; Reinforce Food Safe Practices; Industry Terminology; Weights & Measures; Equipment Identification, Care and Use; Food Costing and standard Inventory Control and Receiving Practices.

Prerequisite(s): Required major in Culinary Arts, Food Service Retail Management, Baking and Pastry, or Entrepreneurship is required.

Corerequisite(s): CART 245 - Cooking Fundamentals I Lecture (1)

**CART 246 - Cooking Fundamentals II (1)**

This course focuses on the expansion of cooking techniques and food costing skills learned in CART 100 - Introduction to Culinary Food Service (2) and CART 245 - Cooking Fundamentals I Lecture (1) . Special emphasis on portioning and presentation will be given. We will reinforce CART 245 - Cooking Fundamentals I Lecture (1) basic knife and cooking techniques. Also we will expand on the practices of cooking various meats, produce and starches to create a balanced and eye appealing meal always with an emphasis on sanitation and safety.

Prerequisite(s): CART 115 - Safety and Sanitation in the Food Service Industry (2)

Corerequisite(s): CART 246L - Cooking Fundamentals II Lab (2)

**CART 246L - Cooking Fundamentals II Lab (2)**

This continues the development of Cooking Fundamentals II skills in a supervised laboratory setting. Specific skills are correlated to lecture content in CART 246.

Prerequisite(s): CART 115 - Safety and Sanitation in the Food Service Industry (2)

Corerequisite(s): CART 246 - Cooking Fundamentals II (1)

**CART 280 - Cake Design and Professional Decorating (4)**

A course in the basic and advanced techniques of wedding cake designs, assembly, and construction. The areas of study include stacked and tiered cakes, decorating with butter cream, fresh flowers, and rolled fondant. Advanced cake techniques and variations will be produced to enhance student's base knowledge and offerings to potential consumers.

Prerequisite(s): CART 212 - Baking Skills and Development (4)

**CART 292 - Culinary Arts Internship (1-6)**

The purpose of the internship is to allow the student to demonstrate his or her skills in an occupational setting. The internship is considered a capstone course of the A.A.S. degree program. Completion of the internship indicates to the college that the student has achieved a satisfactory level of skills to be successful in their degree field.

Prerequisite(s): CART 212 - Baking Skills and Development (4)

#### **CART 294 - International Pastries and Desserts (4)**

A study of classical desserts, French and international pastries, hot and cold desserts, ice creams and ices, chocolate work, decorations, and plated dessert composition with emphasis on advanced techniques.

Prerequisite(s): CART 212 - Baking Skills and Development (4)

#### **CART 295 - Pastry Showpieces (4)**

In this class, the student will produce decorative showpieces in the mediums of sugar and chocolate. Students will also practice making candies and garnishes in both mediums.

Prerequisite(s): CART 115 - Safety and Sanitation in the Food Service Industry (2), CART 212 - Baking Skills and Development (4), and CART 280 - Cake Design and Professional Decorating (4)

#### **CART 296 - Ala Carte (4)**

This course provides practice in the art of ala carte food production and service as found in hospitality establishments. Menu design, planning, and execution will be part of this capstone class.

Prerequisite(s): CART 115 - Safety and Sanitation in the Food Service Industry (2), CART 200 - International Cuisines Lecture (1), CART 200L - International Cuisines Lab (2), CART 245 - Cooking Fundamentals I Lecture (1), CART 245L - Cooking Fundamentals I Lab (2), CART 246 - Cooking Fundamentals II (1), and CART 246L - Cooking Fundamentals II Lab (2)

#### **CART 299 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

### **Cyber Security**

#### **CYBR 115 - Introduction to Physical and Technical Security (3)**

An Introduction to Physical & Technical Security provides students with a solid foundation in both the technological and operational aspects of security through comprehensive coverage that explores such principal topics as security electronics, communications systems, test equipment, video and optics, alarm systems, computers and security software, access control, and more. Students will obtain an industry-based perspective and a practitioner's point of view on all phases of physical security, including what works and what does not, through a careful mix of theory and practical application.

#### **CYBR 125 - Principles of Incident Response and Disaster Recovery (3)**

This course presents methods of identifying vulnerabilities and taking appropriate measures to prevent and mitigate failure risks for an organization. The course presents a foundation in disaster recovery principles and planning, and emphasizes the importance of incident response to minimize prolonged downtime that can potentially lead to irreparable loss. This course addresses the overall problem of contingency planning rather than focusing on specific tasks of incident response or disaster recovery.

Prerequisite(s): IT 111 - Info Lit for IT Professionals (3)

#### **CYBR 160 - Security+ (3)**

The course is presented in lecture, lab, and discussion format. Course topics include common security issues such as viruses, malware, spyware, Trojan Horse, Denial of Service (DoS), buffer overflow, and hacking. Additional course topics are methods for assessing your system, tools, and techniques for securing your computer, current threats such as cyber terrorism, industrial espionage, fraud, and identity theft. This course provides the information and skills needed to obtain the CompTIA Security+ Certification.

Prerequisite(s): IT 111 - Info Lit for IT Professionals (3)

### **CYBR 190 - Security Assessment (3)**

This course will expose students to the process of creating a methodology and approach for conducting security assessments. Students will encounter a comprehensive step-by-step approach encompassing the entire security assessment process.

Pre-requisite/Co-requisite(s): CAS 111 - Information Literacy (3)

### **CYBR 192 - Practicum (1)**

This course will cover testing methodologies and study techniques to assist in preparing students for the Security+ certification exam.

Prerequisite(s): CYBR 160 - Security+ (3)

### **CYBR 199 - Special Topics (1-6)**

Special topic courses may be offered from time to time dependent upon current trends, employer needs, and student interests. The course description, objectives, and credit hours for each will vary based upon the topic and schedule.

### **CYBR 210 - Intrusion Detection (3)**

This course provides an introduction to firewalls and other network security components that work together to create an in-depth defensive perimeter around a Local Area Network. This course maps to the Check Point Certified Security Administrator certification exam objectives, and examines firewalls in content with the other elements needed for effective perimeter security as well as security within a network. It incorporates examination of technologies such as packet filtering, authentication, proxy servers, encryption, bastion hosts, virtual private networks, log file maintenance, and intrusion detection systems.

Prerequisite(s): CNET 121 - Network+ (3)

### **CYBR 220 - Wireless Security (3)**

This course provides the information needed to protect a wireless network, and maps to the Certified Wireless Security Professional certification exam objectives. The course takes a comprehensive view of attacks and defenses of wireless networks and incorporates examination of technology that helps make wireless networks secure, as well as offers practical tools, tips, and techniques to protect a wireless Local Area Network. Course content includes a foundation of wireless security, wireless LAN vulnerabilities, passive wireless discovery, active wireless attacks, wireless security models, enterprise wireless hardware security, designing a secure wireless network, secure wireless authentication, and secure wireless transmissions.

Prerequisite(s): CNET 121 - Network+ (3)

### **CYBR 250 - Internet Security (3)**

This course provides students and professionals with the ability to develop the security program necessary for protecting data and reacting to threats as they occur. It maps to the Certified Internet Webmaster Security Professional certification exam objectives, and outlines various threats that exist in today's IT environment, and demonstrates how to defend an environment against them by developing the necessary security policies and

processes. Content includes an introduction to information security and processes, threats to IT assets, encryption, fundamentals of network security and threats intrusion detection, fundamentals of system security, UNIX system security, Windows® system security, standards, compliance, and security testing.

Prerequisite(s): CNET 121 - Network+ (3)

### **CYBR 280 - Network Defense and Countermeasures (3)**

This course provides students and professionals with hands-on introductory experience installing firewalls and intrusion detection systems. This course maps to the Security Certified Network Professional certification exam objectives, and gives students a solid foundation in advanced network security fundamentals, incorporating examination of intrusion detection, network address translation, packet filtering, proxy servers, firewalls, and virtual private networks. Course content includes network defense fundamentals, risk analysis, security policy implementation, network traffic signatures, virtual private network concepts, VPN implementation, intrusion detection system concepts, incident response, choosing and designing firewalls, firewall topology, strengthening and managing firewalls, and strengthening defense through ongoing management.

Prerequisite(s): CYBR 192 - Practicum (1) and CYBR 220 - Wireless Security (3)

### **CYBR 281 - Ethical Hacking (3)**

This course guides students and professionals toward becoming skilled security testers and maps to the Certified Ethical Hacker certification exam objectives. Course content includes an ethical hacking overview, TCP/IP concepts review, network and computer Attacks, footprinting and social engineering, port scanning, enumeration, programming for security professionals, Microsoft® operating system vulnerabilities, Linux operating system vulnerabilities, hacking web servers, hacking wireless networks, cryptography, and protecting networks with security devices.

Prerequisite(s): CYBR 210 - Intrusion Detection (3) and IT 188 - Introduction to Programming Logic (3)

### **CYBR 283 - Computer Forensics (3)**

This course provides students and professionals with a solid foundation in computer forensics. The course is a guide toward becoming a skilled computer forensics investigator. Course content includes a computer forensics and investigations as a profession, understanding computer investigations, an investigator's office and laboratory, data acquisition, processing crime and incident scenes, working with Windows® and DOS systems, current computer forensics analysis tools, Macintosh® and Linux boot processes and file systems, file recovery, network forensics, e-mail investigations, mobile device forensics, report writing and expert testimony for high-tech investigations, and ethics for expert witnesses.

Prerequisite(s): CNET 121 - Network+ (3) and CYBR 192 - Practicum (1)

### **CYBR 284 - Tactical Perimeter Defense (3)**

This course provides students with hands-on introductory experience installing firewalls and intrusion detection systems. This course gives students a solid foundation in advanced network security fundamentals, incorporating examination of intrusion detection, network address translation, advanced TCP/IP concepts, router security, packet filtering, proxy servers, firewall design and configuration, IPSec, and virtual private network design, and wireless design security.

Prerequisite(s): CNET 141 - Route & Switch Essentials (4)

### **CYBR 290 - Applied Cybersecurity Concepts (3)**

This course will cover securing computers, applications, networks, digital forensics, and the ethical and legal practices affecting all computer users. The course also covers the strategies, implementation, and management of a business information continuity plan; mitigation of cyber vulnerabilities; and incident response and analysis. This will be an advanced course that will be a pre-requisite to CYBR 291 and be built around lab scenarios that will

prepare the student(s) to work independently or on teams with limited guidance and instruction.

Prerequisite(s): CYBR 160 - Security+ (3) and CNET 141 - Route & Switch Essentials (4)

### **CYBR 291 - Applied Cybersecurity Implemen (3)**

This hands-on course is designed to validate knowledge and skills of the student in administering and securing information systems and networks. Security topics such as vulnerability assessment, systems administration, network monitoring, incident response, and digital forensics will offer a comprehensive defense-in-depth experience. Each participant will have direct administrative access to a wide variety of networked systems (Windows, Linux and Cisco), which will be modified and instrumented throughout the course. Instruction will consist of individual labs and team-based exercises modeled from real-world threat scenarios.

Prerequisite(s): CYBR 290 - Applied Cybersecurity Concepts (3)

### **CYBR 292 - Field Experience (3-6)**

This is a capstone course in experiential learning. A student participates in an intensive internship, externship, or cooperative with an appropriate agency, company or organization.

Prerequisite(s): CYBR 192 - Practicum (1)

### **CYBR 299 - Special Topics (1-6)**

Special topic courses may be offered from time to time dependent upon current trends, employer needs, and student interests. The course description, objectives, and credit hours for each will vary based upon the topic and schedule.

## **Early Childhood Education**

### **ECED 101 - Found of Early Childhood Ed (3)**

The course focuses on the history of early childhood education including the contributions of Frobel, Montessori Steiner and Reggio Emilia. Coursework will concentrate on a diversity of programs and childcare settings: child care, Headstart, kindergarten, nursery, profit and non-profit. Course will include perspectives from the past, theories and approaches to care, development and education of young children.

### **ECED 103 - Early Language and Literacy (3)**

This course examines quality literature appropriate for children from infancy to age eight. Appropriate literacy experiences of reading, writing, and language are practiced in the student's communities. Students will also examine methods of presentation and the creation of literature based settings.

### **ECED 105 - Child Development (3)**

This course explores knowing and understanding young children's characteristics and needs; the multiple influences on development and learning, and how to use this developmental knowledge to create healthy, respectful, supportive and challenging learning environments. The principles of child development are emphasized including language acquisition, creative expression, physical, cognitive and social/emotional development.

### **ECED 106 - Health, Nutrition and Safety (3)**

This course provides a variety of health, nutrition and safety concepts that will enable the individual to implement preventive health and safety practices in the early childcare setting. Students will develop menus for meals and snacks which are nutritious, appealing, and age-appropriate for young children. Recognition and treatment of child abuse victims will be addressed.

### **ECED 107 - Early Childhood Curriculum (3)**

This course provides the student with an introduction to methods and materials to assist young children in the learning process. Emphasis will be placed on arrangement of indoor/outdoor space, reading, music and movement, dramatic play, math, social studies, and art centers. Students will locate, plan, implement and evaluate creative learning activities using a variety of methods and materials.

**ECED 165 - Assessment of Young Children (3)**

This course will cover formal and informal assessment strategies appropriate for children birth through age eight. Assessment for children's cognitive, social, physical and motor development for curriculum planning will be addressed as well as identifying children with developmental needs.

**ECED 199 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

**ECED 206 - Family/Community Engagement (3)**

This course addresses the role of the family and community in the physical, cognitive, social and emotional growth of the child in a diverse society. The areas of professionalism, program management, advocacy, family development and the structure of the family will be the main topics. Building partnerships with families of the children with special needs will also be included.

**ECED 220 - Early Childhood Inclusion (3)**

This course prepares learners to understand their roles, including the history and legal implications, and the nature of students with special needs. Techniques for creating an educational environment where all students have equal opportunity to develop academically and socially are specifically addressed.

**ECED 299 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

**Economics**

**ECON 123 - ~Contemporary Economics (3)**

This course serves as an introductory survey of modern economic issues. Economic theory is employed in the analysis of inflation, unemployment, pollution, regulation, market structure, and related topics. Economic institutions such as corporations, banking, and government are also studied.

**ECON 199 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

**ECON 205 - ~Principles of Macroeconomics (3)**

This class serves as an introduction to fundamental economic concepts including production possibilities and economic growth, market supply and demand analysis, money, banking, and government and fiscal monetary policies. Emphasis is placed upon fluctuations in national income, employment, and price level.

**ECON 206 - ~Principles of Microeconomics (3)**

This course provides an introduction to microeconomic theory with a primary focus on the methodology of economics and the behaviors of individuals and firms. Fundamental concepts are covered including demand and supply analysis, marginal analysis, opportunity cost, market structure, pricing, labor markets, and government policy and regulation.



### **ECON 210 - Money and Banking (3)**

This course looks at the concepts of money, banking, central banking, financial markets and global markets. Students will analyze all these systems and how they interact including financial instruments.

Prerequisite(s): ECON 205 - ~Principles of Macroeconomics (3)

### **ECON 299 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

### **Education**

#### **EDUC 150 - Seminar in Education (1)**

This course introduces students to the field of education, including the nature of education in society and the practical and ethical issues that arise in the field with a focus on reflection and self as a learner. The purpose is for students to begin to develop a philosophical, socio-historical, and practical understanding of learning and teaching. The requirements for successful progress through the program and a successful experience on campus are also discussed. Includes a one-day observation in a public school classroom.

Prerequisite(s): Must be a major in Education, A.S. or General Studies, A.S. (Education Concentration)

#### **EDUC 199 - Special Topics (1-6)**

Special topic courses may be offered dependent upon current trends, organizational or employer needs, and student interests. The course description, objectives, and credit hours for each will vary based upon the topic and schedule.

#### **EDUC 200 - Foundations of Education (3)**

This course examines the relationship between the school as a social institution and the larger society through a combination of philosophical, historical, and problem-oriented inquiry into that relationship. The assumption is that a teacher who has developed an understanding of the vital relationships between school and society is in a position to see his or her professional roles beyond the narrow confines of the classroom, and will emerge a more sensitive, responsive, and effective teacher. The course includes substantial reading and writing components and a field experience with an at-risk population.

Prerequisite(s): ENGL 100R - Reading Essentials (3) or placement, ENGL 101 - ~Written English (3), and EDUC 150 - Seminar in Education (1)

#### **EDUC 204 - Development of Infant & Child (3)**

This course examines topics of classic and contemporary developmental theories, research, and concepts as they apply to the developing person from conception through childhood. These topics will focus on the biological, cognitive, and psychosocial perspectives of human development. Includes a field component in a public school classroom.

Prerequisite(s): PSYC 203 - ~Introduction to Psychology (3)

#### **EDUC 211 - Education Practicum I (1)**

To be taken with EDUC 200, a field experience focusing on application of learning models and strategies through observation and tutoring in an at-risk population.

Prerequisite(s): EDUC 150 - Seminar in Education (1)  
Corerequisite(s): EDUC 200 - Foundations of Education (3)

#### **EDUC 220 - Soci & Psyc Cond of Learning (4)**

This course is a reflective exploration of the knower (the learner), knowing (learning), the known (knowledge), and the contexts in which knowledge is constructed through teaching/learning. Includes a field component in a public school classroom.

Prerequisite(s): EDUC 200 - Foundations of Education (3), COMM 202 - ~Fundamentals of Speech (3), ENGL 101 - ~Written English (3), and ENGL 102 - ~Writing for the Arts & Hum (3)

#### **EDUC 260 - Survey of Exceptional Child (3)**

A course to familiarize the student with the nature, etiology, specific characteristics, and needs of the exceptional child. The course is designed to meet basic certification requirements in those states that require a minimum of three hours of course work in special education in order to be certified. It is equally relevant to early education, elementary education, secondary education, therapeutic recreation, psychology, and nursing. Includes a field component in a public school classroom.

Prerequisite(s): EDUC 200 - Foundations of Education (3)

#### **EDUC 292 - Praxis Core Prep (1)**

This course will review the main topics on the three Praxis Core Subject tests.

Prerequisite(s): EDUC 150 - Seminar in Education (1) and be a degree seeking student with a major in Education, A.S. or General Studies, A.S. with a concentration in Education.

#### **EDUC 299 - Special Topics (1-6)**

Special topic courses may be offered dependent upon current trends, organizational or employer needs, and student interests. The course description, objectives, and credit hours for each will vary based upon the topic and schedule.

#### **Electric Distribution Engineering Technology**

##### **EDET 101 - Intro to Line Worker (2)**

Intro to Line Worker is the first class in both the AAS and Certificate Line Worker Programs. It is intended to provide students with a basic awareness and function as gate keeper for those seeking entry into the program (and career.) Some major focus areas are: career awareness, wood pole climbing evaluation, claustrophobia evaluation and industry skills (Edison Cast) testing.

Prerequisite(s): Current major declared of Electric Distribution Engineering Technology, A.A.S. or Electric Distribution Engineering Technology Certificate

##### **EDET 102 - Fundamentals of Electric Power Distribution (2)**

Fundamentals of Electric Power Distribution provides students with an overview of how electric power is distributed from generation to industrial and residential customers. The class will also introduce students to industry terminology and materials.

Prerequisite(s): Current major declared of Electric Distribution Engineering Technology, A.A.S. or Electric Distribution Engineering Technology Certificate

Pre-requisite/Co-requisite(s): EDET 101 - Intro to Line Worker (2)

##### **EDET 103 - Heavy Equipment Familiarization (2)**

Heavy Equipment Familiarization is designed to introduce students to different types of heavy equipment vehicles used in utility work. Basic operation of the most commonly used equipment vehicles will be demonstrated and

practiced by students.

Prerequisite(s): Current major declared of Electric Distribution Engineering Technology, A.A.S. or Electric Distribution Engineering Technology Certificate

Pre-requisite/Co-requisite(s): EDET 101 - Intro to Line Worker (2)

**EDET 120 - Adv Pole Working Workshop (1)**

Advance Pole Working is designed to teach practical skills and techniques used in constructing electric distribution systems while emphasizing the safe use of tools and equipment.

Prerequisite(s): Current major declared of Electric Distribution Engineering Technology, A.A.S. or Electric Distribution Engineering Technology Certificate

Pre-requisite/Co-requisite(s): EDET 102 - Fundamentals of Electric Power Distribution (2)

**EDET 121 - Safety for Electrical Line Workers (2)**

Safety for Electrical Line Workers is designed to introduce students to the necessary skills to safely work on electric distribution systems. Some major areas of studies include: applying safe grounding practices, correctly using personal protective equipment, safely setting up traffic control work zone, pole top rescue, aerial lift rescue, and confined space rescue. Upon successful completion of this course a 10 hour OSHA card will be earned.

Prerequisite(s): EDET 102 - Fundamentals of Electric Power Distribution (2) and current major declared of Electric Distribution Engineering Technology, A.A.S. or Electric Distribution Engineering Technology Certificate

**EDET 130 - Underground Line Maintenance (2)**

Underground Line Maintenance teaches practical underground distribution maintenance techniques while emphasizing the safe use of tools and equipment. Focus areas include use of live line tools, installing and repairing underground cables and equipment.

Prerequisite(s): Current major declared of Electric Distribution Engineering Technology, A.A.S. or Electric Distribution Engineering Technology Certificate

Pre-requisite/Co-requisite(s): EDET 120 - Adv Pole Working Workshop (1) and EDET 121 - Safety for Electrical Line Workers (2)

**EDET 131 - Substation Basics (2)**

Substation Basics teaches the purpose and operations of a substation. Particular attention is spent on how to safely enter and perform various tasks at a substation.

Prerequisite(s): Current major declared of Electric Distribution Engineering Technology, A.A.S. or Electric Distribution Engineering Technology Certificate

Pre-requisite/Co-requisite(s): EDET 120 - Adv Pole Working Workshop (1) and EDET 121 - Safety for Electrical Line Workers (2)

**EDET 140 - Overhead Line Maintenance (1)**

Overhead Line Maintenance teaches practical distribution line maintenance techniques, emphasizing the safe use of tools and equipment. Focus areas include the use of live line tools, safe rigging practices, troubleshooting (including switching & testing voltages), and replacing/repairing electrical equipment.

Prerequisite(s): Current major declared of Electric Distribution Engineering Technology, A.A.S. or Electric Distribution Engineering Technology Certificate

Pre-requisite/Co-requisite(s): EDET 120 - Adv Pole Working Workshop (1) and EDET 121 - Safety for Electrical Line Workers (2)

**EDET 150 - Fundamentals of Electricity (4)**

Fundamentals of Electricity provides students with an overview of the ways in which power is distributed from generation to industrial and residential customers. Students will be introduced to essential industry terminology and materials. Following this course, students will understand and be able to analyze: Ohm's Law, Magnetism, DC Series & Parallel Circuits, Basic AC Series & Parallel Circuits, Inductance, Reactance, Capacitance, Poly-phase and 3 Phase Circuits, and Basic "Y" single-phase transform bank connections.

Prerequisite(s): Current degree seeking student with a major of Electric Utility Technology, A.A.S. and preemployment screening by First Energy.

#### **EDET 151 - Circuit Analysis (4)**

This course is designed to develop a comprehensive understanding of the activities associated with electric utility line work, specifically: sub-transmission circuits, distribution substations, primary feeders, distribution transformers, secondary power systems, and customer connections. Students will engage in classroom and laboratory activities to develop the basic technical skills necessary to obtain a working knowledge and understanding of power distribution and transmission systems. Safety is strongly emphasized and special attention is given to explaining relevant electrical formulas and calculations. Hands-on use of equipment occurs in a lab setting.

Prerequisite(s): Current degree seeking student with a major of Electric Utility Technology, A.A.S. and preemployment screening by First Energy.

EDET 150 - Fundamentals of Electricity (4)

#### **EDET 155 - Positive Workplace Comm (5)**

This class prepares students to create better work relationships by becoming a "conscious communicator." Students will explore ways to enhance their self-knowledge, work effectively in teams, and cope with common workplace stresses and emotions. Students will also explore ways and develop tools to enhance their abilities to deal with conflict in the workplace.

Prerequisite(s): Current degree seeking student with a major of Electric Utility Technology, A.A.S. and preemployment screening by First Energy.

#### **EDET 160 - Resume Writing (1)**

This course is designed to give the student the general knowledge to write a resume including a work history, etc. It will also prepare them for interviews by requiring them to participate in mock interviews.

Prerequisite(s): Current major declared of Electric Distribution Engineering Technology, A.A.S. or Electric Distribution Engineering Technology Certificate

#### **EDET 170 - Commercial Drivers License (3)**

This course is designed to give the student the knowledge of CDL requirements and the information required to successfully pass their states Commercial Driver's License Exam. This license is required by all employers in this field. Topics reviewed will be vehicle pre checks, post checks, air brake test, driving with a trailer, backing with a trailer, driving in traffic, driving on rural roads and interstate, and driving at night.

Prerequisite(s): Current major declared of Electric Distribution Engineering Technology, A.A.S. or Electric Distribution Engineering Technology Certificate

#### **EDET 180 - Building Better Relationships (2)**

This class prepares participants to create better work relationships by becoming a "conscious communicator". It includes taking a work place personality identifier test. Participants will explore ways to enhance their self-

knowledge, work effectively teams, and cope with the stresses and emotions that are often found in the work environment.

#### **EDET 181 - Conflict Resolution (2)**

Conflict resolution prepares participants to better deal with conflict in the workplace by helping them become a "conscious communicator". It includes taking a conflict assessment/evaluation. Participants will explore ways and develop tools to enhance their abilities to deal with conflict and reduces stresses and emotions that are often found in the work environment.

#### **EDET 199 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

Prerequisite(s): Current major declared of Electric Distribution Engineering Technology, A.A.S. or Electric Distribution Engineering Technology Certificate

#### **EDET 201 - Fundamentals of Electricity I (2)**

Fundamentals of Electricity I provide students with an introduction to ohms law and the principles behind how DC and AC electric circuits work.

Prerequisite(s): Current major declared of Electric Distribution Engineering Technology, A.A.S. or Electric Distribution Engineering Technology Certificate

Corerequisite(s): EDET 202 - Fundamentals of Electricity II (2)

#### **EDET 202 - Fundamentals of Electricity II (2)**

Fundamentals of Electricity II builds on the students learning in Fundamentals of Electricity I. Three phase circuits and transformers function are covered.

Prerequisite(s): Current major declared of Electric Distribution Engineering Technology, A.A.S. or Electric Distribution Engineering Technology Certificate

Pre-requisite/Co-requisite(s): EDET 201 - Fundamentals of Electricity I (2)

#### **EDET 287 - Diagnostic & Repair Project (4)**

The Diagnostic and repair Project class provides students with unique opportunities (vary semester to semester) to practice and refine their skills in troubleshooting and repairing problems encountered in electric distribution systems.

Prerequisite(s): Current major declared of Electric Distribution Engineering Technology, A.A.S. or Electric Distribution Engineering Technology Certificate

Pre-requisite/Co-requisite(s): EDET 130 - Underground Line Maintenance (2) and EDET 140 - Overhead Line Maintenance (1)

#### **EDET 293 - Practical Line Work Internship II (4)**

Practical Line Work Internship is a paid internship to expand student's career awareness and further develops their practical hands on experience. Internships consist of over 160 hours of onsite work with a local utility company. Students will be required to travel to employer (off campus) work areas during normal work hours.

Prerequisite(s): Current major declared of Electric Distribution Engineering Technology, A.A.S. or Electric Distribution Engineering Technology Certificate

Pre-requisite/Co-requisite(s): EDET 102 - Fundamentals of Electric Power Distribution (2), EDET 103 - Heavy Equipment Familiarization (2), EDET 120 - Adv Pole Working Workshop (1), and EDET 121 - Safety for Electrical Line Workers (2)

### **EDET 295 - Practicum Skills Evaluations (1-4)**

This course is designed to evaluate the skills learned each semester in all other EDET courses. A variety of topics will be covered depending on the student needs.

Prerequisite(s): Current major declared of Electric Distribution Engineering Technology, A.A.S. or Electric Distribution Engineering Technology Certificate

### **EDET 299 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

Prerequisite(s): Current major declared of Electric Distribution Engineering Technology, A.A.S. or Electric Distribution Engineering Technology Certificate

### **Electric Utility Technology**

### **EUT 101 - Overhead Lines Technology I (3)**

Supervised practical applications of electrical overhead line worker job duties in a setting under direct supervision of FirstEnergy personnel. Emphasis on skills to safely climb wood poles, the operation of a line truck, setting poles, framing poles on the ground, and operation of a digger derrick. Upon completion of training, student will successfully pass the Class "A" Commercial Driver's License skills test. Rigging, wire identification, and use of rubber goods will also be learned. Safety topics include: Rigging Safety Awareness; Fall Protection; Flame Retardant Personal Protective Equipment; Medic First-Aid; Bloodborne Pathogens; and, Good Housekeeping.

Prerequisite(s): Current degree seeking student with a major of Electric Utility Technology, A.A.S. and preemployment screening by First Energy.

### **EUT 102 - Overhead Lines Technology II (3)**

This course provides practical applications of electrical overhead line technology under direct supervision of First Energy personnel. Emphasis will be placed on skills required to perform work on secondary voltage circuits, bucket truck familiarization and bucket rescue. Students will receive an overview of distribution electrical systems and Occupational Safety and Health Administration (OSHA). Safety topics include: Work Zone Traffic Control, Minimum Approach Distances, Rubber Protective Equipment, and Knowledge of UD Excavation/Trenching/Shoring.

Prerequisite(s): Current degree seeking student with a major of Electric Utility Technology, A.A.S. and preemployment screening by First Energy.

EUT 101 - Overhead Lines Technology I (3)

### **EUT 199 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

Prerequisite(s): Current degree seeking student with a major of Electric Utility Technology, A.A.S. and preemployment screening by First Energy.

### **EUT 201 - Overhead Lines Technology III (3)**

This course provides practical applications of electrical overhead line technology under direct supervision of First Energy personnel. Emphasis is placed on skills required to identify, install, and maintain primary underground residential distribution (URD) equipment, including various methods of troubleshooting URD primary and

secondary units. Students learn grounding distribution circuits and will develop the knowledge and skills to safely perform rubber gloving assignments utilizing the insulate and isolate techniques. Students perform tasks while working on an energized three-phase circuit under controlled conditions. Safety topics: fire extinguisher safety, temporary protective grounds, stored energy devices, and protective service.

Prerequisite(s): Current degree seeking student with a major of Electric Utility Technology, A.A.S. and preemployment screening by First Energy.

EUT 101 - Overhead Lines Technology I (3) and EUT 102 - Overhead Lines Technology II (3)

### **EUT 202 - Overhead Lines Technology IV (3)**

This course provides practical applications of electrical overhead line technology under direct supervision of First Energy personnel. Emphasis will be on line equipment, hot line tools, power industrial trucks, and transmission (including wood pole, steel pole, ladder, and tower climbing). Bucket, Pole Top, and Self Rescue will be reviewed. Safety topics include: Spill Response, Live Line Tools, Hazardous Communications, and Accident Prevention Handbook review.

Prerequisite(s): Current degree seeking student with a major of Electric Utility Technology, A.A.S. and preemployment screening by First Energy.

EUT 101 - Overhead Lines Technology I (3), EUT 102 - Overhead Lines Technology II (3), and EUT 201 - Overhead Lines Technology III (3)

### **EUT 299 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

Prerequisite(s): Current degree seeking student with a major of Electric Utility Technology, A.A.S. and preemployment screening by First Energy.

### **Emergency Medical Services**

#### **EMSP 100 - Emergency Medical Responder (3)**

This is an introductory course to emergency medical care for individuals that in the course of their normal duties are likely to be the first individual on scene of a medical emergency. The course will cover what should be done until the ambulance unit arrives and will include CPR, an overview of EMS systems, basic airway management, patient assessment, circulation and automatic defibrillation, illness, and injury prevention, childbirth and children and scene operations.

Corequisite(s): EMSP 100L - EMR Lab (1)

#### **EMSP 100L - EMR Lab (1)**

This course affords the student the opportunity to apply and reinforce the skills learned in EMSP 100 in a laboratory setting. The student will participate in both scenario based training as well as skill specific review.

Corequisite(s): EMSP 100 - Emergency Medical Responder (3)

#### **EMSP 101 - Introduction to EMS (3)**

This course is a survey course designed to acquaint the student with emergency medical services roles & responsibilities, well being of the EMS provider, illness and injury prevention, medical-legal issues, ethics, therapeutic communications, and life span development.

#### **EMSP 102 - Emergency Medical Technician (6)**

The primary focus of the Emergency Medical Technician is to provide basic emergency medical care and transportation for critical and emergent patients who access the emergency medical system. This individual possesses the basic knowledge and skills necessary to provide patient care and transportation. Emergency Medical Technicians function as part of a comprehensive EMS response, under medical oversight. Emergency Medical Technicians perform interventions with the basic equipment typically found on an ambulance. The Emergency Medical Technician is a link from the scene to the emergency health care system. This course was previously known as EMT-Basic until the incorporation of the new curriculum and scope of practices. This course or the EMT-Basic is a required prerequisite for admission into the Paramedic Program.

Corerequisite(s): EMSP 102L - Emergency Medical Technician Lab (2)

**EMSP 102L - Emergency Medical Technician Lab (2)**

This class is designed to follow the same chronological order as the Emergency Medical Technician (EMT) course. Items covered will be all of the hands on experiences necessary to reinforce the didactic instruction as the student completes the classroom portion. This course will act as the second portion of the EMT course in order to meet both state and national standards and guidelines for an EMT.

Corerequisite(s): EMSP 102 - Emergency Medical Technician (6)

**EMSP 103 - EMS Operations (3)**

This course will include in-depth review of such topics as emergency vehicle operations, medical incident command, rescue awareness and operations, hazardous materials recognition & identification and crime scene awareness.

**EMSP 104 - EMS Practicum (1)**

This course provides the opportunity to observe and apply the skills learned in EMSP 102 in a supervised clinical setting including a local hospital emergency department, regional medical command center and on a field EMS unit. A minimum of fifty hours are required and will be scheduled by the student on an individual basis through the EMS Clinical Coordinator.

**EMSP 104L - EMS Lab I (1)**

This course affords the student the opportunity to apply and reinforce the skills learned in EMSP 102 in a laboratory setting. The student will participate in both scenario based training as well as skill specific review.

**EMSP 199 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

**EMSP 201 - Advanced Airway Management and Patient Assessment (3)**

This course provides a comprehensive understanding of the respiratory system and respiratory emergencies. Covered is an advanced approach to managing simply as well as difficult airways. The course includes advanced patient assessment skills and techniques for the paramedic to use while establishing their appropriate treatment modalities.

Prerequisite(s): EMSP 104 - EMS Practicum (1)

**EMSP 202 - Pathophysiology of Shock & Trauma Resuscitation (3)**

This course provides a comprehensive understanding of the pathophysiology of shock, the different types of shock followed by appropriate treatment. The course also will give you an in depth look at all of the types of trauma and how our bodies react to absorbing energy. Our course will follow up with time management and treat modalities for trauma care.



Prerequisite(s): EMSP 204 - EMS Practicum II (2)

**EMSP 203 - Pre-Hospital Pharmacology (3)**

This course provides topics to include pharmacokinetics, pharmacodynamics, drug calculations, and drug administration. The course provides the cognitive understanding such skills as intravenous cannulation, intraosseous infusion, intramuscular medication injection, and subcutaneous medication injection, intranasal medication administration to mention a few. The student will be working with Crew Resource Management techniques to ensure accuracy with patient care.

Prerequisite(s): EMSP 104 - EMS Practicum (1)

**EMSP 204 - EMS Practicum II (2)**

This course provides the opportunity to observe and apply the skills learned in EMSP 201, EMSP 202, and EMSP 203 in a supervised clinical setting including a local hospital emergency department, respiratory therapy department, and operating room and on a field EMS unit. A minimum of one hundred clinical hours are required and will be scheduled by the student on an individual basis through the EMS Clinical Coordinator.

Prerequisite(s): EMSP 104 - EMS Practicum (1)

**EMSP 204L - EMS Lab II (1)**

This course affords the student the opportunity to apply and reinforce the skills that they have learned in the EMS program to this point in a laboratory setting, concentrating on EMSP 201 and EMSP 203. The student will participate in both scenario based training as well as skill specific review.

Prerequisite(s): EMSP 104 - EMS Practicum (1)

**EMSP 205 - Medical Emergencies I (3)**

This course provides a comprehensive review of the pathophysiology of the cardiovascular system. This will include assessment and treat for cardiovascular emergencies. Within this course you will become fluent with Electro Cardio Grams (ECG) and their interpretations. The course will conclude with a complete 12 Lead understanding and interpretation.

Prerequisite(s): EMSP 204 - EMS Practicum II (2)

Corerequisite(s): EMSP 205L - Medical Emergencies I Lab (1)

**EMSP 205L - Medical Emergencies I Lab (1)**

This course provides a comprehensive review and integration with patient care to the cardiac patient. This will include assessment and treat for cardiovascular emergencies. Within this course you will become fluent with Electro Cardio Grams (ECG) and their interpretations. The course will conclude with a complete 12 Lead understanding and interpretation.

Prerequisite(s): EMSP 204 - EMS Practicum II (2)

Corerequisite(s): EMSP 205 - Medical Emergencies I (3)

**EMSP 206 - EMS Practicum III (2)**

This course provides the opportunity to observe and apply the skills learned in EMSP 205 in a supervised clinical setting including a local hospital emergency department, respiratory therapy, cardiac service, and cardiac care unit and on a field EMS unit. A minimum of one hundred clinical hours are required and will be scheduled by the student on an individual basis through the EMS Clinical Coordinator.

Prerequisite(s): EMSP 204 - EMS Practicum II (2)

### **EMSP 206L - EMS Lab III (1)**

This course affords the student the opportunity to apply and reinforce the skills that they have learned in the EMS program to this point in a laboratory setting, concentrating on EMSP 205 and EMSP 206. The student will participate in both scenario based training as well as skill specific review.

Prerequisite(s): EMSP 204 - EMS Practicum II (2)

### **EMSP 207 - Medical Emergencies II (3)**

This course reviews pathophysiology, assessment and management of medical patients with neurological and endocrinological emergencies, allergies, and anaphylaxis, gastroenterological, urological, toxicological, hematological, and environmental emergencies, infectious and communicable diseases, behavioral, gynecological, and obstetrical emergencies.

Prerequisite(s): EMSP 206 - EMS Practicum III (2)

### **EMSP 208 - Special Patients & Situations (3)**

This course takes an in depth look at the approach to patients with special needs such as neonatal, pediatric and geriatric patients, patients with mental or physical impairments, or patients with high technology medical devices in the out-of-hospital setting.

Prerequisite(s): EMSP 206 - EMS Practicum III (2)

### **EMSP 209 - EMS Practicum IV (2)**

This course provides the opportunity to observe and apply the skills learned in EMSP 207 and EMSP 208 in a supervised clinical setting including a local hospital emergency department, pediatric unit, obstetrical unit, psychiatric unit and on a field EMS unit. A minimum of one hundred clinical hours are required and will be scheduled by the student on an individual basis through the EMS Clinical Coordinator.

Prerequisite(s): EMSP 206 - EMS Practicum III (2)

### **EMSP 209I - EMS Internship (1)**

This course is an internship which takes place in the final weeks at the completion of the EMSP program. The student will be assigned an internship mentor and field unit with whom they will do a minimum of 48 hours, prior to graduation. This internship will give the student a chance to “put it all together” in real to life situations.

Prerequisite(s): EMSP 206 - EMS Practicum III (2)

### **EMSP 210 - Paramedic Capstone (2)**

This course serves as the cumulative review and remedial application of what the student has learned in EMSP 201-209. The course will focus on providing summative evaluation of the student's performance in simulated situations or scenarios. Successful completion of this course is required to obtain recommendation to sit for the National Registry Examination for Paramedic. This course is designed to meet the standards set forth by the National Registry of EMTs.

Prerequisite(s): EMSP 206 - EMS Practicum III (2)

### **EMSP 211 - Field Research and Evaluation (2)**

This course encourages the student to analytically evaluate EMS operations and pre-hospital medical care and to become an advocate for change within the EMS System. A focus of this course is on conducting and evaluating a group and an independent field research project as well as presentation of research results in both written and oral formats.

### **EMSP 288 - Paramedic Summer Practicum (1)**

This class is designed to offer the current paramedic student an additional opportunity to enhance their clinic/field exposure. The student will continue to use their assessment and procedural skills previously learned in a direct patient care environment.

Prerequisite(s): EMSP 204 - EMS Practicum II (2)

### **EMSP 299 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

### **English**

### **ENGL 100 - English Essentials (3)**

This course is designed to introduce students to essential English skills ranging from writing in the rhetorical modes of narration and argument to creating a rudimentary media-based presentation on a short expository essay (in the form of process, definition, or persuasion). Students will draw on accompanying readings. Briefly, instructors will introduce Internet Research, and MLA style will be taught in some depth. In addition to these written skills practiced, students will study and be quizzed on correct grammar, punctuation, and usage.

### **ENGL 100R - Reading Essentials (3)**

The goal of this course is the development of effective college-level reading skills, which will enable the student to be successful in achieving both academic and career goals. The course provides the opportunity to learn and adopt reading skills that will promote success in college. It emphasizes pre-reading and comprehension strategies, identification of main ideas and supporting details, and development of a college-level vocabulary, to foster effective reading habits and application of the skills to diverse texts, including those in a content area.

### **ENGL 100S - Developmental English (1)**

This course is designed as a four-day intensive preparation for entrance into college level English. This course provides students the opportunity to enhance the following skills: grammar, mechanics, punctuation, and word use.

### **ENGL 101 - ~Written English (3)**

This course is an introduction to college writing. The class is designed to develop a student's ability to read a passage, analyze its meaning, and write an intelligent response which shows not only an understanding of the passage but also a working knowledge of the writing and rhetorical strategies.

Prerequisite(s): ENGL 100 - English Essentials (3) or placement test scores

### **ENGL 101L - Written English Lab I (3)**

With an emphasis on mechanics, dictation, and paragraphing, ENGL 101L is designed to provide a co-requisite course of instruction for students enrolled in college-level ENGL 101. The course is open to those who place into developmental education courses with "moderate" proficiencies in English and Writing. Curriculum includes drafting a resume and a brief explanation of APA style; however, all longer pieces will be written in MLA style. There is an emphasis on critical reading and thinking skills, as well as essay writing to complement the work being completed in ENGL 101.

Prerequisite(s): ENGL 100 - English Essentials (3) or placement test scores

Corerequisite(s): ENGL 101 - ~Written English (3)

### **ENGL 102 - ~Writing for the Arts & Hum (3)**

The goals for Writing for the Arts and Humanities are to develop students' critical reading, thinking, and writing skills as they discuss and write about a variety of literary genres: fiction, poetry, and drama. The readings for this course include American, British, and world literature selections, and students will take a thematic approach, as well as studying characteristics of the genres, applying close reading skills, and completing textual analysis. Students will receive instruction in research techniques. In addition, students become familiar with and cultivate an appreciation for stylistic characteristics of each genre and the timeless insights into the human condition provided through reading and study of literature.

Prerequisite(s): ENGL 101 - ~Written English (3)

### **ENGL 110 - ~Technical Writing & Communication (3)**

Students explore techniques for improving the effectiveness of writing and communication common to the business world. Students in the courses have the opportunity to improve their ability to write and communicate through critical thinking, writing, revising, and editing.

Prerequisite(s): ENGL 100 - English Essentials (3) or placement test scores

### **ENGL 110L - Tech Writing & Comm Lab (1)**

This course is designed as supplemental instruction to students who place into developmental education courses with "moderate" proficiencies in English and Writing.

Prerequisite(s): ENGL 100 - English Essentials (3) or placement test scores

Corerequisite(s): ENGL 110 - ~Technical Writing & Communication (3)

### **ENGL 111 - Applied Technical Writing (4)**

Students explore techniques for improving the effectiveness of writing and communication common in the industries of Advanced Manufacturing and Energy. Students have the opportunity to improve their ability to write and communicate through critical thinking, writing, revising, and editing while exploring practical career scenarios.

Prerequisite(s): Must be enrolled in one of the following programs as a degree seeking student: Electric Distribution Engineering Technology Certificate, Electric Distribution Engineering Technology, A.A.S., Electric Utility Technology, A.A.S., Machine Operator/Mechatronics Assistant Certificate, and Mechatronics, A.A.S.

### **ENGL 150 - ~Play Production (3)**

This course will engage students in preparing for producing scenes from major plays, which will then be performed in front of various English classes in which they have been assigned.

### **ENGL 199 - Special Topics**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

### **ENGL 201 - Intro to Literary Study (3)**

This course introduces students to the discourse, practices, and protocols associated with the study of literature. The course is a gateway to upper-division English courses and must be completed with a C or better in order to articulate to an upper-division transfer program.

Prerequisite(s): ENGL 102 - ~Writing for the Arts & Hum (3)

### **ENGL 204 - ~Sur of American Lit (3)**

This course is designed to familiarize students with the rich variety of literature produced in America-- from the Colonial through the Modern periods. Students are exposed to a range of writers and traditions that constitute the diverse and multicultural American experience. In addition to tests and quizzes, students are required to write and

revise at least two critical essays or equivalent writing (one of which is 1,000-word computer drafted minimum); however, instructors are encouraged to assign significant amounts of writing beyond the required minimum in order to facilitate students' continued acquisition of critical thinking, reading, and writing skills.

Prerequisite(s): ENGL 102 - ~Writing for the Arts & Hum (3)

**ENGL 207 - Teach Rdg & Young Adult Lit (3)**

Students will be exposed to reading pedagogy and the methods of teaching reading as well as the young adult literary canon and the reading and oral interpretation of classic and contemporary young adult literature.

Prerequisite(s): ENGL 102 - ~Writing for the Arts & Hum (3)

**ENGL 208 - ~Survey of World Literature I (3)**

This course is designed to familiarize students with great works of world literature—both Western and Eastern traditions—representing Classical, Medieval, and Renaissance periods or non-Western chronological equivalents. Students are exposed to diverse literary traditions through discussion and through critical thinking and writing about significant literary works. In addition to essay tests and quizzes, students are required to write at least one formal, critical essay (1,000-word computer drafted minimum); however, instructors are encouraged to assign significant amounts of writing beyond the required minimum in order to continue to develop students' critical thinking, reading, and writing skills.

Prerequisite(s): ENGL 102 - ~Writing for the Arts & Hum (3)

**ENGL 210 - Creative Writing (3)**

This course will entail both reading and writing in the four literary genres. Students will read text materials in the techniques in and the practice of creative writing and will build a portfolio of their own work, which will contain samples from each of the four genres: poetry, fiction, drama, and literary non-fiction.

**ENGL 211 - Intro to Horror Writing (3)**

In this course, students will learn how to construct a horror premise, create atmosphere, and complete a final product. The course will allow for exploration of individual voice and sub-genre selection. Length impacts will be discussed as a matter of course; however, short stories and sample chapters of a full-length piece will be graded. Beginning with a review of popular authors in the horror genre and an exercise in reading and comparing authors of a similar sub-genre, students will understand their preferences and why they have them. An overall understanding of story construction as it pertains to horror fiction, to include character development, tone, and the use of dialogue, will be amassed by the completion of the course.

Prerequisite(s): ENGL 101 - ~Written English (3)

**ENGL 212 - Shakespeare (3)**

This course is a study of a selection of the great comedies, tragedies, and histories. Emphasis is placed on historical and contemporary Shakespearean criticism.

Prerequisite(s): ENGL 101 - ~Written English (3)

**ENGL 299 - Special Topics (1-3)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

**English as a Second Language**

### **ESL 101 - ESL Transitions I (2)**

This course is designed to assist students whose first language is not English. English mechanics and academic writing are emphasized. This course is designed to provide a foundation for ESL students as they transition into college level writing coursework. Teaching strategies include individualized, conference based instruction, writing assignments and review. The course is live classroom instruction with a personalized blended learning platform and speech trainer features available to students. This is a repeatable course.

### **ESL 102 - ESL Transitions II (2)**

This is a course designed to assist students whose first language is not English. English mechanics and academic writing are emphasized. This course is a foundation for ESL students as they transition into college level writing coursework. Teaching strategies include individualized, conference-based instruction, writing assignment and review. The course is live classroom instruction with a personalized blended learning platform and speech trainer features available to students. This is a repeatable course.

## **Entrepreneurship**

### **ENTR 100 - Intro to Entrepreneurship (3)**

This course is an overview of what is involved in developing a business venture opportunity into a viable business. This course includes how to organize, manage, market, and finance, plus the importance of planning.

### **ENTR 110 - Funding Your Venture (1)**

This course examines methods of funding small business including loans, grants, angel and venture capital. Topics include loan packaging; grants: fact or fiction; Small Business Administration guaranteed loans, traditional bank loans, and micro-lending; credit, capital and collateral; and the advantages and disadvantages of each.

### **ENTR 115 - Marketing for Small Business (2)**

This course will provide techniques and methods for presenting a business venture to a lender, partners, potential funders, and customers. Students will explore how to market ideas to all possible resource partners including branding your business image.

### **ENTR 120 - Business Plan Development (2)**

This course will provide students with necessary skills to plan, develop, and expand a small business. This course will review business plan as a blueprint for business development and growth.

### **ENTR 125 - Entrepreneurship Decisions (1)**

This course places special importance on decision making for the entrepreneurs. Students will examine methods and techniques of critical thinking, as unique to entrepreneurs.

### **ENTR 130 - Opportunities Analysis (2)**

This course prepares students to critically and realistically analyze business ideas for successful implementation. Topics include business research, business planning and financial planning, market demand, cost benefit analysis, knowledge and experience vs business idea.

### **ENTR 135 - WV Real Estate Pre-Licensing (6)**

This course is approved by the West Virginia Real Estate Commission to meet the pre-licensing requirements upon completion to apply to take the WV Real Estate Examination. This course requires additional requirements for college credit including midterm and final grade posting.

### **ENTR 198 - Mentorship (1)**

This course provides students with a one-on-one nurturing and supportive relationship with a cooperating professional in an entrepreneurial-based setting for the purpose of developing specific competencies, insight, self-awareness, wisdom and skills in a way that is unique to needs, personality, learning styles, expectations, and experiences of the people involved. Emphasis will be on developing potential skills and competencies. Sites will vary dependent on emphasis chosen.

#### **ENTR 199 - Special Topics (1-4)**

A special topics course will have a different description for each course offered under this special topics code. The division will keep a record of every special topics course offered with this subject code, including course description.

#### **ENTR 200 - Red Carpet Customer Service (3)**

This course is designed for anyone who wants to bring their business's internal and external customer service to the level of star treatment. Based on the unique ways celebrities are treated, learn techniques you can use to treat your customers to a red-carpet experience, guaranteeing repeat business and stellar word of mouth.

#### **ENTR 292 - Entrepreneurship Capstone (3)**

This capstone course provides opportunity to consolidate and showcase all of the knowledge, skills, abilities, and behaviors acquired throughout the student's entrepreneurship program. Tailored to each individual student's planned venture, this course provides a focused and structured learning experience with responsibility for meeting time lines, making decisions, conducting research, and preparing and making presentation - all skills necessary for successful business ownership.

Prerequisite(s): By advisor approval

#### **ENTR 299 - Special Topics (1-4)**

A special topics course will have a different course description for each course offered under this special topics code. The division will keep a record of every special topics course offered with this subject code, including course descriptions.

### **Financial Management**

#### **FINC 201 - Principles of Finance I (3)**

This course exposes students to corporate finance. Other items covered include risk exposure and the U.S. financial system. Topics touched on will be Time Value of Money and risk.

Prerequisite(s): ACCT 201 - Principles of Accounting I (3) and ECON 205 - Principles of Macroeconomics (3)

#### **FINC 202 - Principles of Finance II (3)**

As a follow up to FINC 201 - Principles of Finance I (3) this class is a continuation. It goes more in depth with corporate finance, banking, international finance, capital budgeting, mergers and acquisitions and the Time Value of Money.

Prerequisite(s): FINC 201 - Principles of Finance I (3)

### **Fire Science**

#### **FSCI 102 - Introduction to Fire Prevention (3)**

A survey of basic fire prevention practices including the history of fire prevention efforts, hazard recognition and abatement, legal aspects of code enforcement, public education program development, research and development of fire safety standards and administration of fire prevention efforts.

**FSCI 110 - Firefighter I (3)**

An introduction to basic firefighting skills and techniques. Equivalent to Firefighter Section I training requirements of the West Virginia State Fire Commission.

**FSCI 111 - Firefighter II (3)**

A continuation of FSCI 110 Introduction to Fire Service I, equivalent to Firefighter Section II training requirements of the West Virginia State Fire Commission.

**FSCI 112 - Hazardous Materials I & II (3)**

This course provides the basic skills required to properly identify hazardous materials and respond in a defensive fashion to contain or control releases of hazardous substances. This course satisfies the OSHA training requirements of 29 CFR 1910.120 for First Responder Awareness and Operations.

Prerequisite(s): FSCI 110 & FSCI 111.

**FSCI 113 - Hazardous Materials III (3)**

This course provides the basic skills required to properly contain and control releases of hazardous materials. This course satisfies the OSHA training requirements of 29 CFR 1910.120 for First Responder Operations.

Prerequisite(s): FSCI 112

**FSCI 114 - Fire Officer I (3)**

This course is designed to provide the first-line officer the basic administrative and emergency operation skills needed for effective management of day-to-day department operations. Topics include fire department structure, leadership, legal aspects, safety, labor relations, budgeting and information management. Equivalent to Officer I training requirements of the West Virginia State Fire Commission.

**FSCI 115 - Life Safety Code (3)**

This course is designed to familiarize students with life safety standards established for various types of buildings. Topics covered include building use and occupancy, calculating occupant load, means of egress requirements, construction type, interior finish materials, and fire protection system requirements.

**FSCI 116 - Fire Instructor I (3)**

Upon successful completion of this course, the student will be able to understand techniques related to teaching.

**FSCI 117 - Fire Instructor II (3)**

Upon successful completion of this course, the student will be able to develop performance objectives, lesson plans, instructional aides, evaluations systems, references and records, and reports.

**FSCI 118 - Fire Officer II (3)**

Upon successful completion of this course the student will be able to find ways to effectively manage human resources, community/public relations, fire department organization and administration including budgets, reports, and planning, fire inspection, investigation, and public education, emergency service delivery, and safety.

**FSCI 119 - Rapid Intervention (3)**

Upon successful completion of this course, the student will be able to breach walls, lift collapsed structural elements, perform hot SCBA changes, and perform valuable self rescue procedures.

**FSCI 120 - Principles of Extrication (3)**



Upon successful completion of this course, the student will be able to identify and safely use vehicle extrication tools on many different types of vehicles.

**FSCI 121 - Driver Operator-Pumper (3)**

Upon successful completion of this course the student will be able to determine how much water is flowing, give the nozzles in service the available pressure and available hose lines, and calculate pressures needed for a supply pumper, relay pumper, and attack pumper.

**FSCI 160 - Blueprint Reading And Plans Review (3)**

This course enables students to read and understand blueprints used for the design and construction of buildings and fire protection/safety systems in various industrial applications. Also covered are plans review techniques and procedures utilized for verifying compliance with various codes and standards.

**FSCI 190 - Fireground Strategy And Tactics (3)**

This course examines the various tactics and strategies utilized during fireground operations. Emphasis is placed on incident command and control, safety, personnel and resource utilization, accountability and communications.

**FSCI 199 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

**FSCI 201 - Structural Design & Building Codes (3)**

This course covers the fundamentals of structural design and the application of building code requirements to various types of buildings. Included is a review of building code requirements as related to occupancy type, construction type, height and area limitations, fire protection system requirements, and use of fire resistive materials.

**FSCI 202 - Flammable and Explosive Materials (3)**

An introduction to the properties of flammable and explosive materials with emphasis on proper storage, handling, and use. Also included are special considerations for mitigation of flammable and explosive material hazards under emergency conditions.

**FSCI 203 - Emergency and Rescue Operations (3)**

This course provides students a fundamental knowledge of operational procedures, personnel requirements, and specialized equipment and resources required for various emergency and rescue operations.

**FSCI 204 - Fire Inspection/Code Enforcement (3)**

A basic understanding of fire and life safety codes, principles and protocol for conducting fire inspections and reporting and abating identified deficiencies.

**FSCI 212 - Toxic, Corrosive, Radioactive Material (3)**

An introduction to the properties of toxic, corrosive, and radioactive materials with emphasis on proper storage, handling, and use. Also included are special considerations for mitigation of toxic, corrosive, and radioactive material hazards under emergency conditions.

**FSCI 230 - Fire Investigation (3)**

This course provides the basic skills needed to conduct fire investigations. Topics covered include fire behavior, fire cause determination, fire scene investigation procedures and techniques, evidence collection and legal aspects. Upon completion of the course, students will be able to identify the origin and cause of a fire by using current fire investigation techniques and conduct a fire investigation in accordance with applicable legal requirements.

**FSCI 242 - Fire Department Administration (3)**

This course is designed to provide a fundamental knowledge of fire department administrative practices. Topics covered include personnel and resource management, financial management, legal aspects, organizational analysis, supervisory practice and strategic planning.

### **FSCI 251 - Fire Service Occupational Safety & Health (3)**

This course is designed to provide students with the skills necessary for development, implementation, and evaluation of a comprehensive fire department occupational safety and health program. Topics include program administration, safety training and education, emergency operations safety, protective clothing and equipment, apparatus safety, medical and physical fitness requirements, and facility safety.

### **FSCI 270 - Fireground Organization And Command (3)**

This course provides an in-depth study of the model incident command system utilized for management of large scale and complex emergency incidents. Included is a review of operations at natural and manmade disasters requiring interagency and/or interjurisdictional coordination. Emphasis is placed on the relationship between the operational function and preparedness, effective response, mitigation and recovery.

### **FSCI 280 - Directed Study (1–6)**

This variable credit course allows students to pursue a Fire Science research project of particular interest. Students registering for this course must have prior approval from the Program Coordinator for Fire Science.

### **FSCI 292 - Internship In Fire Science (3)**

This course involves practical experience in fire service organizations in which the student engages in on-the-site activities of a practical nature. Interns learn how to translate classroom theory and methods into professional skills. Activities are under the supervision of trained personnel. Application for the internship must be made to the fire science program advisor.

### **FSCI 293 - Fire Science On-the-Job-Training (1–13)**

This course is designed to award credit to those persons who have participated in a supervised on-the-job training program in fire science. Credit is awarded upon receipt of a letter from the on-site supervisory stating successful completion of on-the-job training assignments and the total number of actual hours involved in the training.

Hours (Credit hours earned for On-the-Job Training are calculated as 1 credit hour = 150 actual hours. Therefore, a student must work 1950 actual hours to receive 13 credit hours.)

### **FSCI 295 - Fire Science Degree Evaluation (2)**

This capstone course is designed to “put it all together” for the student who is about to graduate with an A.S. in Fire Science. This course will evaluate the student’s knowledge of the program, including but not limited to: chemistry, industrial fire protection, emergency management, basic fire suppression, strategies and tactics, fire investigation, and management practices.

### **FSCI 299 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

### **Gaming Careers Institute**

### **GAME 100 - Introduction to Table Games (1)**

This course covers the general responsibilities of the dealer and is a pre-requisite for other table games training courses. Emphasis is placed on correct chip handling techniques, identifying the value of each color chip, learning to read the total value of a bet, and pit procedures.

### **GAME 101 - Blackjack (2)**

This course covers the fundamentals of dealing Blackjack. Emphasis is placed on card totaling, chip handling and cutting, card shuffling and card placement. Attention is given to game and accounting procedures, accuracy, and speed.

### **GAME 102 - Midi Baccarat (2)**

This course is designed to train students in all aspects of dealing Midi Baccarat. Students will learn about the equipment used, the rules and object of the game, check handling and odds. Extensive hands on training is used to assist students in mastering all aspects of this exciting game.

### **GAME 103 - Poker (2)**

This course covers the fundamentals of dealing Poker. Instruction is provided in the fundamentals of rake/antes/blind bets, game rules and regulations, dealer's responsibilities and game security.

### **GAME 104 - Roulette (2)**

This course covers the fundamentals of dealing Roulette. Emphasis is placed on chip handling, table layout, accurate and quick mental multiplication, and accuracy in clearing the table.

### **GAME 105 - Craps (4)**

This course covers the fundamentals of dealing craps. Emphasis is placed on the knowledge of the procedures on a variety of bets, accurate and quick mental multiplication and chip handling. Special attention is given to game procedures, accounting procedures, accuracy and speed.

### **GAME 106 - Novelty (2)**

Novelty Game training focus' on a group of highly popular games including Let It Ride, Three Card Poker, Four Card Poker, Texas Hold Em Bonus, and the Big Six. Students will learn skills such as card delivery, rule sets, and payout structures for all five games.

### **GAME 199 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

### **GAME 299 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

## **General Education**

### **CGEN 100 - First Year Experience (3)**

This course will focus on crucial components for the first year of higher education: reading skills, study skills, critical thinking, and good habits for success. This course will provide the student with systematic exposure to successful study skills and will emphasize adaptation to individual learning styles. In addition, students will be required to apply critical reading and thinking skills to a variety of activities drawn from academic disciplines, contemporary issues, and individual life experiences.

### **CGEN 101 - Career Transition (3)**

This course will provide a foundation of career development skills and exploration of life planning issues. Components will include self-assessment, academic exploration, study of career fields, and information

interviewing. Job search areas of the course would include networking, resume and correspondence, writing interview preparation, job search etiquette, decision-making, work transition, and using the Internet in your search.

### **CGEN 110 - Portfolio Development I (2)**

The Portfolio Development course is designed to assist adult students with the development of a comprehensive portfolio documenting knowledge acquired through life/work experiences and other formal or informal learning experiences. Students are guided through a series of group sessions on learning style, college level learning, skill identification, goal setting, adult development and career changes and the portfolio development process.

Prerequisite(s): Grade of C or better ENGL 101.

This is a Pass/Fall course and will not affect the GPA; however, two credit hours are earned upon passing this course.

### **CGEN 111 - Portfolio Development II (1)**

This is the second half of a two-course series. In this course, the student is responsible for the development of a written portfolio, which provides the description, analysis, and documentation of learning experiences appropriate for his/her own educational program of study. There is a \$300 Portfolio fee attached to this class.

Prerequisite(s): CGEN 100.

This is a Pass/Fall course and will not affect the GPA; however, one credit hour is earned upon passing this course.

### **CGEN 115 - Technology Orientation (1)**

Technology Orientation will train students to easily identify and use online content, which has a high priority for higher education institutions today. The course will focus on technology-enhanced educational methodologies to provide students with the skills they must develop to be successful in the academic environment. They will also develop familiarity with an online learning environment and online resources.

### **CGEN 116 - Developing Computer Fluency (3)**

Developing Computer Fluency helps students develop skills necessary to work with computers at home, at school, and in the workplace. This course will introduce the student to computer terminology and help develop the skills necessary to succeed in the academic environment and workplace. Students will be introduced to word processing, spreadsheets, databases, and presentation software. It will train students to easily identify and use online content, which is a high priority for higher education institutions today. Students will also develop a familiarity with an online environment and online resources.

### **CGEN 120 - Student Leadership Academy**

This course provides students with hands-on experience on being a leader, working together, on a team, being responsible, serving as a liaison, and representing a large group of individuals and their views on specific issues. The student will also receive encouragement to grow personally, academically, and to be an active member within the community.

### **CGEN 199 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

### **CGEN 200 - Learning Online (1)**

This course provides the necessary foundation for students to be successful in an online course environment. Required technical skills will be discussed and assessed, as well as study skills, time management techniques, and specific exceptions for teaching and learning online. An overview of the learning management system and directions for its use will also be covered.

### **CGEN 292 - Field Experience (1-6)**

This is a capstone course in experimental learning. A student participates in an intensive internship, externship, or cooperative with an appropriate agency, company, or organization. This course is for students pursuing a degree in Applied Technology.

Prerequisite(s): Must have completed over half of the requirements for degree completion and have above a 2.0 Overall GPA.

#### **CGEN 299 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

#### **CMTC 156 - Real Estate (6)**

This class will include the major aspects of real estate from broad perspectives through “fine print” detail. Acquire a ready understanding of legal and technical concepts, documents, and successful procedures. This course includes and satisfies the state requirement of 90 mandatory hours classroom study in real estate.

#### **CMTC 199 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

#### **CMTC 299 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

#### **General Physical Education**

##### **GSPE 124 - Zumba (1)**

Zumba combines Latin and International music with a fun and effective high energy workout. Come Join the Party! Sneakers required and bring water.

##### **GSPE 129 - Beginning Tap Dancing (1)**

This course will introduce the student to basic beginner level terminology and tap exercises. This course will be primarily a physical education/activity based course with some written supplementary activities to augment understanding of terminology and performance. It is mandatory for each student to have tap shoes.

##### **GSPE 147 - Women’s Self-Defense (1–2)**

This class is a beginner-level women’s self defense class that is tailored to suit the needs of the students. Students will use exercise activities to gain awareness of their surroundings, increase self-confidence, identify danger areas, develop poise, and achieve a positive state-of-mind. The skills gained in this class can be applied to everyday life. Principles of self defense will be learned in a controlled simulated environment with cool down exercises to relieve stress through partner stretching. Loose fitting clothing is recommended.

##### **GSPE 197 - Beginning Yoga (1–2)**

This class is a beginner-level hatha yoga class is based on teachings by B.K.S. Iyengar that uses yoga to unite the movement of the body with the rhythm of the breath through continuous exploration of pranayama/mantras, sun salutations, standing and balancing postures, back and forward bends, twists, hip openers, inversions, and meditation. A yoga mat and yoga block are required. A yoga strap and wool blanket are recommended.

##### **GSPE 198 - Intermediate Yoga (1–2)**

This class is an intermediate hatha yoga class based on teachings by B.K.S. Iyengar that uses yoga to unite the movement of the body with the rhythm of the breath through continuous exploration of pranayama/mantras, sun salutations, standing and balancing postures, back and forward bends, twists, hip openers, inversions, and meditation. A yoga mat and yoga block are required. A yoga strap and wool blanket are recommended.

#### **GSPE 199 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

#### **GSPE 204 - Walking and Fitness (1)**

This course develops a foundation for good health and wellness that must be maintained on a daily basis and throughout life. The course lecture emphasis is on fitness as an investment and a building block to a successful life. Topics include principles of walking and wellness and developing a lifestyle that includes walking. Students must participate in regularly scheduled walks, including homework. Students must demonstrate improved walking pace and timing as the course progresses.

#### **GSPE 210 - Fitness for Life (3)**

This course is designed to assist participants in developing a healthier lifestyle through appropriate exercise programs, nutrition and behaviors that contribute to optimal health and wellness.

#### **GSPE 299 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

### **Geography**

#### **GEOG 105 - ~World Cultural Geography (3)**

This course introduces students to fundamental issues and concepts that explain the dynamic and complex relationships between people and the environments they inhabit. Students will explore the ways in which geography affects human settlement, health, diets, language, religion, and overall social, political, and economic development.

Prerequisite(s): ENGL 100 - English Essentials (3) or placement scores

### **Geology**

#### **GEOL 101 - ~Geological Sciences (4)**

A combined course in physical and historical geology dealing with the composition, structure and history of planet Earth. Minerals, rocks, tectonic processes, and physical characteristics of the earth's surface will be emphasized in the physical component. Evolution, fossils, and the changing conditions and organisms throughout geologic time constitute the historical component. Three hours lecture and two hours lab per week.

### **Health Information Management**

#### **HIM 101 - Health Info Management (2)**

This course focuses how the Electronic Health Record and a philosophy of patient centered care are currently impacting Healthcare Information professionals and the patients they serve.

#### **HIM 102 - Classification Sys 1 ICD-10 (3)**

The focus will be on diagnosis and inpatient procedure coding using ICD 10/PCS for the purpose of reimbursement for services and healthcare statistical research.

Prerequisite(s): and MAST 102 - Medical Terminology (3)

**HIM 199 - Special Topics (1-6)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

**HIM 201 - Classification Sys II CPT (3)**

The focus will be on the CPT/HCPCS coding classification system used for outpatient/professional fees and ambulatory billing of medical service provided to the patient.

Prerequisite(s): HIM 102 - Classification Sys 1 ICD-10 (3)

**HIM 201L - Practicum I: ICD 10 CM & CPT 4 (2)**

The Practicum I provides practice with code assignments and billing methodologies, including projects and cases that replicate typical coding tasks in a physician's office, hospital outpatient clinic, ambulatory surgery, and hospital acute care setting that employ coding professionals.

Prerequisite(s): BIOL 100 - The Human Body (3) , HIM 101 - Health Info Management (2), HIM 102 - Classification Sys 1 ICD-10 (3), and MAST 102 - Medical Terminology (3)

Corerequisite(s): HIM 201 - Classification Sys II CPT (3)

**HIM 202 - Computers in Healthcare (2)**

This course explores computer technology and system applications in healthcare.

Prerequisite(s): HIM 102 - Classification Sys 1 ICD-10 (3)

Corerequisite(s): HIM 202L - Practicum II: ICD 10/PCS (2)

**HIM 202L - Practicum II: ICD 10/PCS (2)**

The Practicum II explores scenario based inpatient coding and reimbursement in the HIM field with utilization of Hospital EHR/Encoder simulation.

Prerequisite(s): HIM 102 - Classification Sys 1 ICD-10 (3)

Corerequisite(s): HIM 202 - Computers in Healthcare (2)

**HIM 203 - Basic Pharmacology for HIM (2)**

This course emphasizes general pharmacology for HIM professionals; covers general principles of drug interactions, adverse reactions, major drug classes and specific agents within each class.

Prerequisite(s): CAS 111 - Information Literacy (3) and HIM 102 - Classification Sys 1 ICD-10 (3)

**HIM 204 - Healthcare Law & Ethics (3)**

This course focuses on legal requirements associated with health records documentation.

Prerequisite(s): HIM 102 - Classification Sys 1 ICD-10 (3) and placement into ENGL 101 or ENGL 110

**HIM 205 - Performance Improvement/HC (3)**

This course focuses on performance improvement, resource management, and risk management in healthcare settings.

Prerequisite(s): HIM 102 - Classification Sys 1 ICD-10 (3)

### **HIM 206 - HIM Supervision (2)**

This course focuses on supervision and management principles with emphasis on the application of these principles in the health information management setting.

Prerequisite(s): HIM 102 - Classification Sys I ICD-10 (3)

### **HIM 207 - Advanced Coding (3)**

This course stresses advanced coding skills through practical exercises using actual medial records.

Prerequisite(s): HIM 201 - Classification Sys II CPT (3)

### **HIM 208 - Practicum III: Externship (3)**

The HIM Internship is designed to give the student an opportunity to observe and perform hands on tasks related to Health Information Management. The student will be placed in a community healthcare setting coordinated by the school.

Prerequisite(s): HIM 201 - Classification Sys II CPT (3) and HIM 202 - Computers in Healthcare (2)

### **HIM 209 - Capstone (2)**

The capstone is an opportunity for the student to demonstrate that they have achieved the goals for learning established by the educational institution and major department. This course will include review, prep, and certification exam.

Prerequisite(s): CAS 111 - Information Literacy (3), COMM 205 - ~Professional Communications (3), HIM 201 - Classification Sys II CPT (3), and HIM 202 - Computers in Healthcare (2)

### **HIM 210 - Healthcare Statistics (1)**

This course covers the general principles of healthcare statistics with an emphasis in hospital statics.

Corerequisite(s): HIM 205 - Performance Improvement/HC (3)

### **HIM 299 - Special Topics (1-6)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

## **History**

### **HIST 101 - ~World History to 1500: Early Man Through the Renaissance (3)**

This course is a survey of World History covering the development of ancient civilizations and cultures to the year 1500, beginning with prehistoric humans and the rise of the first civilizations, including Ancient Mesopotamia, Egypt, the Indus River Valley, and Early China. Continuing with the Classical Era, the survey encompasses the Greek and Roman, Indian, Japanese, and Saharan African Civilizations. The course then examines World Civilizations in the Middle Ages, including the Middle East, Europe, Asia, the Americans, and Africa, before concluding with the European Renaissance. The course compares the development and philosophical foundations of all the major world religions including Judaism, Hinduism, Buddhism, Christianity, and Islam, as well as the major political, economic, social, and cultural systems to the year 1500.

### **HIST 102 - ~World History Since 1500: The Renaissance Through the Present (3)**

This course is a survey of World History from the European Renaissance to the present. At the beginning of the course, developments in the Western World between 1500 and 1800 receive special attention, including the



Renaissance, Reformation, Scientific Revolutions, Age of Exploration, Enlightenment, colonization of America, and the transition from mercantilism to capitalism. Having identified the dramatic transition taking place in the West, the course then looks at the impact of those changes around the globe through the trans-Atlantic Slave Trade, political revolutions in the Americas, and Europe, industrialization, 19th century imperialism, world wars I and II, communist revolutions, the rise of fascism, the Cold War, and the 19th and 20th century decolonization efforts in India, Africa, Southeast Asia, and the Middle East. The course closes with a review of economic and political globalization since the 1970s. Thematically, the course explores the nature of political, economic, and technological power and the relationship of that power to issues of race, class, gender, religion, and environment.

### **HIST 199 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

### **HIST 201 - ~US History to 1877 (3)**

This course will introduce students to the period of United States History until the end of Reconstruction. Special emphasis will be placed upon the political, economic, and social aspects of the nation from the Colonial period until the Civil War era.

### **HIST 202 - ~US History Since 1877 (3)**

This course will explore the Post-Reconstruction era of United States History. Special emphasis will be placed on the political, economic, and social effects upon the United States during the Gilded, Progressive, Depression, World War, and Cold War eras.

### **HIST 206 - American Women's History (3)**

This course introduces students to the experience of women in American society from the colonial period to present. Women's struggle for social, economic, and political equality will be a major focus of the course, as well as class distinctions, race, and ethnicity. Other topics include gender roles, family, feminism, and women's art and literature.

### **HIST 207 - African American History (3)**

This course introduces students to the history of African Americans from the 16th century to present. Economic, political, and cultural influences on the black historical experience will be studied as well as historical factors that shape black cultural identity. Major topics include slavery in the New World, black migration, the Civil Rights Movement, race relations, black nationalism, and African American artists.

### **HIST 210 - ~WV and Appalachian History (3)**

This course studies diverse elements of the history of West Virginia including economic, cultural, geographic, and political factors that have impacted the development of the state since the colonial period. Emphasis will be placed on patterns of colonial settlement, the statehood movement, industrialization and exploitation, and current conditions in the state and Appalachian region. A survey of West Virginia will be conducted in relation to the Appalachian region, the nation, and the world.

### **HIST 299 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

## **Human Services**

### **HSRV 101 - Intro to Human Services & SW (3)**

Students will be introduced to human services and the major policies and practices used to understand human services as a profession. Students will study the evolution and history of human services and social welfare policy.

Students will begin the process of self-awareness and growth in relation to helping others. The course explores the skills, ethics, values, and knowledge needed to work effectively as a culturally competent human service professional in a multidisciplinary setting.

Prerequisite(s): PSYC 203 - ~Introduction to Psychology (3) and SOCI 203 - ~General Sociology (3)

**HSRV 201 - Interview, Intake, Case Mgmt (3)**

This course focuses on case management and the interviewing process. Students develop a basic understanding of the concepts and processes of case management. The course will focus on documentation, the interview, assessment, developing a service plan, managing information, problem solving, networking, monitoring services, referral and successful termination, and discharge. Students will study and apply various interviewing, intake, and assessment techniques specifically used in the human services field as well as topics relevant to interviewing, such as confidentiality, recording of interviews and nonverbal communication.

Prerequisite(s): HSRV 101 - Intro to Human Services & SW (3)

**HSRV 210 - Ethics, Values, Cultural Compt (3)**

This course provides a framework of human services practice intended to prepare students for their actual experience in a human services agency. Students will explore moral, cultural, and ethical issues in the human services and addiction counseling fields, as well the core concepts related to ethics. Students will learn the historical development of informed consent and the codes of conduct, examining legal obligations and ethical codes, exploring ethical dilemmas and decision making, and becoming a culturally competent worker.

Prerequisite(s): HSRV 101 - Intro to Human Services & SW (3)

**HSRV 220 - Practicum/Field Work I (3)**

Students participate in a supervised practicum experience in a community agency to develop an awareness of issues that arise in the human service field. Students will also participate in weekly classroom meetings for additional personal/professional support, supervision, feedback, and exploration of field-related experiences. This gives students the opportunity to enhance knowledge and skills related to specific client populations. Confidentiality, professionalism, ethical principles, self-awareness, and critical thinking skills will be emphasized. Supervision of skill development and an introduction to the network of community services will be introduced.

Prerequisite(s): HSRV 101 - Intro to Human Services & SW (3)

Corerequisite(s): HSRV 201 - Interview, Intake, Case Mgmt (3) and HSRV 210 - Ethics, Values, Cultural Compt (3)

**HSRV 230 - Community Org & Advocacy (3)**

This course will develop an understanding of the history and values of community resources designed to meet the needs of at risk populations. Students will learn key principles, strategies, and hands-on skills frequently used in human service advocacy. This course will explore ways through which groups advocate for themselves and help build organizations and develop communities. The course highlights strategies used in advocacy, and the challenges and dilemmas organizers face in the field. Emphasis will be on agency, legislative, legal and community advocacy. The course will connect students with local social service agencies/organizations and provide them with information about making appropriate referrals for services.

Prerequisite(s): HSRV 101 - Intro to Human Services & SW (3)

**HSRV 240 - Research in Human Services (3)**

This course introduces current research methods and techniques used in the human service field, with an emphasis on evidence-based practice. This course provides students with a basic theoretical understanding of research, practical aspects of research, and ethical and diversity considerations necessary in the proper implementation of research.

Prerequisite(s): HSRV 101 - Intro to Human Services & SW (3)

**HSRV 250 - Crisis Intervention (3)**

This course prepares students to give immediate help to people experiencing crises and introduces the basic theories and principles of crisis intervention. Emphasis is placed on identifying and demonstrating appropriate and differential techniques for intervening in various crisis situations. Presents material on initial intervention, defusing and assessment, and resolution and/or referral, with emphasis on safety.

Prerequisite(s): HSRV 101 - Intro to Human Services & SW (3) or CJST 200 - Intro Crim Justice Sys (3)

**HSRV 260 - Introduction to Addiction (3)**

This course will present an overview of substance use disorders, addictive disorder, chemical dependency, and the addictive process. This course provides an introduction to the history, theories, current research and treatment practices, and the nature of successful recovery and prevention concepts. Students will also learn the influence of family history, culture, state and federal laws, ethical issues, and current treatment options.

Prerequisite(s): HSRV 101 - Intro to Human Services & SW (3)

**HSRV 270 - Psychopharm of Addiction (3)**

This course studies behavioral and cognitive effects of psychoactive drugs, including both illicit drugs and use of drugs in treating psychological disorders. Content includes psychology and physiology of addictions, information on drug use, misuse, abuse, and addiction, socially abused chemicals and historical background, pharmacology, psychological and physiological effects, medical uses, dependence patterns and toxicity.

Prerequisite(s): HSRV 260 - Introduction to Addiction (3)

**HSRV 292 - Practicum/Field Work II (3)**

This course is a capstone course in experiential learning within a community human service agency. Students observe and learn from working professionals and apply knowledge and theory from the classroom to supervised work in community settings. This course provides opportunities to identify and practice skills in the areas of interviewing, communications, human relations, research, ethics, and professional standards required of human services. Students will participate in a once-weekly classroom meeting to review fundamental principles of practice and are provided opportunities to discuss varying topics.

Prerequisite(s): HSRV 220 - Practicum/Field Work I (3)

**Information Technology**

**IT 105 - Computer Ethics (3)**

This course is designed to educate existing and future Information Technology professionals on the tremendous impact ethical issues have on the use of information technology in the modern business world. The topics covered include; an overview of Ethics, Ethics for IT professionals and IT users. Computer Internet and Crime, Privacy, Freedom of Expression, Intellectual Property, Software Development, Employer/Employee Issues, and individual case examinations to more closely represent real-life examples of each of these topics.

**IT 111 - Info Lit for IT Professionals (3)**

This course covers a variety of introductory computing knowledge including how personal computers work, hardware components, operating systems, and the most popular productivity applications including word processing, spreadsheets, and presentation software. Students will also be introduced to Internet and e-mail essentials, and will become familiar with networking basics. The field of CyberSecurity, Networking and Information Technology will be explored. The mathematical concepts of binary and hexadecimal numbering systems will also be discussed.

Prerequisite(s): Computer Application Specialist, A.A.S., Computer Network Engineering Technologies, A.A.S., Cyber Security, A.A.S., and Information Technology, A.A.S. majors only.

**IT 180 - A+ Hardware Essentials (3)**

This course prepares students with skills needed to be successful computer repair technician and also prepares students for CompTIA's A+ certification exams. In this course students identify components, develop techniques used to diagnose hardware problems, configure PC components, and replace defective computer parts. Students also experience installing mother boards, configuring multiple hard drives, adding peripheral devices, configuring network connectivity, solving basic printer problems, and modifying BIOS settings. Diagnostic software and hardware procedures are included. The CompTIA hardware certification exam will be taken as the final in this course.

Prerequisite(s): IT 111 - Info Lit for IT Professionals (3)

**IT 181 - A+ Software Essentials (3)**

This course provides installation, configuration, support and troubleshooting of PC desktop, laptop and mobile device operating systems. Students also prepare for CompTIA's A+ certification exams. Topics include hardware requirements for installation, upgrades, customizing the user environment and memory, installing software, troubleshooting the boot process, recovery from OS crashes, preparing mobile devices for end-users. The fundamentals of introductory networking topics include OSI model, connecting through wireless/wired networks, and TCP/IP protocols, addressing and troubleshooting tools. The CompTIA software certification exam will be taken as the final in this course.

Prerequisite(s): IT 180 - A+ Hardware Essentials (3)

**IT 185 - Introduction to Linux (3)**

This course will prepare students to work with the Linux operating and help them prepare for the Linux+ CompTIA certification exams. Students will install three different Linux operating systems and complete many hands-on lab exercises.

Prerequisite(s): IT 111 - Info Lit for IT Professionals (3)

**IT 188 - Introduction to Programming Logic (3)**

This course introduces the basic concepts of programming logic. Students will examine the basic constructs of selection, sequence, and repetition, abstract data structures of records, arrays, and linked lists, and file access methods.

Corerequisite(s): IT 111 - Info Lit for IT Professionals (3)

**IT 191 - Practicum (1)**

This course will cover testing methodologies and study techniques to assist in preparing students for the Network+ certification exam.

Prerequisite(s): CNET 121 - Network+ (3)

**IT 192 - Introduction to Programming in Visual Basic (3)**

This course familiarizes the student with the Visual Studio environment using Visual Basic. Students will use Foundation Class libraries to develop simple applications.

Prerequisite(s): IT 188 - Introduction to Programming Logic (3)

**IT 193 - Intro to Programming C# (3)**

This course provides students with a thorough understanding of the basic principles of C# programming language. It covers the basic syntax and structure of the language with an emphasis on problem solving techniques. Students create programs using input/output statements; if, while, do while, and for-loop logic structures; arrays, functions, pointers and reference variables, record structures, header files, file I/O, and basic object-oriented programming techniques. Students will be able to recognize and correct common programming errors.

Prerequisite(s): IT 188 - Introduction to Programming Logic (3)

### **IT 194 - Introduction to Programming Java (3)**

This course provides students with a basic understanding of the principles of JAVA programming. It covers syntax, structure and emphasizes problem solving techniques. Students create programs using input/output statement; if, while, do while, and forloop logic structures; arrays, functions, and basic object oriented programming techniques. Students will be able to recognize and correct common programming errors.

Prerequisite(s): IT 188 - Introduction to Programming Logic (3)

### **IT 199 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

### **IT 204 - Windows Fundamentals (3)**

This course will introduce students to the fundamentals of Windows desktop operating systems in a networked environment. Students will learn about system imaging, windows deployment, unattended installations, TCP/IP from the Microsoft® perspective, fundamental networking skills, file and folder permissions, file and print services, hyper-v, and VMware® virtualization.

Prerequisite(s): IT 111 - Info Lit for IT Professionals (3)

### **IT 205 - Developing & Implementing Web Applications w/MS Visual Basic .NET & Visual Studio .NET (4)**

This instructor-led course teaches Microsoft Visual Basic® programmers and beginning web developers the fundamentals of web application site implementation by using Microsoft ASP.NET and Microsoft Visual Basic .NET. This course focuses on using the Microsoft Visual Studio® .NET environment and the Microsoft .NET platform to create an ASP.NET web application that delivers dynamic content to a website.

### **IT 208 - Administering SQL Server (3)**

This course provides students with the knowledge and skills required to install, configure, administer, and troubleshoot the client-server database management system of Microsoft® SQL Server.

### **IT 209 - Designing and Implementing Databases with SQL Server (3)**

This course provides students with the technical skills required to program a database solution by using Microsoft® SQL Server.

Prerequisite(s): IT 208.

### **IT 210 - Help Desk Technician (3)**

This course prepares the student to help and support non-technical people with computer related problems in the workplace. Students will learn the fundamentals of help desk organization; the role of technology and computer support personnel in a business organization; software technologies to track and monitor the help desk infrastructure; integration of telephony and web-based support into the help desk environment; effective use of basic tools and technologies required for end user support; and positive, effective methods for meeting customer expectations and needs.

Prerequisite(s): IT 180 - A+ Hardware Essentials (3)

**IT 243 - Programming with Python (3)**

This course provides an introduction to the Python language. Students will explore its most important libraries and practice recommended programming styles and idioms. A hands-on approach to how the various language features can be used together to best achieve efficient, secure programs. Topics covered include: Variables, Expressions and Statements; Data Structures: Lists, Dictionaries, Tuples; Functions and Arguments; Conditionals and Recursion; Strings and Regular Expressions; Object Oriented Development: Classes, Inheritance; Iterators, Generators and Decorators. This course is not intended for absolute beginners in programming, but includes a self-contained review of elementary features.

Prerequisite(s): IT 188 - Introduction to Programming Logic (3)

**IT 254 - Distributed Applications with Visual Basic (3)**

Students apply the Microsoft Solution Framework to a multi-tier environment, creating a user interface, COM DLLs, and Active X data objects using Visual Basic.

Prerequisite(s): IT 255.

**IT 255 - Desktop Applications with Visual Basic (3)**

This course introduces user interface design, including control arrays, menu basics and data validation. Students use VB classes to model business objects. COM objects and Active X basics are introduced.

Prerequisite(s): IT 192 and IT 251.

**IT 260 - Introduction to Oracle (3)**

This course offers students an extensive introduction to data server technology. The class covers the concepts of relational databases and the powerful SQL and PL/SQL programming languages. Students are taught to create and maintain database objects and to store, retrieve, and manipulate data. In addition, students learn to create PL/SQL blocks of application code that can be shared by multiple forms, reports, and data management applications. Demonstrations and hands-on practice reinforce the fundamental concepts.

**IT 261 - Oracle Forms I (3)**

In this course, participants build and test interactive applications consisting of one or more Oracle forms modules. Working in a graphical user interface (GUI) development environment, participants will build a complete forms application. In the process, participants learn how to customize forms with graphical user input items, such as check boxes, list items, and radio groups. They also learn how to modify data access by creating event-related triggers.

Prerequisite(s): IT 263.

**IT 262 - Oracle Reports (3)**

In this course, participants learn to develop a variety of standard and custom reports using Oracle Reports in a client/server environment. Class exercises guide participants in retrieving, displaying, and formatting data in numerous reporting styles such as tabular, break, master/detail, matrix, and form letter reports. Participants will also customize their reports by combining text and graphics with quantitative data to meet specific business requirements.

Prerequisite(s): IT 264.

**IT 263 - Oracle Program Units (2)**

This course enables participants to learn how to write PL/SQL procedures, functions, and packages. Working in both the Procedure Builder and the SQL\*Plus environments, participants will learn how to create and manage PL/ SQL program units and database triggers. Participants will also learn how to use some of the Oracle-supplied packages.

Prerequisite(s): IT 260.

### **IT 264 - Oracle Forms II (2)**

This course instructs technical professionals on how to broaden their skills with Oracle Forms. The course makes extensive use of complex Oracle Forms concepts.

Prerequisite(s): IT 261.

### **IT 269 - Project Management (3)**

This comprehensive course examines the various models used to develop and control the Work Breakdown Structure (WBS), Schedule, and Cost. Additionally, the class will perform analysis on the time, cost models, and evaluate the outcome. There will be case problems and labs utilizing MS Project as the project management process tool.

Prerequisite(s): IT 111 - Info Lit for IT Professionals (3), ENGL 110 - ~Technical Writing & Communication (3), and completion of a minimum of 45 credits

### **IT 270 - Instl,Config,Admin Win Oper Sy (3)**

This course will prepare students to install, configure, and administer Windows Vista. The student will possess the knowledge and skills to configure Windows Vista for optimal performance on the desktop, including installing, managing, and configuring the new security, network, and application features in Windows Vista.

Prerequisite(s): IT 204 .

### **IT 285 - Advanced Linux (3)**

This course will be a continuation course to IT 185 Introduction to Linux. More advanced concepts will be presented to prepare the student for the Linux+ certification exam from CompTIA (Powered by LPI), and is geared toward the those interested in systems administration as well as those who will use or develop programs for Linux systems. This course provides comprehensive coverage of topics related to Linux certification, including Linux distributions, installation, administration, X-windows, networking and security.

Prerequisite(s): IT 185 - Introduction to Linux (3)

### **IT 289 - Plan & Maintain MWS Infastruct (3)**

The goal of this course is to provide students with the knowledge and skills necessary to plan and maintain a Windows® Server network infrastructure.

Pre-requisite/Co-requisite(s): IT 270 - Instl,Config,Admin Win Oper Sy (3)

### **IT 290 - Manage & Maintain MWS (3)**

This course provides students with the knowledge and skills that are required to manage accounts and resources, maintain server resources, monitor server performance, and safeguard data in a Microsoft Windows Server™ environment.

### **IT 291 - Implmnt, Mge&Mntain MWS Infact (3)**

This course provides students with the knowledge and skills to implement, manage, and maintain a Microsoft Windows Server™ network infrastructure. The course is intended for systems administrator and systems engineer candidates who are responsible for implementing, managing, and maintaining server networking technologies.

Pre-requisite/Co-requisite(s): IT 290 - Manage & Maintain MWS (3)

**IT 292 - Field Experience (3)**

This is a capstone course. A student participates in an intensive internship, externship, or cooperative with an appropriate agency, company, or organization. Students will also develop resume building skills, portfolio development skills, job interview skills, job search skills, and certification preparation. Students are required to participate in mandatory live meetings that are announced prior to the start of the semester.

Prerequisite(s): IT 191 - Practicum (1)

**IT 294 - Plan,Impl,&Main MWS Active (3)**

This course includes self-paced and instructor-facilitated components. It provides students with the knowledge and skills to successfully plan, implement, and troubleshoot a Microsoft Windows Server™ Active Directory® directory service infrastructure. The course focuses on a Windows Server service environment, including forest and domain structure, Domain Name System (DNS), site typology and replication, organization unit structure and delegation of administration, Group Policy, and user, group, and computer account strategies.

Pre-requisite/Co-requisite(s): IT 291 - Implmnt, Mge&Mntain MWS Infact (3)

**IT 298 - Design Security MWS Network (3)**

This course provides the student with the knowledge and skills to design a secure network infrastructure. Topics include assembling the design team, modeling threats, and analyzing security risks in order to meet business requirements for securing computers in a networked environment. The course encourages decision-making skills through an interactive tool that stimulates real-life scenarios that the target audience may encounter. The student is given the task of collecting the information and sorting through the details to resolve the given security requirement.

Pre-requisite/Co-requisite(s): IT 291 - Implmnt, Mge&Mntain MWS Infact (3)

**IT 299 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

**Instrumentation**

**INST 165 - Instrumentation I (2)**

This course explores basic instrumentation concepts and electrical process control. Topics include: instrumentation history and fundamentals, safety, instrumentation classification, power sources, operation of instrumentation systems (pneumatic, electrical, and electronic) and applications in the workplace. Standard maintenance procedures, and installation and calibration practices will be introduced on state the art training equipment.

**INST 199 - Special Topics (1-4)**

A special topics course (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

**INST 265 - Instrumentation II (3)**

This course explores the analysis and control of process control systems. Topics include: safety, control device fundamentals, control loops, data acquisition and transmission, troubleshooting, record keeping, and report writing.

Prerequisite(s): INST 165 - Instrumentation I (2)



### **INST 299 - Special Topics (1-4)**

A special topics course (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

### **Language**

#### **LANG 101 - Sign Language I (3)**

In this course, students develop communicative capabilities utilizing American Sign Language (ASL). In addition to learning about Deaf Culture, students will acquire functional sign phonology, vocabulary, and grammatical skills adequate to receive and convey information and ideas in professional and social situations.

#### **LANG 102 - Sign Language II (3)**

Continued sign vocabulary growth, with introduction to idiomatic phrases. Emphasis on use of classifiers, expression, body postures, and the signing space.

Prerequisite(s): LANG 101 - Sign Language I (3)

#### **LANG 103 - Sign Language III (3)**

This course is a continuation of Sign Language II. The course emphasizes grammar, vocabulary, development and the deaf culture. Students will expand dialogues, short stories, narratives, short conversations that include both receptive and expressive skills. Emphasis will be placed on signing techniques as well as signing speed and accuracy.

Prerequisite(s): LANG 102 - Sign Language II (3)

#### **LANG 104 - Sign Language IV (3)**

This course provides a continuation of instruction in the grammatical features of American Sign Language (ASL), vocabulary development, and conversational skills. Students increase comprehension of medium and longer stories, narratives and dialogues presented by the instructor and deaf ASL users. Students express self-generated stories. Students are presented with hypothetical issues and problems, as well as more extensive exposure to the Deaf community, including both directed and non-directed activities.

Prerequisite(s): LANG 103 - Sign Language III (3)

#### **LANG 105 - Deaf Culture & History (3)**

This course gives an understanding of the Deaf Community and Culture and reviews the history of Deaf education in the United States as well as how technology has impacted the Deaf community. The course discusses important topics like languages, communication methods, laws concerning the Deaf, professions within the Deaf community, and education. Deaf history explores the foundation of the first deaf school and universities for the Deaf and technology impacts on Deaf community development. Deaf culture studies include understanding the unique culture of the Deaf community, attitudes from and toward the Deaf, family values, social, political, humor, performing arts, jokes, organizations, clubs, and educational issues.

#### **LANG 111 - Spanish I (3)**

Spanish I is an introductory course designed to expose beginning students to basic language skills. In this course, students develop the fundamentals of communication, listening and comprehension, speaking and reading. Spanish culture is introduced.

#### **LANG 112 - Spanish II (3)**

Spanish II builds upon the basic grammatical structures introduced in Spanish I and continues to develop skills such as pronunciation practice, listening comprehension, and "guided" composition. Correct speaking is emphasized. The study of Hispanic countries and cultures continue to be covered in the course.

Prerequisite(s): LANG 111 - Spanish I (3)

**LANG 121 - French I (3)**

This is a basic, culturally-oriented course in conversational French designed for beginning students who wish to develop skills in speaking, writing, and comprehending the French language. Emphasis is placed on oral communication through dialogue and guided compositions. French culture is introduced.

**LANG 122 - French II (3)**

Pre-requisite French I. This course allows students to strengthen their comprehension and speaking proficiency in French by providing extensive practice in oral and written communication and self-expression and through discussions and oral presentations of readings in French and Canadian culture.

Prerequisite(s): LANG 121 - French I (3)

**LANG 131 - Japanese I (3)**

The goal of this course is for the student to gain oral fluency in basic Japanese. The student will engage in constant oral drills and practice. The sentence/word repetition drill, word substitution drill, and structure expansion drill are used to achieve fluency. The basic grammar and vocabulary are interwoven into patterned dialogs. By doing these drills, the student will be making active use of vocabulary words without translating. At the same time, the student will internalize the grammar of basic sentence structure.

**LANG 132 - Japanese II (3)**

Students learn new sentence structure and vocabulary. They also learn and practice HIRAGANA and KATAKANA using FUDEPEN, a brush pen, throughout the semester.

Prerequisite(s): LANG 131 - Japanese I (3)

**LANG 141 - Russian I (3)**

This course lays the foundations for learning the Russian language and culture, with an emphasis on proficiency in communication. Students study Russian pronunciation, communication, and basic grammar. Students will also learn to read and write the Cyrillic alphabet.

**LANG 151 - German I (3)**

Students will be introduced to German by way of all four language skills: listening, speaking, reading, and writing. The course will concentrate on cultures of the German-speaking world while practicing language skills.

**LANG 199 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep record of every special topics course offered with this subject code, including the course description.

**LANG 299 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep record of every special topics course offered with this subject code, including the course description.

**Leadership Development**

**LEAD 101 - Understanding Leadership (1-2)**

This course will clarify why and how to use the Mission, Vision, and Values of the company in focused leadership development. Each participant's role in Leadership Development will be clarified.

**LEAD 102 - Leading by Communication (1-2)**

This course teaches leaders how to get results through people. A personality assessment tool will assist participants to improve work productivity, teamwork, and communication by discovering and respecting behavioral styles.

**LEAD 103 - Improving Personal Productivity (1-2)**

This course is a part of the Leadership Development Training program used by Economic and Workforce Development for training in business and industry and is being considered as part of the Organizational Leadership Development certificate.

**LEAD 104 - Project Management (3)**

This course will help leaders learn how to set measurable project objectives and create a practical plan to achieve them.

**LEAD 105 - Performance Management (1-2)**

In this course students will learn that performance management is an ongoing, continuous process of communicating and clarifying job responsibilities, priorities, and performance expectations in order to ensure mutual understanding between a supervisor and employee.

**LEAD 106 - Customer Service (1-2)**

Exceptional customer service is pertinent to an organization's success. Supervisors must understand their role in creating and sustaining standards of excellent customer service in their business operation. To effectively influence customers, supervisors must develop and provide effective ways of developing and motivating employees, and measuring service levels.

**LEAD 107 - Coaching & Retaining Talent (1-2)**

This course helps leaders create an environment in which people feel valued and satisfied in their jobs. Leaders will gain an understanding of their critical role in retaining organizational talent.

**LEAD 108 - Building & Leading Teams (1-2)**

Build a high performance team by understanding team dynamics, evaluating your team's performance, and develop an action plan for continued team success.

**LEAD 109 - Leading & Sustaining Change (1-2)**

Key leaders will learn about and practice the skills that will enable them to deal with change more effectively. This course will help individuals, teams, and organizations understand, accept and successfully transition through change in turbulent times.

**LEAD 110 - Problem Solving, Brainstorming, & Critical Thinking (1-2)**

Utilizing training and practice, develop teams that solve problems through brainstorming and critical thinking.

### **LEAD 111 - Managing Conflict & Difficult Situations (1-2)**

Learn strategies of conflict management to develop professional skills needed to manage disputes and disagreements positively and proactively.

### **LEAD 112 - Leading Multi-Generational Workforce (1)**

Managing age diversity within the workplace is an essential skill for all those who supervise others. There are four generations working within most organizations. As each group ages thru its lifecycle, its members will evolve in their attitudes, values and expectations. Learning to managing in a cross-generational environment requires perspective, patience, and a set of skills that enable nurturing the best from each age group and fostering collaboration at the same time.

### **LEAD 113 - Effective Presentation Skills (2)**

Plan, prepare, practice and present more effective presentations. Participants apply what they have learned, practice their skills, and gather feedback from an audience of peers and supervisors.

### **LEAD 114 - Preventing Harassment & Diversity Awareness (1)**

A diverse workforce provides a larger pool of ideas and experiences. Organizations can draw from that pool to meet business strategy needs and meet the needs of customers and employees more effectively. Individuals must be treated with respect and dignity in any work environment.

## **Legal Studies**

### **LGST 100 - Intro to Law & Legal Systems (3)**

This introductory course will provide students with information on the legal structure of American society. The emphasis is on how the law really work in everyday life. A vital feature of the course is an understanding of legal terminology and active inquiry by the students. The students will analyze authentic and fictional cases and examine common legal forms. The different topics will cover criminal, civil, juvenile, and consumer law. The goal of this course is to prepare the students with a functional knowledge of everyday law and the Bill of Rights in the United States Constitution.

### **LGST 103 - Legal Terminology (3)**

This course serves to introduce students to terms used in the legal field. Student will learn spelling, pronunciation, and definitions of commonly used terms within various components of the field, including, constitutional law, criminal law, family law, business organizations, and courts.

### **LGST 150 - Legal Research and Writing (3)**

This course is designed to familiarize the student with legal research, legal analysis, and legal writing. Topics covered will include utilizing print and online resources, legal citation, legal memorandum, and legal correspondence.

Prerequisite(s): ENGL 100 - English Essentials (3)

### **LGST 192 - Legal Studies Practicum (1)**

This course will cover testing methodologies and study techniques to assist in preparing the student to successfully pass a certifying exam. The prerequisite to enroll in this course is successfully passing 30 credits.

Prerequisite(s): LGST 230 - Criminal Law and Procedure (3) and completion of 30 credit hours.

### **LGST 199 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

### **LGST 200 - Legal Ethics (3)**

Legal Ethics provides an examination of contemporary ethical issues and conduct relevant to the legal profession. This course will discuss ethics from a variety of viewpoints including law enforcement, corrections, and courtroom personnel.

Prerequisite(s): LGST 100 - Intro to Law & Legal Systems (3) or CJST 200 - Intro Crim Justice Sys (3)

### **LGST 210 - Laws of Domestic Relations (3)**

This course examines domestic relations law including case preparation and the rules and procedures of the family court system. Topics covered include child custody, divorce procedures, and dispute resolution options such as mediation and arbitration.

Prerequisite(s): LGST 100 - Intro to Law & Legal Systems (3)

### **LGST 212 - Business Law (3)**

This course is an introduction to the American legal system and its impact on the business environment. Topics considered include contracts, employment law, antitrust law, torts, consumer protection, and the business organization. This study prepares students to identify and limit risk in business dealings.

Prerequisite(s): ENGL 100 - English Essentials (3) or proper placement scores

### **LGST 213 - American Court System (3)**

This course provides an overview of the American court system. Students will be introduced to the actors in the system, including judges, prosecutors, and defense attorneys. Courtroom processes from pretrial through sentencing and appeals will be discussed. The course will review the history of the court system and the different types of courts within the state and federal levels.

Prerequisite(s): LGST 100 - Intro to Law & Legal Systems (3)

### **LGST 220 - Civil Litigation (3)**

This course provides an overview of the civil litigation process from initial interview through trial procedures including the preparation of pleadings and trial documents. Topics covered include civil procedure, discovery, and statutes relevant to the civil litigation process.

Prerequisite(s): LGST 100 - Intro to Law & Legal Systems (3)

### **LGST 230 - Criminal Law and Procedure (3)**

This course provides an overview of criminal law beginning with the arrest and investigation through the trial process. Case studies and historical cases in criminal law will be reviewed and analyzed. Other topics covered include legal terminology, rights of criminal defendants, and courtroom activities.

Prerequisite(s): LGST 100 - Intro to Law & Legal Systems (3) or CJST 200 - Intro Crim Justice Sys (3)

### **LGST 240 - Administrative Law (3)**

This course introduces the body of law created by administrative agencies to implement their power and duties. Procedures and application of administrative rules, regulations, orders, and decisions will be examined.

Prerequisite(s): LGST 100 - Intro to Law & Legal Systems (3)

**LGST 272 - Real Estate & Property Law (3)**

This course introduces students to the role of the paralegal in real estate and property law. Topics covered include basic concepts concerning titles to property, rights that attach to real property, care with respect to property, real estate closings, and rental property procedures.

Prerequisite(s): LGST 100 - Intro to Law & Legal Systems (3)

**LGST 275 - Wills, Trusts, & Estates (3)**

This course introduces students to the role of legal assistants in estate and planning practice. Topics covered include the rules governing control and disposition of property, forms of property ownership, wills, trusts, estate succession, and federal gift and estate taxes.

Prerequisite(s): LGST 100 - Intro to Law & Legal Systems (3)

**LGST 292 - Field Experience (1-6)**

Cooperative education allows students to acquire essential practical skills by being exposed to the reality of the work world beyond the boundaries of campus. Students will be required to complete a minimum of 100 hours working in the field.

Prerequisite(s): Minimum 2.0 overall GPA is required as well as completion of 30 credit hours.

**LGST 299 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

**Manufacturing Technology**

**MTEC 101 - Master Planning of Resources (2)**

This course explains the principles and processes of master planning of resources; describes the techniques and methods of demand management, sales and operations planning, and master scheduling; examines the development of operations plans in differing operational environments; and explains the process for developing, validating, and evaluating performance at all levels of master planning of resources.

**MTEC 102 - Basic Supply Chain Management (2)**

This course will define the role, objectives and responsibilities of materials management. The course will describe and compare basic forecasting techniques; explain the materials requirements planning (MRP) process; describe the objectives of capacity management and its relation to priority planning; review the function of inventories and the objectives of inventory management; identify the costs of quality; explain the importance of purchasing, its objectives, and the steps in the purchasing process; define JIT; and show how TQM can reduce lead-times, lot size, and work in process.

**MTEC 103 - Execution & Control of Operations (2)**

This course explains how to schedule production and process manufacturing plans relative to authorizing, releasing, prioritizing, and sequencing work; identifies the interfaces and data exchanges required to execute a plan; demonstrates how various facility layouts influence scheduling and workflow; explains bottleneck resource management and lead time control techniques; identifies reporting activities and collection techniques; identifies

appropriate requirements for storage, location, and transportation; explains how to execute quality initiatives; and describes process capabilities, quantity audits and ways to assess supplier performance.

#### **MTEC 104 - Just-in-Time/Total Quality Management (2)**

This course defines the concept of JIT including implementation and principles and discusses the concept of TQM. Topics covered include continuous improvement methodologies and techniques; root cause analysis; the importance of using statistical methods for control processes (SPC); how to perform a process capability analysis; layout and workplace organization; and the importance of involvement and empowerment of employees for JIT and TQM to be successful.

#### **MTEC 105 - Detailed Scheduling/Planning (2)**

This course is designed to identify types of inventory and how they are assessed; describe order review methodologies and how to apply them in different types of inventory strategies; identify lot sizing techniques and the effects of order quantity constraints and modifiers; describe safety stock processes; explain how to calculate inventory performance; review MRP; define capacity measurement tools and how to use capacity data for decision making; and explain why and how to develop relationships with suppliers.

#### **MTEC 106 - Strategic Management of Resources (2)**

This course teaches students how to recognize the need for integration of the manufacturing process with the company strategy. Students learn how to identify strategy components; understand the alignment of resources with strategic marketing objectives; review JIT and TQM; learn how forecast accuracy is measured; identify the elements of customer service; learn the concepts of supply chain management; identify the phases of project management; understand performance measurement systems; and learn the roles and responsibilities of change management.

#### **MTEC 110 - Brain Smart Management (2)**

This course is designed to teach specific behaviors to alter a one's own behavior as the first and most important factor in influencing the behavior of others. The focus of the course is to change oneself in order to change corporate culture.

#### **MTEC 111 - Quality of Leadership (2)**

This course introduces the student to the concepts of leadership including influence, characteristics, and dimensions of leadership. The course reviews the situational leadership model and promotes exemplary leadership practices. The student learns the methods to challenge the process, inspire a shared vision, enable others to act, provide feedback, model the way for success, and encourage the heart. The student will leave the course with a personal action plan for further implementation.

#### **MTEC 199 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

#### **MTEC 292 - Manufacturing Occupational Internship (1-6)**

Students learn how to translate classroom theory and methods into professional skills and opportunities.

#### **MTEC 293 - Manufacturing On-the-Job Training (1-15)**

This course is designed to award credit to those employees who have participating in a supervised on-the-job training program within the manufacturing facility. Credit is awarded upon receipt of a letter from the director of human resources stating successful completion of on-the-job training assignments and the total number of actual hours involved in the training. Credit hours earned for On-the-Job Training are calculated as 1 credit hour = 160 actual hours. Therefore, a student must work 2400 actual hours to receive 15 credit hours.

### **Mathematics**

### **MATH 100 - Math Essentials (3)**

Students will learn how to perform operations on real numbers, the implications of exponents and the order of operations and how to evaluate algebraic expressions. The concepts of percents and their applications, introductory geometry, statistics, and problem solving skills will all be incorporated. Students will solve equations in one variable, solve literal equations for a variable, and evaluate/graph inequalities. Students will translate and solve algebraic equations, and learn the skills required to solve application problems in one and two variables. Students will interpret and graph linear equations as well as solving and analyzing systems of equations. Students may also be introduced to operations on polynomials.

### **MATH 100A - Algebra Essentials (3)**

Students will perform operations on polynomials, rational, and radical expressions. Students will use various methods to factor polynomials. Students will solve polynomial, rational and radical equations, and apply these skills to solving application problems. The concept of functions will be introduced as well as their operations. Students will use interval notation to express the domain and range of a function.

Prerequisite(s): MATH 100 - Math Essentials (3) or proper placement on test scores

### **MATH 100S - Developmental Mathematics (1)**

This is a seminar in developmental mathematics. Students will learn how to perform operations on real numbers, the implications of exponents and the order of operations, and how to evaluate algebraic expressions. The concepts of percents and their applications, introductory geometry, statistics, and problem solving skills will all be incorporated. Students will solve equations one variable, solve literal equations for a variable, and evaluate/graph inequalities. Students will translate and solve algebraic equations, and learn the skills required to solve application problems in one and two variables. Students will interpret and graph linear equations as well as solving and analyzing systems of equations. Students will perform operations on polynomials, rational and radical expressions. Students will use various methods to factor polynomials. Students will solve polynomial, rational and radical equations, and apply these skills to solving application problems. The concept of functions will be introduced as well as their operations. Linear inequalities will be revisited with interval notation and applications.

### **MATH 101 - ~Introduction to Mathematics (3)**

During this course topics to be covered are sets, mathematical logic, mathematical systems, the real number system, systematic counting, probability, measurement, and consumer mathematics. History of mathematics, critical thinking skills, problem solving, and use of technology will be incorporated throughout the course.

Prerequisite(s): MATH 100 - Math Essentials (3) or proper placement on test scores

### **MATH 102 - Technical Mathematics (3)**

This course focuses on computational fluency and applied problem solving with emphasis on the following topics: real numbers, ratios, percents, proportions, estimation, exponents, roots, scientific notation, applied algebra, measurement, applied geometry, electrical formulas and laws, basic statistics, basic trigonometry and vectors.

Prerequisite(s): MATH 100 - Math Essentials (3) or proper placement on test scores

### **MATH 105 - ~Algebra (3)**

Topics explored in this course include properties of the real numbers, radicals and rational exponents, operations on polynomials and rational expressions, solutions of linear and quadratic equations and inequalities, systems of linear equations and inequalities, functions including graphs and composite functions, properties of linear functions, polynomial and rational functions, exponential and logarithmic functions. Other topics included if time permitting concern conic sections, sequences, and counting/probability theory.

Prerequisite(s): MATH 100A - Algebra Essentials (3) or proper placement on test scores



**MATH 106 - ~Trigonometry (3)**

A study of the trigonometric functions and identities, multiple angle formulas, inverse trigonometric functions, deMoivre's theorem and complex numbers, applications.

Prerequisite(s): MATH 105 - ~Algebra (3) or proper placement on test scores

**MATH 108 - ~Pre-Calculus (4)**

This course is a one-semester preparation for calculus which includes algebra and trigonometry topics such as complex numbers, graphs of linear/nonlinear functions and relations, conic sections, graphical and algebraic solutions of nonlinear equations, solutions of exponential, logarithmic and trigonometric equations, analytic geometry/trigonometry, sequences, series, summations, and mathematical induction. Applications will be incorporated throughout the course. Time permitting, introductory calculus topics such as limits, derivatives, and integrals may also be discussed.

Prerequisite(s): MATH 105 - ~Algebra (3) or proper placement on test scores

**MATH 114 - ~Elem Probability & Statistics (3)**

This course introduces the fundamental concepts of probability and statistics. Topics include descriptive statistics, random sampling methods, frequency distributions, measures of central tendency and variability, set theory, probability, permutations and combinations, random variables, probability and sampling distributions, expectation, central limit theorem, confidence intervals and hypothesis testing for means and proportions (one and two sample) and simple linear regression and correlation. Time permitting, one-way ANOVA and non-parametric techniques may be discussed. Appropriate application software will be utilized, and applications from a variety of disciplines will be presented.

Prerequisite(s): MATH 100A - Algebra Essentials (3) or proper placement on test scores

**MATH 154 - ~Finite Mathematics (3)**

This course introduces students to selected topics from finite mathematics. Mathematical models for the analysis of decision-making problems are examined. Topics include the echelon method for solving linear equations, matrix manipulations, optimization by linear programming including the simplex method, risk decisions using probability, expected value, and statistics. Additional topics may be chosen from network models or game theory and students will explore the uses of mathematics.

Prerequisite(s): MATH 100A - Algebra Essentials (3) or proper placement on test scores

**MATH 199 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

**MATH 207 - ~Calculus I (4)**

This course is an introduction to the fundamental concepts of differential and integral calculus from algebraic, numerical, and graphical points of view. Topics covered include: functions, trigonometry, limits, continuity, differentiation and integration of elementary transcendental functions, fundamental theorem of calculus, mean value theorem, differentials. Applications will be incorporated throughout the course such as curve sketching, maximum and minimum values, related rates, optimization, areas, volume, arc length.

Prerequisite(s): MATH 108 - ~Pre-Calculus (4) or proper placement on test scores

**MATH 232 - Math for Elem Teachers I (3)**

This course is designed for Education majors in the Elementary (K-6) specialization as an introduction to selected topics in mathematics, including reasoning and problem solving skills, patterns and relations, elementary set theory & number theory, number systems other than base 10, algorithms, rational numbers, real numbers, estimation, and functions. The history of mathematics will be presented throughout the course, as well as the appropriate use of technology and manipulative.

Prerequisite(s): MATH 105 - ~Algebra (3)

**MATH 233 - Math for Elem Teachers II (3)**

This course is designed for Education majors in the Elementary (K-6) specialization as an introduction to selected topics in mathematics, including elementary probability and statistics, data analysis, and basic geometry and measurement. The history of mathematics will be presented throughout the course, as well as the appropriate use of technology and manipulative.

Prerequisite(s): MATH 105 - ~Algebra (3)

**MATH 299 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

**Mechatronics**

**MECH 101 - Introduction to Mechatronics (1)**

Introduction to Mechatronics is an overview course that introduces students to the field of Mechatronics. Students will rotate through modules that will give them insight into the skills, concepts, equipment, and challenges they will encounter as a mechatronics technician. Modules will include design process, basic tool use, laboratory safety, precision measurement, fluid power, robotics, and programmable logic controllers. Included will be basic professional preparation topics such as resume writing, job readiness, interviewing and portfolio development. MECH 101L - Intro to Mechatronics Lab (2) is the laboratory component of this class.

Corequisite(s): MECH 101L - Intro to Mechatronics Lab (2)

**MECH 101L - Intro to Mechatronics Lab (2)**

Introduction to Mechatronics-L is the lab component an overview course that introduces students to the field of Mechatronics. Students will rotate through modules that will give them insight into the skills, concepts, equipment, and challenges they will encounter as a mechatronics technician. Modules will include design process, basic tool use, laboratory safety, engineering journaling, precision measurement, fluid power, robotics, and programmable logic controllers. Included will be basic professional preparation topics such as resume writing, job readiness, interviewing and portfolio development.

Corequisite(s): MECH 101 - Introduction to Mechatronics (1)

**MECH 102 - Technical Physics (2)**

Technical Physics emphasizes physical concepts as applied to technical fields. The five major areas on concentration include mechanics, matter and heat, wave motion and sound, electricity and magnetism, and light. Lab activities will provide hands on discovery of the concepts covered in the course. MECH 102L - Technical Physics Lab (2) is the laboratory portion of the class.

Corequisite(s): MECH 102L - Technical Physics Lab (2) Pre-requisite/Co-requisite(s): MATH 102 - Technical Mathematics (3)

**MECH 102L - Technical Physics Lab (2)**

Technical Physics emphasizes physical concepts as applied to technical fields. The five major areas of concentration include mechanics, matter and heat, wave motion and sound, electricity and magnetism, and light. This laboratory portion will include activities that will provide hands on discovery of the concepts covered in the course.

Corequisite(s): MECH 102 - Technical Physics (2) Pre-requisite/Co-requisite(s): MATH 102 - Technical Mathematics (3)

### **MECH 105 - Electricity & Commercial Wiring (1)**

Electricity and Commercial Wiring is an introduction to AC electrical applications and commercial wiring practices. This course is paired with MECH 106 - Electricity & Electronics (2) to form a complete electricity/electronic experience for the mechatronics technician. This course introduces the fundamental concepts of and computations related to AC electricity. Emphasis is placed on AC circuits, components, operation of test equipment; and other related topics. Devices such as transformers, AC motors and solenoids are covered. Commercial wiring tools, and practices are introduced to prepare the student for the NEC exam. MECH 105L is the laboratory portion of the class.

Corequisite(s): MECH 105L - Electricity & Commercial Wiring Lab (1) Pre-requisite/Co-requisite(s): MATH 102 - Technical Mathematics (3)

### **MECH 105L - Electricity & Commercial Wiring Lab (1)**

Electricity and Commercial Wiring is an introduction to AC electrical applications and commercial wiring practices. This course is paired with MECH 106 to form a complete electricity/electronic experience for the mechatronics technician. This course introduces the fundamental concepts of and computations related to AC electricity. Emphasis is placed on AC circuits, components, operation of test equipment; and other related topics. Devices such as transformers, AC motors and solenoids are covered. Commercial wiring tools, and practices are introduced to prepare the student for the NEC exam.

Corequisite(s): MECH 105 - Electricity & Commercial Wiring (1) Pre-requisite/Co-requisite(s): MATH 102 - Technical Mathematics (3)

### **MECH 106 - Electricity & Electronics (2)**

Electricity Electronics is an introduction to AC electrical applications and commercial wiring practices. This course is paired with MECH 105 - Electricity & Commercial Wiring (1) to form a complete electricity/electronic experience for the mechatronics technician. This course introduces the fundamental concepts of and computations related to AC electricity. Emphasis is placed on AC circuits, components, operation of test equipment; and other related topics. Devices such as transformers, AC motors and solenoids are covered. Commercial wiring tools, and practices are introduced to prepare the student for the NEC exam. MECH 106L - Electricity & Electronics Lab (2) is the laboratory portion of this course.

Corequisite(s): MECH 106L - Electricity & Electronics Lab (2) Pre-requisite/Co-requisite(s): MATH 102 - Technical Mathematics (3)

### **MECH 106L - Electricity & Electronics Lab (2)**

Electricity Electronics is an introduction to AC electrical applications and commercial wiring practices. This course is paired with MECH 105 to form a complete electricity/electronic experience for the mechatronics technician. This course introduces the fundamental concepts of and computations related to AC electricity. Emphasis is placed on AC circuits, components, operation of test equipment; and other related topics. Devices such as transformers, AC motors and solenoids are covered. Commercial wiring tools and practices are introduced to prepare the student for the NEC exam. This laboratory component provides hands-on experiences necessary complete concept attainment.

Corequisite(s): MECH 106 - Electricity & Electronics (2) Pre-requisite/Co-requisite(s): MATH 102 - Technical Mathematics (3)

### **MECH 110 - Mechanical Systems I (3)**

Mechanics I is a comprehensive introduction to fundamentals of industrial mechanical concepts, principles, and equipment. The course covers safety, lubrication, bearing installation and removal, proper installation and adjustment of belt and chain drives, as well as coupling and shaft alignment.

Prerequisite(s): MECH 101 - Introduction to Mechatronics (1)

**MECH 120 - Fluid Power (3)**

Fluid Power course is designed to provide students with a basic understanding of the concepts and applications of fluid power technology including hydraulics and pneumatics. The course is an overview of fluid power technology applications; the general concept of fluid power systems; an introduction to energy input, energy output, energy control, and systems auxiliary components; as well as the design and function of components.

Prerequisite(s): MECH 101 - Introduction to Mechatronics (1)

**MECH 121 - Safety Awareness & OSHA 10 (2)**

Safety Awareness is designed to introduce students to the necessary skills to safely work in the industrial setting. Some major areas of studies include: Fall Protection, Fire Prevention and Protection, Electrical Safety, Personal Protective Equipment, Hazard Communication, and other elective topics. Upon successfully passing the OSHA exam the student will earn a 10 hour OSHA card.

**MECH 130 - Plastics Technology (3)**

A survey of the plastics industry, including a study of materials with reference to their properties, processing and uses. Fabrication, finishing, and fastening methods and plastic product design.

**MECH 140 - Robotics (1)**

This course explores basic robotic concepts and studies robots in typical application environments. Topics include: robot history and fundamentals, robot classification, power sources, robot applications in the workplace, robot control techniques, path control, end of arm tooling, robot operation and robot controllers, controller architecture in a system, robotic language programming, and human interface issues.

Corequisite(s): MECH 140L - Robotics Lab (2)

**MECH 140L - Robotics Lab (2)**

Laboratory portion of Robotics. Students will apply concepts to program and control robotic animation, as well as, plan out robotic applications.

Corequisite(s): MECH 140 - Robotics (1)

**MECH 180 - Introduction to PLC (Programmable Logic Controllers) (1)**

This online based class will introduce the concept of PLCs and how they are used to control automation equipment in the industrial setting. Practical labs will be included to help students assess their knowledge.

Prerequisite(s): MECH 105 - Electricity & Commercial Wiring (1) or MECH 106 - Electricity & Electronics (2)

**MECH 199 - Special Topics (1-4)**

A special topics course (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

**MECH 201 - Systematic Troubleshooting (3)**

This course will provide the students with a systematic process, utilizing critical thinking skills to diagnose, analyze, and solve complex problems. Several problem solving models will be presented. Students will work through case studies to develop their problem solving skills. This course will also prepare students to take the Work-keys Applied Technology test which is required by several local employers. This is a good course for anyone who has to analyze and troubleshoot problems within their normal work routine.

Pre-requisite/Co-requisite(s): MECH 250 - Intro to PLC (Programmable Logic Controllers) (3)

### **MECH 207 - Advanced Electronics (1)**

Advanced electronics is a continuation and expansion of MECH 106 - Electricity & Electronics (2). This course expands on the fundamental concepts of and computations related to AC and DC electricity. Emphasis is placed on AC and DC circuits, components, operation of test equipment, and other related topics. Devices such as transformers, AC and DC motors, servos and discrete components are investigated.

Prerequisite(s): MECH 106 - Electricity & Electronics (2)  
Corerequisite(s): MECH 207L - Advanced Electronics Lab (2)

### **MECH 207L - Advanced Electronics Lab (2)**

Advanced electronics is a continuation and expansion of MECH 106L - Electricity & Electronics Lab (2). This course expands on the fundamentals concepts of and computations related to AC and DC electricity in a hands on environment. Emphasis is placed on AC and DC circuits, components, operation of test equipment, and other related topics. Devices such as transformers, AC and DC motors, servos and discrete components are investigated.

Prerequisite(s): MECH 106L - Electricity & Electronics Lab (2)  
Corerequisite(s): MECH 207 - Advanced Electronics (1)

### **MECH 210 - Mechanical Systems II (3)**

Mechanics 2 is a continuation of Mechanics 1. A further investigation industrial mechanical concepts, principles, and equipment. The course covers advanced topics including PLC's, laser alignment, and vibration analysis.

Prerequisite(s): MECH 110 - Mechanical Systems I (3)

### **MECH 220 - Advanced Fluid Power with PLC (2)**

The Advanced Fluid Power course is a continuation of MECH 120 introducing advanced concepts and applications of fluid power technology including hydraulics and pneumatics. The course will introduce the application of PLC's to energy input, energy output, energy control, and systems auxiliary components; as well as the design and function of components.

Prerequisite(s): MECH 120 - Fluid Power (3)

### **MECH 230 - Industrial Controls (2)**

Industrial Controls introduces the students to the basics of AC motor applications and control. This course teaches electric relay control of AC electric motors found in industrial, commercial, and residential applications. Students learn industry-relevant skills including how to operate, install, design, and troubleshoot AC electric motor control circuits for various applications.

Prerequisite(s): MECH 105 - Electricity & Commercial Wiring (1) or MECH 106 - Electricity & Electronics (2)

### **MECH 250 - Intro to PLC (Programmable Logic Controllers) (3)**

The PLC course will prepare students to install, maintain and program Programmable Logic Controllers. Students will learn about both Allen-Bradley and Siemens PLC systems.

Prerequisite(s): MECH 105 - Electricity & Commercial Wiring (1) or MECH 106 - Electricity & Electronics (2)  
**MECH 255 - Adv PLC & Int Automation (2)**

This course focuses on working with analog modules in PLC systems. The course begins with connecting analog sensors to analog modules and writing programs to control these devices. Program functions such as comparison, memory, arithmetic, conversion, and jump will be introduced. The basis of bus systems, bus cables, and network connectivity will be included.

Prerequisite(s): MECH 250 - Intro to PLC (Programmable Logic Controllers) (3)  
**MECH 260 - Process Control & Instrumentation (2)**

Process Controls cover a wide range of topics such as measurement methods, pressure measurement devices, temperature measurement devices, flow measurement devices, level measurement devices, pilot valves, pneumatic controls, electronic controls, and process controls. Students will learn to install, maintain, monitor and troubleshoot process control equipment.

Prerequisite(s): MECH 105 - Electricity & Commercial Wiring (1) or MECH 106 - Electricity & Electronics (2)  
**MECH 270 - Manufac Proc & Quality Control (3)**

Manufacturing Process and Quality Control has two components. For the process management component, a factory simulation is conducted. Concepts presented include: Cycle Time, Production Time, First Pass Yield, and Barrier Identification. In the QC component, students will learn how to process map, analyze costs, and develop team organization and optimization. The QC component emphasizes fundamentals of total quality assurance for product and process control. Students will make extensive use of electronic spreadsheets.

Prerequisite(s): CAS 111 - Information Literacy (3)  
**MECH 280 - Integrated Manufacturing Systems (1)**

Integrated Manufacturing Systems is a capstone course where students will apply the sum of their knowledge to set up, program, operate, maintain and troubleshoot a scaled manufacturing system. Students will be expected to learn all parts of the system as well as design systematic improvements. MECH 280L is the laboratory portion of the class.

Corerequisite(s): MECH 280L - Integrated Manuf Systems Lab (2) Pre-requisite/Co-requisite(s): MECH 210 - Mechanical Systems II (3), MECH 220 - Advanced Fluid Power with PLC (2), and MECH 250 - Intro to PLC (Programmable Logic Controllers) (3)

**MECH 280L - Integrated Manuf Systems Lab (2)**

Integrated Manufacturing Systems is a capstone course where students will apply the sum of their knowledge to set up, program, operate, maintain and troubleshoot a scaled manufacturing system. Students will be expected to learn all parts of the system as well as design systematic improvements. In this laboratory portion students will work in cooperative groups to apply their skills to solve assigned practical problems as well as troubleshoot systems.

Prerequisite(s): MECH 250 - Intro to PLC (Programmable Logic Controllers) (3)  
Corerequisite(s): MECH 280 - Integrated Manufacturing Systems (1) Pre-requisite/Co-requisite(s): MECH 210 - Mechanical Systems II (3), MECH 220 - Advanced Fluid Power with PLC (2), and MECH 250 - Intro to PLC (Programmable Logic Controllers) (3)

**MECH 292 - Internship (1-4)**

A paid internship that expands the students' career awareness and further develops their practical hands on experience. Number of credits will be based on the numbers of hours of employment.

### **MECH 299 - Special Topics (1-4)**

A special topics course (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

### **Media Studies**

#### **MDIA 101 - Introduction to Media Studies (3)**

This course introduces students to the concepts and theories of media and society and surveys their systems and roles in society. Emphasis is placed on media in the United States, including historic development and technological innovation of conventional print and electronic media.

#### **MDIA 102 - Intro to Adobe Photoshop (3)**

This course will introduce students to working with photographs and drawings focusing on web site graphics. Basics of the digital image, photo collage, banner graphics and simple animation for web sites will also be covered. Topics to be covered include: file formats, scanning, digital retouching, image selections and masking, layering, vector graphics, creating symbols, working with a time line and creating an interactive file.

#### **MDIA 103 - Advanced Photoshop & Animate (3)**

This project-based course will begin with a review of Adobe Photoshop basics and quickly move into intermediate and advanced concepts of layering, masks, and channels. Students will move from basic photo correction techniques into enhanced tools and working with color correction across color spaces of RGB, CMYK, HSB, and LAB. Students will work with the animation component of Photoshop as well as FlashAnimate. Team and independent projects at both mid-term and finals will replace a traditional written exam.

Prerequisite(s): MDIA 102 - Intro to Adobe Photoshop (3)

#### **MDIA 104 - Web Page Design (3)**

This is the foundation course for CIW (Certified Internet Webmaster) certification. Students learn how to code Web pages from scratch using HTML, XHTML, and XML incorporating Java Scripting. Students will explore basic and advanced tags by creating web pages utilizing tables, frames, audio, video, and java scripting.

#### **MDIA 105 - Internet Foundation (4)**

This is the foundation course for CIW (Certified Internet Webmaster) certification. Students learn how to use key Internet technologies, such as Web browsers, e-mail, newsgroups, File Transfer Protocol (FTP), Telnet and search engines. Students will learn how to create simple Web pages containing text, graphics, hyperlinks, tables, forms and frames. Students also learn fundamental networking concepts and practices, including network architecture and standards, networking protocols, TCP/IP, Internet servers, server-side scripting and database connectivity, and security.

#### **MDIA 106 - Site Designer (3)**

The course focuses on theory, design, and web construction; along with information architecture concepts, web site management, scenario development and performance evaluations. Students learn how to create and manage Web sites with GUI editor based software programs. Students will learn and implement the latest strategies to develop web sites, evaluate design tools, discuss future technology standards, and explore the incompatibility issues surrounding current browsers.

#### **MDIA 107 - Into to Illustrator/InDesign (3)**

This course will introduce students to software design and layout tools to create and publish everything from printed books and brochures to digital magazines, iPad apps, eBooks and interactive online documents. Students will use

software, hardware and mathematical tools to represent, display, and manipulate topological, two-and three dimensional objects on a computer screen and that prepares individuals to function as computer graphics specialists. Includes instruction in graphics software and systems; digital multimedia, graphic design, graphics devices, processors, and standards, attributes and transformations, projections, surface identification and rendering, color theory and application and applicable geometry and algorithms.

Prerequisite(s): MDIA 104 - Web Page Design (3)

### **MDIA 108 - Multimedia Presentation Develo (3)**

Using current graphics presentation software, including Microsoft PowerPoint and Prezi, students will create interactive, multimedia-based presentations for real world application. Basic processes such as preparing, formatting and customizing presentations will be studied.

Prerequisite(s): CAS 111 - Information Literacy (3)

### **MDIA 121 - Intro to Digital Photography (3)**

This course is an introduction to the use of digital photography techniques. This course will emphasize visualization, composition, and the aesthetics of digital photography. This course will also introduce the basic operations of the camera and electronic imaging as well as software applications to produce quality digital images.

### **MDIA 192 - Media Support Practicum (1)**

This course will cover testing methodologies and study techniques to assist in preparing students for the ACA (Adobe Certified Associate) Exam for Adobe Dreamweaver.

Prerequisite(s): CAS 111 - Information Literacy (3)

### **MDIA 199 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

### **MDIA 202 - Video Production (3)**

Introduction to analog and digital video production and editing theories, effects, and techniques. Students will develop video products using analog and digital recording methods and computerized video editing systems and digital video effects programs and hardware and software issues relating to 3-dimensional graphics manipulation, video compression, and recording.

### **MDIA 292 - Field Experience (1-4)**

This is a capstone course in experiential learning. A student participates in an intensive internship, externship, or cooperative with an appropriate agency, company or organization.

Prerequisite(s): MDIA 192 - Media Support Practicum (1)

### **MDIA 299 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

## **Medical Assisting**

### **MAST 101 - Introduction to Medical Assisting (3)**

This course is a foundation course for all medical assisting programs (clinical and/or administrative). Topics include medical assisting and other allied health disciplines as a profession, health care settings, communication skills,



coping skills, topics in psychology, and medical law and ethics. Emphasis is also placed on professionalism topics including personal traits of the health care professional, work place dynamics, career planning and employment. In addition, basic keyboarding skills and 10 key skills are reviewed and competency is required.

### **MAST 102 - Medical Terminology (3)**

This course is an integral component in understanding the language of medicine. It is designed to give the student a foundation in the basic structure of medical terms, word building and definitions as well as the applications of medical terminology. A human body systems approach is utilized and topics covered in each system include anatomy and physiology overview, medical terms, symptoms and signs, diseases and disorders, treatments, procedures and devices.

### **MAST 105 - Insurance Billing & Coding (3)**

The focus of this course is on the process of using source documents to apply diagnostic and procedural codes to patient records for the purpose of filing insurance claims. Topics covered include introduction to health insurance, managed health care, life cycle of an insurance claim, legal and regulatory issues, ICD-9-CM coding, ICD-10 coding, CPT coding, HCPCS coding, CMS reimbursement methodologies, coding for medical necessity and the essentials of CMS-1500 claim instructions. Also, insurance carriers such as Blue Cross and Blue Shield, Medicare, Medicaid and others are covered.

Prerequisite(s): MAST 101 - Introduction to Medical Assisting (3), MAST 102 - Medical Terminology (3), MAST 106 - Medical Office Management (2), and MAST 106L - Medical Office Management Lab (1)

### **MAST 106 - Medical Office Management (2)**

This course is a foundational course in administrative medical assisting. Topics include: the facility environment, computers in the ambulatory care setting, electronic medical records (EMR), telecommunications, patient scheduling, medical records management, written communications, daily financial practices, introduction to medical coding, insurance, billing and collections, accounting practices, and facility and equipment management are covered. In addition, more advanced topics are covered: management styles, risk management, importance of teamwork, supervising personnel, procedure manual, HIPAA implications, marketing functions, records and financial management, liability coverage, human resource management such as recruiting and hiring office personnel, dismissing employees, and complying with personnel laws are covered. Good record keeping principles are stressed in this course. Emphasis is placed on applications of electronic technology and fundamental writing skills as well as basic medical assisting clerical and operational functions.

Corerequisite(s): MAST 101 - Introduction to Medical Assisting (3), MAST 102 - Medical Terminology (3), and MAST 106L - Medical Office Management Lab (1)

### **MAST 106L - Medical Office Management Lab (1)**

This course is taken in conjunction with MAST 106 Medical Office Management. It emphasizes hands-on demographic data entry, billing and coding, insurance filing, reporting, as well as other electronic data functions of medical information management systems.

Corerequisite(s): MAST 106 - Medical Office Management (2)

### **MAST 199 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

### **MAST 202 - Clinical Medical Assistant I (2)**

This course offers the medical assistant student the opportunity to learn basic clinical theory that is utilized within medical practices. Areas covered include principals of asepsis including sterilization, infection control, blood borne

pathogens, emergency/first aid procedures, skills for interviewing patients, taking a medical history, patient charts and documentation, vital signs and measurements, physical examination, specialty examinations and assisting with minor surgeries including identification of surgical instruments.

Prerequisite(s): MAST 101 - Introduction to Medical Assisting (3), MAST 102 - Medical Terminology (3), MAST 106 - Medical Office Management (2), and MAST 106L - Medical Office Management Lab (1)

Corerequisite(s): MAST 202L - Clinical Medical Assistant I Lab (1)

### **MAST 202L - Clinical Medical Assistant I Lab (1)**

This course is taken in conjunction with MAST 202 - Clinical Medical Assistant I (2). Emphasis is placed on hands-on learning of skills related to the lecture portion including: blood pressure, pulse, respiration, temperature, height, weight, and pain level. Additional hands on learning skills covered are observation skills, patient care, patient positioning for examinations, vision screening, patient education instructions, and pre-surgical patient preparation procedures. Students must be competent in all skills tested.

Prerequisite(s): MAST 102 - Medical Terminology (3)

Corerequisite(s): MAST 202 - Clinical Medical Assistant I (2)

### **MAST 206 - Clinical Medical Assistant II (2)**

This course builds on topics covered in MAST 202 - Clinical Medical Assistant I (2) and introduces new information including an introduction to medical laboratory, lab equipment and safety, microbiology, collecting, processing, and testing of blood and urine specimens nutrition and special diets, principles of pharmacology, and drug administration. The course also includes topics on the anatomy of the heart, cardiac cycle, 12-lead ECG, lead identification, ECG tracing troubleshooting, cardiac dysrhythmias, Holter monitors, and stress testing. Additional topics covered are: anatomy of the respiratory system, symptoms of respiratory conditions/disorders, pulmonary function testing including Spirometry, peak flow meters, pulse oximetry and the medical assistant's role in diagnostic radiology.

Prerequisite(s): MAST 202 - Clinical Medical Assistant I (2) .

Corerequisite(s): MAST 206L - Clinical Medical Assistant II Lab (1)

### **MAST 206L - Clinical Medical Assistant II Lab (1)**

This course is taken in conjunction with MAST 206 - Clinical Medical Assistant II (2). Emphasis is placed on hands-on learning of skills covered in MAST 206 lecture. These skills include performing hematology tests, urinalysis, basic microbiology testing and CLIA waved tests such as blood glucose, Strep-A, and pregnancy testing. Additional hands-on skills covered in the course are the administration of oral and paternal (injections) patient medications, performing ECG tests including electrode placement and lead connection. Pulmonary function testing is introduced using peak flow meters and respiratory treatment including the proper use of a nebulizer and pulse oximetry.

Prerequisite(s): MAST 202 - Clinical Medical Assistant I (2)

Corerequisite(s): MAST 206 - Clinical Medical Assistant II (2)

### **MAST 214 - MA Review and Certification Prep (2)**

This course provides the student with a review of all of the major administrative, clinical and general competencies covered in the medical assistant program. Upon successful completion of this course and all other program requirements, the medical assistant certificate and degree students are required to sit for national certification as a Registered Medical Assistant (RMA) through American Medical Technologists.

Prerequisite(s): BIOL 100 - The Human Body (3) , CAHS 141 - Intro to Pharmacology (3), ENGL 101 - ~Written English (3), MAST 101 - Introduction to Medical Assisting (3), MAST 102 - Medical Terminology (3), MAST 105 - Insurance Billing & Coding (3), MAST 106 - Medical Office Management (2), MAST 106L - Medical Office

Management Lab (1), MAST 202 - Clinical Medical Assistant I (2), MAST 202L - Clinical Medical Assistant I Lab (1), MAST 206 - Clinical Medical Assistant II (2), MAST 206L - Clinical Medical Assistant II Lab (1), MATH 101 - ~Introduction to Mathematics (3) or higher, and PLBT 101 - Phlebotomy (3)  
Corerequisite(s): MAST 216 - Clinical & Administrative Externship (4)

#### **MAST 216 - Clinical & Administrative Externship (4)**

The course coordinates with local medical office sites to provide students with hands-on clinical and administrative experience in a medical office setting. The student will work for a total of one hundred sixty (160) uncompensated hours at the assigned site. Clinical and administrative competencies will be evaluated by a medical office preceptor(s) and under the direction of the Medical Assistant Externship Coordinator. The student is required to be in contact with the Medical Assistant Externship Coordinator prior to registering for this course. Early registration is encouraged to allow time to complete requirements and to make schedule arrangements with the assigned medical office site. Students must have received a grade of "C" or better in ALL MAST and PLBT courses prior to registering for this course. In addition, students must provide proof of valid/current BLS for Healthcare Providers and have documentation of a recent (within past 6 months) physical and provide proof of required immunizations. Students are required to have their own stethoscope and required uniforms for the course.

Prerequisite(s): BIOL 100 - The Human Body (3) , CAHS 141 - Intro to Pharmacology (3), ENGL 101 - ~Written English (3), MAST 101 - Introduction to Medical Assisting (3), MAST 102 - Medical Terminology (3), MAST 105 - Insurance Billing & Coding (3), MAST 106 - Medical Office Management (2), MAST 106L - Medical Office Management Lab (1), MAST 202 - Clinical Medical Assistant I (2), MAST 202L - Clinical Medical Assistant I Lab (1), MAST 206 - Clinical Medical Assistant II (2), MAST 206L - Clinical Medical Assistant II Lab (1), MATH 101 - ~Introduction to Mathematics (3) or higher, and PLBT 101 - Phlebotomy (3)  
Corerequisite(s): MAST 214 - MA Review and Certification Prep (2)

#### **MAST 299 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

#### **Medical Laboratory Technician**

#### **MLT 101 - Intro to Medical Laboratory Technician (2)**

Orientation to general laboratory practice and explores the profession of medical laboratory technician for students interested in the medical laboratory technician program. Course includes laboratory safety, lab math, health care ethics, and the divisions of the clinical laboratory.

Prerequisite(s): Limited to students enrolled with an employer and degree seeking in Healthcare Professions, A.A.S. with a concentration in Medical Laboratory Technician.

#### **MLT 102 - Medical Laboratory Techniques (2)**

Study the essential laboratory skills such as pipet techniques, proper safety and protective equipment procedures, operating a centrifuge, preparing reagents and solutions, laboratory mathematics and measurement, infectious disease precautions, medical terminology, clinical urinalysis and body fluids.

Prerequisite(s): Limited to students enrolled with an employer and degree seeking in Healthcare Professions, A.A.S. with a concentration in Medical Laboratory Technician.

#### **MLT 199 - Special Topics (1-6)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

Prerequisite(s): Limited to students enrolled with an employer and degree seeking in Healthcare Professions, A.A.S. with a concentration in Medical Laboratory Technician.

**MLT 200 - Hematology/Coagulation (3)**

Study the fundamental concepts in hematology and hemostasis, to include hemoglobinopathies, hematopoiesis, anemias, leukocyte disorders, leukemia's and other hematological disorders. Study normal platelet and clotting physiology as well as disorders of the clotting mechanisms. Continue the study of cellular identification in body fluids.

Prerequisite(s): Limited to students enrolled with an employer and degree seeking in Healthcare Professions, A.A.S. with a concentration in Medical Laboratory Technician, MLT 101 - Intro to Medical Laboratory Technician (2), and MLT 102 - Medical Laboratory Techniques (2)

**MLT 201 - Applied Immunology (3)**

Analyze the basic principles of the human immune system. Role of the immune system in normal and abnormal immune responses and how this system manifests in laboratory tests. Examine and analyze techniques and applications of immunochemistry in the medical diagnostic process.

Prerequisite(s): Limited to students enrolled with an employer and degree seeking in Healthcare Professions, A.A.S. with a concentration in Medical Laboratory Technician, MLT 101 - Intro to Medical Laboratory Technician (2), and MLT 102 - Medical Laboratory Techniques (2).

**MLT 202 - Medical Microbiology (4)**

Study the clinical aspects of infectious disease, to include bacteriology, mycology, parasitology and virology. The course will include specimen collection and handling of normal flora and pathogens within the body. Explore the laboratory identification of different microorganisms, pathogenesis, clinical syndromes, epidemiology and medical treatment.

Prerequisite(s): Limited to students enrolled with an employer and degree seeking in Healthcare Professions, A.A.S. with a concentration in Medical Laboratory Technician, MLT 101 - Intro to Medical Laboratory Technician (2), and MLT 102 - Medical Laboratory Techniques (2).

**MLT 203 - Immunohematology (3)**

Explore the basic principles of blood banking and immunology to include the organization and functions of the immune system, antigen/antibodies, complement, humoral and immunity of cell-mediated and disorders of the immune system. Present the theoretical and practical concepts of blood bank/transfusion medicine.

Prerequisite(s): Limited to students enrolled with an employer and degree seeking in Healthcare Professions, A.A.S. with a concentration in Medical Laboratory Technician, MLT 101 - Intro to Medical Laboratory Technician (2), and MLT 102 - Medical Laboratory Techniques (2).

**MLT 204 - Clinical Chemistry (3)**

Study the analysis of the chemical constituents of blood to include specimen collection, processing, correlation of normal and pathological physiology and the diagnostic correlations in health and disease. Laboratory emphasizes the analytical accuracy and precision by using manual and automated laboratory techniques.

Prerequisite(s): Limited to students enrolled with an employer and degree seeking in Healthcare Professions, A.A.S. with a concentration in Medical Laboratory Technician, MLT 101 - Intro to Medical Laboratory Technician (2), and MLT 102 - Medical Laboratory Techniques (2).

**MLT 205 - Review & Certification Preparation (4)**

This course provides the student with a review of all major clinical laboratory procedures, clinical and general competencies covered in the medical laboratory technician program. Upon successful completion of courses, students will be prepared for National Certification and State Licensure.

Prerequisite(s): Limited to students enrolled with an employer and degree seeking in Healthcare Professions, A.A.S. with a concentration in Medical Laboratory Technician, MLT 101 - Intro to Medical Laboratory Technician (2), and MLT 102 - Medical Laboratory Techniques (2).

#### **MLT 210 - Clinical Practice I-Internship (4)**

Students will experience an internship at an affiliated hospital. This will provide the students the opportunity to gain practical skills experience in manual and automated procedures in two specified departments. Students will experience problem-solving, evaluation of quality control and learn instrument maintenance.

Prerequisite(s): Limited to students enrolled with an employer and degree seeking in Healthcare Professions, A.A.S. with a concentration in Medical Laboratory Technician, MLT 101 - Intro to Medical Laboratory Technician (2), and MLT 102 - Medical Laboratory Techniques (2).

#### **MLT 211 - Clinical Practice II-Internship (4)**

Students will experience an internship at an affiliated hospital. This will provide the students the opportunity to gain practical skills experience in manual and automated procedures in two specified departments. Students will experience problem-solving, evaluation of quality control and learn instrument maintenance.

Prerequisite(s): Limited to students enrolled with an employer and degree seeking in Healthcare Professions, A.A.S. with a concentration in Medical Laboratory Technician, MLT 101 - Intro to Medical Laboratory Technician (2), and MLT 102 - Medical Laboratory Techniques (2).

#### **MLT 299 - Special Topics (1-6)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

#### **Music**

#### **MUSC 111 - ~Introduction to Music (3)**

This course provides training and experiences which will enable the student to acquire a historical-social-aesthetic perspective, to comprehend musical concepts, to discriminate quality levels, to select satisfying and stimulating musical experiences, and to empathize with the creators and performers of music.

#### **MUSC 199 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

#### **MUSC 299 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

#### **Nursing**

#### **NURS 111 - Introduction to Nursing (2)**

This hands-on course is designed as an introduction to the skills used to provide functional nursing care across the lifespan. This course has a lab component for teaching and demonstrating skill proficiency. Classroom 1 hour per week, clinical: 3 hours per week.

Prerequisite(s): Must be a degree seeking student enrolled in Healthcare Professions, A.A.S., 58.7 TEAS test score  
Pre-requisite/Co-requisite(s): BIOL 120 - ~Human Anatomy & Physiology I (3) and BIOL 121 - ~Human Anatomy & Phys I Lab (1)

### **NURS 115 - Nursing Care I (5)**

This course builds on the skills learned in NURS 111 - Introduction to Nursing (2) and introduces professional and patient concepts across the lifespan for providing nursing care. This course has a clinical component for application of acquired skills in patient care situations. Classroom: 3 hours per week; clinical: 4.5 clock hours per week. Clinical hours will be aggregated throughout the semester.

Prerequisite(s): NURS 111 - Introduction to Nursing (2) and acceptance into Nursing A.S.N.

### **NURS 135 - Nursing Care II (9)**

This course continues to build on lifespan concepts of health and illness with related exemplars. The student will integrate conceptual learning with skills and knowledge learned in previous nursing courses. This course has a clinical component that provides for the application of learning to direct and simulated patient care experience. Classroom: 6 hours per week; Clinical: 9 hours per week. Clinical hours will be aggregated throughout the semester.

Prerequisite(s): NURS 115 - Nursing Care I (5) and admission to Nursing A.S.N.

### **NURS 165 - Pharmacology & Pathophysiology for Nurses (4)**

This course combines two related science fields essential to nursing. Basic principles of pharmacology including pharmacokinetics, pharmaceuticals and pharmacodynamics are presented; as well as emphasis on selected disease processes including inflammation, immunity, vascular control mechanisms and basic genomics.

Prerequisite(s): BIOL 220 - Microbiology (3), BIOL 221 - Microbiology Lab (1), NURS 105 - Introduction to Professional Nursing, and NURS 108 - Basic Nursing Skills

Corerequisite(s): NURS 150 - Health Assessment

### **NURS 180 - LPN-to-RN Role Transition (5)**

For LPN to RN articulation students only. This course will assist the student who has met the eligibility requirements for the LPN-to-RN articulation to make the transition from the LPN role to the Registered Professional Nurse role. An emphasis will be placed on advancing into professional nursing practice through a combination of lecture seminar and clinical experiences. Successful completion of this course allows the student to be exempt from and receive three additional credits for degree.

Prerequisite(s): ENGL 101 - ~Written English (3), BIOL 120 - ~Human Anatomy & Physiology I (3), BIOL 121 - ~Human Anatomy & Phys I Lab (1), BIOL 122 - ~Human Anatomy & Physiology II (3), and BIOL 123 - ~Human Anatomy & Phys II Lab (1)

Pre-requisite/Co-requisite(s): CHEM 125 - ~Introduction to College Chemistry (4) and COMM 202 - ~Fundamentals of Speech (3) .

### **NURS 199 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

### **NURS 203 - Mental Health Clinical Nursing (2)**

This course assists students in establishing, maintaining, and terminating effective interactions with individuals and groups of people exhibiting psychosocial problems across the continuum of care.

### **NURS 205 - Adult Nursing Care I (5)**

This course focuses on the knowledge, skills and values necessary for the delivery of comprehensive nursing care of the patient in the acute care setting. An integrated biological, psychological, socio-cultural, environmental and spiritual approach to the care of the patient and his family will be employed. A systems approach is used to organize content.

Prerequisite(s): All nursing courses to this point.

Corerequisite(s): NURS 210, NURS 214

**NURS 206 - Adult Health Nursing III (3)**

This course continues to focus on the practice of holistic nursing with persons experiencing common medical surgical problems. Emphasis is placed on individuals with alterations in genitourinary, hematological, neurological function and with burn injuries. In addition, the student explores the relationship of environment to health.

Prerequisite(s): NURS 203, 204

Corerequisite(s): NURS 208, NURS 222.

**NURS 208C - Adult Health Nurse III Clinical (2)**

This continues the development of nursing care skills in a variety of clinical agencies. Patient situations are correlated to lecture content in NURS 208.

**NURS 208L - Adult Health Nurse III Lab (1)**

This continues the development of nursing care skills in a supervised laboratory setting. Specific skills are correlated to lecture content in NURS 206.

**NURS 210 - Mental Health Nursing (3)**

This course provides theory of nursing care of clients with mental health needs. Using an integrative approach, course content is based on the biological, psychological, and socio-cultural aspects of behavioral disorders.

Prerequisite(s): NURS 105, NURS 108, NURS 150, NURS 160, NURS 165

**NURS 211 - Family Health Nursing II (2)**

This course focuses on families with children emphasizing normal growth and development, health promotion, and maintenance through anticipatory guidance and continues developing the use of the nursing process. Select deviations from normal and restorative measures are discussed.

**NURS 213 - Family Health Nursing Clinical II (2)**

This course provides the student with the opportunity to care for children and families in a variety of settings.

Corerequisite(s): NURS 211.

**NURS 214 - Clinical Nursing II (4)**

This clinical course will provide opportunity for the student to provide direct patient care to a variety of clients and in a variety of clinical agencies. Specific clinical foci will include inpatient and outpatient care of the adult patient with physical and mental health problems. Content and skills gained in previous nursing courses will be integrated in this course.

Corerequisite(s): NURS 205, 214 Hours Clock hours 12 hours/week.

**NURS 215 - Nursing Care III (9)**

This course continues to build on lifespan concepts of health and illness with related exemplars. The student will integrate conceptual learning with skills and knowledge learned in previous nursing courses. This course has a

clinical component that provides for the application of learning to direct and simulated patient care experiences. Classroom: 5 hours per week; Clinical: 12 hours per week. Clinical hours will be aggregated throughout the semester.

Prerequisite(s): NURS 135 - Nursing Care II (9) and admission to Nursing A.S.N.

**NURS 222 - Contemporary Nursing (3)**

This course assists the student in examining a variety of issues involved in the practice of nursing within a changing society and health care environment. Topics explored include ethics, legal aspects, professional behaviors, lifelong learning, and patterns of health care delivery. This course must be taken in the students' final semester.

Prerequisite(s): NURS 203, 204.

Corerequisite(s): NURS 206, 208, NURS 211, NURS 213.

**NURS 235 - Adult Nursing Care II (5)**

This course continues the content from Adult Nursing Care I. A systems approach is used to organize content, but the complexity of the patient problems is greater.

Prerequisite(s): All nursing courses to this point.

Corerequisite(s): NURS 236, NURS 238

**NURS 236 - Clinical Nursing III (5)**

This clinical course incorporates all theory and skills accumulated from previous nursing courses and enable the student to provide nursing care to multiple patients and /or complex patients in a primarily acute inpatient setting. A one on one preceptorship with an RN in a selected clinical area is included in this clinical.

Corerequisite(s): NURS 235, NURS 238 Hours Clock hours 15 hours/week.

**NURS 238 - Transition to Professional Nursing (2)**

This course is intended to be taken during the final semester of the program.

Prerequisite(s): All nursing courses to this point.

**NURS 240 - Nursing Care IV (10)**

This course is designed to prepare the student to transition from the role of nursing student to a professional registered nurse. The student will be expected to apply and analyze concepts related to patient care, professionalism, and health care. The student will integrate interrelated concepts encompassing multiple health and illness concepts across the lifespan. Knowledge and skills learned in previous nursing courses will be utilized. This course has a clinical component that provides for application of learning to direct and simulated patient care experiences. Classroom: 7.5 hours per week; Clinical: 2.7 hours per week; and 120 hours of preceptor/capstone experience. Clinical hours will be aggregated throughout the semester.

Prerequisite(s): NURS 215 - Nursing Care III (9) and admission to Nursing A.S.N.

**NURS 299 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

**Orientation**

**ORIE 101 - Orientation to College (1-6)**



A course designed to help the student bridge the transition to the college environment.

**ORIE 199 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

**Philosophy**

**PHIL 101 - Introduction to Philosophy (3)**

This course introduces students to the major fields, problems, theories, and personalities of philosophy through the biographies and writing of leading thinkers.

**PHIL 111 - Phil of World Religions (3)**

Introduces the study of religion from several disciplinary approaches, including psychology, sociology, philosophy, and history and gender studies.

**PHIL 199 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

**PHIL 299 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

**Phlebotomy**

**PLBT 101 - Phlebotomy (3)**

This course prepares students with the fundamentals of phlebotomy. Both theory and hand-on experience are provided. Course content includes the history of phlebotomy, basic anatomy and physiology, infection control, specimen collection, various venipuncture techniques, dermal punctures, venipuncture complications, point-of-care testing, legal issues, and special non-blood specimen collection techniques.

Prerequisite(s): MAST 102 - Medical Terminology (3) or CAHS 153 - Phlebotomy Technician (1–12)

**PLBT 102 - Phlebotomy Clinical Externship (3)**

This course requires students to work in a CLIA approved laboratory setting and function under direct supervision of a phlebotomist. The externship is one hundred (100) uncompensated hours in length. Students are expected to perform a minimum of 100 successful blood collection procedures including venipunctures and dermal punctures. Phlebotomy competencies will be evaluated by a phlebotomy preceptor(s) and under the direction of a phlebotomy instructor. The student needs to contact the Phlebotomy Externship Coordinator prior to registering for this course. Early registration is encouraged to allow time to make arrangements for the externship experience. The student is expected to follow all policies and procedures of their designated externship site.

Prerequisite(s): PLBT 101 - Phlebotomy (3) or CAHS 153 - Phlebotomy Technician (1–12)

**Physical Therapist Assistant**

**PTA 101 - Intro to Physical Therapy (2)**

History of the physical therapy profession and survey of general physical therapy services. Legal and ethical requirements for the physical therapist assistant are introduced. The Americans with Disabilities Act and

architectural barriers are studied.

Prerequisite(s): Acceptance into PTA program.

**PTA 102 - Patient & Professional Relationship (2)**

Recognition of the reactions of the health care worker, patient, and family to illness and disability is discussed. The influence of race, class, age, ethnic origin, and gender on the physical therapist assistant and patient relationship is explored. The stages of adjustment to disability and death and dying are described. Communication skills between PTA, patient, family and other health care providers are developed.

Prerequisite(s): Acceptance into PTA program.

**PTA 103 - Intro to Patient Care (3)**

An introduction to basic patient care procedures such as positioning, transferring, ambulating, dressing, fitting ambulation aids, and taking vital signs. Universal Precautions, isolation, and aseptic principles will be presented. Skills in basic note writing will be developed.

Prerequisite(s): Acceptance into PTA program.

**PTA 104 - Physical Agents (4)**

This course includes the lecture and lab study of thermal agents, compression, and massage. Skills in surface anatomy and goniometry are developed. Topics include electrical stimulation, traction, and manual muscle testing. Upon completion, students are able to correctly and safely apply these techniques in a laboratory setting while assessing the physiologic response and observing indications and contraindications. Also, students can write appropriate progress notes, and demonstrate knowledge of the physiological principles involved.

Prerequisite(s): Acceptance into PTA program.

**PTA 105 - Kinesiology (3)**

This course provides a study of human movement and related mechanical principles. Topics include detailed musculoskeletal anatomy and physiology. Upon completion, student will be able to analyze a functional task and identify component joint motions and muscle actions.

Prerequisite(s): Acceptance into PTA program.

**PTA 106 - Clinical Education I (1)**

Initial clinical experience for students. Forty hours spaced throughout the semester introduces the various settings of a physical therapy practice - acute care, transitional care, out-patient clinic, home health, skilled nursing facility, rehabilitation unit, and the school system. The student may participate in the clinic's activities only if their skills have been checked-off in the course laboratory setting.

Prerequisite(s): Acceptance into PTA program.

**PTA 107 - Clinical Education II (3)**

A concentrated fifteen day, 120 hour clinical experience dedicated to modality application and the study of goniometry and manual muscle testing. The student will be assigned to a clinical setting that utilizes the modalities studied. The student will begin to assess patient response to treatment and be prepared to adjust the therapeutic intervention accordingly.

Prerequisite(s): Acceptance into PTA program.

**PTA 108 - Patho of Disease for PTA (3)**

Pathophysiology of diseases for the PTA will build upon previously learned knowledge of normal anatomy and normal physiology. This course will discuss pathologies and abnormalities that are deviations from the norm. For all pathologies, we will discuss: causes, signs and symptoms, diagnosis, diagnostic tests, treatments, and prognosis. The pathologies will be organized according to body system, including: cardiovascular, respiratory, immune, gastrointestinal, urinary, reproductive, endocrine, nervous, musculoskeletal, and integumentary with emphasis placed on how these are addressed by PTA's. Other topics will include infectious diseases, neoplasms, hereditary diseases, diseases of the blood, and mental/cognitive disorders.

#### **PTA 109 - Physics for PTA (1)**

This is an introductory physics course for students wishing to enter the PTA certification program. Students will be introduced to the following concepts: Newton's Laws of Motion, Linear Motion, Circular Motion, Gravity, Work and Energy, Momentum, Vectors, Rotational Motion, Energy, Waves and Sound, Heat, and Heat Transfer.

#### **PTA 110 - Musculoskeletal Review (3)**

Musculoskeletal Review will build upon previously learned knowledge of normal anatomy and normal physiology. This course was designed for the physical therapist assistant student to learn attachments, actions and innervations of selected muscles. Group activity utilizing anatomical models and palpation on classmates will be key components to learning in this course. Units of study are divided up according to joints/areas of the body, as follows: shoulder girdle, shoulder, elbow, wrist, hand, hip, knee, ankle, foot, and pelvis. Muscular system, articular system, and skeletal system will be our main focus in this course.

Prerequisite(s): Acceptance into PTA program.

#### **PTA 199 - Special Topics (1-4)**

A special topics course will have a different course description for each course offered under this special topics code. The division will keep a record of every special topics course offered with this subject code, including course description.

Prerequisite(s): Acceptance into PTA program.

#### **PTA 201 - Therapeutic Exercise (4)**

The principles and techniques of therapeutic exercise will be introduced. Topics also include gait analysis, posture assessment, and chest physical therapy. Upon completion the student will plan, implement, and assess the response to an exercise plan in a laboratory setting.

Prerequisite(s): PTA 101 - Intro to Physical Therapy (2)

#### **PTA 202 - Orthopedics (4)**

The dysfunctions caused by and intervention strategies for musculoskeletal disorders, amputations, wounds, and burns will be examined. Upon completion, the student will be able to combine previously and newly learned procedures and strategies to carry out an orthopedic care plan in a laboratory setting.

Prerequisite(s): PTA 101 - Intro to Physical Therapy (2)

#### **PTA 203 - Neurology (4)**

The dysfunctions caused by and intervention strategies for peripheral and nervous system disorders will be examined. Upon completion the student will be able to combine previously and newly learned procedures and strategies to carry out a neurologic care plan in a laboratory setting.

Prerequisite(s): PTA 101 - Intro to Physical Therapy (2)

#### **PTA 204 - Clinical Education III (5)**

This rotation consists of two hundred hours over a five week period that will allow the student to begin the process of working within the physical therapy Plan of Care. The emphasis will be to implement, develop, and progress a therapeutic exercise program for the patient to address the impairments of decreased range of motion, decreased strength, decreased endurance, or motor control deficit.

Prerequisite(s): PTA 101 - Intro to Physical Therapy (2)

**PTA 205 - Capstone Seminar (1)**

This intense five week seminar examines the expectations for an entry level physical therapist assistant and focuses on preparation for clinical rotations and entry into the profession. Previously learned and new material relating to safety, plan of care, communication, professional behavior, and knowledge are tied to the role of the PTA.

Prerequisite(s): PTA 101 - Intro to Physical Therapy (2)

**PTA 206 - Clinical Education IV (5)**

This five week, 200 hour clinical assignment allows the student to apply all previously learned theory and skills to patient care in a clinical setting. Each student is assigned to a clinical center to perform physical therapy modalities and procedures on a variety of patients.

Prerequisite(s): PTA 101 - Intro to Physical Therapy (2)

**PTA 299 - Special Topics (1-4)**

A special topics course will have a different course description for each course offered under this special topics code. The division will keep a record of every special topics course offered with this subject code, including course description.

Prerequisite(s): PTA 101 - Intro to Physical Therapy (2)

**Physics**

**PHYS 103 - ~General Physical Science I (4)**

This is an introductory survey course which explores the major concepts in physics and chemistry. Topics covered will include motion, matter and energy, atomic models, nuclear structure, waves, and electricity. A combination of conceptual framework, practical applications, and problem solving will be utilized in the integrated laboratory and lecture course.

**PHYS 104 - ~General Physical Science II (4)**

An introductory survey course which explores the major concepts in geology, astronomy, and meteorology. Topics covered will include rocks and minerals, weathering and erosion, surface and groundwater, geologic time, plate tectonics, earthquakes, volcanoes, and mountains; light and telescopes, the solar system, stars, nebulae, and galaxies; the origin of the universe; the basics of meteorology, and the effects of weather and climate. A combination of conceptual framework, practical applications, and problem solving will be utilized in the integrated laboratory and lecture course.

**PHYS 199 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

**PHYS 201 - General Physics I (4)**

A calculus-based Physics course covering topics of motion, force, Newton's laws, energy, momentum, gravitation, rotation, acoustics, fluid dynamics, and thermodynamics. The course includes a lab component.

Prerequisite(s): MATH 207 - ~Calculus I (4)

**PHYS 299 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

**Political Science**

**PSCI 100 - ~Introduction to Political Ideology (3)**

This course provides an overview of major political ideologies that shaped the historical political landscape of the world and the United States and will give shape to the 21st century. An examination of democracy, liberalism, conservatism, socialism, and fascism (along with many other 'isms') provide the student with a sense of history and structure.

**PSCI 101 - ~American Federal Government (3)**

This course involves the study of the functions and administration of government in the United States. The course is designed to provide an introduction to the structure, organization and functioning of the national government of the United States. It will examine the powers and relationships of the executive, legislative, and judicial branches of government with special emphasis given to the role that history, political parties, pressure groups, etc. play in influencing these relationships.

**PSCI 102 - ~State & Local Government (3)**

This survey course covers the history and operations of state and local government. Some of the topics include state & local politics, state constitutions, state legislation, state governors, the justice system, and financing of state and local government.

**PSCI 199 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

**PSCI 299 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

**Psychology**

**PSYC 199 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

**PSYC 203 - ~Introduction to Psychology (3)**

This course will introduce the student to basic psychological principals and to enable the student to examine current thinking about: development, personality, sensation and perception, cognition, learning, psychological disorders and their treatment, and influence.

Prerequisite(s): ENGL 100 - English Essentials (3) or placement test scores

**PSYC 205 - Abnormal Psychology (3)**

This course introduces students to both the science and the personal aspects of abnormal psychology through developing an understanding that abnormal psychology is about understanding the individual in society. This course will emphasize the use of case studies to present the most cutting edge information on abnormal psychology by covering methods and treatment in context. Material presented will integrate the biological, psychological, and social perspectives associated with abnormal psychological study.

Prerequisite(s): PSYC 203 - ~Introduction to Psychology (3)

### **PSYC 240 - Social Psych of Substance Use (3)**

This course is designed to introduce students to the social reality of substance abuse. The course will address the social and personal dynamics involved in the phenomena of substance use. In addition, this course will look at the issues surrounding substance use and its relationship to crime, rehabilitation, medicalization in our society, and various movements aimed at drugs.

Prerequisite(s): PSYC 203 - ~Introduction to Psychology (3) and SOCI 203 - ~General Sociology (3)

### **PSYC 299 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

### **Renewable Energy Systems**

#### **RENG 101 - Renewable Energy Technology (1)**

This course explores basic Renewable energy concepts and studies Photovoltaics, Wind Turbine and Solar Thermal systems in typical application environments. Topics include: Site plan, sizing, safety, regulations, and grid connection. Small scale PV, wind turbine, solar thermal and controllers will be utilized to provide hands on training. Systems simulation will also be incorporated. This will be a 1 credit hour class, encompassing 1 hour of lecture.

#### **RENG 101L - Renewable Energy Tech Lab (2)**

This course explores basic Renewable energy concepts and studies Photovoltaics, Wind Turbine and Solar Thermal systems in typical application environments. Topics include: Site plan, sizing, safety, regulations, and grid connection. Small scale PV, wind turbine, solar thermal and controllers will be utilized to provide hands on training. Systems simulation will also be incorporated. This will be a 2 credit hour class, encompassing 4 hours of Lab.

#### **RENG 201 - Solar Thermal Energy (1)**

This course explores Solar Thermal systems in typical application environments. Topics include: Site plan, sizing, safety, regulations, and connection, Flat panel, Evacuated Tube as well as geothermal systems will be utilized to provide hands on training. Systems simulation will also be incorporated. We are planning to acquire an enclosed equipment trailer to build a rolling classroom for hands on installation of PV, wind turbine, solar thermal and geothermal systems. This will be a 1 credit hour class, encompassing 1 hour of lecture.

#### **RENG 201L - Solar Thermal Energy Lab (2)**

This course explores Solar Thermal systems in typical application environments. Topics include: Site plan, sizing, safety, regulations, and connection, Flat panel, Evacuated Tube as well as geothermal systems will be utilized to provide hands on training. Systems simulation will also be incorporated. We are planning to acquire an enclosed equipment trailer to build a rolling classroom for hands on installation of PV, wind turbine, solar thermal and geothermal systems. This will be a 2 credit hour class, encompassing 4 hour of lab.

### **Robotics**

#### **ROB 199 - Special Topics (1-4)**

A special topics course (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

**ROB 210 - Robotics I (2)**

This course is designed to introduce the student to industrial robotics applications typical environments. Topics include: robot history and fundamentals, robot classification, power sources, robot applications in the workplace, robot control techniques, path control, end of arm tooling, robot operation, and robot controllers, controller architecture in a system, robotic language programming, and human interface issues.

**ROB 220 - Robotics II (3)**

This course expands on Robotics I and will focus on industrial robotics installation, application, programming, and maintenance. Course topics will include: programming in a C-type language to read sensors and control outputs, troubleshooting software and hardware using functional testing. Large scale robots and controllers will be utilized to provide hands on training. Systems simulation will also be incorporated.

Prerequisite(s): ROB 210 - Robotics I (2)

**ROB 299 - Special Topics (1-4)**

A special topics course (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

**Safety Technology**

**SAFT 113 - General Physical Science for Safety Technology (3)**

A fundamental survey of physics and chemistry with special emphasis on practical application in fire prevention, fire hazards, and fire suppression.

**SAFT 151 - Fundamentals of OSHA (3)**

This course provides a detailed review of various Occupational Safety and Health Administration (OSHA) regulations including: Hazard Communication, Confined Space, Lockout/Tagout, Personal Protective Equipment, Hazardous Waste Operations and Emergency Response, Emergency Action and Fire Prevention Plans and Respiratory Protection.

**SAFT 180 - Hospital Security Management (3)**

An introduction to hospital security management practices, this course covers program development, implementation and management, budgeting, personnel staffing, identification of security vulnerabilities, investigation techniques, and information management practices applicable to healthcare facility security.

**SAFT 199 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

**SAFT 205 - Building Code and Inspection (3)**

This course gives the student an understanding of blueprint reading, plans review, code enforcement and compliance and understanding of various building codes and how they related to today's society.

**SAFT 209 - Industrial Hygiene (3)**

This course examines the principles of industrial hygiene applicable to various industries. Topics covered include the recognition of chemical, physical, biological, and environmental hazards, methods of hazard control and mitigation and use of various environmental testing and monitoring equipment.

**SAFT 210 - Introduction to Emergency Management (3)**

This course gives the basic principles of emergency management. This course discusses prevention, mitigation, response and recovery to human environmental, natural, and radiological hazards. This course is designed to give a starting point in developing a hazard vulnerability analysis, which will prioritize hazards and attempt to reduce the impact of the hazard through preparation.

**SAFT 211 - Introduction to Environmental Management (3)**

This course provides the basics in understanding environmental laws, and regulation in relation to the workplace and will give the safety professional a starting point to evaluate environmental issues in the workplace and strategies how to deal with those issues.

**SAFT 220 - Safety Management I (3)**

Students learn to analyze hazard problems, to evaluate alternative solutions, and to design the required hardware, devices, and methods needed to eliminate hazards in a variety of industrial applications. Industrial and accident prevention laws pertaining to industrial safety and health, including workers' compensation laws, OSHA regulations, and industrial property protection laws, are examined.

**SAFT 221 - Safety Management II (3)**

A continuation of SAFT 220 Safety Management I, this course introduces the more advanced techniques and principles of safety program management. Using real-life scenarios as study models, the course overviews the elements of a viable safety program.

Prerequisite(s): SAFT 220.

**SAFT 232 - Hospital Safety I (3)**

An introduction to hospital safety management practices, this course covers program development, implementation and management, job safety analysis, hazard recognition, safety inspections, safety committees, fire safety and industrial hygiene practices applicable to healthcare facilities.

**SAFT 233 - Hospital Safety II (3)**

A continuation of SAFT 232, this course provides an in-depth review of safety and environmental compliance issues applicable to healthcare facilities. Topics include blood borne pathogens, radiation safety, laser safety, biological, and hazardous waste management.

**SAFT 234 - Security Management (3)**

This course looks at personnel, loss control, electronic and other various means of facility security. This course will look at the management of resources, purchasing of equipment of the cost/benefit in investing in various security practices and systems.

**SAFT 235 - Construction Safety (3)**

This course is designed to give the student an understanding and basics of construction safety. This course will review CFR 1926 standards and how they apply to construction. The course is for the safety manager who works with construction on-site or managing safety for a construction company or contractor.

**SAFT 240 - Industrial Fire Protection (3)**



This course emphasizes principles of industrial fire protection systems, including alarms, detection, and sprinkler protection. The course also provides information on employee response to emergencies in the work setting, following CFR 1910.38, CFR 1910.156, and NFPA 600 standards.

**SAFT 241 - Accident Investigation (3)**

This course assists the safety manager to conduct thorough and complete investigations for incidents or events in a systematic approach. This benefits the safety manager by giving proper information and procedure needed to complete accurate incident reports.

**SAFT 242 - Loss Control and Recovery (3)**

This course evaluates eliminating and reducing losses to the business environment through evaluation of injuries, near-misses, and property damage. This course evaluates environmental controls, personal protective equipment, and elimination/substitution to work with a variety of workplace hazards. This course also looks at injury reports, workers compensation statistics and other loss contributors to the workplace.

**SAFT 280 - Directed Study Safety Technology (1–6)**

This variable credit course allows students to pursue a Safety Technology research project of particular interest. Students registering for this course must have prior approval from the Program Coordinator for Safety Technology.

**SAFT 292 - Internship In Safety Technology (3)**

This course involves practical experience in fire service organizations in which the student engages in on-the-site activities of a practical nature. Interns learn how to translate classroom theory and methods into professional skills. Activities are under the supervision of trained personnel. Application for the internship must be made to the fire science program advisor.

**SAFT 293 - Safety On-the-Job-Training (1–13)**

This course is designed to award credit to those persons who have participated in a supervised on-the-job training program in safety technology. Credit is awarded upon receipt of a letter from the on-site supervisory stating successful completion of on-the-job training assignments and the total number of actual hours involved in the training.

Hours (Credit hours earned for On-the-Job Training are calculated as 1 credit hour = 150 actual hours. Therefore, a student must work 1950 actual hours to receive 13 credit hours.)

**SAFT 295 - Safety Degree Evaluation (2)**

This capstone course is designed to “put it all together” for the student who is about to graduate with an A.S. in Safety Technology. This course evaluates the student’s knowledge of the program, including but not limited to chemistry, industrial fire protection, emergency management, basic fire suppression, strategies and tactics, fire investigation, and management practices.

**SAFT 299 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

**Software Development**

**SDE 201 - Mobile App Development I (3)**

This course introduces students with the design, development, testing, and debugging of mobile applications for the Android platform. It will use the object-oriented programming along with XML to create the applications and their interfaces. Multiple mobile user interface elements are used to gather input and drive the application. The course covers Android application development phases, terminologies, application design, and coding.

Prerequisite(s): IT 192 - Introduction to Programming in Visual Basic (3) or IT 243 - Programming with Python (3) and IT 193 - Intro to Programming C# (3) and IT 194 - Introduction to Programming Java (3)

### **SDE 202 - Mobile App Development II (3)**

This course introduces students with the application Apple/Mac development process employing the use of xcode development environment and use of various programming languages within that environment with a variety of programming models. It will also prepare students to deploy applications for beta testing as well as the process involved in final deployment of the finished application. Covers Apple/Mac application development phases, terminologies, application design and coding.

Prerequisite(s): IT 192 - Introduction to Programming in Visual Basic (3) or IT 243 - Programming with Python (3) and IT 193 - Intro to Programming C# (3) and IT 194 - Introduction to Programming Java (3)

### **SDE 204 - Advanced Database (3)**

This course covers aspects of network based DBMS and focuses on design principles, relationships, normalization, and SQL (Structured Query Language) queries for a moderately complex small-scale business application. This course will also introduce the student to data control, data environment, and other objects related to database access and updating. It will focus on program statements and techniques to manipulate database information. Emphasis will be placed on use of programming that can be utilized without limitation to a particular database management system.

Prerequisite(s): IT 192 - Introduction to Programming in Visual Basic (3) or IT 243 - Programming with Python (3) and IT 193 - Intro to Programming C# (3) and IT 194 - Introduction to Programming Java (3)

### **SDE 208 - Systems Engineering (3)**

This course will give foundational overview to the field of systems engineering. Students will learn key topics related to system design, including requirements development, trade studies, the project life cycle, system hierarchy, risk analysis and cost analysis. The concepts presented in this course will be demonstrated with examples. The students will also be exposed to concepts regarding team organization, design fundamentals and work ethics. They will learn that systems engineering is iterative and will develop judgement that will allow them to compare and evaluate engineering alternatives. The students will learn to discuss systems engineering methods and processes as well as engage in systems thinking.

Prerequisite(s): IT 192 - Introduction to Programming in Visual Basic (3) or IT 243 - Programming with Python (3) and IT 193 - Intro to Programming C# (3) and IT 194 - Introduction to Programming Java (3)

### **SDE 209 - Applied App Development (4)**

This is hands-on Capstone course designed to validate knowledge and skills of the student in application development. It will utilize concepts learned through Mobile Application Development I and II, Advanced Database and Systems Engineering courses. It will require the student to develop and implement an application development project. Students will be required to work both independently and on teams with limited guidance and instruction and solve business requirements based on "real world" scenarios.

Prerequisite(s): SDE 201 - Mobile App Development I (3), SDE 202 - Mobile App Development II (3) and SDE 208 - Systems Engineering (3)

### **SDE 292 - Field Experience (4)**

This is a capstone course in experiential learning. A student participates in an intensive internship, externship, or cooperative with an appropriate agency, company or organization.

Prerequisite(s): SDE 201 - Mobile App Development I (3), SDE 202 - Mobile App Development II (3), and SDE 208 - Systems Engineering (3)

## **Sociology**

### **SOCI 199 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

### **SOCI 203 - ~General Sociology (3)**

This course introduces students to the core concepts and perspectives of sociology, the study of human social environments and of human interactions within those environments. The course will explore a number of sociological topics to develop a sociological imagination, an ability to understand the effects of group membership on behavior, attitudes, beliefs, and life chances.

Prerequisite(s): ENGL 100 - English Essentials (3) or placement test scores

### **SOCI 205 - Social Problems (3)**

This course provides an in-depth study of current social problems. Emphasis is on causes, consequences, and possible solutions to problems associated with major social institutions.

Prerequisite(s): SOCI 203 - ~General Sociology (3)

### **SOCI 215 - ~Human Relations (3)**

Human Relations presents a sociological and applied psychological analysis of human relations. These approaches examine social and individual level research on human relationships. The course examines large-scale organizational units, large groups of people in society, and person-to-person interactions that occur in the larger social context. The topics explored in this course include class, power, race, sex/gender, individual needs, ethics, perceptions, group dynamics, and active listening. Course materials stress the overlapping nature of those topics and use a relational approach as a primary teaching method.

### **SOCI 220 - Sociology of Diverse Groups (3)**

Sociology of diverse groups offers special topics in the sociology of diversity for in-depth study. This course explores multiculturalism, the presence of multiple diverse groups in society, and the varied social identities found among communities and groups. The course includes an overview of key concepts in discussions of diversity.

### **SOCI 299 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

## **Tri-County Education Workshops**

### **EDTR 199 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

### **EDTR 299 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

## **Workforce Development**

### **WORK 101 - Workplace Readiness (1-4)**

This workforce-based course enhances employees' outcomes and duties at their current positions.

### **WORK 102 - Microsoft Office (1-4)**

This workforce-based course enhances employees' computer efficiency in the workplace.

### **WORK 199 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

### **WORK 299 - Special Topics (1-4)**

A special topic (ST) has a different course description for each course offered under the ST code. The division will keep a record of every special topics course offered with this subject code, including the course description.

### **Other Courses**

### **~ 2016-2017 - Core Coursework Transfer Agreement**

The Higher Education Policy Commission is charged by statute with ensuring that undergraduate core coursework completed at any of its institutions is transferable as general studies credit to all other state institutions of higher education in West Virginia for credit with the grade earned. Though system policy provides that undergraduate coursework is generally transferable among state institutions, there is no requirement that courses transferred will meet the general studies requirements at receiving institutions. The purpose of this procedure is to establish a process and format which will enable students who transfer from one state college or university to another to transfer core coursework that will count toward fulfillment of general studies requirements at the receiving institutions. To facilitate the discharge of this statutory responsibility, the following agreement for transfer of core coursework at state higher education institutions in West Virginia and listing of institutional courses that are acceptable for transfer under this agreement has been developed. Each institution shall be responsible for identifying each course listed in its course catalog that is also listed as a CCTA course. Such courses shall be identified on the official and unofficial school transcript with a tilde (~) as the lead character on the course title.

## Faculty

### **Dr. Peter G. Checkovich (1987)**

*President*

*Professor of Education*

B.A. University of Virginia (1971)

M.Ed. University of Virginia (1975)

Ed.S. University of Virginia (1979)

Ed.D. University of Virginia (1985)

## School of Professional Studies and University Transfer

### **Dr. R. Craig Miller**

*Vice President of the School of Professional Studies and University Transfer*

*Chief Financial Officer*

*Professor*

B.S. Shepherd College

M.B.A. Frostburg University

Ed.D. West Virginia University

### **Megan Allen**

*Associate Dean of Behavioral & Social Sciences*

*Assistant Professor*

B.A. University of North Carolina at Greensboro

M.A. East Carolina University

### **Amanda Carrell**

*E-Learning Support Specialist*

*Instructor*

R.B.A. Shepherd University

### **Todd Cimino-Johnson**

*Program Coordinator of Business*

*Instructor*

B.S. Shepherd University

M.B.A. Shepherd University

### **Dr. Kathy Cox**

*Associate Dean of Humanities*

*Assistant Professor*

B.A. Harvard University

M.A. University of Virginia

Ed.D. West Virginia University

### **Brett Gallagher**

*Dean of the School of Professional Studies and University Transfer*

*Associate Professor*

B.A. West Virginia University

M.A.T. Shepherd University  
M.A. West Virginia University

**Jackie Griggs**

*Academic Program Specialist  
Instructor*

A.A. Hagerstown Community College  
B.S. Shepherd University

**Heather Huggett**

*Instructor*

B.A. Virginia Polytechnic Institute and State University  
M.A. Virginia Polytechnic Institute and State University

**K. Page Moore**

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B.A. West Virginia University  
M.A. West Virginia University

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B.S. Shepherd College  
M.B.A. West Virginia University  
Ed.S. George Washington University

**Deidre Morrison**

*Assistant Professor*

B.A. Shepherd College  
M.A. West Virginia University

**Kerri Namolik**

*Assistant Professor*

B.A. The University of Pittsburgh  
M.L.S. West Virginia University

**Ann Price**

*Program Coordinator of Accounting  
Associate Professor*

Certified Public Accountant  
B.S. Shepherd College  
M.B.A. West Virginia University

**Dr. Holley Ralston**

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Lecturer*

B.A. West Virginia Wesleyan University  
M.A. West Virginia University  
Ph.D. Free University of Berlin

**James Ralston**

*Assistant Professor*

B.A. Alma College

M.A. Wayne State University

**Sara Shade**

*Multimedia Specialist*

*Lecturer*

A.A.S. Blue Ridge Community & Technical College

A.A.S. Blue Ridge Community & Technical College

R.B.A. Shepherd University

**Dr. Billie A. Unger**

*Program Coordinator, Liberal Arts*

*Professor*

B.A. Shepherd College

M.A. West Virginia University

Ed.D. West Virginia University

## **Workforce and Engineering Technologies**

**Dr. Ann Shipway (2002)**

*Vice President of Workforce and Engineering Technologies*

*Professor*

A.A.S. Allegany College of Maryland (1986)

A.A. Allegany College of Maryland (1986)

B.A. College of Notre Dame of Maryland (1988)

M.A. College of Notre Dame of Maryland (1993)

Ed.D. West Virginia University (2009)

**Michael Allenbaugh (2017)**

*Instructional Specialist of Advanced Manufacturing*

*Lecturer*

**James Bayly (2014)**

*Energy Coordinator of Bridging the Gap*

*Instructor*

A.A.S. Blue Ridge CTC (2015)

**Sandra Baker (2007)**

*Instructor*

A.A.S. Blue Ridge Community and Technical College (2007)

**Larry Bickett (2013)**

*Mechatronics Lab Assistant*

*Lecturer*

*Facilities Specialist*

A.A.S. Blue Ridge Community and Technical College (2013)

**Janet Branch (2014)**

*Program Coordinator of Computer Applications Specialist*

*Instructor*

B.S. Virginia Commonwealth University (1985)

M.S. Old Dominion University (2005)

**Adam Bridendolph (2017)**

*Associate Dean of Advanced Manufacturing*

*Lecturer*

B.S. Old Dominion University (2010)

M. Eng. Old Dominion University (2013)

**Laura Busey (2009)**

*Director of Operations*

*Scheduling & Site Support*

*Instructor*

B.A. Shepherd University (2008)

**Kathy Collis (2013)**

*Assistant Professor*

B.S. Cedarville University (1987)

M.S. Shippensburg University (1989)

**Miriam Conroy (2016)**

*Lecturer*

Culinary Arts Certificate L'Academie de Cuisine

**Samantha Cook (2015)**

*Instructor*

A.A.S. Fairmont State University Pierpont Community and Technical College (2012)

**Diana Crouse (2016)**

*Program Coordinator*

*Foundation Assistant*

*Lecturer*

R.B.A. Shepherd University (2008)

**Paul Emanuel (2015)**

*Program Coordinator of Applied Laboratory Technician*

*Instructor*

B.S. Waynesburg University (1992)

M.S. West Virginia University (2014)

**Cynthia Gruber (2017)**

*Culinary Instructional Specialist*

*Lecturer*

A.A.S. Blue Ridge Community and Technical College (2005)

**Anthony Hanners (2014)**

*Program Coordinator of Information Technology*

*Instructor*

A.A.S. Hagerstown Community College (2012)

B.S. University of Maryland, University College (2015)



**Amber Henson (2008)**

*Program Coordinator of Mathematics*

*Assistant Professor*

A.A. Garrett College (2001)

B.S. Shepherd College (2003)

M.Ed. Frostburg State University (2007)

**Tiffany Hine (2011)**

*Program Coordinator of Agribusiness*

*Assistant Professor*

B.A. West Virginia University (1991)

M.P.A. West Virginia University (1993)

**Cynthia Hull (2011)**

*Associate Dean of Career Advancement*

*Assistant Professor*

A.A. Hagerstown Community College (1977)

B.A. Hood College (1979)

M.Ed. Frostburg State University (2007)

**Lara Johnson (2012)**

*Food Quality Manager*

*Assistant Professor*

A.A.S. Baltimore International College (2001)

B.A. American Public University (2015)

**David Koritko (2016)**

*Instructor*

B.S. West Virginia University (1994)

M.Ed. Wheeling Jesuit University (2014)

**David Mathers (2014)**

*Project Coordinator of Remote Technologies*

*Instructor*

A.S. Hagerstown Community College (1998)

B.S. Indiana University (2012)

**Apryl McDonough (2012)**

*Chair of Information Technology*

*Program Coordinator of Board of Governors*

*Assistant Professor*

A.A.S. Blue Ridge Community and Technical College (2009)

B.S. Kaplan University (2011)

M.B.A. American Public University (2013)

**David Michaels**

*Program Coordinator of Bridging the Gap*

*Program Coordinator of Advanced Manufacturing*

*Lecturer*

A.B.S. Liberty University (1999)

**Michele Morrison (2009)**

*Associate Dean of Information Technology*

*Program Coordinator of CyberSecurity*

*Assistant Professor*

A.A. Potomac State College (1995)

B.S. West Virginia University (1998)

M.A. West Virginia University (2000)

**Anne Myers (2014)**

*Assistant Director of Workforce Development*

*Lecturer*

B.A. Temple University (1981)

**Ron Richter (2013)**

*Program Coordinator of Information Technology*

*Assistant Professor*

A.S. Garrett Community College (2003)

B.S. Frostburg State University (2006)

M.B.A. West Virginia University (2009)

**Duane Roberson (2010)**

*Program Coordinator of Electrical Distribution*

*Instructor*

**Morgan Seeley (2016)**

*Instructional Specialist of Agribusiness*

*Instructor*

A.A. Potomac State College of West Virginia University (2010)

**Jody Sheeder (2016)**

*Instructor*

A.S. Colorado Technical University (2010)

B.S. Colorado Technical University (2013)

**Sallie Sterling (2012)**

*Assistant Professor*

B.S. Shippensburg University (1976)

M.A. University of Maryland Baltimore County (1984)

**David Teets (2011)**

*Lab Supervisor*

*Instructor*

B.S. Belford University (2008)

**Taylor Tibyash (2012)**

*Assessment Coordinator, Career Readiness*

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B.A. West Virginia University (2012)

**Steve Weiss (2008)**

*Program Coordinator of Hospitality and Culinary Arts*

*Instructor*

A.A.S. Dutchess Community College (1986)  
A.A.S. Baltimore's International Culinary Art Institute (1988)  
R.B.A. Shepherd University (2014)

## **School of Health Sciences**

### **Dr. George Perry (2004)**

*Vice President of Instruction  
Professor*

B.A. West Virginia Wesleyan College (1982)  
M.Ed. West Virginia Wesleyan College (1990)  
Ed.D. West Virginia University (2004)

### **Louise Black (2008)**

*Assistant Professor*

B.A. Ohio Wesleyan University (1976)  
M.Ed. Kent State University (1981)

### **Tanda Emanuel (2015)**

*Externship Coordinator of Health Information Management  
Instructor*

A.A.S. Kaplan University (1982)  
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### **Allison Flynn (2013)**

*Assistant Professor*

B.S.N. West Virginia University (2006)  
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### **Robert Hopkin (2017)**

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A.A.S. Blue Ridge Community and Technical College (2016)

### **John Jacko (2012)**

*Assistant Professor*

B.S. Rutgers University (1984)  
D.P.M. Pennsylvania College of Podiatric Medicine (1991)

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AHIMA Approved ICD 10 CM/PCS Trainer  
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### **Dr. Chrystal L. McDonald (2011)**

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M.P.T. Shenandoah University (2002)  
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B.S. University of North Carolina (1989)  
M.S. University of North Carolina (1992)

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**Susan Reneker (2012)**

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*Lecturer*

B.S. Shippensburg University (1976)  
Medical Transcription Certification Hagerstown Community College (2005)

**Amy Schaeffer (2017)**

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BS Shepherd University (1999)  
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**Phyllis Michele Sheely (2010)**

*Clinical Coordinator of Physical Therapist Assistant*

*Instructor*

A.A. Frederick Community College (1994)  
A.S. Pennsylvania State University (1997)  
B.A. Marshall University (2011)

**Stephanie Sherwood (2013)**

*Director of Nursing*

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A.S.N. Blue Ridge CTC (2007)  
A.A.S. Blue Ridge CTC (2007)  
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M.S.N. Ed Liberty University (2015)

**Angel M. Smith (2016)**

*Externship Coordinator of Medical Assisting*

*Instructor*

A.A.S. Blue Ridge Community & Technical College (2010)

**Richard Snyder (2006)**

*Chair of Allied Health Science*

*Program Coordinator of Medical Assisting  
Associate Professor*

B.A. Carson-Newman College (1986)

R.M.A. American Medical Technologists (2003)

M.A. West Virginia University (2011)

**J. Ashleigh Snyder (2012)**

*Instructor*

A.S.N. Northern Virginia Community College (2002)

**Randolph Spies (2005)**

*Program Coordinator of Emergency Medical Services*

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