Virginia Highlands
COMMUNITY COLLEGE

# 2026-2027 Catalog

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# 2026-2027

# Catalog

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# Courses of Study

# College Calendar

### Holidays 2026-2027

The holidays listed below have been established as the official holidays for the College. Normally, all administrative offices of the College will be closed on these days.

| | |
|---|---|
| Monday, September 7, 2026 | Labor Day |
| Thur.-Fri., November 26-27, 2026 | Thanksgiving Break |
| Wed.-Thur., December 23-31, 2026 | Christmas Break |
| Friday, January 1, 2027 | New Year's Day |
| Monday, May 31, 2027 | Memorial Day |
| Friday, June 18, 2027 | Juneteenth Observed |
| Monday, July 5, 2027 | Independence Day Observed |

## 2026-2027 Academic Calendar

## Fall Semester 2026

| | |
|---|---|
| Bookstore Charges Open | Wednesday, August 12, 2026 |
| In-Service/Enrollment/Advising & Class Preparation | Mon. – Fri., August 17-28, 2026 |
| Last Day for Bookstore Charges | Wednesday, September 16, 2026 |
| Thanksgiving Break – College Closed | Thur.-Fri., November 26-27, 2026 |
| Christmas Break – College Closed | Wed.-Thur., December 23-31, 2026 |

### Full Term

| | |
|---|---|
| First Day of Classes | Monday, August 31, 2026 |
| Last Day to Pay Tuition | Monday, August 31, 2026 |
| Last Day to Add a Class | Friday, September 4, 2026 |
| Labor Day – College Closed | Monday, September 7, 2026 |
| Last Day to Drop a Class and Receive a Refund (15%) | Wednesday, September 16, 2026 |
| Faculty Research Day – No Classes | Tuesday, October 20, 2026 |
| Advising and Open Enrollment for Spring & Summer 2027 Begins | Monday, November 2, 2026 |
| Last Day to Withdraw Without Academic Penalty (60%) | Wednesday, November 4, 2026 |
| Faculty Research Day – No Classes | Wednesday, November 25, 2026 |
| Thanksgiving Break – College Closed | Thur.-Fri., November 26-27, 2026 |
| Last Day of Classes | Friday, December 11, 2026 |
| Final Exams – Full Term | Mon. – Fri., December 14-18, 2026 |

### Seven Week One Term (7W1)

| | |
|---|---|
| First Day of Classes | Monday, August 31, 2026 |
| Last Day to Pay Tuition | Monday, August 31, 2026 |
| Last Day to Add a Class | Thursday, September 3, 2026 |
| Labor Day – College Closed | Monday, September 7, 2026 |
| Last Day to Drop a Class and Receive a Refund (15%) | Tuesday, September 8, 2026 |
| Last Day to Withdraw Without Academic Penalty (60%) | Tuesday, September 29, 2026 |
| Last Day of Classes and Final Exams – 7W1 Term | Monday, October 19, 2026 |
| Faculty Research Day – No Classes | Tuesday, October 20, 2026 |

### Seven Week Two Term (7W2)

| | |
|---|---|
| First Day of Classes | Wednesday, October 21, 2026 |
| Last Day to Pay Tuition | Wednesday, October 21, 2026 |
| Last Day to Add a Class | Monday, October 26, 2026 |
| Last Day to Drop a Class and Receive a Refund (15%) | Wednesday, October 28, 2026 |
| Advising and Open Enrollment for Spring & Summer 2027 Begins | Monday, November 2, 2026 |
| Last Day to Withdraw Without Academic Penalty (60%) | Friday, November 20, 2026 |
| Faculty Research Day – No Classes | Wednesday, November 25, 2026 |
| Thanksgiving Holiday – College Closed | Thur.-Fri., November 26-27, 2026 |
| Last Day of Classes and Final Exams – 7W2 Term | Friday, December 11, 2026 |

| | |
|---|---|
| Faculty Work Days | Mon. – Tue., December 21-22, 2026 |
| Christmas Break – College Closed | Wed.-Thur., December 23-31, 2026 |

## Spring Semester 2027

| | |
|---|---|
| Bookstore Charges Open | Wednesday, December 23, 2026 |
| In-Service/Enrollment/Advising & Class Preparation | Mon. – Fri., January 4-15, 2027 |
| Last Day for Bookstore Charges | Thursday, February 4, 2027 |
| Spring Break – No Classes | Mon. – Fri., March 8-12, 2027 |
| Graduation | Friday, May 14, 2027 |

### Full Term

| | |
|---|---|
| First Day of Classes | Monday, January 18, 2027 |
| Last Day to Pay Tuition | Monday, January 18, 2027 |
| Last Day to Add a Class | Friday, January 22, 2027 |
| Last Day to Drop a Class and Receive a Refund (15%) | Thursday, February 4, 2027 |
| Spring Break – No Classes | Mon. – Fri., March 8-12, 2027 |
| Advising and Open Enrollment for Fall 2027 Begins | Monday, March 29, 2027 |
| Last Day to Withdraw Without Academic Penalty (60%) | Wednesday, March 31, 2027 |
| Last Day of Classes | Friday, May 7, 2027 |
| Final Exams – Full Term | Mon. – Fri., May 10-14, 2027 |
| Graduation | Friday, May 14, 2027 |

### Seven Week One Term (7W1)

| | |
|---|---|
| First Day of Classes | Monday, January 18, 2027 |
| Last Day to Pay Tuition | Monday, January 18, 2027 |
| Last Day to Add a Class | Thursday, January 21, 2027 |
| Last Day to Drop a Class and Receive a Refund (15%) | Monday, January 25, 2027 |
| Last Day to Withdraw Without Academic Penalty (60%) | Monday, February 15, 2027 |
| Last Day of Classes and Final Exams – 7W1 Term | Friday, March 5, 2027 |
| Spring Break – No Classes | Mon. – Fri., March 8-12, 2027 |

### Seven Week Two Term (7W2)

| | |
|---|---|
| Spring Break – No Classes | Mon. – Fri., March 8-12, 2027 |
| First Day of Classes | Monday, March 15, 2027 |
| Last Day to Pay Tuition | Monday, March 15, 2027 |
| Last Day to Add a Class | Thursday, March 18, 2027 |
| Last Day to Drop a Class and Receive a Refund (15%) | Tuesday, March 23, 2027 |
| Advising and Open Enrollment for Fall 2027 Begins | Monday, March 29, 2027 |
| Last Day to Withdraw Without Academic Penalty (60%) | Thursday, April 17, 2027 |
| Last Day of Classes and Final Exams – 7W2 Term | Friday, May 7, 2027 |

## Summer Semester 2027

| | |
|---|---|
| Bookstore Charges Open | Thursday, May 20, 2027 |
| Memorial Day – College Closed | Monday, May 31, 2027 |
| Last Day for Bookstore Charges | Tuesday, June 1, 2027 |
| Juneteenth Observed – College Closed | Friday, June 18, 2027 |
| Independence Day Observed – College Closed | Monday, July 5, 2027 |

### Full Ten-Week Term (10W)

| | |
|---|---|
| First Day of Classes | Thursday, May 27, 2027 |
| Last Day to Pay Tuition | Thursday, May 27, 2027 |
| Memorial Day – College Closed | Monday, May 31, 2027 |
| Last Day to Add a Class | Thursday, June 3, 2027 |
| Last Day to Drop a Class and Receive a Refund (15%) | Monday, June 7, 2027 |
| Juneteenth Observed – College Closed | Friday, June 18, 2027 |
| Independence Day Observed – College Closed | Monday, July 5, 2027 |
| Last Day to Withdraw Without Academic Penalty (60%) | Monday, July 12, 2027 |
| Last Day of Classes and Final Exams – 10W Term | Monday, August 9, 2027 |

### First Five-Week Term (5W1)

| | |
|---|---|
| First Day of Classes | Thursday, May 27, 2027 |
| Last Day to Pay Tuition | Thursday, May 27, 2027 |
| Memorial Day – College Closed | Monday, May 31, 2027 |
| Last Day to Add a Class | Tuesday, June 1, 2027 |
| Last Day to Drop a Class and Receive a Refund (15%) | Tuesday, June 1, 2027 |
| Last Day to Withdraw Without Academic Penalty (60%) | Thursday, June 17, 2027 |
| Juneteenth Observed – College Closed | Friday, June 18, 2027 |
| Last Day of Classes and Final Exams – 5W1 Term | Thursday, July 1, 2027 |

### Second Five-Week Term (5W2)

| | |
|---|---|
| Independence Day – College Closed | Monday, July 5, 2027 |
| First Day of Classes | Tuesday, July 6, 2027 |
| Last Day to Pay Tuition | Tuesday, July 6, 2027 |
| Last Day to Add a Class | Thursday, July 8, 2027 |
| Last Day to Drop a Class and Receive a Refund (15%) | Monday, July 12, 2027 |
| Last Day to Withdraw Without Academic Penalty (60%) | Monday, July 26, 2027 |
| Last Day of Classes and Final Exams – 5W2 Term | Monday, August 9, 2027 |

# About the College

## About VHCC

Virginia Highlands Community College was established on November 30, 1967 by action of the State Board for Community Colleges, and assigned a service region of Washington County, the western portion of Smyth County, and the city of Bristol, Virginia. Today it is one of 23 community colleges within the Virginia Community College System.

During its first academic year, 1969-1970, VHCC began delivering the occupational-technical programs that formerly were offered by the Washington County Technical School. More than 300 students enrolled in the first Virginia Highlands classes, which were offered at night in the technical school's facilities.

The College moved to its permanent 100-acre campus during the summer of 1970 and, in response to the community's needs, expanded its course offerings to include both occupational-technical programs and baccalaureate-transfer programs.

In its more than 50 years of operation, Virginia Highlands Community College has become a dynamic leader in Southwest Virginia with a primary goal of providing comprehensive and quality education and related services for residents throughout its region. More than 2,600 students were served this past year by 112 full-time and 160 part-time faculty and staff members. The rolling hills of the campus have been developed to include six modern buildings, athletic and recreational facilities, and substantial parking. Programs and services also have changed to meet the needs of the local community. For example, the Division of Workforce Development and Continuing Education was created in 1996 to better prepare the local workforce. The Southwest Virginia Higher Education Center, a separate organization located on the VHCC campus, opened in 1998 to bring baccalaureate and graduate programs to the area, and the Arts Array cultural program was expanded into a community-wide program.

In addition, the dual enrollment program now offered by the College is allowing students to earn college credit while still in high school, and the service learning initiative is teaching VHCC students the value of volunteerism.

State-of the-art technology has made it possible to take online learning courses and has provided the entire College community with modern, up-to-date computer facilities. Through the Federal Trio programs, Student Support Services (EXCEL) and Upward Bound, high school and college students are receiving the academic help and encouragement they need to complete high school and succeed in college.

To evaluate each of its programs and services, the College engages in an ongoing strategic planning process aimed at examining every aspect of campus life. This thorough self-examination will ensure Virginia Highlands Community College continues to achieve its fundamental mission of effectively serving a community that is always changing.

## Accreditation & Recognition

Virginia Highlands Community College, a division of the Virginia Community College System, is approved by the State Board for Community Colleges and by the Virginia Community College Systems Office. The associate degree curricula of the College have also been approved by the State Council of Higher Education for Virginia.

Virginia Highlands Community College is accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) to award associate degrees. Virginia Highlands Community College also may offer credentials such as certificates and diplomas at approved degree levels. Questions about the accreditation of Virginia Highlands Community College may be directed in writing to the Southern Association of Colleges and Schools Commission on Colleges at 1866 Southern Lane, Decatur, GA 30033-4097, by calling (404) 679-4500, or by using information available on SACSCOC's website (www.sacscoc.org).

The Associate degree Nursing program at Virginia Highlands Community College located in Abingdon, Virginia is approved by the Virginia Board of Nursing and is accredited by the Accreditation Commission for Education in Nursing (ACEN) 3390 Peachtree Road NE, Suite 1400 Atlanta, GA 30326 (404) 975-5000, www.acenursing.org. The most recent ACEN accreditation decision made by the ACEN Board of Commissioners for the Virginia Highlands Community College Associate degree nursing program is continuing accreditation. ACEN is officially recognized as the national accrediting agency for nursing education by the Council on Post-secondary Accreditation (COPA) and by the U.S. Department of Education.

The Practical Nursing program at Virginia Highlands Community College located in Abingdon, Virginia is on continued Conditional Approval subject to terms and conditions by the Virginia Board of Nursing. The Virginia Board of Nursing will further consider program approval status during 2025.

The Radiography program is fully accredited by the Joint Review Committee for Radiologic Technology Education (JRCERT), 20 North Wacker Drive, Suite 2850, Chicago, Illinois, 60606-3182, phone 312-704-5300. You may also contact JRCERT at mail@jrcert.org or at www.jrcert.org.

The Emergency Medical Services Technology program is accredited nationally by the Committee on Accreditation of Allied Health Educational Programs (CAAHEP), 25400 U.S. Highway 19 North, Suite 158, Clearwater FL, 33763, phone 727-210-2350.

VHCC is approved for listing in U.S. Department of Education directories and for participation in various federally sponsored programs of student aid and educational assistance. It has also been approved by the Virginia State Approving Agency to offer GI Bill® benefits. "GI Bill® is a trademark of the U.S. Department of Veteran Affairs (VA). More information about education benefits offered by the VA is available at the official U.S. government website at https://www.benefits.va.gov/gibill/."

VHCC is an institutional member of the Southern Association of Colleges with Associate Degrees, and the Community Colleges of Appalachia.

## Mission of the College

Virginia Highlands Community College provides exceptional educational pathways to enrich lives and strengthen our communities.

## Vision Statement

Virginia Highlands Community College will be an educational institution of choice, empowering students, employees and community members to reach their fullest potential.

## Core Values

**Student Success**. We welcome and engage every student with relevant learning opportunities and help them attain their goals to help our region thrive.

**College Culture**. We are representatives of the hospitality and resiliency of our region, supporting everyone with opportunities for growth and engagement.

**Excellence**. We expect the best from ourselves and our students.

**Learning**. We are committed to life-long development and personal growth.

**Stewardship**. We are accountable for the resources in our care, strategically investing to improve our region.

**Partnership**. We collaborate with individuals and organizations to advance our shared goals and strengthen the region.

## Special College Policies

The College reserves the right to make changes as required in course offerings, curricula, academic policies and other rules and regulations affecting students, to be effective at the discretion of the College. These changes will govern current and formerly enrolled students. Enrollment of all students is subject to these conditions. Virginia Highlands Community College retains the right to make appropriate changes to remain in compliance with Virginia Community College System policy. Changes and supplements to this catalog will be issued as necessary.

# Admissions

## Admissions Policy

Individuals are eligible for admission to the community college if they are high school graduates or the equivalent, or if they are eighteen years of age or older and able to benefit academically from study at the community college as demonstrated by assessment scores in reading, writing, and mathematics. Minimum scores are noted in the chart below:

| Subject | Placement |
|---|---|
| Reading | EDE 10 |
| Writing | EDE 10 |
| Math | MDE 10 |

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

The College reserves the right to evaluate and document special cases and to refuse or revoke admission if the College determines that the applicant or student poses a threat, a potential danger, is significantly disruptive to the college community, or if such refusal or revocation is considered to be in the best interest of the College. The College also reserves the right to refuse admission for applicants who have been expelled or suspended from, or determined to be a threat, potential danger or significantly disruptive by another college. (see General Admissions Exceptions)

Individuals may be admitted to VHCC as curricular or non-curricular students. Students must satisfy required course pre-requisites or Placement Policy before enrolling in a course that has requisite requirements. In order to receive any letter grade, a student must have attended a minimum of one class meeting or the equivalent in the case of an Online learning course.

For all curricular students, the following items are required:

a. A completed official application for admission with social security number (SSN) requested (note: to receive financial aid and scholarships, SSN is required).
b. Unless otherwise specified by the college, official transcripts from all high schools, colleges, and universities attended. Graduates who complete secondary school in a home school setting must provide a graduation date and may be required to provide documentation of coursework. The VCCS Student Information System academic records will be sufficient for colleges within the Virginia Community College System.
c. Additional information as stated by the college for admission to specific programs or curricula.

For all **non-curricular students**, a completed official application for admission is required with social security number requested.

Virginia Highlands Community College promotes and maintains educational opportunities without regard to race, color, sex, ethnicity, religion, gender, age (except where age is a bona fide occupational qualification), disability, national origin, or other non-merit factors. This institution prohibits sexual harassment including sexual violence.

## General Admissions Exceptions

The College reserves the right to evaluate and document special cases and to refuse or revoke admission if the College determines that the applicant or student poses a threat, a potential danger, is significantly disruptive to the college community, or if such refusal or revocation is considered to be in the best interest of the College. The College also reserves the right to refuse admission for applicants who have been expelled or suspended from, or determined to be a threat, potential danger or significantly disruptive by another college. Below is the procedure if a denial of admissions is warranted. This provision applies to individuals who are in applicant status or those who are enrolled for a future semester. In extreme cases, such as convicted sex offenders or any student who poses a danger to the campus community, the College has the right to apply these provisions to dis-enroll currently enrolled students during a given semester session. Behaviors which present a threat or potential danger to the College community or other behaviors in which it is considered to be in the best interest of the College to refuse admission or revoke enrollment, but are not limited to any violation of the Violence Prevention Policy.

**Procedures:**
Upon notification to the Dean of Students that the applicant/enrolled student has exhibited threatening, violent, intimidating or disruptive behavior or any violation of the Violence Prevention Policy, the Dean of Students will conduct an investigation to evaluate the circumstances. After the investigation, if the College determines that the applicant is a threat or potential danger to the college community or if such refusal is considered to be in the best interest to the College, the student will be notified as follows:

**Applicant with no enrollment:**

After the investigation, the applicant will receive written notification at the home address listed in the student information system stating that admission to the College has been denied. The notification will state the denial is based on the College's determination that the applicant represents a threat or potential danger to the College or that the refusal of admission is considered to be in the best interest of the College. A service indicator will be placed on the applicant's record which will prevent the applicant from registering for classes.

**Applicant with enrollment:**

An applicant who becomes an enrolled student will receive written notification at the home address listed in the student information system stating that admission to the College is revoked and enrollment for the current or future semester is withdrawn. The notification will state the decision is based on the College's determination that the applicant represents a threat or potential danger to the College and/or their revoked admission and withdrawn enrollment is considered to be in the best interest of the College. The written notification will detail the procedures for due process and will provide the individual with explicit instructions on the appeal process. The College will reserve the class enrollment until the appeal process is complete, but the individual will not be allowed to attend class during the appeal process.

The individual is required to initiate the appeal process in writing within ten (10) calendar days of the notification by the College (as indicated by the date of the written notification from the College) in order to receive consideration to remain enrolled. Absent extreme extenuating circumstances, if the enrolled student fails to follow the appeal process within ten (10) calendars days of notification from the College the student will forfeit the right to appeal, which will result in the College sending to the student written notification of administrative withdrawal of all current and future classes at the College, and revocation of admission for future semesters. The College will make every effort to expedite the hearing timeline.

**Appeal process for enrolled student:**

1. The College will notify the student of its investigation if a hold is placed on the student registering for classes, or taking advantage of any other student benefit.
2. The enrolled student will receive a letter from the Dean of Students detailing the denied status of the student, withdrawn enrollment and appeal procedure within ten (10) calendar days of the College's decision to deny or revoke admission and to withdraw the student from current or future enrollments. The enrolled student will be advised of the right to due process and request for appeal.
3. Upon receipt of a request for appeal from the student within the required ten (10) calendar days of notification, the Vice President of Instruction and Student Services will convene the Ad hoc Admissions Appeals Hearing Committee (AAAHC). In addition to the Vice President of Instruction and Student Services, the committee membership and appointment will be at the discretion of the President of the College. The purpose of the hearing is to provide the student notice of the basis for the College's decision and the right to provide his/her explanation of the facts, as well as for the AAAHC to evaluate the facts of the case. If, after the hearing, the AAAHC determines that the applicant or enrolled student represents a threat or potential danger to the College and/or the revoked admission and withdrawn enrollment is considered to be in the best interest of the College, the student's admission to the College will be revoked; the student will be administratively withdrawn from classes and the student will receive a tuition refund. The individual will be denied future admission/enrollment to the College.
4. The AAAHC will review the proceedings of the hearing and make a decision by a simple majority vote within fourteen (14) calendar days of receiving the written request for the appeal. The College will make every effort to expedite appeal process. The Vice President of Instruction and Student Services will convene the committee and serve as a member. The Vice President of Instruction and Student Services will inform the enrolled student by written correspondence of the AAAHC decision. The decision of the AAAHC will be final.

## Admission Process for Convicted Sexual Offenders

The following procedures apply to applicants designated as convicted sexual offenders.

**Procedures:**

1. Upon notice that a convicted sexual offender has applied to the College, the Division of Student Services and Enrollment Management will place a hold (negative service indicator) on the applicant's file.
2. The Division of Student Services and Enrollment Management will notify the Vice-President of Instruction and Student Services who will send a letter to the student indicating that the student should contact Campus Police in order to arrange a meeting / hearing regarding the circumstances surrounding the hold on their application.
3. The Chief of Police (or designee) along with the Dean of Students (or designee) will facilitate the meeting with the student. During the meeting, the following information will be gathered:
    a. Nature of the offense for which the student has been convicted;
    b. In the event that the applicant is a sexual offender, a statement acknowledging his/her understanding that his/her identity and status as a convicted sex offender will be publicized on the college campus in accordance with federal and state law upon admission.
    c. Parole officer contact information and conditions of parole.
    d. Psychologist or counselor contact information who can attest to applicant's behavior or condition.
    e. Justification for consideration of admission;
4. After the meeting, Campus Police and the Dean of Students (or designee) will confirm the information shared in the interview and make a recommendation to the Vice President of Instruction and Student Services on the applicant's participation at the College, based on the

accuracy of the information provided by the applicant; the offense; and the potential likelihood of the applicant being a threat to the community.

5. If admission is granted, a letter from the Vice President of Instruction and Student Services stating the provisions of enrollment will be sent to the student (e.g. limitations on courses) as prescribed by conditions of parole or psychologist's information.
6. If the recommendation is to deny the applicant, the Vice President of Instruction and Student Services will send out the correspondence to the applicant. If denied admission, the applicant may appeal the decision by forwarding a written appeal to the Vice President of Instruction and Student Services. The appeal must be made within 10 business days of the decision. The appeal will be reviewed by a committee consisting of a faculty member, staff member, and a member of the Reviews and Appeals Committee who will review the appeal and issue a decision within 10 business days from receipt of appeal.
7. In the event that a student self-reports or the information is provided regarding convicted sexual offender status after enrollment, the student will be called to a meeting and steps 3 through 6 will be applied.

The Vice President of Instruction and Student Services will send correspondence on all decisions.

## Admission of Transfer Students

In most cases, a student who is eligible to continue enrollment at another college is eligible to transfer to Virginia Highlands Community College.

Transfer students who are ineligible to return to a particular curriculum in a previous college generally may not be allowed to enroll in the same curriculum in the community college until one semester elapses or until approved preparatory programs at the College is completed. The Admissions Committee of the College may decide on each case and can impose special conditions for the admittance of such students.

Each student transferring from another college should consult the Coordinator of Admissions and Records at the College for an assessment of credits in order to determine his/her standing before registering for classes. Generally, no credit will be given for courses with grades lower than "C." Transfer students may be advised to repeat courses in order to make satisfactory progress in their programs.

Transcripts of students transferring from non-regionally accredited colleges and universities will be evaluated on a course-by-course basis by the Coordinator of Admissions and Records.

## Admission Priorities

When enrollment for any curriculum must be limited, priority will be given to qualified applicants who are residents of the VHCC service region and other Virginia residents who do not have access to a comparable program at their community college. Similar consideration may be given to applicants who live within areas in which the College maintains a clinical site or has other agreements.

The priority list is as follows:

1. Residents of the VHCC service region (City of Bristol, Washington County, and Western portion of Smyth County) and Tennessee residents from counties in which a clinical-site or other agreements exist (Johnson County and Sullivan County),
2. Other Virginia residents,
3. Out-of-state and international students.

The Virginia Highlands Community College Board has established the following schedule for considering applications: prior to April 1 applications will be considered for only those persons living within the political subdivisions supporting the College; after April 1 all Virginia residents will be considered for admission; and after May 1 out-of-state and international students with student (F-1 and F-2) and diplomatic (A-1 and A-2) visas.

## Admission to Courses with Requisite Requirements

Admission to specific courses is approved only when the student meets the prerequisite requirements or has instructor approval for the course. For specific prerequisite and corequisite requirements, please refer to the Course Descriptions in this catalog.

## Admission to Specific Curricula

In addition to the general admission requirements listed, specific requirements are prescribed for each curriculum of the College. These are listed in the Curriculum Offerings section of this catalog. Persons who do not initially satisfy the published academic requirements for a specific curriculum may be admitted to the curriculum with the condition that they complete the appropriate requirements.

It is policy to admit a student to curricula, as space permits. The appropriate college officer shall officially notify students of their admission to the curriculum.

Each student must be a graduate of an accredited high school or present passing score(s) on the General Educational Development Test (GED), or present passing score(s) on an Ability to Benefit test or otherwise be considered eligible by the College to be accepted to an associate degree or certificate program.

## Application for Readmission to the College

If a student in "good academic standing" has not been enrolled within the last three years (nine terms), the student will be required to complete a new application for admission.

## Classification of Students

All students are classified according to the following categories:

**1. Curricular Student**
A student who has a high school diploma, a GED, or the ability to benefit is designated as a curricular student when all of the information required for general admission to the College has been submitted to the Division of Student Services and Enrollment Management and when the individual has been admitted to one of the curricula of the College.

**2. Non-Curricular Student**
A non-curricular student is one who is not formally admitted to one of the curricula but is classified according to the following student goals or conditions.

**A. Upgrading Employment Skills for Present Job**
Student is employed and seeking to upgrade skills for a current job.

**B. Developing Skills for New Job**
Student is seeking to develop skills for a new job.

**C. Career Exploration**
Student is undecided about a career goal and an occupational choice. The College will provide counseling assistance to aid the student in making decisions concerning career/curricular goals. Such a student will be expected to declare another educational goal prior to completing 30 credit hours of course work.

**D. Personal Satisfaction and General Knowledge**
Student is enrolled for reasons not related to specific occupational or educational goals.

**E. Transient Student**
Student, while enrolled at a community college, maintains primary enrollment with another post-secondary institution.

**F. High School Student (with college approval only)**
- students must be high school juniors or seniors who are age 16 or older
- students must be qualified or prepared for the demands of a college level course and able to benefit from the enrichment opportunity (determined by appropriate high school personnel)
- public school principal must approve/recommend the cross-registration of the high school student to the community college

**G. Limitations/Exclusions**
- no developmental courses may be approved for a dual enrollment arrangement

**H. Auditing a Course**
Students desiring to attend a course without taking the examination or receiving credit for the course may do so by registering to audit that course. Students desiring to audit a course will register in the regular manner and pay the regular tuition. Audited courses carry no credit and do not count as part of the student's course load. Students desiring to change status in a course from audit to credit must do so within the add/drop period. Changes from credit to audit must be made by the official last day for students to withdraw from a class without penalty.

## Disability Services

VHCC is committed to providing all students with equal access to academic programs, student activities, and other educational opportunities that enhance the college experience. The Office of Disability Services supports this goal by providing the appropriate accommodations and auxiliary aids to students with disabilities who request assistance. To request accommodations; students with disabilities should:

Contact the Office of Disability Services in ISC-124 at (276) 739-2404 or via email at kcopenhaver@vhcc.edu to schedule an appointment. This should be done immediately after applying to the college.

Provide current documentation of the disability. Documentation must be current, signed by a physician or other licensed professional, and include any functional limitations. Documentation may be emailed to kcopenhaver@vhcc.edu or mailed to the Office of Disability Services, Virginia Highlands Community College, P.O. Box 828, Abingdon, VA, 24212.

After completion of the intake process, an accommodation plan will be developed. The student and appropriate instructors will receive a copy of the plan. Accommodation plans remain active as long as the student is enrolled. Students who have not been enrolled for a period of two years or longer must complete a new request for disability services form and provide up-to-date documentation of their disability in order to receive accommodations.

## Documentation Needed for Admissions

All students are required to complete an official application for admission (Note: social security number is requested). Those seeking in-state tuition also should complete an Application for Virginia In-State Tuition.

Additionally, all curricular students should provide official transcripts from all high schools, colleges and universities attended. The College may require additional documentation for some programs.

## Dual Enrollment Student Admissions

Dual enrollment is restricted to high school juniors and seniors and home school students studying at the high school junior or senior levels. All students admitted under this section must demonstrate readiness for college, meet the applicable college placement requirements, and address all other college admission criteria. Home school students must provide a copy of a home school agreement approved by the school district or a letter from the local school board or a copy of the letter filed by the parent/legal guardian declaring home school for religious exemption. Documentation of parental permission is required for all dual enrollment students. Because enrolling high school freshman and sophomore students is considered exceptional, the college ready status of each freshman and sophomore student will be treated on a case-by-case basis. Formal approval by the College president is required.

- High school students who want to attend VHCC under the Principal's Permission provision must indicate high school status on the College application and submit a transcript of grades and have the "Principal's Permission to Enroll" form to enroll.
- Federal regulations do not permit financial aid to be awarded to college students who are simultaneously enrolled in public or private secondary educational programs.

## International Applicants

Virginia Highlands Community College is authorized under federal law to enroll nonimmigrant alien students. The College welcomes applications from international students who meet the qualifications set forth in these guidelines. All stated requirements are subject to change based upon federal regulations or a determination by the College that a policy change is in the best interests of the student and/or the College community.

International applicants will be admitted only if they fulfill all general and special requirements for admission. International students are considered out-of-state residents for purposes of determining tuition rates and admission to programs with limited enrollment. Students who acquired a student visa through acceptance by another school or college will not be considered until they have secured a written release from the original institution. ~~International students who are exclusively taking classes through online learning without entry into the United States will be evaluated on an individual basis~~. All documentation must be received by June 1 for Fall admission or October 1 for Spring admission.

1. **Financial Responsibility**
   No financial aid is available for international students. The College will not certify applications for international students to obtain a work permit until they have successfully completed 30 semester hours of coursework at the College with a 3.0 GPA, or resided in the U.S. for at least twelve consecutive months, whichever is the longer period of time. All international applicants must complete a form provided by the College and have it notarized to affirm they have financial resources sufficient to pay college and living expenses prior to being issued a SEVIS-20. The statement must include the amount of income the student will receive while attending college, the source of income, and the manner in which living expenses will be met. All international students holding F-1 and J-1 visas must purchase health and accident insurance. If the applicant is under 18, the parent or legal guardian must submit the notarized statement of financial support. All international students must have a local sponsor who will assume financial responsibility for the student.
2. **English Proficiency**
   International students whose native language is not English must document proficiency in the English language by submitting a TOEFL (Test of English as a Foreign Language) score. Official copies of the TOEFL scores must be submitted to Admissions and Records Specialist. The TOEFL test is required of all applicants who are not native speakers of English, in addition to all foreign students with visas, except those raised or schooled in Australia, Canada, Great Britain, Ireland, Jamaica, or other countries where the College can determine that English is the language of instruction. A TOEFL score of 550 on the paper-based TOEFL test, 234 on the computer based TOEFL test, or 80 on the internet-based TOEFL is required, although achieving that score is no guarantee of admission. The applicant is responsible for making early arrangements for taking the test and should address inquiries to TOEFL, Educational Testing Service, Princeton, New Jersey 08540, USA. The Bulletin of Information, obtainable without charge, contains a description of the test and rules regarding application, fees, reports on the conduct of the test, lists of examination centers, examination dates, and an application blank. On the application for the test, the student should specify that the scores be sent to the Admissions and Records Specialist at VHCC. The official results of the TOEFL must be received at VHCC at least 60 days before the term for which the applicant seeks admission. Applicants who are in the United States and who have not taken the TOEFL or achieved the minimum cut score, may petition the College to evaluate them for admission during a visit to the campus. This evaluation will generally include completion of our freshman assessment (VPT) in English, reading, and mathematics including a writing sample on an assigned topic, followed by an interview with a member of the English faculty. The English faculty member will make the final admission decision based on the interview, writing, and test results. There is no appeal to this decision. There is no substitute for planning ahead on the part of international students wishing to gain admission to our College.

Transfer applicants who have completed two semesters or terms of a non-ESL English composition course with above-average grades at an American college or university are not required to submit TOEFL scores.

3. **International Transcripts**
   International transcripts and documents must be submitted in their original form, accompanied by a certified English translation. Unofficial documents and documents without accompanying English translations will not be accepted. International transfer students must submit a syllabus of university study. This description of each course or subject studied must be submitted in English translation of the syllabus. Application without this information cannot be considered. It is required that transfer students seeking admission from international educational systems have a professional evaluation service review their transcripts with a course by course evaluation. Students currently enrolled in a U.S. system must still have their international transcripts evaluated.

4. **International Applicant Contact**

   For additional information about the process for international applicants please contact the tPrincipal Designated School Official (PDSO), Virginia Highlands Community College, P.O. Box 828 Abingdon, VA 24212 or by phone at 276-739- 2508. Below is a checklist of admission requirements for international students:

   1. Application for Admission as a curricular student.
   2. Official English translated and notarized/certified secondary and college transcripts.
   3. Test of English as a Foreign Language (TOEFL) with a minimum score of 550 on the paper-based TOEFL (pBT) test and 234 on the computer-based TOEFL (cBT) test, or 80 on the internet-based TOEFL (iBT) is required and the test results cannot be more than two years old.
   4. Verification of health and accident insurance.
   5. Declaration of financial resources (must be in US dollars).
   6. Official transcripts from American colleges or universities attended.

## Application Process for Students Applying from Abroad

**Step 1: Apply to VHCC for an I-20**

- Send all forms and required documents to the Admissions and Records Office by the application deadline.
- We will contact you if your application is complete or if you still need to fill out some documentation.
- If everything is in order, the College is authorized to issue you an I-20 document. This is an official document that confirms you are eligible to study at VHCC. Your I-20 will be issued within 10 working days.

**Step 2: The Visa Interview**

- Pay the SEVIS fee (Student and Exchange Visitor Information Service). The fee is currently $350 (USD). This may be paid online at the SEVIS Fee Payment information page.
- Make an appointment at the U.S. Embassy or Consulate for an interview. Many branches now use an online booking system.
- At the interview, you will be asked to show your relevant papers (I-20, financial papers, passport). You will be asked about your educational plans, your financial support and your plans for returning to your home country. Visit the U.S. Department of State's website for more information about the visa interview.
- If the consular officer determines that everything is in order, the officer is authorized to issue you an F-1 student visa.

**Step 3: Travel to the U.S.**

- After you receive your F-1 visa you should make travel arrangements.
- You may enter the U.S. no more than 30 days prior to the reporting date listed under #5 on your I-20.

**Step 4: Check in at VHCC**

- Check in at the Student Services Office. Bring your I-20, passport and I-94 card.
- The office will provide you with more information about orientation session, placement testing and your responsibilities as an F-1 international student.
- Take the English placement test. The result of the test will determine the level of English you will begin studying at the College or whether or not you need to take developmental English classes before starting a degree program.
- Meet with a counselor to review your test results and to register for your classes.

# Placement Policy

Like other institutions of higher learning, Virginia Highlands Community College requires students applying to enroll in associate degree, and certificate programs and in courses that require a reading, writing, or math prerequisite to meet placement requirements for English and mathematics.

Students enrolling in Career Studies Certificate programs may be waived from placement, unless a course in the program requires a reading, writing, or math prerequisite.

Dual enrolled high school students who enroll in programs or courses must meet the admissions criteria specified for dual enrolled students and any applicable course prerequisites.

In determining students' readiness for college-level English and math courses, colleges will use the following criteria:

1. Any student who has earned an associate degree or higher or who has earned a C or better in college-level courses in math and/or English at a regionally accredited institution will be placed accordingly, provided they meet the prerequisites for the respective courses in their chosen program of study.
2. Any student who has successfully completed developmental courses at a non-VCCS institution will have their coursework evaluated for placement.
3. A student may submit a U.S.-based high school/home school transcript or an approved test score for placement evaluation. U.S.-based High school GPA (HSGPA) is valid for six (6) years after the date of high school graduation. SAT, ACT and GED Test scores are valid for six (6) years after the date of the test. Seniors who have not yet graduated may submit a transcript as of the completion of the first semester of the senior year to determine readiness for placement into college-level courses for the purpose of early admission.

Math placement will be determined using one of the following measures.

## Table M: Student Math Course Placement

| **If a student has. . .** | **The student may enroll in. . .** |
|---|---|
| 6+ years since U.S.-based high school graduation | Informed Self-Placement (See Advisor) |
| **U.S.-based High School Grade Point Average (**U.S.-based **HS GPA) for Math Placement*** | |
| Less than 2.0 U.S.-based HS GPA | MDE 10 |
| 2.0-2.99 U.S.-based HS GPA without HS Algebra 2* | MTH 111<br>MTH 132<br>MTH 154 + MDE 54<br>MTH 155 + MDE 55<br>MDE 60 |
| 2.0-2.99 U.S.-based HS GPA with HS Algebra 2* | MTH 111<br>MTH 132<br>MTH 154 + MDE 54<br>MTH 155 + MDE 55<br>MTH 161 + MDE 61 |
| 3.0+ U.S.-based HS GPA without HS Algebra 2* | MTH 111<br>MTH 132<br>MTH 154<br>MTH 155<br>MDE 60 |
| 3.0+ U.S.-based HS GPA with HS Algebra 2* | MTH 111<br>MTH 132<br>MTH 154<br>MTH 155<br>MTH 161 + MDE 61 |
| 3.0+ U.S.-based HS GPA with a grade of C or better in HS Algebra 2* | MTH 161 |
| 3.0+ U.S.-based HS GPA with a grade of C or better in Math Analysis/Pre-Calculus without trigonometry* | MTH 162<br>MTH 245<br>MTH 261 |

| | | |
|---|---|---|
| 3.0+ U.S.-based HS GPA with a grade of B or better in Math Analysis/Pre-Calculus with trigonometry* | MTH 263 | |
| * U.S.-based *High school GPA is valid for six (6) years after the date of high school graduation* | | |
| **SAT/ACT/GED Scores for Math Placement*** ** | | |
| SAT – Math | 500 or above | MTH 111<br>MTH 132<br>MTH 154<br>MTH 155<br>MTH 161 |
| | 470-490 range | MTH 111<br>MTH 132<br>MTH 154<br>MTH 155<br>MTH 161+MDE 61 |
| ACT – Subject Area Test Math | 18 or above | MTH 111<br>MTH 132<br>MTH 154<br>MTH 155<br>MTH 161 |
| | 17 | MTH 111<br>MTH 132<br>MTH 154<br>MTH 155<br>MTH 161 + MDE 61<br>MTH 155<br>MTH 161 + MDE 61 |
| GED - Math | 165 or above | MTH 111<br>MTH 132<br>MTH 154<br>MTH 155 |
| | 155-164 range | MTH 111<br>MTH 132<br>MTH 154 + MDE 54 |
| | 154 or below | MDE 10 |
| ****SAT, ACT and GED Test scores are valid for six (6) years after the date of the test.* | | |

# = Students may complete the VPT for placement.

English placement will be determined using one of the following measures.

### Table E: Student English Course Placement

| If a student has… | The student may enroll in… |
|---|---|
| 6 or more years since high school graduation | Informed Self-Placement (see Advisor) |
| **High School Grade Point Average (HS GPA) for English Placement*** | |
| Less than 2.0 U.S.-based HS GPA | EDE 10 |
| 2.0 to 2.99 U.S.-based HS GPA | EDE 11 + ENG 111<br>ENG 115 |
| 3.0+ U.S.-based HS GPA | ENG 111<br>ENG 115 |

| Course | Minimum Placement Requirement* |
|---|---|
| EDE 10 | 1.99 or lower U.S.-based HS GPA |
| EDE 11 + ENG 111 | 2.0 to 2.99 U.S.-based HS GPA |
| ENG 111 | 3.0 or higher U.S.-based HS GPA |
| ENG 115 | 2.0 or higher U.S.-based HS GPA |

| SAT/ACT/GED Scores for English Placement** | | |
|---|---|---|
| **TEST** | **Student Score** | **The student may enroll in…** |
| SAT-ERW<br>Evidenced Based Reading & Writing | 400-470 | EDE 11 + ENG 111 |
| | 480 or above | ENG 111 |
| ACT<br>Subject Area Tests: English & Reading | 14 and below | EDE 10 |
| | 15-17 | EDE 11 + ENG 111 |
| | 18 or above | ENG 111 |
| GED English | 165 or above | ENG 111 |
| *** U.S.-based *High School Grade Point Average (HS GPA) is valid for six (6) years after the date of high school graduation. Students who completed* U.S.-based *high school more than six (6) years ago will be enrolled based on self-informed placement. Minimum Placement Requirement apply on to those who graduated high school six (6) years ago or less.* | | |
| ***SAT, ACT, and GED scores are valid for six (6) years after the date of the test.* | | |

Any student who is not placed by the criteria listed above will be required to meet with an advisor in regards to Informed Placement and Direct Enrollment.

Official SAT or ACT scores should be submitted to the Admissions and Records office. An official report can be requested at www.collegeboard.org.

The counselors or English and mathematics faculty will document all mitigating circumstances that suggest an exception to the above placement rules.

## Residence Requirements

To qualify for in-state tuition, a student must live in Virginia for at least one year immediately prior to the beginning of the semester. Applications for in-state tuition must be completed by all students seeking the in-state rate.

## Student Level

**1. Freshman** - Students are classified as freshmen until 30 credits have been completed.

**2. Sophomore** - Students are classified as sophomores after 30 or more credits of course work have been completed.

## Student Status

**1. Full-time Student** - A student is considered a full-time student if carrying 12 or more credits of course work.

**2. Part-time Student** - A student is considered a part-time student if carrying less than 12 credits of course work.

# Tuition & Financial Aid

## Financial Aid

VHCC strives to assure that no one be denied the opportunity of attending the College for financial reasons. Toward this end, a variety of financial aid programs are available for qualified students. Students wishing to apply for financial aid may secure application forms and information from the Office of Financial Aid or by visiting the VHCC Financial Aid Web Site. All applicants must file a Free Application for Federal Student Aid (FAFSA) to determine their eligibility for federal and state financial aid programs.

VHCC is required by federal and state regulations to review financial aid applicants who are selected for a process known as "Verification" by the U.S. Department of Education (DOE). VHCC will verify all financial aid applicants who complete a FAFSA and are selected by the Central Processor to be verified. VHCC also reserves the right to select applicants to be verified if information is found to be questionable.

### Who is Eligible for Financial Aid?

To be eligible for most federal and state aid programs, students must:

1. Be a U.S. citizen or an eligible noncitizen; Have financial need;
2. Be admitted to, and pursuing, an eligible degree or certificate program;
3. Have a high school diploma or a General Education Development (GED) certificate;
4. Have a valid Social Security number;
5. Meet satisfactory academic progress;
6. Electronically sign a statement on the Free Application for Federal Student Aid (FAFSA) certifying that federal student aid will be used only for educational purposes;
7. Electronically sign a statement on the FAFSA certifying they are not in default on a federal student loan and do not owe money on a federal grant;
8. No financial aid is available for audited courses.
9. Students admitted as non-curricular or as pending acceptance into a curriculum, are ineligible for financial aid.

## VCCS Satisfactory Academic Progress (SAP) Policy

Federal regulations require that a student receiving federal financial aid make satisfactory academic progress in accordance with the standards set by the College and the federal government. These limitations include all terms of enrollment, whether or not aid was awarded or received. Satisfactory Academic Progress (SAP) standards also apply to all federal and state aid, state as well as scholarships. Progress is measured throughout the academic program by the student's cumulative grade point average (Qualitative) and by credits earned as a percentage of those attempted (Quantitative or Pace of Completion). In addition, students must complete their programs of study before attempting 150% of the credits required to complete the program. The College Financial Aid Office will evaluate satisfactory academic progress before aid is awarded and after grades are posted for every term, starting with their first term of enrollment. Some career studies certificate programs (i.e., shorter than 16 credits in total length) are ineligible for student financial aid, but those credits will be counted toward all SAP requirements (GPA, Completion Rate, Maximum Timeframe, and Developmental Maximum) if the student later enrolls in an eligible program.

**I. STUDENT FINANCIAL AID STATUS**

**A. Financial Aid Good Standing (GS)** – Students who are meeting all aspects of the SAP policy or successfully following a designated academic progress plan.

**B. Financial Aid Warning Status (WS)** – Students who fail to meet SAP for the first time (excluding students who have already attempted 150% of the credits required for their programs of study) will be automatically placed in a Warning Status for one (1) term and are expected to meet SAP requirements by the end of that term. Students who fail to meet satisfactory academic progress requirements at the end of the warning status term will be placed on financial aid suspension. However, with a successful SAP appeal, those students will be placed on financial aid probation and will retain financial aid eligibility.

**C. Financial Aid Probation Status (PS)** – Students who have successfully appealed financial aid suspension are placed in Probation Status (PS). Students in Probation Status (PS) are eligible to receive financial aid for one (1) semester, after which they MUST be in Good Standing (GS) or meeting the requirements of an academic progress plan that was pre-approved by the College Financial Aid Office. (See "IV. Appeals" for additional information.)

**D. Financial Aid Suspension Status (SS)** – Students who do not meet the credit progression schedule and/or the cumulative grade point average standard, or who fail to meet the requirements of their pre-approved academic progress plan, will be placed in Suspension Status (SS). Students in Suspension Status (SS) are not eligible to receive financial aid.

**E. Academic Suspension (AS)** – Academic requirements for avoiding warning status and staying in school differ from financial aid requirements for SAP. Academic status will be noted on registration records; financial aid status will be noted on financial aid pages in SIS. Any student suspended from the College for academic or behavioral reasons is automatically ineligible for financial aid.

**II. EVALUATING PROGRESS**

**A. Quantitative Standards or Pace of Completion**

**Completion Rate (67% Rule):** Students must, at a minimum, receive satisfactory grades in 67% of cumulative credits attempted. This calculation is performed by dividing the cumulative total number of successfully completed credits by the cumulative total number of credits attempted. All credits attempted at the College (except audits, which must be entered as such by the class census date) are included. All credits accepted in transfer count as both attempted and successfully completed credits. This evaluation will be made prior to aid being awarded and after grades are posted at the end of each semester a student is enrolled at the College. Credits with satisfactory grades at the College are those for which a grade of A, B, C, D, S, or P is earned.

**Maximum Hours (150% Rule):** In order to continue receiving financial aid, a student must complete his/her program of study before attempting 150% of the credits required for that program. Developmental and ESL course work are excluded in this calculation. Attempted credits from all enrollment periods at the College plus all accepted transfer credits are counted; whether or not the student received financial aid for those terms is of no consequence.

**Transfer Students:** Credits officially accepted in transfer will be counted in determining the maximum number of allowable semester credit hours for financial aid eligibility.

**Second Degree Students:** Credits earned from a first degree or certificate must be counted if the student changes programs or attempts a second degree or certificate. Depending on the circumstances, an appeal might be warranted.

**ESL and Developmental Studies:** Students may receive financial aid for a maximum of 30 semester hours of Developmental Studies courses as long as the courses are required as a result of placement testing, the student is in an eligible program of study, and SAP requirements continue to be met. ESL credits are unlimited in number as long as they are taken as part of an eligible program and SAP requirements continue to be met.

**Additional Considerations for Quantitative or Pace of Completion Standards**

- Withdrawals (W grades) that are recorded on the student's permanent academic transcript will be included as credits attempted and will have an adverse effect on the student's ability to meet the requirements of the completion rate for financial aid.
- Incomplete Grades: Courses that are assigned an incomplete grade are included in cumulative credits attempted. These cannot be used as credits earned in the progress standard until a successful grade is assigned.
- Repeated courses enable the student to achieve a higher cumulative grade point average. Students can repeat courses with financial aid until successfully completed but repeating courses adversely affects the student's ability to meet completion rate requirements. Financial aid can be considered for successfully completed classes that are repeated to achieve a higher grade but for only one additional attempt. Only the latest attempt will count toward the cumulative grade point average.

**B. Qualitative Standards**

**Cumulative GPA Requirements (GPA Rule):** In order to remain eligible for financial aid consideration, students must meet minimum cumulative grade point average requirements based on a progressive scale. Only non-remedial courses with grades of A, B, C, D, and F are included in this calculation. Transfer credits are excluded. ***In order to graduate, a minimum cumulative grade point average of 2.0 is required.***

| Total Number of Credits Attempted | GPA Requirement |
|---|---|
| 1-15 | 1.5 |
| 16-30 | 1.75 |
| 31+ | 2.0 |

**III. REGAINING ELIGIBILITY FOR FINANCIAL AID**

Students who do not meet the credit progression requirements (Quantitative or Pace of Completion) and/or cumulative grade point average requirements (Qualitative) will be immediately ineligible for financial aid. Removal from financial aid does not prevent students from enrolling without financial aid if they are otherwise eligible to continue their enrollment.

Unless extenuating circumstances exist and an appeal is granted (see "IV. Appeals" for additional information), a student in financial aid suspension should expect to continue classes at his or her own expense until SAP requirements are again met.

Students who fail to meet these SAP Standards and who choose to enroll without benefit of student financial aid may request a review of their academic records after any term in which they are enrolled without the receipt of financial aid to determine whether they have again met SAP standards. If the standards are met, eligibility is regained for subsequent terms of enrollment in the academic year. Students should consult their campus financial aid advisors for assistance in appealing any element of this policy or to determine how to regain eligibility for financial aid.

**IV. APPEALS**

Under certain circumstances, students who fail to meet SAP standards and lose eligibility for financial aid can appeal the financial aid suspension. Students must clearly state what caused the suspension and must also clearly indicate what has changed that will now allow the student to succeed. Appeals are encouraged if:

- Extenuating circumstances exist (i.e., student's serious illness or accident; death, accident or serious illness in the immediate family; other mitigating circumstances), or
- The student has successfully completed one degree and is attempting another, or
- The student on suspension for other than Maximum Hours (150%), who has not yet met SAP requirements, has during suspension enrolled in and successfully completed at least 12 semester credits at the College with a minimum GPA of 2.0.

Students appealing a suspension must:

- Complete the College's SAP Appeal Form in entirety,
- Attach documentation in support of the appeal, including an advisor statement showing remaining credits to graduation for 150% appeals, and
- Submit all items to the College Financial Aid Office.

Only complete appeal submissions, with documentation, will be evaluated by the Financial Aid Office. The decision is final. Depending on the circumstances, the student could be required to complete additional requirements (i.e., see a career counselor or another type of counselor, meet with an advisor to develop an academic progress plan for completion, limit enrollment, etc.) before an appeal is granted. The goal is to help the student get back on track for graduation. The reasonableness of the student's ability for improvement to again meet SAP standards and complete the student's program of study will be carefully considered. Appeals will be approved or denied. Students who have appeals approved will be in probationary status for the coming term. ***During probationary status, the student must meet the conditions of the appeal as communicated to him or her by the Financial Aid Office, or the student will return to suspension.*** If an academic progress plan has been pre-approved by financial aid, continuing to meet the requirements of that plan will put the student back into good standing.

### Excluded Credits from Enrollment Status

Under the following conditions, certain course credits will not be included when calculating the current enrollment status used to determine eligibility for aid:

1. A course is registered as audit;
2. A developmental course if the student has attempted at least 30 semester hours of developmental course work.
3. Courses which do not apply toward graduation in the student's current curriculum.

### Repayment of Title IV Aid when a Student Withdraws

If a student withdraws on or before 60% of the class has been completed, federal financial aid regulations established by the Higher Education Amendments of 1998 require that a portion of the total Title IV funds awarded to that student (Pell Grant, FSEOG, Coma, VGAP) must be returned. The determination is based on calendar days.

### Withdrawal Date for a Student Receiving Title IV Aid

To determine the withdrawal date, the Office of Financial Aid will consider:

1. The date in the Student Account System that the student was withdrawn;
2. The date the student officially notified the Division of Student Services and Enrollment Management of intent to withdraw;
3. The date that the College determines that a student stopped attending class because of an illness, accident, grievous personal loss, or other circumstances beyond the student's control.
4. The date the student last attended an academically-related activity such as an exam, a tutoring session, a computer-assisted instructional session, an academic counseling session, an academic advisement session, or study session assigned by the College.

The College must document a student's withdrawal date and maintain the documentation.

### VHCC Disbursement Process

Disbursement of federal and state grant funds to student accounts will occur within 4 weeks following the last day to add a class for the semester. A notification of the disbursement date will be posted on the VHCC website. In approximately four (4) weeks after this date, students may expect to receive any refund check that they are entitled to after tuition, and approved charges are deducted. Students have the option to choose a reloadable Visa branded prepaid debit card or direct deposit (ACH) into their existing bank accounts.

### Aid Programs Available

VHCC does not participate in the Direct Lending Loan Programs, however, the College does participate in the following grant and work programs:

**PELL Grant** – Students may apply for this federally-funded program by completing the Free Application for Federal Student Aid. This non-repayable grant is available to eligible students enrolled in an eligible certificate or degree program. Maximum award for the 2026-2027 award year will be $7,395 for full-time students.

**Federal Supplemental Educational Opportunity Grant** – VHCC participates in this federal program which provides direct awards to a limited number of students. Grants may range from $100 to $4000 depending on the student's need, financial resources, and cost of attending the College.

**Federal Work-Study Program** – Numerous jobs on campus and off campus are available each year under the Federal Work-Study Program. Students who have financial need and enrolled in at least half time may qualify for participation in this program. Community service jobs are also

available to students. Foreign students who are in this country on temporary visas are ineligible to participate in the work-study program. These funds cannot be applied to tuition or books.

**Commonwealth Grant Program** – The COMA Grant Program is a needs-based program of grants to students at VHCC who are permanent residents of Virginia enrolled in 6 or more credit hours. Funding is provided solely by the Commonwealth of Virginia. Individual awards vary dependent upon need and funding level. Awards range from $200 up to the cost of tuition.

**Part-Time Tuition Assistance Program (PTAP)** – This VCCS funded grant provides tuition assistance only to students in an eligible degree or certificate program who enroll for at least 1 but less than 9 credits. Students must demonstrate need and be domiciled in Virginia.

**Transfer Grants** - The Transfer Grant makes a four-year college degree more affordable for Virginia Highlands Community College graduates who have financial need (determined by the FAFSA). It provides a $1,000 grant for all eligible students, with an extra $1,000 for students who pursue undergraduate work in engineering, math, nursing, teaching or science. For more information, contact the Division of Student Services and Enrollment Management (276-739-2402).

**Alternative Student Loan Program** - Alternative loans, also called private loans, are offered by lending institutions as an additional source of funds for higher education. These funds are not part of the federal government loan programs; VHCC does not participate in the Direct Loan Programs which include Stafford or Plus student loan programs.

## Other Fees, Charges and Fines

In accordance with the rules and regulations of the State Board for Community Colleges, the College has established the following fees:

**Student Testing Fees:** Students shall not be charged for credit by exam.

**Community Education/Public Service:** Fees shall be established for Community Education and Community Service offerings equal to or greater than the direct cost of such offerings plus 30% for administrative overhead support.

**Student Activity Fee:** A Student Activity fee ($7.50 per credit hour) is required of all students registered for credit classes. The fee subsidizes student activities and cultural events, including the Arts Array program. VHCC students receive free admission to all these events.

**Parking Fee:** A Parking fee ($4.50 per credit hour) is required of all students registered for credit classes. The fee is used to make needed repairs to parking lots and parking lot lighting.

**General:**

Students who damage or lose school property (laboratory or shop equipment, supplies, library materials, etc.) are expected to pay for such losses. In addition, students are expected to pay fines for lost library items, improper parking or other infractions as determined by the College administration with approval of the Virginia Community College Systems Offices.

Transcripts, certificates, diplomas or degrees will not be issued nor will a student be permitted to enroll until payments due to the business office, bookstore, or library have been paid in full.

**Books and Materials:** Students are expected to purchase all books, supplies, consumable materials that they will use in their classes and studies. The estimated cost of these items will usually average between $200 - $400 per semester for a full-time student. Disability Services can arrange for textbooks when merited.

Students may use excess financial aid in the College Bookstore to purchase only required books and supplies for registered courses deemed eligible for financial aid for the term. A course would be deemed ineligible for financial aid if any of the following circumstances exist:

1. The course does not apply to the student's academic program;
2. The course has already been repeated once after having been successfully completed. Successful completion is defined as any grade other than an F, U, R, or W;
3. The course is developmental and the student has already attempted 30 or more developmental credits; and/or
4. Items not approved for purchase with financial aid include but are not limited to apparel, food, cell phones, gift items, and gift/prepaid cards. VHCC allows the purchase of course related electronics (e.g., laptops, tablets, cameras, and scientific calculators) limited to one-time purchase.

During the book purchase period, books and supplies purchased using financial aid cannot be returned or sold back to the College Bookstore for cash. Amounts for returned items must be credited back to the aid types that paid for the books and supplies on the student's account.

**Student Field Trips:** All students participating in field trips will be responsible for related expenses, including transportation charges. Student activity funds will cover costs associated with official student activity trips.

**Purchase of Tools**: All students pursuing a curriculum requiring the use of hand tools are required to furnish their tools. The College will furnish specialized tools that an employer normally would provide for a mechanic or technician.

# Refunds

1. Students will be eligible for a refund for credit hours dropped by the last date to qualify for a refund date as noted in the Academic Calendar. To be eligible for a refund, a student must log into their My VHCC account and drop a course by the refund deadline date. It is a student's responsibility to be aware of all deadline dates listed in the Academic Calendar. After the drop period has passed, there shall be no refunds.
    A. Refunds will be on a per-credit hour rate.
    B. Refunds will not exceed tuition charges.
    C. Funds will be restored to the appropriate account from which payment was made.
    D. Refunds are subject to proper bookstore clearance for returned/re-saleable or paid items (if applicable).
2. In accordance to Virginia Community College system Policy, 4.3.2.2, exceptions to the refund policy are considered only with documented extenuating circumstances for the following reasons:
    A. Administrative error
    B. Extreme financial hardship
    C. Major medical emergency of extraordinary circumstances
    D. National emergency or mobilization declared by the President of the United States
    E. Other highly unusual emergency or extenuating circumstances as determined by the College

    Tuition refund requests after the drop date must be initiated no later than the end of the subsequent academic semester in which the refund is requested. Requests outside this deadline will not be accepted. To request a refund after the drop period, an Add/Drop form must be submitted along with documentation to the Vice President of Instruction and Student Services.
3. For students receiving financial aid, after the add/drop period has passed, return of Title IV funds only will be processed on a percentage based upon the time of withdrawal and the amount of Title IV aid earned as of that date. When a recipient of Title IV grant (Pell or FSEOG) assistance withdraws from the College during a semester in which the recipient began attendance, the College must determine the amount of Title IV grant assistance that the student earned as of the student's withdrawal date in accordance with federal regulations. Students should contact the financial aid office regarding the financial consequences prior to withdrawing.

**Refunds, Credits, Reinstatement as a Result of Military Service**

Pursuant to 23-9.6:2 of the Code of Virginia, and corresponding SCHEV Guidelines, VHCC provides for the tuition relief, refund, and reinstatement of students whose service in the uniformed services has required their sudden withdrawal or prolonged absence from their enrollment. Service in the uniformed services is defined as service (whether voluntary or involuntary) on active duty in the Armed Forces, including such service by a member of the National Guard or Reserve, for a period of more than 30 days under call or order to active duty of more than 30 days.

Students need to submit documentation of the official military orders to the Veterans Officer before the end of the semester of withdrawal or prolonged absence.

**a.** **Tuition and Required Fees**
Should a student be ordered to active duty (for reservists) or be mobilized (active military) as described in the Code of Virginia, Section 23-9.6:2, and the student requests to be withdrawn from VHCC after the census date, the student may elect either to be deleted from the registration file and be awarded a full refund or to be administratively withdrawn with no refund and assigned a grade of "W".

VHCC offers the option for such refunds to be retained and to be applicable to tuition and fees charged in the semester or term in which the student returns to study.

**b.** **Textbooks**: VHCC will process refunds for textbooks according to the contractual arrangement with the VHCC Bookstore vendor.

**c.** **Academic Credits and Grades**: Students who are subject to conditions described in Code of Virginia, Section 23 9.6:2 have the opportunity to receive an incomplete grade ("I") until released from active duty (for reservists) or mobilization (for active military personnel). All course requirements shall be completed within one year from the date of release from active duty or mobilization.

Students may be given the option of taking their examinations prior to regularly scheduled times as an exception to VCCS policy 5.7.1 in accordance with the SCHEV Guidelines on Tuition Relief, Refund, and Reinstatement.

# Reinstatement

Students who are called to active duty or are mobilized shall be assured a reasonable opportunity to be reinstated in the same programs of study without having to re-apply for admission if they return to VHCC after a cumulative absence of not more than five years so long as the student provides notice of intent to return to the institution not later than three years after the completion of military service.

## Scholarships, Sponsorships, and Promise Programs

**Scholarships:** The VHCC Educational Foundation manages a wide range of scholarships designed to make college more accessible and affordable. Scholarships may be awarded based on residency, academic achievement, financial need, leadership, community service, program of study, or special talents. Many are funded by local businesses, community organizations, and private donors who are committed to supporting student success. Scholarships are awarded for expenses such as tuition/fees, books, and educational supplies. There is an annual application cycle which begins with students completing the FAFSA and VHCC Educational Foundation Scholarship Application. The VHCC Educational Foundation partners with the VHCC Financial Aid Office and a review committee to make and apply awards. Generally, scholarship awards are placed on the student's business account with VHCC or the student's account with the VHCC Bookstore. In some cases, awards may be made directly to a student.

**Sponsorships:** The VHCC Educational Foundation is also able to accept scholarship awards on behalf of VHCC students from third-party scholarship-awarding organizations. Students who receive these awards should work directly with the VHCC Foundation to ensure that these funds are appropriately credited to their VHCC student account.

**Promise Programs:** In partnership with several funders, VHCC and the VHCC Educational Foundation are proud to offer last-dollar "promise" scholarships to recent high school graduates attending VHCC who meet certain residency and other criteria. The purpose of the promise scholarships is to cover remaining tuition and required fees after other forms of financial aid and scholarships have been applied (i.e. Pell Grants, state aid like G3 and Fast Forward, Tobacco Commission scholarships, and VHCC Educational Foundation scholarships). Because these are last-dollar programs, the promise scholarships fill the funding gap rather than providing funds in addition to other aid. The promise programs available at VHCC are in place to serve students from the City of Bristol, a portion of Smyth County, and Washington County (the Washington County Promise Program also provides a semester-by-semester book stipend for students). As with the VHCC Educational Foundation private scholarships, students must complete the FAFSA and the VHCC Educational Foundation Scholarship Application to be eligible.

## Tuition

**(Includes basic tuition and applicable surcharge)**

1. **General**. The 2025-26 tuition rate listed below is effective Summer 2025. Current tuition rates will be published on the VHCC website at https://www.vhcc.edu/tuition-fees. Subject to change by the State Board for Community Colleges.

   **Tuition Rate Per Credit Hour**

   Virginia Resident .....$173.20
   Out-of-State Resident .....$389.20
   30-Mile Radius.....$173.20

   Upon paying tuition, students are eligible to obtain a student identification card that can be used in the VHCC Library and other campus facilities.

   Unless otherwise notified, students must meet all published payment deadlines each semester. Students who do not meet the deadline will be removed from the official class roster. Only paid students will be allowed to attend class.

2. **Reduced Tuition Charges**. The Virginia General Assembly in 1984 enacted legislation clarifying the state code regarding eligibility for in-state tuition. To be eligible for the in-state tuition rates, students must live in Virginia for a minimum of one year before the first official day of classes. If a student's parent or parents are employed full-time in Virginia but live out of state, special provisions for determining eligibility for reduced tuition rates exist. Spouses and dependents of active duty military personnel are entitled to show eligibility for in-state tuition rates in the same manner as nonmilitary personnel, except that the one-year durational period may be waived for active duty military personnel (and their dependent children) who voluntarily elect Virginia as their permanent residence for domiciliary purposes.
   The General Assembly enacted legislation in 1995 that authorized the State Board for Community Colleges to charge a contract tuition rate to students enrolled in Virginia community colleges who live within 30-miles of campus and are eligible for in-state tuition in a state contiguous to Virginia, provided that state has a reciprocal agreement for Virginia residents.

   Please check with the Coordinator of Admissions & Records in the Division of Student Services and Enrollment Management for more specific guidelines concerning changes in the domicile law.

3. **Waived Tuition.** Section 23.7.1 of the Code of Virginia provides that free tuition shall be granted to children of persons killed, disabled, missing in action or prisoners in any armed conflict.

   Eligibility of such children shall be determined by the Virginia Department of Veterans Services who shall certify in writing to the admitting institution that tuition should be waived in accordance with the provisions of Section 23-7.1. Applications are available in Division of Student Services and Enrollment Management Office. The Virginia Military Survivors and Dependents Education Program also applies to spouses of veterans killed or permanently disabled due to combat.

4. **Waived Tuition.** In accordance with Section 23-7.4 of the Code of Virginia, all students are eligible for in-state tuition for courses taken through the College's dual enrollment program.

5. **Senior Citizens Higher Education Act of 1974 as Amended, 1976, 1977, 1982 and 2015.**
   A. To be eligible for free tuition and fees for credit courses, part-time or full time, a person must meet the following criteria:
      1. Be 60 years of age or older.
      2. Be a legal resident of Virginia.
      3. Report a taxable income not exceeding $23,850 for Federal Income Tax purposes for the year prior to enrollment.
      4. Be admitted to a course after all tuition-paying students have been accommodated.
      5. Be admitted to the College as a student.
   B. To be eligible for free tuition when auditing a credit course or taking a non-credit course, a person must meet the following criteria:
      1. Be 60 years of age or older.
      2. Be a legal resident of Virginia.
      3. Be admitted to a course after all tuition-paying students have been accommodated.
      4. Be admitted to the College as a student.

**Estimated Full-Time Cost of Attendance 2024-25**

**In-State students (fall/spring)**

| | |
|---|---|
| Books and Supplies | $ 1,800 |
| Personal/Miscellaneous | $ 4,500 |
| Living Expenses | $ 9,000 |
| Transportation | $ 4,00 |
| Tuition and Fees | $ 5,169 |
| ***Total*** | **$22,969** |

**Out of State students (fall/spring)**

| | |
|---|---|
| Books and Supplies | $1,800 |
| Personal/Miscellaneous | $4,500 |
| Living Expenses | $9,000 |
| Transportation | $3,000 |
| Tuition and Fees | $11,682 |
| ***Total*** | **$29482** |

## Veterans Benefits

Information concerning veterans' educational programs and benefits may be obtained from the Veterans Officer located in the Division of Student Services and Enrollment Management. Veterans must first apply for Veterans Education Benefits at www.benefits.va.gov/gibill then contact the VHCC Veterans Officer, located in the Student Services Office. It is the responsibility of students eligible for Veterans Administration benefits to secure the necessary forms from this office. Assistance in completing and submitting these forms is also provided. Veterans may request a military transcript at the Joint Services Transcript, jst.doded.mil (Army, Coast Guard, Marine Corps, and Navy) * which will be evaluated by the Student Services Center to receive transfer credits at Virginia Highlands Community College.

*Air Force personnel can request their military transcripts through the Air Force Transcript Portal at https://www.airuniversity.af.edu/Barnes/CCAF/Display/Article/803247/community-college-of-the-air-force-transcripts/.

If you have questions regarding your qualifications of veteran's benefits or to explore your options for maximum use, please call the Veterans Administration toll-free number at 888-442-4551 (1-888-GIbill1) or visit the website www.benefits.va.gov/gibill.

All academic policies as included in this catalog apply equally to all students at Virginia Highlands. However, there are a few guidelines specifically applicable to the administration of veterans certified for benefits through the Veterans Administration.

1. Veterans Officer will consult with veterans who fail to attend classes regularly.
2. Veterans Officer will report to the Veterans Administration as soon as possible any change in the status of veterans, whether that be a change of curriculum, reduction or increase in course-load or withdrawal.
3. Veterans who fail to maintain good academic standing must be counseled by an advisor at the College prior to veterans' benefits being reinstated.
4. Virginia Highlands Community College grading policies will be used to determine whether veterans are maintaining satisfactory progress. According to College and the Veterans Administration policies, students must make satisfactory academic progress. If suspended or dismissed, students must appeal to the Coordinator of Admissions and Records (or designee) and meet with the Admissions Committee. Students who have been reinstated must achieve a 2.0 GPA for the semester of their reinstatement. At the conclusion of this semester, enrollment for successful students receiving veterans' educational benefits will be certified.
5. The physical education requirements for the degree, diploma and certificate programs may be waived for veterans (please see Veterans Officer), and the College may substitute other credits to satisfy the total credit requirements of the veteran's curriculum.

Additional information and forms are available on the VHCC website at www.vhcc.edu/military-veterans.

### Tuition Relief for Active Duty Personnel

As required by Virginia Code Section 23-9.6.2, VHCC will provide tuition relief, refund, and reinstatement of students whose active military status during a time of national emergency has required their sudden withdrawal or prolonged absence from their enrollment.

### Chapter 31/Chapter 33 Fee Deferment Policy

If a student wishes to use Chapter 31 or Chapter 33 the University will defer students' semester charges. These semester charges will be deferred a minimum of 90 days from the tuition deadline. Charges not covered by the VA must be paid by the tuition deadline to prevent penalty fees. Penalties will not be imposed on charges covered by the VA, but may be imposed on charges that are past due and not covered by the VA.

Fall deferment ends November 21

Spring deferment ends April 11

Summer deferment ends October 5

### Veterans Access, Choice, and Accountability Act of 2014 (As Amended by Public Law 114-315) and Title 38, U.S.C Section 3679(c)

The following individuals shall be charged the in-state rate, or otherwise considered a resident, for tuition purposes:

• A Veteran using educational assistance under either chapter 30 (Montgomery G.I. Bill© – Active Duty Program) or chapter 33 (Post9/11 G.I. Bill©), of title 38, United States Code, who lives in the Commonwealth of Virginia while attending a school located in the Commonwealth of Virginia (regardless of his/her formal State of residence) and enrolls in the school within a period of active duty service of 90 days or more.

• Anyone using transferred Post-9/11 GI Bill© benefits (38 U.S.C. § 3319) who lives in the Commonwealth of Virginia while attending a school located in the Commonwealth of Virginia (regardless of his/her formal State of residence) and enrolls in the school within a period of active duty service of 90 days or more.

• Anyone using transferred Post-9/11 GI Bill© benefits (38 U.S.C. § 3319) who lives in the Commonwealth of Virginia while attending a school located in the Commonwealth of Virginia (regardless of his/her formal State of residence) and the transferor is a member of the uniformed service who is serving on active duty.

• A spouse or child using benefits under the Marine Gunnery Sergeant John David Fry Scholarship (38 U.S.C. § 3311(b)(9)) who lives in the Commonwealth of Virginia while attending a school located in the Commonwealth of Virginia (regardless of his/her formal State of residence).

• An individual using educational assistance under chapter 31, Vocational Rehabilitation and Employment (VR&E) who lives in the Commonwealth of Virginia while attending a school located in the Commonwealth of Virginia (regardless of his/her formal State of residence) effective for courses, semesters, or terms beginning after March 1, 2019.

• Anyone described above while he or she remains continuously enrolled (other than during regularly scheduled breaks between courses, semesters, or terms) at the same school. The person so described must have enrolled in the school prior to the expiration of the three-year period following discharge or release as described above and must be using educational benefits under either chapter 30 or chapter 33, of title 38, United States Code.

• According to Public Law 117-68, Title 38 USC 3679(c)(2)(A), all public institutions can only charge in-state tuition and fees to students covered under Chapters 30, 31, 33, and 35 pursuant to the Veteran Access, Choice, and Accountability Act of 2014 with amendments.

# Academic Policies

## Academic Honors

The College encourages a high level of academic achievement and seeks to recognize those students who excel in this area. The Vice-President's List and President's Honor Roll have been established for the purpose of recognizing scholastic achievement. Full-time students must complete 12 hours of coursework in addition to any developmental courses.

1. **President's Honor Roll**
   Full-time students earning a semester grade point average of 4.0 are placed on the President's Honor Roll. The semester average of a student who has earned an incomplete (I) will be computed when the Incomplete has been removed.
2. **Vice President's List**
   Full-time students earning a semester grade point average of at least 3.5 (with no D's or F's) will receive recognition by being placed on the Vice President's List.
3. **Deans' List**
   Students enrolling for six to eleven credits during a semester and earning a GPA of 3.500 or more without any "I" or "F" grades will be placed on the Deans' List.

## Academic Load

The normal academic course load for students is 15-17 credits. The minimum full-time load is 12 credits and the normal maximum full-time load is 18 credits. Students must have a minimum grade point average of 3.0 and the approval of their faculty advisor and Counselor to carry an academic load of more than 18 credits. Students placed on academic warning or academic probation may be required to take less than the normal semester course load. Since the normal maximum academic load is 18 credits, no curriculum may officially list in any publication more than 18 credits per semester.

A minimum of 12 credits is required for full time enrollment status for financial aid, Veterans' Benefits, student loan deferments, or insurance enrollment status verification. Summer term is not required for most insurance status verifications and the regulations for Veterans' Benefits differ for summer and for academic sessions of less than 16 weeks. Veterans need to contact the VHCC Veterans' Office (276-739-2414) for enrollment status.

## Academic Standing

1. **Good Academic Standing** - Students are considered to be "in good academic standing" if they do not fall under one of the below categories.
2. **Academic Warning -** Students who fail to attain a minimum GPA of 2.00 for any semester shall receive a notification of academic warning to inform them they are at risk of incurring negative academic standings in subsequent terms. Academic Warning is not an official standing.
3. **Academic Probation -** Students who fail to maintain a cumulative GPA of 1.5 shall be on academic probation until such a time as their cumulative average is 1.75 or better. The statement "Academic Probation" shall be placed on their permanent records but shall not be placed on the students' official transcripts. Students may be required to carry less than a normal course load the following semester and are required to consult with their counselor.

   A student pursuing a degree program is cautioned that, although an average between 1.5 and 1.99 may not result in formal academic probation, a minimum of 2.0 in the curriculum is a prerequisite to the receipt of an associate degree, diploma, or a certificate. Students shall be placed on probation only after they have attempted twelve semester credit hours.
4. **Academic Suspension** - Students on academic probation who fail to attain a semester GPA of 1.50 or better shall be placed on suspension only after they have attempted 24 semester credits. Academic Suspension shall be for one semester. The statement, "Academic Suspension," shall be placed on the students' permanent records but shall not be placed on the students' official transcripts.

   Students who are placed on academic suspension and wish to appeal may submit an appeal in writing to the Coordinator of Admissions and Records (or designee) for reconsideration of the case. Suspended students may be reinstated at the conclusion of the suspension period and upon formal written petition to Coordinator of Admissions and Records (or designee). Students who have been reinstated from academic suspension must achieve a 2.0 GPA for the semester of their reinstatement and must earn at least a 1.75 GPA in each subsequent semester of attendance. The statement "Subject to Dismissal" shall be placed on the students' permanent records. Students who have been reinstated from academic suspension will remain subject to dismissal until their cumulative GPA is raised to a minimum of 1.75. Reinstated students may be required to carry less than a normal course load the following semester and are required to consult with their counselor. Students who are readmitted after being on academic suspension are required to meet with an academic counselor periodically throughout the first semester after readmission.
5. **Academic Dismissal -** Students who do not attain at least 2.0 GPA for the semester of reinstatement following academic suspension shall be academically dismissed. Students who achieve at least a 2.0 GPA for the semester of their reinstatement following academic suspension must earn at least a 1.75 GPA in each subsequent semester. Failure to attain a 1.75 GPA in each subsequent semester until

the cumulative GPA reaches 1.75 shall result in academic dismissal. The statement "Academic Dismissal" shall be placed on the students' permanent records.

Academic dismissal normally is permanent. In exceptional circumstances, students may appeal. All appeals must be submitted thirty days prior to the first day of class for the semester in which the student plans to attend. Students who have been reinstated after academic dismissal will remain subject to dismissal until their cumulative GPA is raised to a minimum of 1.75. Reinstated students may be required to carry less than a normal course load the following semester and are required to consult with their counselor. Students who are re-admitted after being on academic dismissal are required meet with an academic counselor periodically throughout the first semester after readmission.

## Adding a Course

Students may enroll in classes during the first full week of class through on-line enrollment procedures. After the first week students are not allowed to add a class unless it is in a subsequent term. Courses which do not follow regular term dates are considered dynamically dated classes and will have different add and drop dates.

## Auditing a Course

Students who audit courses will not be required to take exams and will not receive credit for the course. To audit a course, students must receive permission from the instructional dean or designee, register in the regular manner, and pay regular tuition. Audited courses will not count toward enrollment status for financial aid, Veterans' Benefits, student loan deferments, or insurance enrollment status verification. Students may change status from audit to credit within the 15% add/drop period. Changes from credit to audit must be made within the posted deadline to change from credit to audit.

## Class Attendance

Regular class attendance is required. When an absence is necessary, students are responsible for notifying the instructor prior to or soon after the absence. Frequent unexplained absences may result in dismissal from the course. Students are responsible for completing work missed, regardless of the reason for the absence. Any instruction missed and not subsequently completed will necessarily affect the grade of the student regardless of the reason for the absence. Absences cause students to miss more than work assigned—they also miss instruction. Faculty are not obligated to teach one-on-one when students are habitually absent. Please reference course syllabus for information on policies specific to a course.

## Confidentiality of Student Records

Virginia Highlands Community College complies with the requirements of the Family Education Rights and Privacy Act (FERPA) of 1974 regarding confidentiality and student's access to student records. The privacy and confidentiality of all student records shall be preserved. Official student academic records, supporting documents, and other records shall be maintained only by appropriate members of the College staff employed for that purpose. Transcripts of educational records contain only information about academic status and are maintained by the Coordinator of Admissions & Records Office in the Division of Student Services and Enrollment Management. Access to this record is guaranteed to every student subject only to reasonable regulation as to time, place, and supervision.

The College may disclose personally identifiable information from a student's education records if such information has been designated as directory information. Directory information includes the student's name, major field of study, dates of attendance, number of credit hours enrolled, degrees, honors, and awards received, photos, and participation in officially recognized clubs and organizations, activities and sports. Also, the College will routinely provide local police departments with arrest and charge information which occurs on campus. Such directory information may be disclosed by the College to others without prior consent of the student unless the student should file a written objection with a college individual responsible for custody of such records no later than the time that the College has made such disclosure. In any case, the College may disclose directory information from the education records of an individual who is no longer in attendance at the College.

Students may complete the electronic FERPA form, accessible through the MyVHCC Student Portal if they wish to share FERPA-protected student records. Students may grant permission to anyone of their choosing by entering a self-chosen passcode on the electron form. Individuals seeking FERPA-protected student records must be able to provide their passcode before gaining access.

Final grades for each semester or term become a part of students' permanent records and are recorded on official transcripts. Grade reports are available to students via their MyVHCC>Student Information System (SIS); official transcripts may be requested through Parchment (see VHCC Student Handbook for more information).

## Continuing Education Unit

The Continuing Education Unit is used for the measurement, recording, reporting, accumulation, transfer and recognition of participation in programs which seldom in the past have been recorded in any formal or systematic way. A unit can be awarded for programs that are wholly

structured to provide skills and/or knowledge for occupational improvement or for programs that are specifically organized to provide help in the solution of problems confronting the State.

One CEU is defined as “ten contact hours of participation in an organized continuing education experience under responsible sponsorship, capable direction, and qualified instruction.”

Individuals seeking information concerning the Continuing Education Unit should direct inquiries to Workforce Development and Continuing Education.

## Credit Hours Policy

The credit for each course must be indicated after the title in the course description. One credit is equivalent to one collegiate semester-hour credit. Each semester hour of credit given for a course is based on the "academic hour," which is 50 minutes of formalized, structured instructional time and a minimum of two hours of outside course work in a particular course weekly for fifteen weeks. This is a total of 750 minutes of instruction. In addition to this instructional time, appropriate evaluation will be required. If this evaluation is a final examination, a minimum of one hour will be scheduled for each semester hour of credit generated by the course, not to exceed three academic hours (150 minutes). Credits may be assigned to the activities as follows:

a. Lecture – One academic hour of lecture (including lecture, seminar, discussion, or other similar activities) and a minimum of two hours of outside course work per week, generally for 15 weeks, plus the evaluation or examination period, equals one collegiate semester-hour credit.
b. Laboratory – Two to five academic hours, depending on the discipline, of laboratory, clinical training, supervised work experience, coordinated internship, or other similar activities per week, and a minimum of two hours of outside course work, generally for 15 weeks, plus the evaluation or ex-amination period, equals one collegiate semester-hour credit.
c. Online Learning – In the case of online learning course offerings or hybrid courses that employ a mix of traditional contact hours and learning activities with students and faculty separated by time and place, the College will ensure that that content, competency coverage, and student outcomes are equivalent to those of traditional sections of the same class.

## Curriculum Changes

Students interested in changing their program of study should consult with an advisor or coach. Approval from an advisor or coach is required.

## Disclaimer

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

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

## Final Examinations

Students will be expected to take final examinations at the regularly scheduled times. No exceptions will be made without the permission of the Vice President of Instruction and Student Services or another appropriate academic administrator and the instructor of the course. The semester examination schedule is available online.

## Final Grade Appeal Procedure

*Level I: Final Grade Appeal to Faculty*

For instances in which a student chooses to challenge a final grade, the student will communicate in writing with the faculty member to appeal the final grade. This communication will be submitted to the faculty member within **five (5)** College business days of receiving the grade. The faculty member will discuss the final grade appeal details with the student and will render a decision within **five (5)** College business days of receiving the student’s appeal communication. The faculty member will retain documentation of this final grade appeal discussion and decision.

If a resolution is not reached between the student and faculty member and the student chooses to appeal beyond the faculty member's decision, the student will review the two criteria below. If one of the two criteria below are met and the student chooses to appeal the faculty member's decision, the student will complete a Final Grade Appeal form, to be submitted to the appropriate dean and copied to the faculty member **within 48 hours of receiving the faculty member's decision, or by 9 a.m. on the next College business day if the deadline falls on a weekend or after 5 p.m. on a weekday.**

*A student may request a Level II final grade appeal for one of the following reasons:

1. A procedural or substantive error occurred that significantly impacted the academic grade (e.g. substantiated bias, material deviation from established procedures); or
2. To consider new information unavailable during the original meeting that could substantially impact the original academic grade. A summary of this new information and its potential impact must be included in the forwarded appeal.

*Level II: Academic Dean's Review*

The appropriate Academic Dean will conduct a review of the information provided by both the student and the faculty member no later than ten (10) College business days following the student request for the review. The appropriate Academic Dean shall make a decision and communicate findings in writing to the student and the faculty member within five (5) business days after the review is completed.

After review, the appropriate Academic Dean may:

- Uphold the original decision
- Request a final grade change (may not be lower than original grade)

If the student chooses to appeal the appropriate Academic Dean's decision, the next step is a Level III final grade appeal.

*Level III: Vice President's Review*

An appeal of the appropriate Academic Dean's decision must be submitted by the student to the Vice President of Instruction and Student Services within 48 hours of the student receiving the appropriate Academic Dean's decision in writing, or by 9 a.m. on the next College business day if the deadline falls on a weekend or after 5 p.m. on a weekday. The Vice President of Instruction and Student Services may either:

- Uphold the appropriate Academic Dean's decision;
- Request a final grade change (may not be lower than original grade)

For the Final Grade Appeal procedure, the decision of the Vice President of Instruction and Student Services is the final decision for the College.

* Regarding sequential courses that require successful completion of a pre-requisite course taught in consecutive terms within semesters, the procedure described above will be expedited to reasonably accommodate all parties involved.

### Time Limitation

Every effort will be made by all parties to expedite the disciplinary process. The time limitations specified for either party may be extended by written mutual agreement. If there is no written mutual agreement to extend the time limits set herein, the decision reached at the previous level shall be determined to be final.

## Grade Point Average

Grade point average (GPA) is determined by dividing the total number of grade points earned by the total number of credits attempted.

1. **Semester Grade Point Average** - Semester GPA is determined by dividing the total number of grade points earned for the semester by the total number of credits attempted.
2. **Cumulative Grade Point Average** - Cumulative GPA, which includes all courses attempted, is computed each semester and is maintained on a cumulative basis as a record of the student's academic standing.
3. **Curriculum Grade Point Average** - A curriculum GPA, which includes only those courses applicable to the student's curriculum, is computed in order to ensure that the student satisfies the graduation requirement for that curriculum. When students repeat a course, only the highest grade earned is counted in the computation of the curriculum GPA.

## Grading – Developmental Courses

A grade of "S" (Satisfactory) shall be assigned for satisfactory completion of Developmental course which are courses listed as either EDE or MDE.

Students making satisfactory progress but not completing all of the instruction objectives in Developmental courses may receive an "R" (Re-enroll). The "I" and "W" grades may be used under certain conditions. "I" grades require documented mitigating circumstances.

Students not making satisfactory progress in Developmental courses (courses listed as MDE and EDE shall receive a "U" (Unsatisfactory), and counselors will recommend consultation with the instructor to determine the subsequent sequence of courses for the student. Students are normally limited to two enrollments in the same remedial course.

## Grading System

1. **Grades Assigned**
   Instructors are responsible for assigning a letter grade to reflect the quality of performance in each course. Quality points are assigned as follows:

| Grade | Interpretation | Quality Points |
|---|---|---|
| A | Excellent | 4 |
| B | Good | 3 |
| C | Average | 2 |
| D | Poor | 1 |
| F | Failure | 0 |
| I | Incomplete | None |
| P | Pass | None |
| R | Reenroll | None |
| S | Satisfactory | None |
| U | Unsatisfactory | None |
| W | Withdrawal | None |
| X | Audit | None |

The grades of A, B, C, D, P, and S are passing grades. Grades of F and U are failing grades. R and I are interim grades. Grades of W and X are final grades carrying no credit.

2. **Grades Applicable to All Courses**

**I = Incomplete** - No credit.
No grade point credit. The "I" grade is to be used only for verifiable unavoidable reasons that a student is unable to complete a course within the normal course time. To be eligible to receive an "I' grade, the students must (1) have satisfactorily completed more than 60% of the course requirements and attendance and (2) must request the faculty member to assign the "I" grade and indicate why it is warranted, via the Incomplete Grade Request Form. The faculty member has the discretion to decide whether the "I" grade will be awarded. Since the "incomplete" extends enrollment in the course, requirements for satisfactory completion shall be established through consultation between the faculty member and the student. In assigning the "I" grade, the faculty member must complete documentation that (1) states the reason for assigning the grade; (2) specifies the work to be completed and indicates the percentage in relation to the total work of the course; (3) specifies the date by which the work must be completed; and (4) identifies the default grade (B, C, D, F, P, R, or U) based upon course work already completed. Completion dates may not be set beyond the last day of the subsequent semester (to include summer term) without written approval of the Chief Academic Officer of the campus. The student will be provided a copy of the documentation. The listed default grade will be assigned at the end of the subsequent semester unless the "I" grade is changed by the faculty member through the normal grade change processes. An "I" grade will be changed to a "W" only under documented mitigating circumstances which must be approved by the Chief Academic Officer of the campus.

**W = Withdrawal** - No credit.
A grade of "W" is awarded to students who withdraw or are withdrawn from a course after the add/drop period but prior to the completion of 60% of the session. After that time, the student will receive a grade of "F" unless mitigating circumstances are documented in the student's academic file.

**X = Audit** - No credit.
Students desiring to attend a course without taking the examination or receiving credit for the course may do so by registering to audit through the usual registration process and paying the normal tuition. Permission of the division dean or another appropriate academic administrator is required to audit a course.

Audited courses carry no credit and do not count as part of the student's course load. Students desiring to change status in a course from audit to credit or from credit to audit must do so within the add/drop period for the course.

Students who desire to earn credit for a previously audited course must re-enroll in the course for credit and pay normal tuition to earn a grade other than "X." Advance standing credit should not be awarded for a previously audited course.

3. **Grades for Courses with Academic Credit/No Grade Point Credit**

**R = Re-Enroll** – No grade point credit.
The "R" grade may be used as a grade option, in developmental and ESL courses only, to indicate satisfactory progress toward meeting course objectives. In order to complete course objectives, students receiving an "R" grade must re-enroll in the course and pay the specified tuition.

**S = Satisfactory** - No grade point credit.
Applies to developmental courses, noncredit courses, and specialized courses and seminars at the discretion of the College**.**

**U = Unsatisfactory -** No grade point credit.
Applies to developmental courses, noncredit courses, and specialized courses and seminars at the discretion of the College.

4. **Academic Renewal Policy**

Students, who return to the college after a separation of three (3) years, or more, may petition for academic renewal. The request must be in writing and submitted to the Division of Student Services and Enrollment Management.

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

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

# Graduation

The State Board for Community Colleges will establish minimum standards and will authorize community colleges to issue appropriate associate degrees, diplomas, and certificates to individuals who satisfactorily complete course and program requirements.

1. **Degree and Certificate Awards**

Virginia Highlands Community College offers the following degrees and certificates for students who successfully complete approved programs at the College:

Associate of Arts and Associates of Science Degrees (AA & AS) is awarded to students who plan to transfer to four-year colleges or universities after completing their community college programs.

Associate of Applied Science Degree (AAS) is awarded to students majoring in one of the occupational-technical curricula who may plan to obtain full-time employment immediately upon graduation from the College. (While college transfer is not a primary goal in the AAS Degree programs, opportunities may be available for students to move from these programs into advanced degree programs.)

A Certificate is awarded to students who complete a non-degree program that is one year in length.

A Career Studies Certificate is awarded to students who complete a non-degree occupational program that is equivalent to at least one semester of study.

2. **Associate Degree Requirements**

To be eligible for graduation with an associate degree from a community college, the student must:

A. Have fulfilled all of the course and credit-hour requirements of the degree curriculum with a minimum of 25 percent (25%) of the credits acquired at the College awarding the degree;
B. Have been certified for graduation by the appropriate college official;

C. Have earned a grade point average of at least 2.0 in all studies attempted that are applicable toward graduation in his/her curriculum;
D. Have filed an application for graduation with through their MyVHCC>SIS account. Students should watch for an email each semester containing graduation information.
E. Have resolved all financial obligations to the College and returned all library and college materials.

**3. Certificate and Career Studies Certificate Requirements**

To be eligible for graduation with a certificate or career studies certificate from the College, a student must:
A. Have fulfilled all of the courses and credit-hour requirements of the certificate curriculum as specified in the College catalog with a minimum of 25 percent (25%) of the credits acquired at the College awarding the certificate;
B. Have been certified for graduation by the appropriate college official;
C. Have earned a grade point average of at least 2.0 in all studies attempted that are applicable toward graduation in their curricula;
D. Have filed an application for graduation through their MyVHCC>SIS account. Students should watch for an email each semester containing graduation information.
E. Have resolved all financial obligations to the College and returned all library and college materials.

**4. Second Degree or Certificate**

VHCC will award students more than one degree, certificate or career studies certificate in accordance with the state policy indicating that the awards must differ from one another by at least 25% of the credits. The College may grant credit for all previously completed applicable courses that are requirements of the additional certificate or degree. It may also, when appropriate, substitute alternate courses for those courses for which the students received credit in the previous certificate, diploma, or degree. Students who are seeking more than one credential should work with an academic counselor to plan accordingly.

**5. Graduation Honors**

A student who has fulfilled the requirements for graduation as outlined, is eligible for graduation honors. Honors recognitions are based upon the cumulative grade point average at the completion of the semester for which the student is certified for graduation. Additionally, honor recognitions for the graduation ceremony programs are based upon scholastic achievements at the end of the semester/term prior to graduation. Honor recognitions are recorded on the student's program as follows:

| Grade Point Average | Honor |
|---|---|
| 3.2 to 3.49 | Cum Laude (with honor) |
| 3.5 to 3.79 | Magna cum laude (with high honor) |
| 3.8 to 4.00 | Summa cum laude (with highest honor) |

**6. Graduation Commencement Ceremony**

Virginia Highlands Community College has formal graduation exercises in May for students completing curricula.
A. Diplomas will be mailed to the graduate's home mailing address in the Student Information System (SIS) 10-12 weeks after the end of their final semester. Students are responsible for ensuring the mailing address in (SIS)> Student Center is accurate.
B. Commencement exercises are conducted at the end of spring semester and includes students who completed graduation requirements in the preceding fall, current spring, and upcoming summer semesters. Students are encouraged to participate in commencement ceremonies.

## Catalog Year for Graduation

The catalog year used to determine graduation requirements is the one in effect at the time of the student's initial program placement into the plan, or any catalog thereafter, as long as the student has maintained an active status with the college. In the event that there has been a break in a student's enrollment at the college resulting in discontinuation, the catalog in effect at the time of the student's re-admission into the plan, or any catalog thereafter, is the catalog that shall be in effect for the student. Following a three-year period of non-enrollment resulting in discontinuation, the student may only be re-admitted to those plans that are currently active. A student may not be re-admitted to a plan which has been inactivated.

## Repeating a Course

If a student repeats a course, the highest grade earned will count. A student usually is limited to two (2) enrollments in the same credit course, including audit (X), withdrawal (W) and failure (F). Exceptions to this policy must be approved by the Vice President of Instruction and Student Services or designee. Students must petition for a third enrollment by following these procedures:

1. Complete the petition for third enrollment form (available in Division offices).
2. Obtain approval signature from the faculty member teaching the course.
3. Obtain approval signature from the Division Dean.
4. Obtain approval signature from the Vice President of Instruction and Student Services or designee.
5. Submit the approved petition to the Division of Student Services and Enrollment Management.

This limitation does not apply to the courses in the Curriculum Guide identified as General Usage courses: 090, 190, 290; 095, 195, 295; 096, 196, 296; 097, 197, 297; 098, 198, 298; 099, 199, 299.

## Waiver of Requirements

Students who have completed educational programs or obtained work or training experience may petition the appropriate Division Dean for a waiver for required courses in a particular curriculum. Through subsequent interviews and tests, students may qualify for waiver of curriculum admission requirements, course prerequisites, and courses in a curriculum. The recommendation of the course instructor or Academic Counselor is required. Students may substitute equivalent or more sophisticated courses in the same field in any approved curriculum with the approval of the appropriate division dean and the Vice-President of Instruction and Student Services provided they can, by previous educational accomplishment or college administered examination, demonstrate the capability for success in the courses requested.

To be eligible for graduation with an associate degree, or certificate from VHCC, the student must have fulfilled all of the course and credit-hour requirements of the degree curriculum with a minimum of 25 percent (25%) of the credits acquired at the College awarding the degree.

In accordance with Policy 5.6.5.2.e, the physical education requirements for the degree and certificate programs may be waived for veterans, and the college may grant up to 3 credits of physical education/health credits for basic military training to satisfy the physical education/health credit requirement of the veterans' curricula.

## Advanced Standing

Students may receive Advanced Standing and credit in courses if they can demonstrate that previous educational study, training, work experience, military service or college administered examination results entitle them to advancement in the courses for a particular curriculum. Approval of the faculty member, appropriate division dean and Vice President of Instruction and Student Services is required. Instructional division faculty will clearly describe and establish the validity of the evaluation process and criteria for awarding credit for prior experiential learning. Student records shall reflect Advanced Standing and applicable source. To be eligible for graduation with an associate degree, diploma or certificate from VHCC, the student must have fulfilled all of the course and credit-hour requirements of the degree curriculum with a minimum of 25 percent (25%) of the credits acquired at the College awarding the degree.

Advanced Standing awards credit for competency in subject matter based upon previous academic study or occupational experience. Credits waived will not be included in the computation of the student's cumulative grade point average. Consequently, the student's Grade Point Average (GPA) will be based only on courses actually completed at Virginia Highlands Community College.

A. Advanced Standing may include college credit and advancement based upon individual college participation in the Advanced Placement Program of the College Entrance Examination Board. Virginia Highlands Community College participates in the College Board's Advanced Placement Program by awarding Advanced Standing to entering students who have made 3, 4, or 5 scores on Advanced Placement (A.P.) Tests. Students may receive credit in the academic disciplines listed below in which the A.P. Test is offered. Students planning to transfer are encouraged to check with the transfer institution to confirm acceptance of A.P. credits.

   The faculty members of the appropriate academic divisions of the College have established policies for advanced placement in the disciplines listed below. Students should have official A.P. Score Reports sent directly to the Admissions Specialist in the summer following their senior year of high school. The report is then submitted to the Coordinator of Admissions and Records for evaluation. Upon the Coordinators recommendation and approval from the appropriate division dean and Vice President of Instruction and Student Services, approvals are sent to the Coordinator of Admissions & Records to be added to the academic record and for official student notification.

**ADVANCED PLACEMENT TEST SCORE POLICIES**

| Examination | Score | VHCC Course(s) | VHCC Credits |
|---|---|---|---|
| Biology | 3, 4 or 5 | BIO 101 & BIO 102 | 8 |
| Chemistry | 3, 4 or 5 | CHM 111 & CHM 112 | 8 |
| English: Language & Composition (11th grade) | 3, 4 or 5 | ENG 111 | 3 |
| English: Literature & Composition (12th grade) | 3 | ENG 111 | 3 |
| English: Literature & Composition (12th grade) | 4 or 5 | ENG 111 & ENG 112 | 6 |
| English: Language & Composition **and** Literature & Composition | 3, 4 or 5 **on each** | ENG 111 & ENG 112 | 6 |
| History: United States | 3, 4 or 5 | HIS 121 & HIS 122 | 6 |
| Mathematics: Calculus AB | 3, 4 or 5 | MTH 263 & MTH 264 | 8 |
| Government & Politics: United States | 3, 4 or 5 | PLS 135 | 3 |
| Principles of Psychology | 3, 4 or 5 | PSY 200 | 3 |

The College reserves the right to award advanced placement in other courses on an individual basis. Students who have AP credit scores 3 or higher in a given discipline may petition for credit by contacting the Academic Counselor.

B. Credit by Examination is a means of achieving Advanced Standing through satisfactorily demonstrating subject-matter competency on an examination administered by the College. Students may request advanced placement credit by examination if they believe they have mastered a specific body of knowledge. Instructional Faculty in the appropriate academic division assess the student's request, administer the appropriate test(s) and/or other assessments designed to measure the student's competency, and recommend or deny credit based on their findings. The faculty will forward the student's petition, copies of assessment measures, documented findings and their recommendation to the appropriate division dean for review. The petition is then forwarded to the Vice President of Instruction and Student Services for approval. The approved petition is sent to the Coordinator of Admissions & Records to be added to the academic record and for official student notification.

C. Credit by previous completion of college course work, Transfer Credit, is one means of achieving Advanced Standing through an administrative determination by the College that equivalent course coverage has been satisfactorily completed at an accredited post-secondary institution. Official transcripts and the Transcript Evaluation Request Form are submitted to the Admissions Specialist in the Division of Student Services and Enrollment Management. A copy of the transcript is forwarded to the Coordinator of Admissions and Records for evaluation. Upon the Coordinator's recommendation and approval from the appropriate division dean approvals are sent to the Coordinator of Admissions & Records to be added to the academic record and for official student notification.

D. Credit for Equated Occupational Experience, including experiential learning and professional certifications is one means of achieving Advanced Standing through an administrative determination by the College that the occupational experience of an individual is at least equivalent to the course(s) and credits to be exempted. If through past experience the student feels that the student knows the subject matter, the student may request that the instructional faculty in the discipline consider awarding such credit. If the faculty agree that the student has sufficient competency, the instructor may administer an examination to determine and document the extent of the student's competency. The student and faculty must document demonstrated skills and competencies and submit the request for advanced standing with the faculty's recommendation to the appropriate division dean for review. Students may submit portfolios as a means of documenting competency in a given field. The petition is then forwarded to the Vice-President of Instruction and Student Services for approval. The approved petition is sent to the Coordinator of Admissions & Records to be added to the academic record and for official student notification.

E. Credit by Advanced Placement is one means of achieving Advanced Standing through the administration of the College Level Examination Program (CLEP). Tests of the College Level Examination Program (CLEP) are designed by The College Board to validate student learning and receive college credit. VHCC serves as an open testing center. General CLEP examinations are 90-minute, objective tests that measure achievement in the liberal arts, English, composition, humanities, mathematics, natural sciences, social sciences, and history. Subject examinations measure achievement in specific college level courses. Tests can be scheduled by contacting the Testing Center at VHCC. The CLEP registration guide can be obtained from the Testing Center or by writing to The College Board, Box 1822, Princeton, New Jersey 08541 or visit College Board CLEP Exams.

It is the responsibility of the student to ascertain the acceptability of specific tests for particular courses and in the event the student plans to transfer. Faculty have recommended credit be awarded at VHCC for CLEP as follows:

| Subject | Type & Title of CLEP Exams | VHCC Course(s) | Equated VHCC Credits |
|---|---|---|---|
| Biology | Subject (General Biology) | BIO 101 | 4 |
| | | BIO 102 | 4 |
| Chemistry | Subject (General Chemistry) | CHM 111 | 4 |

| | | | |
|---|---|---|---|
| | | CHM 112 | 4 |
| Economics | Subject (Principles of Macroeconomics) | ECO 201 | 3 |
| | Subject (Principles of Microeconomics | ECO 202 | 3 |
| English | General (English Composition) with essay | ENG 111 | 3 |
| | Subject (American Literature) | ENG 241 | 3 |
| | | ENG 242 | 3 |
| | Subject (English Literature) | ENG 243 | 3 |
| | | ENG 244 | 3 |
| Government | Subject (American Government) | PLS 135 | 3 |
| History | Subject (Western Civilization) | HIS 101 | 3 |
| | | HIS 102 | 3 |
| Mathematics | Subject (Pre-Calculus I & II) | MTH 161 | 3 |
| | | MTH 162 | 3 |
| | Subject (Calculus w/ Elementary Functions) | MTH 263 | 3 |
| | | MTH 264 | 3 |

F. Credit may be granted as a means of achieving Advanced Standing through applicable Armed Service School Experiences, and for successful completion of correspondence courses and subject standardized tests (SST) of the Defense Activity for Non-Traditional Educational Support (DANTES), formerly the United States Armed Forces Institute (USAFI). Advanced Standing may also be awarded in accordance with the ACE Guide to the Evaluation of Educational Experiences in the Armed Services.

Tests of the Defense Activity for Non-Traditional Educational Support (DANTES) designed by The College Board serve to validate student learning and receive college credit. VHCC no longer serves as a DANTES testing center. DANTES examinations are objective tests measuring achievement in the areas of mathematics; specialties in the social sciences such as human/cultural geography, lifespan development psychology, counseling, anthropology and others; specialties in the business fields such as finance, accounting, business law, organizational behavior, and others; applied technology in the areas of electrical circuits, electronic devices, technical writing and refrigeration technology among others; foreign languages; humanities; and physical science. Students requiring information may contact the Educational Testing Service of The College Board, P. O. Box 6604, Princeton, New Jersey 08541-6604.

Official CLEP and DANTES score reports should be submitted to the Admissions Specialist in Student Services. The report is then submitted to the Coordinator of Admissions and Records for evaluation. Upon the Coordinator's recommendation and approval from the appropriate division dean and Vice President of Instruction and Student Services, approvals are sent to the Coordinator of Admissions & Records to be added to the academic record and for official student notification.

VHCC will accept the recommended cut off score for the CLEP and DANTES examination determined by the American Council on Education based on the national 50th percentile. CLEP and DANTES examinations are pass/fail examinations that recommend a P grade for the national 50th percentile cutoff; however, only credit is awarded for Advanced Standing and grades are not posted on the student's academic record.

G. Currently licensed LPNs who have been accepted to the nursing program may be offered the option of entering a summer Bridge Program - providing they have completed all the general education courses required for the LPN to RN bridge program. Applicants must have graduated from an approved LPN program. Proof of work experience: LPNs who graduated more than three years prior to the application date must provide documentation of 2000 hours of LPN work experience in direct patient care during the past three years with written verification from employer at the time of application. LPNs enrolled in the bridge program option will take nursing courses in the summer semester and then move directly into the second year of the program in the fall semester.

H. The College will consider awarding credit for scores of 5, 6 or 7 on most higher-level International Baccalaureate (IB) examinations subject to the review and approval of the appropriate departments. No credit will be awarded for standard-level examinations. To receive credit for IB exams, students must have official results sent to the Admissions Specialist in Student Services. The report is then submitted to the Coordinator of Admissions and Records for evaluation. Upon the Coordinator's recommendation and approval from the appropriate division dean and Vice President of Instruction and Student Services, approvals are sent to the Coordinator of Admissions & Records to be added to the academic record and for official student notification.

The specific decisions regarding awarding credits will be made on a case by case basis by the appropriate academic divisions. The transferability of these credits to other two- and four-year colleges varies widely. Each college sets its own policy on required scores and credits awarded. When developing academic plans, students need to consult with their proposed transfer institution.

A. **Administration of Advanced Standing**

The following criteria regulate Advanced Standing credit:

B. Students must petition in writing for Advanced Standing and must provide official documentation as requested by faculty.

C. The determination of such credit must be made by qualified faculty at Virginia Highlands Community College and according to procedures and standards approved by the faculty to ensure that assessment procedures are appropriate for the credit awarded.

D. If documentation and interviews are used in lieu of examinations; the faculty must demonstrate that these methods provide assurances of academic comparability to credit earned by traditional means.

E. International applicants must provide official transcripts with English translation, if necessary. It is required that international transfer students have a professional evaluation service review their transcripts with a course by course evaluation.
F. By policy, residency requirements dictate that students must complete 25% of their course work at the institution granting an associate degree, diploma or certificate.
G. Virginia Highlands Community College will award credit only:
    1. For documented learning which ties the prior experience to the theories and data of the relevant academic field,
    2. To matriculated students, credit will be posted on the student's academic transcript as Advanced Standing credit and upon request from another institution, VHCC will document how such learning was evaluated and the basis on which such credit was awarded.

## Withdrawal from a Course

**1. Student Initiated Withdrawal**

A student may withdraw from a course without academic penalty during the first 60% of a session. The following policies apply:

A. **Fifteen Percent of the Semester**
If a student withdraws from a class prior to the end of the add/drop period for the session, the student is removed from the class roll, no grade is awarded, and a refund is processed.

B. **Sixty Percent of the Semester**
After the add/drop period, but prior to completion of 60% of a session, a student who withdraws from a course will be assigned a grade of "W".

C. **After Sixty Percent (Late Withdrawal)**
Students who have not withdrawn from a course by the official withdrawal date will receive the earned grade for the course. Exceptions to this policy will be granted only with documented mitigating circumstances accepted by the faculty member teaching the course. A grade of withdrawal implies that the student was making satisfactory progress in the course at the time of withdrawal. In order for a late withdrawal to be approved, the Vice President of Instruction and Student Services must also agree in writing with the mitigating reasons. The student may appeal the decision by following the Student Policies Appeal Process.

**2. Faculty Initiated Withdrawal**

A. **Dated Classes**
A dated class is any class that meets within a term but for only two - four days. All students absent the first day of a two- or four-day class will be administratively withdrawn on the next business day. The reinstatement policy does not apply to two- or four-day classes. All financial aid students should check with the Financial Aid Office to determine the effect on their award.

B. **Semester Long Classes**

1. **Fifteen Percent of the Semester**
The instructor must withdraw students who have not attended class during the first 15 percent of the semester. The student is removed from the class roll and no grade is awarded. Only the instructor may approve an appeal for reinstatement into the class.

Students may petition the instructor for reinstatement within five (5) working days of the official processing date on the withdrawal form or Navigate email notification (Petition form is available in the division offices).

2. **Sixty Percent of the Semester**
The instructor may withdraw students who have stopped attending and/or have not completed sixty (60) percent of the course work on or before the official 60% withdrawal date. A grade of "W" is assigned for the course. Only the instructor may approve an appeal for reinstatement into the class.

A student's request for reinstatement must be made to the instructor within five (5) working days of the official processing date on the withdrawal form (Petition form is available in the division offices).

# Explanation of Degrees & Courses

## College Transfer Degrees and Associated Awards

The college transfer programs include first- and second-year courses in arts and sciences and pre-professional courses that transfer to four-year colleges and universities. A number of four-year degree programs are available on the campus of VHCC through the Southwest Virginia Higher Education Center (SVHEC) which was established in 1991 to provide expanded educational opportunities for the citizens of the region. For additional information contact the SVHEC at 276-619-4300 or www.swcenter.edu.

**Associate of Arts and Associate of Science Degree programs** are designed with two primary goals in mind: (1) to offer the student a widely accepted program of general preparation for upper-division work in his/her chosen professional field, stressing a balance of required courses common to most baccalaureate degree programs; and (2) to offer maximum flexibility so that the student may select specific courses that may be required at the college or university to which transfer is contemplated.

**Guaranteed Admissions Agreement**
Through system-wide negotiated agreements, students who graduate from Virginia Highlands Community College with an associate's degree and a minimum grade point average are guaranteed admission to 23 of the Commonwealth's four-year colleges and universities. For more information, contact Student Services.

**Articulation Agreements**
VHCC has articulation agreements with a number of colleges and universities. For more information contact Student Services.

**Minimum High School Requirements or Equivalents for College Transfer Programs**

- 4 units of English
- 3 units of college preparatory mathematics
- 1 unit of laboratory science
- 1 unit of social studies

**College Transfer Programs**

**Associate of Arts (AA)**
- Liberal Arts
- Liberal Art – Major in Art
- Liberal Arts – Major in Music
- Liberal Arts – Major in Theatre

**Associate of Science (AS)**
- Business
- Computer Science
- Education
- Engineering
- General Studies
- Health Sciences
- Health Sciences – Major in Kinesiology
- Health Sciences – Major in Public Health
- Science
- Science – Major in Biology
- Science – Major in Chemistry
- Science – Major in Mathematics
- Science – Major in Medical Lab Science
- Science – Major in Natural Resources
- Social Sciences
- Social Sciences – Major in Psychology
- Social Sciences – Major in Social Work
- Social Sciences – Major in Sociology

**Certificate (C)**
- Uniform Certificate of General Studies (UCGS)

**Career Studies Certificate (CSC)**
- American Sign Language
- Applied Music
- Applied Theatre
- Education
- Pre-Pharmacy Science
- Visual Art

## Transfer Tool

The State Council of Higher Education for Virginia has implemented an online tool designed to clearly identify which courses will transfer from Virginia community colleges to four-year institutions. The SCHEV Transfer Tool is available at www.schev.edu.

## Cooperative Education

Co-op/Internship students are employed part-time at work experience sites in positions related to their future career goals. The typical work week is 10-25 hours, depending upon the number of credits to be earned. It is preferred that students take advantage of the Internship Program (without pay) while working at nonprofit entities. Experiential learning combined with classroom theory enhances the development and professional preparation of the Co-op/Internship student.

## Developmental Courses

Developmental courses do not fulfill degree requirements. They are designed to help students overcome academic deficiencies and build the foundation needed to succeed in college-level courses.

The developmental courses at VHCC provide supplementary and compensatory learning experiences that are directly related to curricular or subject areas. These courses assist individuals in developing both basic study skills and subject knowledge necessary to succeed in their college programs.

Increasing numbers of students are continuing, extending, or updating their educational experience in areas of occupational-technical skills and in traditional academic areas. With this growth, VHCC assumes the responsibility to support and enhance each student's opportunity and potential for success through the developmental studies courses and through a continued commitment to serve the educational needs of the service region.

## General Education Requirements

The programs in general education at VHCC emphasize broad learning that goes beyond job training and skill development. Each degree and certificate program of the College contains prescribed general education courses, including academic courses in the humanities/fine arts, social/behavioral sciences, natural sciences, mathematics, wellness and communication skills. General education is that portion of the collegiate experience that addresses the knowledge, skills, attitudes, and values characteristic of educated persons. It is unbounded by disciplines and honors the connections among bodies of knowledge.

Virginia Highlands Community College is committed to offering its students programs that encompass the common knowledge, skills, and attitudes required by each individual to be more effective as a person, a worker, a consumer, and a citizen. Through a combination of general education courses, specialized courses in the major field, and student development courses, graduates are provided with a collegiate experience that supports the development of the following general education goals.

**Student Learning Outcomes for Each of the General Education Goal Areas**

The State Council of Higher Education for Virginia (SCHEV) has updated its general education requirements. The current outcomes are currently in development by Virginia Highlands Community College. The outcomes will be included in a catalog addendum once they are approved by SCHEV.

VHCC degree graduates will demonstrate competency in the following general education areas:

**1. Civic Engagement**
Civic Engagement is the ability to contribute to the civic life and well-being of local, national, and global communities as both as social responsibility and a life-long learning process. Degree graduates will demonstrate the knowledge and civic values necessary to become informed and contributing participants in a democratic society.

**2. Critical Thinking**
Critical Thinking is the ability to use information, ideas and arguments from relevant perspectives to make sense of complex issues and solve problems. Degree graduates will locate, evaluate, interpret, and combine information to reach well-reasoned conclusions or solutions.

**3. Professional Readiness**
Professional Readiness is the ability to work well with others and display situationally and culturally appropriate demeanor and behavior. Degree graduates will demonstrate skills important for successful transition into the workplace and pursuit of further education.

**4. Quantitative Literacy**
Quantitative Literacy is the ability to perform accurate calculations, interpret quantitative information, apply and analyze relevant numerical data, and use results to support conclusions. Degree graduates will calculate, interpret, and use numerical and quantitative information in a variety of settings.

**5. Scientific Literacy**
Scientific Literacy is the ability to apply the scientific method and related concepts and principles to make informed decisions and engage with issues related to the natural, physical, and social world. Degree graduates will recognize and know how to us the scientific method, and to evaluate empirical information.

**6. Written Communication**

Written Communication is the ability to develop, convey, and exchange ideas in writing, as appropriate to a given context and audience. Degree graduates will express themselves effectively in a variety of written forms.

**Table 5-1: Minimum Requirements for Associate Degrees in the VCCS**

| | Minimum Number of Semester Hour Credits | | | |
|---|---|---|---|---|
| **General Education:** | **(1) AA** | **(2) AS** | **(3) AFA** | **(4) AAA/AAS** |
| Communications | 6[a] | 6[a] | 6 | 3-6 |
| Humanities/Fine Arts/Literature | 6[c] | 6[c] | 3-9[b] | 3-6 |
| Social/Behavioral Sciences | 6[d] | 6[d] | 3-9 | 3-6 |
| Natural Sciences | 4 | 4-8 | 4 | 0-6[e] |
| Mathematics | 3 | 3-6 | 3 | 0-6[e] |
| Institutional Specific General Education Courses | 5-6 | 5-6 | 0 | 0 |
| Total for General Education = | 30-31 | 30-38 | 19-28 | 15[g] |
| **Other Requirements for Associate Degrees** | | | | |
| Student Development | 1-2 | 1-2 | 1-2 | 1-2 |
| Transfer Core[f] (columns 1-3)<br>Career/technical courses (column 4) | 27-32 | 20-32 | 34-43 | 43-53 |
| | | | | |
| **Total for Degree =** | **60-63** | **60-63[h]** | **60-63** | **60-69[h]** |

Notes:
Each of the courses in communication must be in written communication.
One course in humanities/fine arts for the Fine Arts major must be a literature course.
Each of the two courses cannot be from the same discipline area (e.g. humanities).
One course in social/behavioral sciences must be a history course and the second required course cannot be history.
A total of 3-6 semester hours is required in either natural sciences and/or mathematics for the AAA and AAS.
Transfer core includes additional general education and/or major courses.
As specified above, degree programs must contain a minimum of 15 semester hours of general education as defined by SACSCOC.
See Policy 5.1.0.0.4.6 for exceptions to the total credits allowed.

# General Education Courses

## General Education Courses for Associate of Applied Science Degrees, and Certificates

**English Composition**

ENG 111-112 College Composition I-II
ENG 115 Technical Writing

**Communications Electives:**

CST 100 Principles of Public Speaking
CST 126 Interpersonal Communication

**Humanities: Study of human culture**

ART 101 History of Art: Prehistoric to Gothic
ART 102 History of Art: Renaissance to Modern
CST 130 Introduction to Theater
CST 151-152 Film Appreciation I-II
ENG 245 – British Literature
ENG 246 – American Literature
HUM 153 Introduction to Appalachian Studies
HUM 246 Creative Thinking
MUS 221-222 Music History I-II
PHI 100 Introduction to Philosophy
PHI 260 Studies in Eastern Thinking
REL 200 Old Testament – Fall Semesters only
REL 210 New Testament – Spring Semesters only
REL 230 Religions of the World
Foreign Language – any 200-level course*

**100 level foreign language courses may not be used to satisfy the humanities graduation requirement in programs where only one humanities course is required. In programs with two humanities courses, only one 100 level foreign language course may be used to satisfy the humanities graduation requirement.*

**Mathematics**
MTH 111 Basic Technical Mathematics
MTH 132 Business Mathematics
MTH 154 Quantitative Reasoning
MTH 155 Statistical Reasoning
MTH 161-162 Precalculus I-II
MTH 245-246 Statistics I-II
MTH 261-262 Applied Calculus I-II
*Note: Placement is required for all mathematics courses.*

**Natural Science**
BIO 101-102 Biology I-II
BIO 141-142 Human Anatomy & Physiology I-II
BIO 145 Human Anatomy and Physiology for the Health Sciences
CHM 111-112 General Chemistry I and II
GOL 105 Physical Geology
GOL 106 Historical Geology
PHY 231-232 General University Physics I-II
PHY 241-242 University Physics I-II

**Social Science: Study of relationships within a society**
ADJ 100 Survey of Criminal Justice
ECO 201-202 Principles of Macroeconomics – Principles of Microeconomics
GEO 210 People and the Land: Intro Cultural Geography
GEO 220 World Regional Geography
HIS 101 or higher (History courses)
PLS 135 or higher (Political Sciences courses)
PSY 120 or higher (Psychology courses)
SOC 200 or higher (Sociology courses)

**Wellness**
All PED Activity Courses (Physical Education Courses)
HLT 105 CPR
HLT 106 First Aid and Safety
HLT 110 Personal & Community Health
HLT 230 Nutrition and Human Development

**General Education Electives**
If a program requires a general education elective a student may choose any three-credit course from one of the above categories or from courses listed below.
ACC 211-212 Principles of Accounting I-II
ADJ 100 Survey of Criminal Justice
BIO 215 Plant Life of Virginia
BUS 100 Introduction to Business
BUS 200 Principles of Management
BUS 240 Introduction to Business Law
BUS 274 Foundations of Entrepreneurship
CST 100 Principles of Public Speaking
ITE 119 Information Literacy
ITE 140 Spreadsheeting for Business
MKT 201 Introduction to Marketing

## General Education Courses for Associate of Arts & Associate of Science Degrees

**Students are advised to use the Uniform Certificate of General Studies or TransferVA Passport Course Rosters to guide course selections.**

**English Composition**
ENG 111-112 College Composition I-II

**Art**
ART 101 - History of Art: Prehistoric to Gothic
ART 102 - History of Art: Renaissance to Modern
CST 130 - Introduction to Theater
CST 151 - Film Appreciation I
MUS 121 – Music in Society
MUS 221– History of Western Music Prior to 1750
MUS 222 – History of Western Music 1750 to Present

**Humanities**
HUM 200 or higher
PHI 100 - Introduction to Philosophy
PHI 111 - Logic
PHI 220 - Ethics
REL 230 - Religions of the World

**Literature**
ENG 245 – British Literature
ENG 246 – American Literature

**Social and Behavioral Sciences**
ADJ 100 - Survey of Criminal Justice
ECO 201 - Principles of Macroeconomics
ECO 202 – Principles of Microeconomics
EDU 200 – Foundations of Education
GEO 210 - People and the Land: Intro Cultural Geography
PLS 135 or higher (Political Sciences courses)
PSY 120 or higher (Psychology courses) *
SOC 200 or higher (Sociology courses)

*__Note:__ *VHCC will continue using PSY 230 with no pre-requisites. However, students who intend to transfer to pursue a bachelor's degree/major in psychology are advised that PSY 200 must be taken before PSY 230.*

**Natural Science**
BIO 101-102 Biology I-IIBIO 141-142 Human Anatomy & Physiology I-II
CHM 111-112 General Chemistry I -II
CHM 241-242/245-246 Organic Chemistry I-II
ENV 121 – General Environmental Science I
ENV 122 – General Environmental Science II
GOL 105 Physical Geology
GOL 106 Historical Geology
PHY 241-242 University Physics I-II

**Mathematics**
MTH 154 Quantitative Reasoning
MTH 155 Statistical Reasoning
MTH 161-162 Precalculus I-II
MTH 245-246 Statistics I-II
MTH 261-262 Applied Calculus I-II
MTH 263-264 Calculus I-II
MTH 265 Calculus III
MTH 266 Linear Algebra
MTH 267 Differential Equations
MTH 288 Discrete Mathematics

***Note:** Students are urged to check the mathematics requirements of the four-year college to which they plan to transfer to determine the proper mathematics courses that should be taken at the community college. Placement is required for all mathematics courses.*

**Specialized GE Requirements**
ASL 101 – American Sign Language I
ASL 102 – American Sign Language II
ASL 201 – American Sign Language III
ASL 202 – American Sign Language IV
ART 121 – Foundations of Drawing
ART 131 – Two-Dimensional Design
ART 132 – Three-Dimensional Design
CST 100 – Principles of Public Speaking
FL 101 – Foreign Language I
FL 102 – Foreign Language II
FL 201 – Foreign Language III
FL 202 – Foreign Language IV
ITE 152 – Introduction to Digital and Information Literacy and Computer Applications

**Wellness**
All PED Activity Courses (Physical Education Courses)
HLT 106 First Aid and Safety
HLT 110 Personal & Community Health
HLT 228 Principles of Public Health
HLT 230 Nutrition and Human Development
***Note:*** *Transfer students should note that four-year institutions may require a PED activity course in the general education core.*

**General Education Electives**
If a program requires a general education elective a student may choose any three-credit course from one of the above categories or from courses listed below.
ACC 211-212 Principles of Accounting I & II
ADJ 100 Survey of Criminal Justice
BIO 151-152 Human Gross Anatomy I-II
BUS 100 Introduction to Business
BUS 200 Principles of Management
BUS 224 – Business Statistics
BUS 240 – Introduction to Business Law
BUS 274 Entrepreneurship
CSC 221 Introduction to Problem Solving and Programming
CSC 222 Object Oriented Programming
CSC 223 Data Structures and Analysis of Algorithms
CST 100 Principles of Public Speaking
ITE 140 – Spreadsheeting for Business
MKT 201 Introduction to Marketing
***Note:*** *Students may petition the division dean to count a class not listed above as a transfer elective. They must provide evidence that the class is accepted at the institution to which they plan to transfer.*

STATE COUNCIL OF HIGHER EDUCATION FOR VIRGINIA

## Approved TransferVA Passport Course Roster (October, 2019)

**Select one course from each Block of courses.**

Block I
- ENG 111 – College Composition I

Block II
- ART 101 – History of Art: Prehistoric to Gothic
- ART 102 – History of Art: Renaissance to Modern
- HIS 111 – World Civilizations Pre-1500 CE
- HIS 112 – World Civilizations Post-1500 CE
- HIS 121 – United States History to 1877
- HIS 122 – United States History Since 1865

Block III

- ECO 201 – Principles of Macroeconomics
- PLS 135 – US Government and Politics
- PSY 200 – Principles of Psychology
- SOC 211 – Principles of Anthropology I

Block IV

- BIO 101 – General Biology I
- CHM 101 – Introductory Chemistry I
- CHM 111 – General Chemistry I

Block V

A. Quantitative/Statistics Pathway
   - MTH 154 – Quantitative Reasoning
   - MTH 155 – Statistical Reasoning
   - MTH 245 - Statistics I

B. Calculus Pathway
   - MTH 161/162 – Precalculus I/ Precalculus II
   - MTH 167 – Precalculus with Trigonometry
   - MTH 245 – Statistics I
   - MTH 261 – Applied Calculus I
   - MTH 263/264 – Calculus I/Calculus II

Note: MTH 161/162 and 167 should only be taken by students preparing for calculus or for four-year degree programs that require study in College Algebra/Precalculus. Precalculus may not satisfy general education and may not receive transfer credit.

James Madison University does not accept ENG 111 toward satisfaction of general education requirements.

Christopher Newport University does not accept MTH 154 toward satisfaction of general education requirements.

The College of William & Mary does not have a college-wide general education composition requirement. ENG 111 will not count toward satisfaction of general education requirements but students will receive generalized credit for the course.

## Approved Uniform Certificate of General Studies Course Roster (Feb 6, 2024)

The Uniform Certificate of General Studies (UCGS) is a one-year college program in which all courses are transferable and satisfy lower-division general education requirements at any Virginia public institution of higher education. The Passport is a component of the UCGS and is therefore a subset of courses in the UCGS. The UCGS consists of seven course blocks. To satisfy the UCGS students are required to complete the appropriate number of courses in each block as described below. Student course selection should be carefully considered since the UCGS program is not designed to capture the complexities of individual programs of study at the four-year institutions. Students should be advised to take the UCGS course that best suits their intended program of study at the four-year institution. The UCGS Course Roster for the Virginia Community College System (VCCS) and Richard Bland College (RBC) are below. Only classes completed after May 2020 apply toward UCGS completion. The UCGS credential may be awarded starting spring 2022.

All benefits that accrue to students as a result of this agreement are based on all Passport and UCGS courses being completed with a grade of C or above.

**VCCS Uniform Certificate of General Studies Course Roster**

**Students are required to select courses from each block as prescribed below.**

1) Block I (Written Communication) – Select ENG 111 plus one other course.

- ENG 111 – College Composition I
- ENG 112 – College Composition II
- ENG 113 – Technical-Professional Writing

2) Block II (Humanities /Art/Literature) – Select two courses chosen from different categories (please note that the two courses cannot be from the same category).

A. Art
   - ART 100 – Art Appreciation
   - ART 101 – History of Art: Prehistoric to Gothic
   - ART 102 – History of Art: Renaissance to Modern

- CST 130 – Introduction to Theatre
- CST 151 – Film Appreciation I
- MUS 121 – Music in Society
- MUS 221 – History of Western Music Prior to 1750
- MUS 222 – History of Western Music 1750 to Present
- MUS 226 – World Music

B. Humanities

- HUM 201 – Early Humanities
- HUM 202 – Modern Humanities
- HUM 210 – Introduction to Women and Gender Studies
- HUM 216 – Introduction to Non-Western Cultures
- HUM 220 – Introduction to African American Studies
- HUM 256 – Comparative Mythology
- HUM 259 – The Greek and Roman Tradition
- PHI 100 – Introduction to Philosophy
- PHI 111 – Logic I
- PHI 220 – Ethics
- REL 100 – Introduction to the Study of Religion
- REL 230 – Religions of the World
- REL 237 – Eastern Religions
- REL 240 – Religions in America

C. Literature

- ENG 225 – Reading Literature: Culture and Ideas
- ENG 245 – British Literature
- ENG 246 – American Literature
- ENG 250 – Children's Literature
- ENG 255 – World Literature
- ENG 258 – African American Literature
- ENG 275 – Women in Literature

3) Block III (Social and Behavioral Sciences) – Select one course.

- ECO 150 – Economic Essentials: Theory and Application
- ECO 201 – Principles of Macroeconomics
- ECO 202 – Principles of Microeconomics
- GEO 210 – People and the Land: Intro to Cultural Geography
- GEO 220 – World Regional Geography
- PLS 135 – U.S. Government and Politics
- PLS 140 – Introduction to Comparative Politics
- PLS 241 – Introduction to International Relations I
- PSY 200 – Principles of Psychology
- SOC 200 – Introduction to Sociology
- SOC 211 – Cultural Anthropology
- SOC 268 – Social Problems

4) Block IV (Natural Sciences) – Select one course.

- BIO 101 – General Biology I
- BIO 102 – General Biology II
- BIO 106 – Life Science
- CHM 101 – Introductory Chemistry I
- CHM 111 – General Chemistry I
- CHM 112 – General Chemistry II
- ENV 121 – General Environmental Science I
- ENV 122 - General Environmental Science II
- GOL 105 – Physical Geology
- GOL 106 – Historical Geology
- GOL 110 – Earth Systems: An Environmental Geology Perspective
- PHY 100 – Elements of Physics
- PHY 201 – General College Physics I (Algebra Based)
- PHY 202 – General College Physics II (Algebra Based)
- PHY 241 – University Physics I (Calculus Based)

- PHY 242 – University Physics II (Calculus Based)

5) Block V (Mathematics) – Select one course.

A. Quantitative/Statistics Pathway:
- MTH 154 – Quantitative Reasoning
- MTH 155 – Statistical Reasoning
- MTH 245 – Statistics I

B. Calculus Pathway:
- MTH 161/162 – Precalculus I/ Precalculus II
- MTH 167 – Precalculus with Trigonometry
- MTH 261 – Applied Calculus I
- MTH 263 – Calculus I
- MTH 264 – Calculus II

6) Block VI (History) – Select one course.
- HIS 101 – Western Civilizations Pre-1600 CE
- HIS 102 – Western Civilizations Post-1600 CE
- HIS 111 – World Civilizations Pre-1500 CE
- HIS 112 –World Civilizations Post-1500 CE
- HIS 121 – United States History to 1877
- HIS 122 – United States History Since 1865

7) Block VII (Specialized GE Requirements) – Select two courses.

NOTE: For Block VII, Student may complete courses from Blocks I-VI above or any additional course below. Students should align their Block VII course selection with their intended transfer destination's specific general education or programmatic requirements.
- ASL 101 – American Sign Language I
- ASL 102 – American Sign Language II
- ASL 201 – American Sign Language III
- ASL 202 – American Sign Language IV
- ART 121 – Foundations of Drawing
- ART 131 – Two-Dimensional Design
- ART 132 – Three-Dimensional Design
- ART 223 – Life Drawing
- CSC 110 – Principles of Computer Science
- CST 100 – Principles of Public Speaking
- CST 110 – Introduction to Communication
- FL 101 – Foreign Language I
- FL 102 – Foreign Language II
- FL 201 – Foreign Language III
- FL 202 – Foreign Language IV
- ITE 152 – Introduction to Digital and Information Literacy and Computer Applications
- MUS 101 – Fundamentals of Music

## Health/Physical Education Courses

Students may substitute any HLT (Health) course that contains a personal wellness component for Physical Education requirement. Transfer students should note that four-year institutions may require a PED activity course in the general education core.

## Honors Program

The Virginia Highlands Community College Honors Program offers qualified students the opportunity to pursue challenges beyond those found in regular college classes. Honors students engage in special coursework that stimulates critical thinking and examines the interrelationships of ideas across disciplines. Specially designated honors courses and regular classes that offer an honors component, allow students to develop a broader, deeper understanding of topics in the humanities, social sciences, and natural sciences. Instructors of honors component courses may design, or allow students to design, one or more projects, areas of study, or additional topics beyond regular class requirements in order to receive a course grade with honors. The instructor will specify the criteria for successful completion of the honors component. However, honors credit will not be awarded in a course where the student's final grade is C or lower. The faculty member may restrict honors options to students who meet appropriate criteria which might include but are not limited to performance on placement exams, performance in prerequisite or related courses, performance on SAT or other college placement tests, and recommendations of other faculty. A notation will be made on the transcript of a student to whom honors credit has been awarded.

## Information Technology Requirements

VHCC policy requires that students must keep their IT skills up to date. Therefore, IT courses transferred from other institutions and IT courses completed at VHCC must not be more than 5 years old for IT majors. If a student can demonstrate competency, the student may appeal the rule by requesting departmental approval from the lead faculty in the IT Department.

## Math Requirements

Students are urged to check the mathematics requirements of the four-year college or university to which they plan to transfer to determine the proper mathematics courses to be taken at the community college.

## Occupational/Technical Degrees and Certificates

The occupational and technical education programs are designed to meet the increasing demands for technicians, paraprofessional workers, and skilled craftsmen for employment in industry, business, the professions, and government. These programs may serve as initial training for students preparing to enter the job market for the first time, as a supplement to work experience for persons who are preparing for advancement in their present lines of work, or as retraining for persons who must develop new skills for the present job market.

To meet these goals, Citizens Advisory Committees provide, in partnership with industry and the community, information and advice to enable continuous updating of curricular, course content, technology and faculty knowledge of current industry practices. Preparation for successful employment may encompass many aspects of education that extends beyond the classroom, such as cooperative education and internships that are conducive to success in the workplace.

**Associate of Applied Science Degree programs** are designed primarily to prepare the student for employment immediately upon graduation from the community college. Thus, these programs contain a large number of specialized courses.

Virginia Highlands offers both **one-year certificate programs and one-year or less career studies certificate programs** for those students interested in immediate employment in selected occupational fields. The student's program is designed to facilitate transition into an appropriate AAS degree program at a later date. Students interested in such options should plan their programs carefully with their advisors and counselors at VHCC. Some career studies certificate programs are designed in response to the non-conventional short-term program of study needs of many adults in our service region for an award which provides for upgrading, retraining, and investigating career possibilities or specialized interests.

**Associate of Applied Science (AAS)**

Accounting
Air Conditioning, Refrigeration, and Heating
Computer Numerical Control Machine Operations
Criminal Justice
Early Childhood Development
Electrical Technology
Electrical Technology – Specialization in Energy Technology
Electrical Technology – Specialization in Mechatronics
Emergency Medical Services Technology – Paramedic (In cooperation with Southwest Virginia Community College.)
Horticulture Technology
Horticulture Technology – Specialization in Business and Entrepreneurship
Hospitality and Tourism Management (Pending SCHEV and SACSCOC Approval)
Information Systems Technology
Information Systems Technology – Specialization in Networking (Cybersecurity)
Management
Medical Coding and Billing (Pending SCHEV Approval)
Nursing
Nursing – LPN to RN Transition Program
Office Management
Radiography (In cooperation with Southwest Virginia Community College.)
Technical Studies

**Certificate (C)**

Accounting and Information Systems Technology
Electricity
Health Sciences
Practical Nursing

**Career Studies Certificate (CSC)**

Advanced Mechatronics
Advanced Practical Electrical Technician
Advanced Precision Machining
Advanced Welding
Agricultural Management
Applied Mechatronics
Commercial Refrigeration
Computerized Tomography (In cooperation with Southwest Virginia Community College.)
Culinary Arts (Dual Enrollment only)
Cyber Security
Diesel Technology
Early Childhood Development – Infant and Toddler
Early Childhood Development – Special Needs
Horticulture Production
Industrial Supervision
Medical Assisting
Medical Coding Specialist
Networking Fundamentals I
Networking Fundamentals II
Nurse Aide
Phlebotomy
Practical Electrical Technician
Precision Machining
Refrigeration
Retail Management
Small Business Management (Entrepreneurship)
Small Unmanned Aerial Systems (sUAS)
Substance Abuse Counselor-Assistant
Victim Advocacy Assistant
Welding

**Other Courses of Study**

Mammography Advanced Studies

**Workforce Development & Continuing Education (Non-Credit)**

Advanced Emergency Medical Technician
Aluminum Welding – Level 4
Certified Billing & Coding Specialist
Certified Clinical Medical Assistant
Certified Medical Administrative Assistant
Certified Production Assistant
Commercial Driver's License Program
Emergency Medical Technician
ESCO EPA 608 Technician
Fiber Optics Technician Program
NCCER Carpentry – Level 1/Core Craft Skills
NCCER Heavy Equipment Operator – Level 1/Core Craft Skills
NCCER Heavy Equipment Operator – Level 2
NCCER Plumbing – Level 1/Core Craft Skills
NIMS CNC Turning & Milling – Level 1
NIMS Job Planning, Benchwork & Layout
NIMS Materials, Measurement, & Safety
Nurse Aide (non-credit)
Phlebotomy Technician Program
Photovoltaic-Entry Level (NABCEP)
Remote Airman Training
Six Sigma Green Belt
Six Sigma Yellow Belt

**Articulation Agreements**

Articulation agreements with colleges and universities exist for selected career and technical programs. For more information contact Student Services.

## Orientation

All students enrolled in an associate degree or certificate program must complete an orientation (SDV) course during their first semester in college. This course carries a value of 1 credit hour and requires fifteen hours of counselor/instructor – student contact.

All curricular students in the community colleges of Virginia complete an orientation program designed primarily to provide information applicable to the basic operation of the College. Along with the SDV course, all new students are required to attend a New Student Orientation prior to the start of their classes. The SDV course and New Student Orientation introduces students to the local community college philosophy, campus resources, enrollment process, curricular offerings, program layouts, class schedules, placement testing, transfer, study skills, financial management, life management, personal wellness, and the faculty advising process.

**Orientation Credit Eligibility:**

When transfer courses are evaluated for students entering a curriculum, VHCC will accept first-year experience credit courses such as study skills, orientation, if a student has a grade of "S" for Satisfactory, or a "C" or better.
Students who have been awarded an associate's or bachelor's degree may petition for SDV course waiver. The credit hours are not waived and a student must make up the one credit hour for SDV.
Approval is required by the Dean of Arts and Sciences and Vice President of Instruction and Student Services for all Petitions for Credit of SDV.

## State Board Guidelines

In implementing its statement of purpose, VHCC provides several types of programs, as well as a wide selection of curricular offerings. Each curriculum is designed to meet the general criteria established by the State Board for Community Colleges. At the same time, VHCC strives to design each curriculum with emphasis on the needs and opportunities within the College's service region.

The State Board sets minimum standards for conferring appropriate associate degrees, certificates, and diplomas to individuals who satisfactorily complete course and program requirements. The following programs are offered by VHCC. The descriptions reflect the philosophies of the state governing agencies and the College.

## Workforce Development & Continuing Education

The mission of Workforce Development & Continuing Education is to provide high-quality workforce training and employee development that supports the economic growth of business and industry while creating opportunities for personal and professional advancement within the VHCC service area.

**Workforce Development & Continuing Education.** Pre-employment and incumbent worker training programs are designed to address the workforce need for highly skilled employees. Courses are conveniently scheduled and may be customized to meet specific industry needs. Instruction is available on campus or at employer worksites, with flexible scheduling options offered throughout the day and evening hours.

**Community Services**
Community Services offers noncredit classes, workshops, seminars, and virtual programs designed to enrich personal growth and lifelong learning. Courses reflect community interests and provide accessible, affordable opportunities for individuals of all ages.

**Small Business Development Center.** A Small Business Development Center provides one-on-one counseling, business education opportunities, and resources from the federal, state, local, academic, and private sectors to assist owners and managers to improve their competitiveness and profitability. Counseling services are provided free of charge and are confidential.

# PROGRAMS
# AND
# COURSES OF STUDY

# School of Arts & Sciences

The School of Arts and Sciences includes Associate of Applied Science (AAS), Associate of Arts (AA), and Associate of Science (AS) degrees. Additionally, the School of Arts and Sciences offers certain Certificates (C) and Career Studies Certificates (CSC) designed to provide student access to specific educational pursuits.

**Programs**

| |
|---|
| Biological Sciences |
| Chemistry & Pre-Pharmacy Science |
| Computer Science |
| Criminal Justice |
| Education |
| Emergency Medical Services |
| General Studies & Uniform Certificate of General Studies (UCGS) |
| Human Services |
| Liberal Arts |
| Mathematics & Engineering |
| Social Sciences |

# Biological Sciences Program

The Associate of Science (AS) degree in Science is designed to prepare students for university transfer in in fields of Biology and Medical Lab Science.

**Program Chair**: Cindy Woosley • cwoosley@vhcc.edu • 276-739-2435

| |
|---|
| Associate of Science in Science |
| Associate of Science in Science – Major in Biology |
| Associate of Science in Science – Major in Medical Lab Science |

## Associate of Science (AS) in Science

Four semesters; two years

The Associate of Science degree is best for students who will be seeking transfer to pursue a baccalaureate degree in biology, chemistry, and medical lab science. Graduates should be able to successfully transfer to a four-year college to complete a bachelor's degree in science to pursue employment opportunities in research, healthcare, and laboratory science.

**Occupational Objectives**: To pursue transfer to complete a bachelor's degree in science to pursue employment fields such as biology, pre-medicine, healthcare, and medical lab science.

**Admission Requirements**: In addition to the admission requirements established for the college, entry into the Associate of Science Degree Program in Science has no additional requirements. Students with deficiencies in reading, writing, or mathematics may be required to take developmental studies.

**Course of Study Requirements**: Although the major emphasis in this curriculum is the biological sciences and the physical sciences, the curriculum also includes additional courses in health and mathematics. Electives are provided so that the student can select the appropriate courses for the pre-professional or scientific program as required in the first two years of the four-year college or university. In order to help prepare for upper division (junior class) standing at a four-year institution, the student usually must complete a program at the community college which is comparable in length and courses to the first two years of the program at the four-year institution. Upon satisfactory completion of the four-semester program described, the graduate will be awarded the Associate of Science Degree in Science.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| SDV 101 | Orientation to College Success | 1 |
| ENG 111 | College Composition I | 3 |
| ART/HUM/MUS | ART/HUM/MUS from UCGS[1] | 4 |
| MTH | Approved Mathematics Course[2] | 3 |
| EEE | Approved Elective[3] | 3 |
| | **Total** | 14 |
| **Second Semester (Spring)** | | |
| ENG 112 | College Composition II | 3 |
| EEE | Approved Elective[3] | 3 |
| MTH or SCI | Approved Mathematics or Science Course[4] | 3 |
| EEE or MTH or SCI | Approved Elective[3] or Approved Mathematics of Science Course[4] | 3 |
| MTH or SCI | Approved Mathematics or Science Course[4] | 3 |
| | **Total** | 15 |
| **Third Semester (Fall)** | | |
| HIS 121 or HIS 122 | United States History to 1877 or United States History Since 1865 | 3 |
| BIO 101, CHM111 or PHY 241 | General Biology I, General Chemistry I, or University Physics I | 4 |
| MTH or SCI | Approved Mathematics or Science Course[4] | 3 |
| MTH or SCI | Approved Mathematics or Science Course[4] | 3 |
| ENG 245 or ENG 246 | British Literature or American Literature | 3 |
| | **Total** | 16 |
| **Fourth Semester (Spring)** | | |
| CST 100 | Principles of Public Speaking | 3 |
| MTH or SCI | Approved Mathematics or Science Course[4] | 3 |
| BIO 102, CHM 112 or PHY 241 | General Biology II, General Chemistry II, or University Physics II | 4 |
| PSY 200 or SOC 200 | Principles of Psychology or Introduction to Sociology | 3 |
| MTH or SCI | Approved Mathematics or Science Course[4] | 3 |
| | **Total** | 16 |
| **Total Minimum Credits** | | 61 |

Notes:

Students should consult with their advisor to select the most appropriate Approved Elective for their chosen career goals. Some electives are four credits.

Students are urged to acquaint themselves with the requirements of the major department in the college or university to which transfer is contemplated; and further, students are urged to consult with their counselors and advisors at VHCC in planning their academic program and electives.

To Enroll in MTH 263 Calculus I students may complete MTH 161/162 sequence or MTH 167 or demonstrate proficiency using the following multiple measures requirements:

- be within six years of high school graduation
- graduate from high school with at least a 3.0 average
- complete an advanced math course in trigonometry with at least a B in that course

1. See UCGS Block II, parts A & B. Cannot be a literature course.
2. Approved Mathematics Courses - See UCGS Block V, part B.
3. Approved Electives- CSC 221, EDU 200, HLT 110, HLT 143, HLT 206, HLT 228, HLT 230, ITE 119, ITE 152 or MTH 161 or higher, or see UCGS Block VII; student is advised to consult with a faculty advisor to select the course best fit for intended transfer destination.
4. Approved Mathematics or Science Courses-BIO 101, BIO 102, BIO 141, BIO 142, BIO 215, BIO 278, CHM 111, CHM 112, CHM 241/245, CHM 242/246, PHY 241, PHY 242, or MTH 161 or higher. BIO 215 is offered each fall semester in odd years, BIO 278 is offered each spring semester in even years.

## Associate of Science (AS) in Science – Major in Biology

Four semesters; two years

The Associate of Science Degree – Major in Biology is best for students who will be seeking transfer to pursue a baccalaureate degree in biology. Graduates should be able to successfully transfer to a four-year college to complete a bachelor's degree in science to pursue employment opportunities in research, healthcare, and related fields.

**Purpose**: The Associate of Science Degree-Major in Biology is best for students who will be seeking transfer to pursue a baccalaureate degree in biology. Graduates should be able to successfully transfer to a four-year college to complete a bachelor's degree in science to pursue employment opportunities in research, healthcare, and related fields

**Occupational Objectives**: To pursue transfer to complete a bachelor's degree in science to pursue employment fields such as biology, pre-medicine, and healthcare.

**Admission Requirements**: In addition to the admission requirements established for the college, entry into the Associate of Science Degree Program in Science-Major in Biology has no additional requirements. Students with deficiencies in reading, writing, or mathematics may be required to take developmental studies.

**Course of Study Requirements**: Although the major emphasis in this curriculum is the biological sciences and the physical sciences, the curriculum also includes additional courses in health and mathematics. Electives are provided so that the student can select the appropriate courses for the pre-professional or scientific program as required in the first two years of the four-year college or university. In order to help prepare for upper division (junior class) standing at a four-year institution, the student usually must complete a program at the community college which is comparable in length and courses to the first two years of the program at the four-year institution. Upon satisfactory completion of the four-semester program described, the graduate will be awarded the Associate of Science Degree in Science -Major in Biology.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| SDV101 | Orientation to College Success | 1 |
| ENG 111 | College Composition I | 3 |
| BIO 101 | General Biology I | 4 |
| MTH 161 or MTH 261 | Precalculus I or Applied Calculus I | 3 |
| CHM 111 | General Chemistry I | 4 |
| | **Total** | 15 |
| **Second Semester (Spring)** | | |
| ENG 112 | College Composition II | 3 |
| BIO 102 | General Biology II | 4 |
| PSY 200 or SOC 200 | Principles of Psychology or Introduction to Sociology | 3 |
| ART/HUM/MUS | ART/HUM/MUS from UCGS[1] | 3 |
| CHM 112 | General Chemistry II | 4 |
| | **Total** | 17 |
| **Third Semester (Fall)** | | |
| HIS 121 or HIS 122 | United States History to 1877 or United States History Since 1865 | 3 |
| MTH 261 or EEE | MTH 261 or Approved Elective[2] | 3 |
| BIO 141 or CHM 241/245 | Human Anatomy and Physiology I or Organic Chemistry I with Lab | 4 |
| ENG 245 or ENG 246 | British Literature or American Literature | 3 |
| | **Total** | 13 |
| **Fourth Semester (Spring)** | | |
| CST 100 | Principles of Public Speaking | 3 |
| MTH 262 or EEE | MTH 262 or Approved Elective[2] | 3 |
| EEE | Approved Elective[2]or Approved Course[3] | 3 |
| BIO 142 or CHM 242/246 | Human Anatomy and Physiology II or Organic Chemistry II with Lab | 4 |
| EEE | Approved Course[3] | 3 |
| | **Total** | 16 |
| **Total Minimum Credits** | | 61 |

Notes:

Students should consult with their advisor to select the most appropriate Approved Elective for their chosen career goals. Some electives are four credits.

Students are urged to acquaint themselves with the requirements of the major department in the college or university to which transfer is contemplated; and further, students are urged to consult with their counselors and advisors at VHCC in planning their academic program and electives.

To Enroll in MTH 263 Calculus I students may complete MTH 161/162 sequence or MTH 167 or demonstrate proficiency using the following multiple measures requirement.

- be within six years of high school graduation
- graduate from high school with at least a 3.0 average
- complete an advanced math course in trigonometry with at least a B in that course

1. See UCGS Block II, parts A & B. Cannot be a literature course.
2. Approved Electives - CSC 221, HLT 110, HLT 143, HLT 206, HLT 228, HLT 230, ITE 119, or ITE 152; student is advised to consult with a faculty advisor to select the course best fit for the intended transfer destination.
3. Approved Courses- BIO 141, BIO 142, BIO 215, BIO 278, CHM 242/246, or MTH 161 or higher. BIO 215 is offered each fall semester in odd years. BIO 278 is offered each spring semester in even years.

## Associate of Science (AS) in Science – Major in Medical Lab Science

Four semesters; two years

The Associate of Science Degree – Major in Medical Lab Science is best for students who will be seeking transfer to pursue a baccalaureate degree in Medical lab science. Graduates should be able to successfully transfer to a four-year college to complete a bachelor's degree in science to pursue employment opportunities in research, healthcare, and related fields.

**Occupational Objectives**: To pursue transfer to complete a bachelor's degree in science to pursue employment to work in diagnostic clinical laboratory, research, or industrial laboratories.

**Admission Requirements**: In addition to the admission requirements established for the college, entry into the Associate of Science Degree Program in Science-Major in Medical Lab Science has no additional requirements. Students with deficiencies in reading, writing, or mathematics may be required to take developmental studies.

**Course of Study Requirements**: Although the major emphasis in this curriculum is the biological sciences and the physical sciences, the curriculum also includes additional courses in health and mathematics. Electives are provided so that the student can select the appropriate courses for the pre-professional or scientific program as required in the first two years of the four-year college or university. In order to help prepare for upper division (junior class) standing at a four-year institution, the student usually must complete a program at the community college which is comparable in length and courses to the first two years of the program at the four-year institution. Upon satisfactory completion of the four-semester program described, the graduate will be awarded the Associate of Science Degree in Science -Major in Medical Lab Science.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| SDV 101 | Orientation to College Success | 1 |
| ENG 111 | College Composition I | 3 |
| CHM 111 | General Chemistry I | 4 |
| MTH 161 | Precalculus I | 3 |
| BIO 101 | General Biology I | 4 |
| | **Total** | 15 |
| **Second Semester (Spring)** | | |
| ENG 112 | College Composition II | 3 |
| CHM 112 | General Chemistry II | 4 |
| MTH245 | Statistics I | 3 |
| EEE | Approved Science Course[2] or Approved Elective[3] | 4 |
| ECO 202 | Principles of Microeconomics | 3 |
| | **Total** | 17 |
| **Third Semester (Fall)** | | |
| HIS 121 | United States History to 1877 | 3 |
| CHM 241 | Organic Chemistry I | 3 |
| CHM 245 | Organic Chemistry Lab | 2 |
| BIO 141 | Human Anatomy and Physiology I | 4 |
| ENG 245 or ENG 246 | British Literature or American Literature | 3 |
| | **Total** | 15 |
| **Fourth Semester (Spring)** | | |
| CST 100 | Principles of Public Speaking | 3 |
| ART/HUM/MUS | HUM/ART/MUS from UCGS[1] | 3 |
| BIO 142 | Human Anatomy and Physiology II | 4 |
| PSY 200 or SOC 200 | Principles of Psychology or Introduction to Sociology | 3 |
| HIS 122 | United States History Since 1855 | 3 |
| | **Total** | 16 |
| **Total Minimum Credits** | | 63 |

Notes:

Students are urged to acquaint themselves with the requirements of the major department in the college or university to which transfer is contemplated; and further, students are urged to consult with their counselors and advisors at VHCC in planning their academic program and electives.

1. See UCGS Block II, parts A & B. Cannot be a literature course.
2. Approved Science Courses - BIO 102 or BIO 150.
3. Approved Electives: Students are advised to consult with their faculty advisor at VHCC to select the course which offers the best fit for the intended transfer destination. Students may use recommended courses such as ITE 152, ITE 119, UCGS, and/or the AA or AS General Education Electives list to fulfill these credits.

# Chemistry & Pre-Pharmacy Science Program

The Associate of Science (AS) degree in Science – Major in Chemistry is designed to prepare students for university transfer in the field. The Career Studies Certificate (CSC) in Pre-pharmacy Science is designed to provide access to additional, necessary pre-pharmacy coursework.

**Program Chair**: Sandy Davis • sdavis@vhcc.edu • 276-739-2464

| |
|---|
| Associate of Science in Science – Major in Chemistry |
| Career Studies Certificate in Pre-Pharmacy Science |

## Associate of Science (AS) in Science with a Major in Chemistry

Four semesters; two years

With the emphasis on scientific discoveries and technological development in today's society, there is a strong demand for scientists and scientifically oriented persons. The Associate of Science (AS) Degree Program in Science with a Major in Chemistry is designed primarily for those persons who are interested in a pre-professional or scientific program and who plan to transfer to a four-year college or university to complete a baccalaureate degree program.

In addition to the admission requirements established for the college, entry into the Associate of Sciences Degree Program in Science with a Major in Chemistry has no additional requirements. Students with deficiencies in reading, writing, or mathematics may be required to take developmental studies.

Although the major emphasis in this curriculum is mathematics, the biological sciences, and the physical sciences, the curriculum also includes courses in humanities and social sciences. Electives are provided so that the student can select the appropriate courses for the pre-professional or scientific program as required in the first two years of the four-year college or university. In order to help prepare for upper division (junior class) standing at a four-year institution, the student usually must complete a program at the community college which is comparable in length and courses to the first two years of the program at the four-year institution. Upon satisfactory completion of the four-semester program described, the graduate will be awarded the Associate of Science Degree in Science with a Major in Chemistry.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| SDV 101 | Orientation to College Success | 1 |
| ENG 111 | College Composition I | 3 |
| CST 100 | Principles of Public Speaking | 3 |
| MTH 263 | Calculus I | 4 |
| CHM 111 | General Chemistry I | 4 |
| | **Total** | 15 |
| **Second Semester (Spring)** | | |
| ENG 112 | College Composition II | 3 |
| CHM 112 | General Chemistry II | 4 |
| MTH 245 | Statistics I | 3 |
| HIS 121 or HIS 122 | United States History to 1877 or United States History Since 1865 | 3 |
| ECO 202 | Principles of Microeconomics | 3 |
| | **Total** | 16 |
| **Third Semester (Fall)** | | |
| EEE | Approved Course[1] | 3 |
| CHM 241 | Organic Chemistry I | 3 |
| CHM 245 | Organic Chemistry Lab I | 2 |
| PHY 241 | University Physics I | 4 |
| ENG 245 or ENG 246 | British Literature or American Literature | 3 |
| | **Total** | 15 |
| **Fourth Semester (Spring)** | | |
| EEE | Approved Course[1] | 3 |
| ART/HUM/MUS | ART/HUM/MUS from UCGS[2] | 3 |
| CHM 242 | Organic Chemistry II | 3 |
| CHM 246 | Organic Chemistry Lab II | 2 |
| PHY 242 | University Physics II | 4 |
| | **Total** | 15 |
| **Total Minimum Credits** | | 61 |

Notes:

* Students should consult with their advisor to select the most appropriate Approved Elective for their chosen career goals. Some electives are four credits.

Students are urged to acquaint themselves with the requirements of the major department in the college or university to which transfer is contemplated; and further, students are urged to consult with their counselors and advisors at VHCC in planning their academic program and electives.

To Enroll in MTH 263 Calculus I students may complete MTH 161/162 sequence or MTH 167 or demonstrate proficiency using the following multiple measures requirement.

- be within five years of high school graduation
- graduate from high school with at least a 3.0 average
- complete an advanced math course in trigonometry with at least a B in that course

1. Approved Courses – BIO 141, BIO 142, BIO 150, CSC 221, or MTH 161 or higher.
2. See UCGS Block II, parts A & B. Cannot be a literature course.

## Career Studies Certificate (CSC) in Pre-Pharmacy Science

Two semesters; one year

The Career Studies Certificate in Pre-pharmacy Science is designed to provide access to additional scientific course credit necessary to prepare for university transfer in the field.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester** | | |
| BIO 141 | Human Anatomy & Physiology I | 4 |
| BIO 150 | Microbiology for Health Sciences | 4 |
| BIO 101 | General Biology I | 4 |
| | **Total** | 12 |
| **Second Semester** | | |
| HLT 261 or HLT 106 | Basic Pharmacy I or<br>First Aid and Safety | 2-3 |
| BIO 142 | Human Anatomy & Physiology II | 4 |
| BIO 102 | General Biology II | 4 |
| | **Total** | 10-11 |
| **Total Minimum Credits** | | 22-23 |

Notes:

Students are urged to work closely with Professor Sandy Davis while working on this Career Studies Certificate. Students are urged to acquaint themselves with the requirements of the major department in the college or university to which transfer is contemplated; and further, to consult with their counselors and advisors at VHCC in planning their academic program and electives.

# Computer Science Program

The Associate of Science (AS) degree in Computer Science is designed to prepare students for university transfer in the field.

**Program Chair**: Dr. James Baker • jbaker@vhcc.edu • 276-739-2415

## Associate of Science (AS) in Computer Science

Four semesters; two years

With the emphasis on scientific discoveries and technological development in today's society, there is a strong demand for computer scientists. The Associate of Science (AS) Degree Program in Computer Science is designed primarily for those persons who are interested in computer science and who plan to transfer to a four-year college or university to complete a baccalaureate degree program.

In addition to the admission requirements established for the college, entry into the Associate of Sciences Degree Program in Computer Science has no additional requirements. Students with deficiencies in reading, writing, or mathematics may be required to take developmental studies.

Although the major emphasis in this curriculum is computer science, the curriculum also includes courses in humanities and social sciences. Electives are provided so that the student can select the appropriate courses for the pre-professional or scientific program as required in the first two years of the four-year college or university. In order to help prepare for upper division (junior class) standing at a four-year institution, the student usually must complete a program at the community college which is comparable in length and courses to the first two years of the program at the four-year institution. Upon satisfactory completion of the four-semester program described, the graduate will be awarded the Associate of Science Degree in Computer Science.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| SDV 101 | Orientation to College Success | 1 |
| ENG 111 | College Composition I | 3 |
| HIS 121 or HIS 122 | United States History to 1877 or United States History Since 1865 | 3 |
| SSE | Social or Behavioral Science Elective from UCGS[1] | 3 |
| MTH 161 or MTH 263 | Precalculus I or Calculus I | 3-4 |
| CSC 221 | Introduction to Problem Solving and Programming | 3 |
| | **Total** | 16-17 |
| **Second Semester (Spring)** | | |
| ENG 112 | College Composition II | 3 |
| ART/HUM/MUS | ART/HUM/MUS from UCGS[2] | 3 |
| MTH 162 or MTH 264 | Precalculus II or Calculus II | 3-4 |
| CST 100 | Principles of Public Speaking | 3 |
| SCI | BIO, CHM, GOL, PHY from UCGS[3] | 4 |
| | **Total** | 16-17 |
| **Third Semester (Fall)** | | |
| CSC 222 | Object-oriented Programming | 4 |
| MTH 263 or MTH 265 | Calculus I or Calculus III | 4 |
| CSC 208/MTH 288 | Introduction to Discrete Structures/Discrete Mathematics | 3 |
| ENG 245 or ENG 246 | British Literature or American Literature | 3 |
| | **Total** | 14 |
| **Fourth Semester (Spring)** | | |
| CSC 205 | Computer Organization | 3 |
| MTH 264 or MTH 266 | Calculus II or Linear Algebra | 3-4 |
| CSC 223 | Data Structures and Analysis of Algorithms | 4 |
| SCI | BIO, CHM, GOL, PHY from UCGS[3] | 4 |
| | **Total** | 14-15 |
| **Total Minimum Credits** | | 60-63 |

Notes:

Students are urged to acquaint themselves with the requirements of the major department in the college or university to which transfer is contemplated; and further, students are urged to consult with their counselors and advisors at VHCC in planning their academic program and electives.

1. See UCGS Block III.
2. See UCGS Block II, parts A & B. Cannot be a literature course.
3. See UCGS Block IV.

# Criminal Justice Program

The Associate of Applied Science degree in Criminal Justice is designed to prepare students for work in the field of criminal justice.

**Program Chair**: Robin Widener • rwidener@vhcc.edu • 276-739-2408

| |
|---|
| Associate of Applied Science in Criminal Justice |
| Career Studies Certificate in Victim Advocacy Assistant |

## Associate of Applied Science (AAS) in Criminal Justice

Four semesters; two years

The Associate of Applied Science degree in Criminal Justice is designed to improve the knowledge and skills of the practitioner in criminal justice and to prepare individuals for career service in this field.

This degree prepares students for work as police officers, probation and parole worker, security officer, juvenile worker, corrections officer, and local, state, or federal enforcement officer.

A student eligible for admission to the college can normally be considered for admission to the Criminal Justice curriculum. Proficiency in high school English and mathematics is required. Direct enrollment guidelines using either multiple measures or informed placement will determine a student's placement into college-level English and mathematics courses.

In addition to meeting the admission requirements established for the college, the applicant should consult with the program coordinator to see if he or she would meet the specialized requirements for the criminal justice agency with which he or she plans to seek employment. Any person who has been convicted of a felony or of any offense involving turpitude or violence is ineligible for admission to this program. Enrollment in certain ADJ courses may be restricted to persons who have been accepted into the program. Please consult a Student Services Counselor or the Program Coordinator for instructions on applying to the Program.

Approximately one-half of the curriculum will include courses in Criminal Justice with the remaining courses in related areas, general education, and electives. Instruction will include both the theoretical concepts and practical applications needed for future success in criminal justice careers. Each student is advised to consult with his/her counselor and faculty advisor in planning a program and selecting electives. Upon completion of the four-semester program, the graduate will be awarded the Associate of Applied Science in Protective Services.

The student is required to complete a sequence of courses and learning experiences provided at the college. The Criminal Justice program faculty reserves the right to recommend, through appropriate channels, the withdrawal of any student who does not exhibit suitable attendance, behavior, and adherence to the regulations governing student conduct as outlined in the student handbook.

Students must complete all Criminal Justice courses listed in the first year of the curriculum before being allowed to enter the second year Criminal Justice courses. Exceptions may be approved by the Division Chairman upon faculty recommendation.

A student must have a "C" or above in all Criminal Justice courses to remain in the program. A grade of "C" or above in any related requirements is a prerequisite for continuing in the Criminal Justice program. Exceptions may be approved by the Division Dean upon faculty recommendation.

**Program Progression**: Any student who earns a final grade lower than "C" in any Criminal Justice course or SOC 235 or 236 must repeat the course and earn a final grade of "C" or better before taking the next course or courses in the sequence.

A student must obtain permission from the Criminal Justice faculty to continue in the Criminal Justice program under the following conditions:

1. repeating a course with a grade below "C,"
2. withdrawal from a Criminal Justice course,
3. cumulative GPA below 2.0.

**Notes on Transfer**: Associate of Applied Science Degree programs are designed primarily to provide occupational competence for employment entry. Students who wish to transfer to four-year institutions should acquaint themselves with the requirements of the college or university to which transfer is contemplated. Such students should consult with their faculty advisor at Virginia Highlands Community College in planning their programs.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| SDV 101 | Orientation to College Success | 1 |
| ADJ 100 | Survey of Criminal Justice | 3 |
| ENG 111 | College Composition I | 3 |
| ADJ 233 | Multiculturalism in Policing | 3 |
| EEE | Social Science Elective | 3 |
| EEE | Humanities Elective | 3 |
| | **Total** | 16 |
| **Second Semester (Spring)** | | |
| ADJ 140 | Introduction to Corrections | 3 |
| ADJ 130 | Criminal Law | 3 |
| ADJ 236 | Principles of Investigation | 3 |
| ENG 112 | College Composition II | 3 |
| MTH 155 | Statistical Reasoning[1] | 3 |
| | **Total** | 15 |
| **Third Semester (Fall)** | | |
| ADJ 133 | Ethics and the Criminal Justice Professional | 3 |
| ADJ 171 | Forensic Science I[2] | 4 |
| ADJ 237 | Advanced Criminal Investigation[2] | 3 |
| SOC 235 | Juvenile Delinquency | 3 |
| EEE | Related Elective | 3 |
| | **Total** | 16 |
| **Fourth Semester (Spring)** | | |
| ADJ 111 | Law Enforcement Organization & Administration I | 3 |
| ADJ 227 | Constitutional Law for Justice Personnel | 3 |
| ADJ 229 | Community Policing in Modern Society | 3 |
| SOC 236 | Criminology | 3 |
| ADJ 138 | Defensive Tactics[3] | 2 |
| | **Total** | 14 |
| **Total Minimum Credits** | | 61 |

Notes:

1. MTH 155 or Higher is required. Students planning to transfer to a four-year program should check to see the required math of the transfer institution.
2. Prerequisite: ADJ 236 or division approval.
3. Includes CPR/First Aid Certification.

## Career Studies Certificate (CSC) in Victim Advocacy Assistant

The Career Studies Certificate (CSC) in Victim Advocacy Assistant is designed to improve the knowledge and skills of practitioners in the victim advocacy field and to prepare individuals for career service in the field. The CSC in Victim Advocacy Assistant will prepare students for entry-level work as victim advocates in the criminal justice system and in community organizations. The curriculum will provide skills for the advancement and/or employment in the following occupations: corrections-based advocacy, community-based advocacy assistants working with domestic violence, child abuse, elder abuse, and sexual assault victims, victim/witness assistants, other criminal justice system advocates, crisis workers assisting victims of natural and man-made disasters. Students are required to earn a "C" or higher grade in the program classes. If a student earns below a "C" in program classes, he or she must repeat the course and earn a final grade of "C" or better.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| ADJ 118 | Crisis Intervention | 3 |
| ADJ 295 | Topics in Victimology | 3 |
| HMS 162 | Communication Skills for Human Services Professionals | 3 |
| ADJ 100 or HMS 100 | Select a concentration support course | 3 |
| | **Total** | 12 |
| **Second Semester (Spring)** | | |
| HMS 227 | The Helper as Change Agent | 3 |
| ADJ 290 or HMS 290 | Coordinated Internship – determined by concentration | 3 |
| HMS 230 | Ethics in Human Services | 3 |
| BUS 140 | Grant Proposal Writing | 3 |
| PSY 219 | Cross-Cultural Psychology | 3 |
| | **Total** | 15 |
| **Total Minimum Credits** | | 27 |

# Education Program

The Associate of Science (AS) degree in Education is designed to prepare students for university transfer in the field.

**Program Chair**: Dr. Kelly Emery • kemery@vhcc.edu • 276-739-2517

| |
|---|
| Associate of Science in Education |
| Career Studies Certificate in Education |
| Career Studies Certificate in American Sign Language |

## Associate of Science (AS) in Education

Four semesters; two years

The Associate of Science degree in Education is designed to provide the courses in general education for the student who plans to complete a baccalaureate degree in pursuit of teacher licensure at a four-year institution.

In addition to the admission requirements established for the college, entry into the Associate of Sciences Degree Program in Education has no additional requirements. Students with deficiencies in reading, writing, or mathematics may be required to take developmental studies.

Although the major emphasis in this curriculum is education preparation, the curriculum also includes courses in humanities and social sciences. Electives are provided so that the student can select the appropriate courses for the pre-professional or teacher-preparatory program as required in the first two years of the four-year college or university. In order to help prepare for upper division (junior class) standing at a four-year institution, the student usually must complete a program at the community college which is comparable in length and courses to the first two years of the program at the four-year institution. Upon satisfactory completion of the four-semester program described, the graduate will be awarded the Associate of Science (AS) Degree in Education.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| SDV 101 | Orientation to College Success | 1 |
| ENG 111 | College Composition I | 3 |
| HIS 121 | United States History to 1877 | 3 |
| SCI | Approved Science Course [2] | 4 |
| EDU 200 | Foundations of Education with Practicum | 3 |
| | **Total** | 14 |
| **Second Semester (Spring)** | | |
| ENG 112 | College Composition II | 3 |
| HIS 122 | United States History Since 1865 | 3 |
| EDU 204 | Teaching in a Diverse Society with Practicum | 3 |
| SCI | Approved Science Course [2] | 4 |
| EDU 207 | Human Growth and Development | 3 |
| | **Total** | 16 |
| **Third Semester (Fall)** | | |
| MTH 154 or MTH 161 | Quantitative Reasoning or Precalculus I | 3 |
| HIS 111 | History of World Civilization Pre-1500 CE | 3 |
| EDU 250 | Foundations of Exceptional Education | 3 |
| EDU 206 or EDU 270 | Classroom and Behavior Management or Introduction to Autism | 3 |
| ENG 250, ENG 245, or ENG 246 | Children's Literature, British Literature, or American Literature [3] | 3 |
| | **Total** | 15 |
| **Fourth Semester (Spring)** | | |
| CST 100 | Principles of Public Speaking | 3 |
| ART/HUM/MUS | ART, HUM, or MUS from UCGS[1] | 3 |
| MTH 155 or MTH 245 | Statistical Reasoning or Statistics I | 3 |
| EDU 120 or EEE | Math for Elementary Teachers or Elective[4] | 3-4 |
| GEO 210 | People and the Land: Introduction to Cultural Geography | 3 |
| | **Total** | 15-16 |
| **Total Minimum Credits** | | 60-61 |

Notes:

Students are urged to acquaint themselves with the requirements of the major department in the college or university to which transfer is contemplated; and further, students are urged to consult with their counselors and advisors at VHCC in planning their academic program and electives.

1. See UCGS Block II, parts A & B. Cannot be a literature course.
2. Choose from BIO, CHM, or GOL in UCGS Block IV. The two courses should be from different academic subjects.
3. Students are advised to work with the program faculty advisor; secondary students will take ENG 245 or ENG 246, and elementary students will take ENG 250.
4. Students are advised to work with the program faculty advisor; secondary students will take a content-specific elective for the secondary concentration, and elementary students will take EDU 120.

## Career Studies Certificate (CSC) in Education

Two semesters; one year

The Career Studies Certificate in Education is designed for students pursuing an associate's degree in a field other than education who wish to prepare to teach at the secondary level after earning a bachelor's degree. It also provides those who have previously earned a bachelor's degree in a field other than education with access to certain EDU coursework pertinent to educational methods.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| EDU 200 | Foundations of Education | 3 |
| EDU 250 | Foundations of Exceptional Children | 3 |
| EEE | Degree-related Elective | 3-4 |
| | **Total** | 9-10 |
| **Second Semester (Spring)** | | |
| EDU 207 | Human Growth and Development | 3 |
| EEE | Degree-related Elective | 3-4 |
| EEE | Degree-related Elective | 3-4 |
| | **Total** | 9-11 |
| **Total Minimum Credits** | | 18-21 |

## Career Studies Certificate (CSC) in American Sign Language

Completion time variable for part-time continuing education students.

All of the courses in this Career Studies Certificate (CSC) program will not be offered in a single semester. Students should note the pre-requisites for ASL 102, ASL 201, and ASL 202 and meet with an advisor to plan accordingly.

| Course Number | Course Title | Credits |
|---|---|---|
| ASL 101 | American Sign Language I | 4 |
| ASL 102 | American Sign Language II[1] | 4 |
| ASL 125 | History of the US Deaf Community I | 3 |
| ASL 201 | American Sign Language III[2] | 3 |
| ASL 202 | American Sign Language IV[3] | 3 |
| INT 130 | Interpreting: An Introduction to the Profession | 3 |
| **Total Minimum Credits** | | 20 |

Notes:

1. Pre-requisite for ASL 102 is ASL 101.
2. Pre-requisite for ASL 201 is ASL 102.
3. Pre-requisite for ASL 202 is ASL 201.

This program introduces American Sign Language (ASL) and provides basic skills for working with the Deaf or Hard-of Hearing.

# Emergency Medical Services Program

The Associate of Applied Science (AS) degree in Emergency Medical Services is designed to prepare students for service in the field.

**Program Chair (VHCC)**: Barbara Manuel • bmanuel@vhcc.edu • 276-739-2432

## Associate of Applied Science (AAS) in Emergency Medical Services Technology – Paramedic

Five semesters; two years

***Offered in cooperation with Southwest Virginia Community College. Degree awarded by Virginia Highlands Community College.***

The purpose of this curriculum is to produce competent entry-level Paramedics who can provide the highest level of out-of-hospital care. Upon completion of the program, students will be eligible for National Registry testing and certification. This credential leads to Paramedic licensure or certification in Virginia and most other states.

**Employment opportunities**: Employment opportunities for Paramedics are available with ambulance; fire and rescue services; hospitals; local, state and federal government agencies.

**Program Goal:** To prepare competent entry-level Paramedics in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains with or without exit points at the Advanced Emergency Medical Technician and/or Emergency Medical Technician, and/or Emergency Medical Responder levels.

**Program Learning Outcomes**: Upon successful completion, students will be able to:

- Perform current techniques in pre-hospital emergency care to include signs and symptoms of illness, injuries, medical emergencies, appropriate medical techniques, and ambulance operations.
- Assess, extricate, and care for victims of trauma incidents utilizing the following management skills; scene size-up, disentanglement, victim stabilization for single and multi-victim situations, hazardous materials incidents, integration of local emergency medical services (EMS) for patient assessment and management, and standard operating procedures.
- Describe the basic pharmacological background and actions of drugs, regulations, human body systems, pharmacokinetics, and drug calculations.
- Demonstrate the advanced life support skills approach to emergency care of the emotionally disturbed to include emotional aspects, approach to the patient, psychiatric emergencies and techniques of management.
- Perform an advanced physical assessment on an emergency patient to include the physical exam, integrative and on-going exams, and communicate/document the findings to the patient and others.
- Perform a pediatric assessment, manage airway and respiratory emergencies, cardiovascular emergencies, neonatal emergencies, and Sudden Infant Death Syndrome (SIDS). Treat children with special healthcare needs.
- Recognize and intervene in medical emergencies related to toxicology, hazardous materials, infectious disease, and hematology. Include poisoning, drug overdose, and transmission of infectious diseases.
- Identify pathophysiological principles and assessment findings to formulate a field impression and implement the treatment plan for the patient with cardiovascular disease/injury based on 3-lead and 12-lead cardiac monitoring and interpretation. Define cardiovascular anatomy and physiology, cardiovascular pathologies and management, and adjunctive diagnostics.
- Utilize assessment findings to formulate a field impression and implement the treatment plan for obstetric, neonatal, pediatric, geriatric, and chronic-care patients.

**Employment Opportunities:** Employment opportunities for paramedics are available with ambulance; fire and rescue services; hospitals; local, state and federal government agencies.

**Accreditation:** The Southwest Virginia Paramedic Program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP).

Commission on Accreditation of Allied Health Education Programs (CAAHEP), 9355 - 113th St. N, #7709, Seminole, FL 33775, 727-210-2350, www.caahep.org.

To contact the CoAEMSP: 8301 Lakeview Parkway, Suite 111-312, Rowlett, TX 75088, 214-703-8445, Fax: 214-703-8992, www.coaemsp.org.

**Licensure**: Meets state educational requirements for licensure NREMT- AL, AK, AZ, AR, CA, CO, CT, DC, DE, FL, GA, HI, ID, IN, IA, KS, KY, LA, ME, MD, MA, MI, MN, MS, MO, NE, NV, NH, NJ, NM, NY, NC, ND, OH, OK, OR, PA, RI, SC, SD, TN, TX, UT, VT, VA, WA, WV, WI, WY. Does not meet state educational requirements for licensure NREMT- IL, MT.

Further information regarding EMS certifications may be found at: nasemso.org.

**Statement for Emergency Medical Services (EMS):** Pursuant to United States Department of Education (US DOE) regulation 34 CFR 668.43 (a) (5) (v), the Virginia Highlands Community College Associate Degree in Emergency Medical Services Technology program provides the following information for all prospective and current students:

The National Assoc. of EMS Officials (NASEMSO) has ruled EMS provider licensure and certification to be synonymous and National Registry certification is recognized for reciprocity in 48 of our 50 states.

Virginia Highlands Community College and Southwest Virginia are regionally accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC).

**Admission Requirements*:*** Prior to the starting program courses, the applicant must:

1. Meet eligibility requirements as stipulated by the Virginia Office of EMS, www.vdh.virginia.gov/emergency-medical-services/education-certification/how-to-become-an-emergency-medical-services-provider-in-virginia/; and
2. Meet the college's general admission requirements.

**Selection Process*:*** To be eligible for selection to the program, interested persons should **complete the following process by May 15:**

1. Submit a college admission application. www.vhcc.edu/future-students/ready-to-enroll-now.
2. Submit an application to the program (separate document) with required attachments.
3. Have transcripts of previous college courses sent to the college.

At that time the first round of students will be selected. Should openings still be available, persons who apply or meet requirements after May 15 will be considered.

## PROGRAM REQUIREMENTS

**Physical Requirements:** An EMS provider is faced with many physical and psychological challenges. Please refer to the Virginia Office of Emergency Medical Services web site for a more detailed functional job description www.vdh.virginia.gov.

**Academic Requirements**: Students must make a "C" or better in all program cores courses. Any student receiving a grade less than "C" will be placed on programmatic academic probation. That course shall be remediated. Remediated course must be completed with a final grade of "C" or better.

**Clinical and Behavioral Requirements**: Selected and supervised student experience is required by the program and will be accomplished at selected regional health care facilities. The student is responsible for transportation to these facilities as well as to any scheduled field trips.

Program preceptors will observe and evaluate the student's suitability for the profession. If the student does not exhibit those documented behaviors required of the EMS professional, the student might be asked to withdraw from the program.

**Other Requirements**: Applicants accepted to the program are required to submit a health certificate signed by a licensed physician, physician's assistant, or RNP and should include documentation of measles, mumps, Rubella (MMR) and chicken pox exposure or inoculations; documentation of Hepatitis B inoculation; Tuberculosis testing; and overall general health of the applicant. A criminal background check and drug screening is also done to confirm compliance with state regulations.

The purchase of items such as uniforms, liability insurance, and other accessories is the financial responsibility of the individual student. Students who elect to take support courses recommended by the Program Director prior to formal acceptance into the program will find this activity to be advantageous in subsequent course scheduling.

Please see the CoAEMSP Outcomes Summary, sw.edu/health-technology/wp-content/uploads/CoAEMSP-Outcomes-Summary.pdf for program pass rates, retention, and job placement.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Summer)** | | |
| EMS 100 | CPR for Healthcare Providers[1] | 1 |
| EMS 111 | Emergency Medical Technician | 7 |
| EMS 120 | EMT – Basic Clinical | 1 |
| BIO 145 | Human Anatomy & Physiology for Health Sciences[2] | 4 |
| | **Total** | 13 |
| **Second Semester (Fall)** | | |
| SDV 100 | College Success Skills[3] | 1 |
| EMS 123 | EMS Clinical Preparation | 1 |
| EMS 180 | Advanced EMS Foundations | 1 |
| EMS 181 | Advanced Airway & Shock Management | 1 |
| EMS 182 | Advanced Airway & Shock Management Lab | 1 |
| EMS 183 | Advanced Medical Care | 2 |
| EMS 184 | Advanced Medical Care Lab | 1 |
| EMS 185 | Advanced Trauma Care | 2 |
| EMS 186 | Advanced Trauma Care Lab | 1 |
| EMS 170 | ALS Internship I | 1 |
| | **Total** | 12 |
| **Third Semester (Spring)** | | |
| EMS 221 | Paramedic Cardiovascular Care | 3 |
| EMS 222 | Paramedic Cardiovascular Care Lab | 1 |
| EMS 223 | Paramedic Patient Care I | 3 |
| EMS 224 | Paramedic Patient Care I Lab | 1 |
| EMS 241 | Paramedic Internship I | 2 |
| ENG 111 | College Composition I | 3 |
| PSY 230 | Developmental Psychology[4] | 3 |
| | **Total** | 16 |
| **Fourth Semester (Fall)** | | |
| EMS 225 | Paramedic Patient Care I | 5 |
| EMS 226 | Paramedic Patient Care I Lab | 2 |
| EMS 246 | Paramedic Internship I | 2 |
| EEE | General Education Elective[5] | 3 |
| | **Total** | 12 |
| **Fifth Semester (Spring)** | | |
| EMS 210 | EMS Operations | 1 |
| EMS 212 | Leadership and Professional Development | 1 |
| EMS 165 | Advanced Cardiac Life Support | 1 |
| EMS 163 | Prehospital Trauma Life Support | 1 |
| EMS 167 | Emergency Pediatric Care[6] | 1 |
| EMS 164 | Advanced Medical Life Support | 1 |
| EMS 216 | Paramedic Review | 1 |
| EMS 249 | Paramedic Capstone Internship | 2 |
| HUM | Humanities Elective | 3 |
| | **Total** | 12 |
| **Total Minimum Credits** | | 65 |

Notes:

1. HLT 105 is an approved substitute.
2. Taking both BIO 141 and BIO 142 are an approved substitute for BIO 145. Please note that students who complete BIO 141 and BIO 142 are exempt from completing the General Education Elective (3 credits) in the 4th semester (see note 5 below).
3. SDV 101 is an approved substitute.
4. PSY 200, PSY 205, SOC 247, and SOC 268 are approved substitutes for PSY 230.
5. The general education elective must be a course in one of the general education categories – communication, humanities/fine arts, social/behavioral sciences, or natural sciences/mathematics. Students who complete BIO 141 and BIO 142 in lieu of BIO 145 are exempt from the general education elective.
6. EMS 169 (PALS) is an approved substitute.

# General Studies & Uniform Certificate of General Studies (UCGS) Program

The Associate of Science (AS) degree in General Studies and the Uniform Certificate of General Studies are designed to prepare students for university transfer.

**Program Chair**: Samantha Shannon • sshannon@vhcc.edu • 276-739-2444

| |
|---|
| Associate of Science in General Studies |
| Uniform Certificate of General Studies (UCGS) |

## Associate of Science (AS) in General Studies

Four semesters; two years

The Associate of Science degree in General Studies is designed to provide the courses in general education for the student who plans to complete a baccalaureate degree yet to be determined.

In addition to the admission requirements established for the college, entry into the Associate of Science Degree Program in General Studies has no additional requirements. Students with deficiencies in reading, writing, or mathematics may be required to take developmental studies.

The major emphasis in this curriculum is general preparation for university transfer. Electives are provided so that the student can select the appropriate courses for the university program as required in the first two years of the four-year college or university. In order to help prepare for upper division (junior class) standing at a four-year institution, the student usually must complete a program at the community college which is comparable in length and courses to the first two years of the program at the four-year institution. Upon satisfactory completion of the four-semester program described, the graduate will be awarded the Associate of Science (AS) Degree in General Studies.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| SDV 101 | Orientation to College Success | 1 |
| ENG 111 | College Composition I | 3 |
| ART/HUM/MUS | ART/HUM/MUS from UCGS[1] | 3 |
| MTH | Approved Mathematics Course[2] | 3 |
| EEE | Transfer Elective[2] | 3 |
| | **Total** | 13 |
| **Second Semester (Spring)** | | |
| ENG 112 | College Composition II | 3 |
| MTH | Approved Mathematics Course[2] | 3 |
| EEE | Transfer Elective[2] | 3 |
| EEE | Transfer Elective[2] | 3 |
| EEE | Transfer Elective[2] | 3 |
| | **Total** | 15 |
| **Third Semester (Fall)** | | |
| HIS 121 | United States History to 1877 | 3 |
| SCI | BIO, CHM, GOL, PHY from UCGS | 4 |
| EEE | Transfer Elective[2] | 3 |
| EEE | Transfer Elective[2] | 3 |
| ENG 245 or ENG 246 | British Literature or American Literature | 3 |
| | **Total** | 16 |
| **Fourth Semester (Spring)** | | |
| CST 100 | Principles of Public Speaking | 3 |
| HIS 122 | United States History Since 1865 | 3 |
| SCI | BIO, CHM, GOL, PHY from UCGS | 4 |
| PSY 200 or SOC 200 | Principles of Psychology or Introduction to Sociology | 3 |
| EEE | Transfer Elective[2] | 3 |
| | **Total** | 16 |
| **Total Minimum Credits** | | 60 |

Notes:

Students are urged to acquaint themselves with the requirements of the major department in the college or university to which transfer is contemplated; and further, **students are urged to consult with their counselors and advisors at VHCC in planning their academic program and electives**.

1. See UCGS Block II, parts A & B. Cannot be a literature course.
2. Students are advised to consult with their faculty advisor at VHCC and use the UCGS and the AA or AS General Education Electives list to fulfil these credits.

## Uniform Certificate of General Studies (UCGS)

Two semesters; one year

The Uniform Certificate of General Studies (UCGS) is a one-year college program in which all courses are transferable and satisfy lower-division general education requirements at any Virginia public institution of higher education. The Passport is a component of the UCGS and is therefore a subset of courses in the UCGS. The UCGS consists of seven course blocks. To satisfy the UCGS students are required to complete the appropriate number of courses in each block as described below. Student course selection should be carefully considered since the UCGS program is not designed to capture the complexities of individual programs of study at the four-year institutions. Students should be advised to take the UCGS course that best suits their intended program of study at the four-year institution. Only classes completed after May 2020 apply toward UCGS completion. The UCGS credential may be awarded starting spring 2022. The UCGS Course Roster for the Virginia Community College System (VCCS) approved Uniform Certificate of General Studies Course Roster (Feb 6, 2024) is found on page 44 of this academic catalog. In order to earn the UCGS, students must earn a "C" or better in each course taken.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester** | | |
| ENG 111 | College Composition I | 3 |
| MTH | MTH course from the UCGS Course Roster | 3 |
| HIS | HIS course from the UCGS Course Roster | 3 |
| HUM/ART/LIT | HUM/ART/LIT course from the UCGS Course Roster | 3 |
| SCI | Natural Science course from the UCGS Course Roster | 4 |
| | **Total** | 16 |
| **Second Semester** | | |
| ENG 112 | College Composition II | 3 |
| SSE | Social Science course from the UCGS Course Roster | 3 |
| EEE | Specialized General Education course from the UCGS Course Roster | 3-4 |
| EEE | Specialized General Education course from the UCGS Course Roster | 3-4 |
| HUM/ART/LIT | HUM/ART/LIT course from the UCGS Course Roster | 3 |
| | **Total** | 15-17 |
| **Total Minimum Credits** | | 31-33 |

# Human Services Program

The Associate of Science in Social Science Majors in Psychology and Social Work along with the Career Studies Certificates (CSC) are designed to prepare students for work in their fields.

**Program Chair**: Dr. Winona Fleenor • wfleenor@vhcc.edu • 276-739-2493

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|---|
| Associate of Science in Social Sciences – Major in Psychology |
| Associate of Science in Social Sciences – Major in Social Work |
| |
| Career Studies Certificate in Early Childhood Development, Infant and Toddler Care |
| Career Studies Certificate in Early Childhood Development, Special Needs |
| |
| Career Studies Certificate in Substance Abuse Counselor-Assistant |

## Associate of Science (AS) in Social Sciences – Major in Psychology

Four semesters; two years

The Associate of Science (AS) degree in Social Sciences with a Major in Psychology is designed to provide the courses in general education for the student who plans to complete a baccalaureate degree in pursuit of a social sciences degree at a four-year institution.

In addition to the admission requirements established for the college, entry into the Associate of Science degree in Social Sciences with a Major in Psychology has no additional requirements. Students with deficiencies in reading, writing, or mathematics may be required to take developmental studies.

Although the major emphasis in this curriculum is psychology, the curriculum also includes courses in mathematics and science. Electives are provided so that the student can select the appropriate courses for the program as required in the first two years of the four-year college or university. In order to help prepare for upper division (junior class) standing at a four-year institution, the student usually must complete a program at the community college which is comparable in length and courses to the first two years of the program at the four-year institution. Upon satisfactory completion of the four-semester program described, the graduate will be awarded the Associate of Sciences (AS) degree in Social Sciences with a Major in Psychology.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| SDV 101 | Orientation to College Success | 1 |
| ENG 111 | College Composition I | 3 |
| ITE 152 or ITE 119 | Introduction to Digital and Information Literacy and Computer Applications or Information Literacy | 3 |
| PSY 200 | Principles of Psychology | 3 |
| MTH 161 | Precalculus I | 3 |
| | **Total** | 13 |
| **Second Semester (Spring)** | | |
| ENG 112 | College Composition II | 3 |
| MTH 245 | Statistics I | 3 |
| PSY 210 | Statistics for Behavioral Sciences | 4 |
| SOC 200 | Introduction to Sociology | 3 |
| PSY 230 | Developmental Psychology | 3 |
| | **Total** | 16 |
| **Third Semester (Fall)** | | |
| HIS 121 or HIS 122 | United States History to 1877 or United States History Since 1865 | 3 |
| BIO 101 | General Biology I | 4 |
| PSY 215 | Psychopathology | 3 |
| PSY 225 | Theories of Personality | 3 |
| ENG 245 or ENG 246 | British Literature or American Literature | 3 |
| | **Total** | 16 |
| **Fourth Semester (Spring)** | | |
| CST 100 | Principles of Public Speaking | 3 |
| ART/HUM/MUS | ART/HUM/MUS from UCGS[1] | 3 |
| BIO 141 | Human Anatomy and Physiology I | 4 |
| PSY 216 or PSY 219 | Sociology Psychology or Cross-cultural Psychology | 3 |
| PSY 211 | Research Methods | 4 |
| | **Total** | 17 |
| **Total Minimum Credits** | | 62 |

Notes:

1. See UCGS Block II, parts A & B. Cannot be a literature course.

## Associate of Science (AS) in Social Sciences – Major in Social Work

Four semesters; two years

The Associate of Science (AS) degree in Social Sciences with a Major in Social Work is designed to provide the courses in general education for the student who plans to complete a baccalaureate degree in pursuit of a social work degree at a four-year institution.

In addition to the admission requirements established for the college, entry into the Associate of Science degree in Social Sciences with a Major in Social Work has no additional requirements. Students with deficiencies in reading, writing, or mathematics may be required to take developmental studies.

Although the major emphasis in this curriculum is social sciences, the curriculum also includes courses in mathematics and science. Electives are provided so that the student can select the appropriate courses for the program as required in the first two years of the four-year college or university. In order to help prepare for upper division (junior class) standing at a four-year institution, the student usually must complete a program at the community college which is comparable in length and courses to the first two years of the program at the four-year institution. Upon satisfactory completion of the four-semester program described, the graduate will be awarded the Associate of Sciences (AS) degree in Social Sciences with a Major in Social Work.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| SDV 101 | Orientation to College Success | 1 |
| ENG 111 | College Composition I | 3 |
| HMS 100 | Introduction to Human Services | 3 |
| ITE 152 or ITE 119 | Introduction to Digital and Information Literacy and Computer Applications or Information Literacy | 3 |
| PHI 111 | Logic | 3 |
| PSY 200 | Principles of Psychology | 3 |
| | **Total** | 16 |
| **Second Semester (Spring)** | | |
| ENG 112 | College Composition II | 3 |
| MTH 155 or MTH 161 | Statistical Reasoning or Precalculus I | 3 |
| PLS 135 | United States Government and Politics | 3 |
| SOC 200 | Introduction to Sociology | 3 |
| PSY 215 | Psychopathology | 3 |
| | **Total** | 15 |
| **Third Semester (Fall)** | | |
| HMS 230 | Ethics in Human Services | 3 |
| BIO 106 | Life Science | 4 |
| PSY 230 | Developmental Psychology | 3 |
| HMS 162 | Communication Skills for Human Services Professionals | 3 |
| HMS 141 | Group Dynamics I | 3 |
| | **Total** | 16 |
| **Fourth Semester (Spring)** | | |
| PSY 219 | Cross-Cultural Psychology | 3 |
| HIS 121 or HIS 122 | United States History to 1877 or United States History Since 1865 | 3 |
| HMS 250 | Principles of Case Management | 3 |
| CST 100 | Principles of Public Speaking | 3 |
| ART/LIT | ART/LIT from UCGS | 3 |
| | **Total** | 15 |
| **Total Minimum Credits** | | 62 |

## Career Studies Certificate (CSC) in Early Childhood Development, Infant and Toddler Care

One semester

Students who complete this CSC will also be eligible to receive the CDA credential. The Child Development Associate (CDA) credential is one of the most prominent in the field of Early Childhood Education. There is a two-step process to earn the credential after completing the ECD certificate program at VHCC. The first is to complete the CDA Exam. After passing the exam, students must complete the verification visit component. More information about this process will be provided as part of the above program coursework.

| Course Number | Course Title | Credits |
|---|---|---|
| SDV 101 | Orientation to College Success | 1 |
| CHD 120 | Introduction to Early Childhood Education | 3 |
| CHD 164 | Working with Infants and Toddlers in Inclusive Settings | 3 |
| CHD 165 | Observation and Participation in Early Childhood/Primary Settings | 3 |
| CHD 166 | Infant and Toddler Programs | 3 |
| HLT 135 | Child Health and Nutrition | 3 |
| **Total Minimum Credits** | | 16 |

## Career Studies Certificate (CSC) in Early Childhood Development, Special Needs

One semester

Students completing this CSC will have the ability to complete the Registered Behavior Technician (RBT) credential from the Behavior Analyst Certification Board. More information about this process will be provided as part of the above program coursework. For students who already hold the RBT certification, see a program advisor to discuss how credit may be given to satisfy part of this certificate program.

| Course Number | Course Title | Credits |
|---|---|---|
| EDU 270 | Introduction to Autism Spectrum Disorders | 3 |
| CHD 120 | Introduction to Early Childhood Education | 3 |
| EDU 250 | Foundations of Exceptional Education | 3 |
| CHD 205 | Guiding the Behavior of Children | 3 |
| CHD 290 | Coordinated Internship | 3 |
| HLT 106 | First Aid and Safety | 2 |
| **Total Minimum Credits** | | 17 |

## Career Studies Certificate (CSC) in Substance Abuse Counselor-Assistant

Two semesters; one year

This career studies certificate program in Substance Abuse Counselor-Assistant is designed to meet the educational requirements needed to secure the Virginia Certified Substance Abuse Counselor Assistant (CSAC-A) credential. In order to complete the credential, students must complete specific didactic training, supervised experiential training, and must also take and pass the Virginia State Constructed CSAC-A exam. This certificate program meets the didactic training requirements.

Occupational Objectives: Students who complete the program may enter the labor market in jobs which lead to a variety of positions, such as:

Substance Abuse Counselor- Assistant
Social Services Liaison
Case Management Aide
Client Advocate
Social Services Para-professional

**Admission Requirements**: A student eligible for admission to the college can normally be considered for admission to the Substance Abuse Counselor-Assistant curriculum. Proficiency in high school English and mathematics is required.

Direct enrollment guidelines using either multiple measures or informed placement will determine a student's placement into college-level English and mathematics courses.

Criminal background or DSS record check may prevent you from participating in a Coordinated Internship, Experiential Learning project, or from obtaining employment in this field.

*Additional information for those who wish to apply for the Certified Substance Abuse Counselor-Assistant: According to the Virginia Board of Counseling Handbook for CSAC-A applicants, if you have a criminal conviction, The Board requires that you submit a certified copy of all conviction orders (obtained from the courthouse of record); evidence that all court ordered requirements were met (i.e., letter from the probation officer if on supervised probation, paid fines and restitution, etc.); a letter from the applicant explaining the factual circumstances leading to the criminal offense(s); and letters from employers concerning work performance (specifically from Counseling-related employers, if possible).*

**Course of Study Requirements**: All of the courses are designed to provide training in this specialized field of human services in such areas as: substance abuse counseling, safety and ethics, human behavior, crisis intervention and professionalism. Upon completion of the two-semester program, the student will be awarded a Career Studies Certificate in Substance Abuse Counseling Assistant.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| HMS 141 | Group Dynamics I | 3 |
| HMS 121 | Basic Counseling Skills I | 3 |
| HMS 251 | Substance Abuse I | 3 |
| HMS 145 | Effects of Psychoactive Drugs | 3 |
| | **Total** | 12 |
| **Second Semester (Spring)** | | |
| HMS 258 | Case Management and Substance Abuse | 3 |
| HMS 252 | Substance Abuse II[1] | 3 |
| HMS 260 | Substance Abuse Counseling | 3 |
| HMS 198 | Seminar and Project | 1 |
| HMS 230 | Ethics in Human Services | 3 |
| | **Total** | 13 |
| **Total Minimum Credits** | | 25 |

Notes:

1. Prerequisite: HMS 251

# Liberal Arts Program

The Associate of Arts Degree (AA) in Liberal Arts is designed to prepare students for a liberal arts university transfer.

**Program Chair**: Marie Porterfield • mporterfield@vhcc.edu • 276-739-2550

| |
|---|
| Associate of Arts in Liberal Arts |
| |
| Associate of Arts in Liberal Arts – Major in Art |
| Career Studies Certificate in Visual Art |
| |
| Associate of Arts in Liberal Arts – Major in Music |
| Career Studies Certificate in Applied Music |
| |
| Associate of Arts in Liberal Arts – Major in Theatre |
| Career Studies Certificate in Applied Theatre |

## Associate of Arts (AA) in Liberal Arts

Four semesters; two years

The Associate of Arts (AA) degree in Liberal Arts is designed to provide the courses in general education for the student who plans to complete a baccalaureate degree in pursuit of a liberal arts degree at a four-year institution.

In addition to the admission requirements established for the college, entry into the Associate of Arts Degree Program in Liberal Arts has no additional requirements. Students with deficiencies in reading, writing, or mathematics may be required to take developmental studies.

Although the major emphasis in this curriculum is liberal arts, the curriculum also includes courses in mathematics, science, and social sciences. Electives are provided so that the student can select the appropriate courses for the pre-professional program as required in the first two years of the four-year college or university. In order to help prepare for upper division (junior class) standing at a four-year institution, the student usually must complete a program at the community college which is comparable in length and courses to the first two years of the program at the four-year institution. Upon satisfactory completion of the four-semester program described, the graduate will be awarded the Associate of Arts (AA) degree in Liberal Arts.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| SDV 101 | Orientation to College Success | 1 |
| ENG 111 | College Composition I | 3 |
| ART/HUM/MUS | ART/HUM/MUS from UCGS[1] | 3 |
| ART/CST/HUM/MUS | Approved Elective[2] | 3 |
| ART/CST/HUM/MUS | Approved Elective[2] | 3 |
| | **Total** | 13 |
| **Second Semester (Spring)** | | |
| ENG 112 | College Composition II | 3 |
| ART/CST/HUM/MUS | Approved Elective[2] | 3 |
| MTH 154 or MTH 155 | Quantitative Reasoning or Statistical Reasoning | 3 |
| ART/CST/HUM/MUS | Approved Elective[2] | 3 |
| ART/CST/HUM/MUS | Approved Elective[2] | 3 |
| | **Total** | 15 |
| **Third Semester (Fall)** | | |
| HIS 121 or HIS 122 | United States History to 1877 or United States History Since 1865 | 3 |
| BIO 101 or CHM 111 | General Biology I or General Chemistry I | 4 |
| ART/CST/HUM/MUS | Approved Elective[2] | 3 |
| ART/CST/HUM/MUS | Approved Elective[2] | 3 |
| ENG 245 or ENG 246 | British Literature or American Literature | 3 |
| | **Total** | 16 |
| **Fourth Semester (Spring)** | | |
| CST 100 | Principles of Public Speaking | 3 |
| ART/CST/HUM/MUS | Approved Elective[2] | 3 |
| BIO 102 or CHM 112 | General Biology II or General Chemistry II | 4 |
| PSY 200 or SOC 200 | Principles of Psychology or Introduction to Sociology | 3 |
| ART/CST/HUM/MUS | Approved Elective[2] | 3 |
| | **Total** | 16 |
| **Total Minimum Credits** | | 60 |

Notes:

Students are urged to acquaint themselves with the requirements of the major department in the college or university to which transfer is contemplated; and further, students are urged to consult with their counselors and advisors at VHCC in planning their academic program and electives.

1. See UCGS Block II, parts A & B. Cannot be a literature course.
2. Approved Electives – ART 101, ART 102, ART 121, ART 125, ART 130, ART 131, ART 132, ART 180, ART 215, CST 130, CST 131, CST 132, CST 136, CST 145, CST 147, CST 149, CST 151, CST 160, CST 210, CST 237, MUS 111, MUS 112, MUS 121, MUS 136, MUS 137, MUS 141, MUS 142, MUS 145, MUS 155, MUS 165, MUS 175, MUS 211, MUS 212, MUS 221, MUS 222, MUS 248, or MUS 249.

## Associate of Arts (AA) in Liberal Arts – Major in Art

Four semesters; two years

The Associate of Arts (AA) degree in Liberal Arts – Major in Art is designed to provide the courses in general education for the student who plans to complete a baccalaureate degree in pursuit of an art degree at a four-year institution.

In addition to the admission requirements established for the college, entry into the Associate of Arts Degree Program in Liberal Arts – Major in Art has no additional requirements. Students with deficiencies in reading, writing, or mathematics may be required to take developmental studies.

Although the major emphasis in this curriculum is art, the curriculum also includes courses in mathematics, science, and social sciences. Electives are provided so that the student can select the appropriate courses for the program as required in the first two years of the four-year college or university. In order to help prepare for upper division (junior class) standing at a four-year institution, the student usually must complete a program at the community college which is comparable in length and courses to the first two years of the program at the four-year institution. Upon satisfactory completion of the four-semester program described, the graduate will be awarded the Associate of Arts (AA) degree in Liberal Arts – Major in Art.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| SDV 101 | Orientation to College Success | 1 |
| ENG 111 | College Composition I | 3 |
| ART 101 | Art History Prehistory to Gothic | 3 |
| CST 100 | Principles of Public Speaking | 3 |
| ART 131 | Two-Dimensional Design | 3 |
| | **Total** | 13 |
| **Second Semester (Spring)** | | |
| ENG 112 | College Composition II | 3 |
| CST 147, 149, or 151 | Costume Construction, Introduction to Theatrical Makeup or Film Appreciation | 3 |
| MTH 154 or MTH 155 | Quantitative Reasoning or Statistical Reasoning | 3 |
| ART 102 | Art History Renaissance to Modern | 3 |
| ART 132 | Three-Dimensional Design | 3 |
| | **Total** | 15 |
| **Third Semester (Fall)** | | |
| HIS 121 or HIS 122 | United States History to 1877 or United States History Since 1865 | 3 |
| BIO 101 or CHM 111 | General Biology I or General Chemistry I | 4 |
| ART 121 | Foundations of Drawing | 3 |
| ART 180 | Introduction to Computer Graphics | 3 |
| ENG 245 or ENG 246 | British Literature or American Literature | 3 |
| | **Total** | 16 |
| **Fourth Semester (Spring)** | | |
| ART 125 | Introduction to Painting | 3 |
| ART 133 | Time Studio | 3 |
| BIO 102 or CHM 112 | General Biology II or General Chemistry II | 4 |
| PSY 200 or SOC 200 | Principles of Psychology or Introduction to Sociology | 3 |
| ART 215 | History of Modern Art | 3 |
| | **Total** | 16 |
| **Total Minimum Credits** | | 60 |

Notes:

Students are urged to acquaint themselves with the requirements of the major department in the college or university to which transfer is contemplated; and further, students are urged to consult with their counselors and advisors at VHCC in planning their academic program and electives.

## Career Studies Certificate (CSC) in Visual Art

Two semesters; one year

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| ART 121 | Foundations of Drawing | 3 |
| ART 131 | Two-Dimensional Design | 3 |
| ART 180 | Introduction to Computer Graphics | 3 |
| ART 101 | History of Art: Prehistoric to Gothic | 3 |
| | **Total** | 12 |
| **Second Semester (Spring)** | | |
| ART 125 | Introduction to Painting | 3 |
| ART 132 | Three-Dimensional Design | 3 |
| ART 133 | Time Studio | 3 |
| ART 102 | History of Art: Renaissance to Modern | 3 |
| | **Total** | 12 |
| **Total Minimum Credits** | | 24 |

## Associate of Arts (AA) in Liberal Arts – Major in Music

Four semesters; two years

The Associate of Arts (AA) degree in Liberal Arts – Major in Music is designed to provide the courses in general education for the student who plans to complete a baccalaureate degree in pursuit of a music degree at a four-year institution.

In addition to the admission requirements established for the college, entry into the Associate of Arts Degree Program in Liberal Arts – Major in Music has no additional requirements. Students with deficiencies in reading, writing, or mathematics may be required to take developmental studies.

Although the major emphasis in this curriculum is music, the curriculum also includes courses in mathematics, science, and social sciences. Electives are provided so that the student can select the appropriate courses for the program as required in the first two years of the four-year college or university. In order to help prepare for upper division (junior class) standing at a four-year institution, the student usually must complete a program at the community college which is comparable in length and courses to the first two years of the program at the four-year institution. Upon satisfactory completion of the four-semester program described, the graduate will be awarded the Associate of Arts (AA) degree in Liberal Arts – Major in Music.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| SDV 101 | Orientation to College Success | 1 |
| ENG 111 | College Composition I | 3 |
| HIS 121 or HIS 122 | United States History to 1877 or United States History Since 1865 | 3 |
| MUS 111 | Music Theory I | 4 |
| MUS 141 | Class Piano I | 2 |
| MTH 154 or MTH 155 | Quantitative Reasoning or Statistical Reasoning | 3 |
| | **Total** | 16 |
| **Second Semester (Spring)** | | |
| ENG 112 | College Composition II | 3 |
| MUS 112 | Music Theory II | 4 |
| BIO 101 or CHM 111 | General Biology I or General Chemistry I | 4 |
| MUS EEE | Approved degree-related elective[2] | 2 |
| MUS 142 | Class Piano II | 2 |
| | **Total** | 15 |
| **Third Semester (Fall)** | | |
| PSY 200 or SOC 200 | Principles of Psychology or Introduction to Sociology | 3 |
| MUS EEE | Approved Degree-related Ensemble Elective[1] | 2 |
| MUS EEE | Approved Degree-related Lesson Elective[2] | 1 |
| MUS 211 | Advanced Music Theory I | 4 |
| MUS 221 | History of Western Music pre-1750 | 3 |
| ENG 245 or ENG 246 | British Literature or American Literature | 3 |
| | **Total** | 16 |
| **Fourth Semester (Spring)** | | |
| CST 100 | Principles of Public Speaking | 3 |
| ART 101 or ART 102 | History of Art: Prehistoric to Gothic or History of Art: Renaissance to Modern | 3 |
| MUS 222 | History of Western Music post -1750 | 3 |
| MUS 212 | Advanced Music Theory II | 4 |
| MUS EEE | Approved Degree-related Ensemble Elective[1] | 2 |
| MUS EEE | Approved Degree-related Lesson Elective[2] | 1 |
| | **Total** | 16 |
| **Total Minimum Credits** | | 63 |

Notes:

Students are urged to acquaint themselves with the requirements of the major department in the college or university to which transfer is contemplated; and further, students are urged to consult with their counselors and advisors at VHCC in planning their academic program and electives.

1. Degree-related Ensemble Elective (MUS 137, MUS 248, or MUS 249) – Student will coordinate the selection of this MUS approved degree-related course with the faculty advisor and in collaboration with the university to which the student intends to transfer.

2. Degree-related Lesson Elective (MUS 136, MUS 145, MUS 155, MUS 165, or MUS 175) - Student will coordinate the selection of this MUS approved degree-related course with the faculty advisor and in collaboration with the university to which the student intends to transfer.

## Career Studies Certificate (CSC) in Applied Music

Two semesters; one year

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| MUS 221 | Music History I | 3 |
| MUS 141 | Class Piano I | 2 |
| MUS EEE | Ensemble, Lessons, or Electives | 3-7 |
| | **Total** | 8-12 |
| **Second Semester (Spring)** | | |
| MUS 222 | Music History II | 3 |
| MUS EEE | Ensemble, Lessons, Electives | 5-9 |
| | **Total** | 8-12 |
| **Total Minimum Credits** | | 16-24 |

Notes:

Students are urged to acquaint themselves with the requirements of the major department in the college or university to which transfer is contemplated; and further, to consult with their counselors and advisors at VHCC in planning their academic program and electives.

MUS EEE Options: Students can take a maximum of one from each category below simultaneously.

Ensembles – MUS 137, MUS 150, MUS 248, MUS 249

Lessons – MUS 145, MUS 136, MUS 155, MUS 165, MUS 175

Electives – MUS 111, MUS 112, MUS 121, MUS 142

## Associate of Arts (AA) in Liberal Arts – Major in Theatre

Four semesters; two years

The Associate of Arts (AA) degree in Liberal Arts – Major in Theatre is designed to provide the courses in general education for the student who plans to complete a baccalaureate degree in pursuit of a theatre degree at a four-year institution.

In addition to the admission requirements established for the college, entry into the Associate of Arts Degree Program in Liberal Arts – Major in Theatre has no additional requirements. Students with deficiencies in reading, writing, or mathematics may be required to take developmental studies.

Although the major emphasis in this curriculum is theatre, the curriculum also includes courses in mathematics, science, and social sciences. Electives are provided so that the student can select the appropriate courses for the program as required in the first two years of the four-year college or university. In order to help prepare for upper division (junior class) standing at a four-year institution, the student usually must complete a program at the community college which is comparable in length and courses to the first two years of the program at the four-year institution. Upon satisfactory completion of the four-semester program described, the graduate will be awarded the Associate of Arts (AA) degree in Liberal Arts – Major in Theatre.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| SDV 101 | Orientation to College Success | 1 |
| ENG 111 | College Composition I | 3 |
| CST 237 | Movement I | 3 |
| CST 130 | Introduction to Theatre | 3 |
| PSY 200 or SOC 200 | Principles of Psychology or Introduction to Sociology | 3 |
| CST 131 | Acting I | 3 |
| | **Total** | 16 |
| **Second Semester (Spring)** | | |
| ENG 112 | College Composition II | 3 |
| CST 145 | Technical Theatre | 3 |
| MTH 154 or MTH 155 | Quantitative Reasoning or Statistical Reasoning | 3 |
| CST 132 | Acting II | 3 |
| CST 160 | Improvisation I | 3 |
| | **Total** | 15 |
| **Third Semester (Fall)** | | |
| HIS 121 or HIS 122 | United States History to 1877 or United States History Since 1865 | 3 |
| BIO 101 or CHM 111 | General Biology I or General Chemistry I | 4 |
| CST 136 | Theatre Workshop | 1 |
| CST 149 | Introduction to Theatrical Makeup | 3 |
| ENG 245 or ENG 246 | British Literature or American Literature | 3 |
| | **Total** | 14 |
| **Fourth Semester (Spring)** | | |
| ART/HUM/MUS | ART/HUM/MUS from UCGS[1] | 3 |
| CST 210 | Dramatic Literature | 3 |
| BIO 102 or CHM 112 | General Biology II or General Chemistry II | 4 |
| CST 151 | Film Appreciation | 3 |
| CST 147 | Costume Construction | 3 |
| | **Total** | 16 |
| **Total Minimum Credits** | | 61 |

Notes:

Students are urged to acquaint themselves with the requirements of the major department in the college or university to which transfer is contemplated; and further, students are urged to consult with their counselors and advisors at VHCC in planning their academic program and electives.

1. See UCGS Block II, parts A & B. Cannot be a literature course.

## Career Studies Certificate (CSC) in Applied Theatre

Four semesters; two years

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| CST EEE | Communications Studies and Theatre Elective[1] | 3 |
| CST 131 | Acting I | 3 |
| CST 136 | Theatre Workshop | 1 |
| | **Total** | 7 |
| **Second Semester (Spring)** | | |
| CST 130 | Introduction to Theatre | 3 |
| CST EEE | Communications Studies and Theatre Elective[1] | 3 |
| CST EEE | Communications Studies and Theatre Elective[1] | 3 |
| | **Total** | 9 |
| **Total Minimum Credits** | | 16 |

Notes:

Students are urged to acquaint themselves with the requirements of the major department in the college or university to which transfer is contemplated; and further, students are urged to consult with their counselors and advisors at VHCC in planning their academic program and electives.

1. CST Electives – CST 132, CST 145, CST 147, CST 149, CST 160, CST 237.

# Mathematics & Engineering Program

The Associate of Science degree in Engineering and Science – Major in Mathematics are designed to prepare students for university transfer.

**Program Chair**: Jason Lachniet • jlachniet@vhcc.edu • 276-739-2478

| |
|---|
| Associate of Science in Engineering |
| |
| Associate of Science in Science – Major in Mathematics |

## Associate of Science (AS) in Engineering

Four semesters; two years

This program is designed to provide the first two years of general engineering education common to most engineering majors at universities in the US. It will prepare a student to transfer to a four-year school and begin classes in a declared major. The Engineering classes that we offer will prepare a student to take the Fundamentals of Engineering exam which is the first test in the sequence to becoming a licensed professional engineer; transferability will depend on the transfer institution and specific major.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| MTH 263 | Calculus I | 4 |
| CHM 111 | General Chemistry I | 4 |
| EGR 121 | Foundations of Engineering | 2 |
| ENG 111 | College Composition I | 3 |
| HIS 121 or HIS 122 | United States History to 1877 or United States History Since 1865 | 3 |
| SDV 101 | Orientation to College Success | 1 |
| | **Total** | 17 |
| **Second Semester (Spring)** | | |
| MTH 264 | Calculus II | 4 |
| MTH 266 | Linear Algebra | 3 |
| EGR 122 | Engineering Design | 3 |
| ENG 112 | College Composition II | 3 |
| SSE | ECO/PSY/SOC from UCGS[1] | 3 |
| | **Total** | 16 |
| **Third Semester (Fall)** | | |
| MTH 267 | Differential Equations | 3 |
| PHY 241 | University Physics I | 4 |
| EGR EEE | Approved Engineering Elective[2] | 3 |
| EGR EEE | Approved Engineering Elective[2] | 3 |
| ART/HUM/MUS | ART/HUM/MUS from UCGS[3] | 3 |
| | **Total** | 16 |
| **Fourth Semester (Spring)** | | |
| MTH 265 | Calculus III | 4 |
| PHY 242 | University Physics II | 4 |
| EGR EEE | Approved Engineering Elective[2] | 3 |
| EGR EEE | Approved Engineering Elective[2] | 3 |
| ENG 245 or ENG 246 | British Literature or American Literature | 3 |
| | **Total** | 17 |
| **Total Minimum Credits** | | 66 |

Notes:

Students should consult with their advisor to select the most appropriate Engineering Elective for their chosen career goals. Some engineering electives are four credits.

Students are urged to acquaint themselves with the requirements of the major department in the college or university to which transfer is contemplated; and further, students are urged to consult with their counselors and advisors at VHCC in planning their academic program and electives.

To Enroll in MTH 263 Calculus I students may complete MTH 161/162 sequence or MTH 167 or demonstrate proficiency using the following multiple measures requirement.

- be within six years of high school graduation,
- graduate from high school with at least a 3.0 average,
- complete an advanced math course in trigonometry with at least a B in that course.

1. See UCGS Block III.
2. Approved Engineering Elective – Choose courses based on desired field of engineering.
   Aerospace: CSC 221, EGR 240, EGR 245, EGR 246
   Chemical: CHM 112, CHM 241, CHM 242, EGR 206
   Civil: EGR 206, EGR 240, EGR 245, EGR 246
   Electrical or Computer: EGR 125, EGR 270, EGR 271, EGR 272
   Industrial Systems: CSC 221, EGR 206, EGR 240, EGR 246
   Mechanical: EGR 240, EGR 245, EGR 246, EGR 271
3. See UCGS Block II, parts A & B. Cannot be a literature course.

## Associate of Science (AS) in Science – Major in Mathematics

Four semesters; two years

The need for individuals with strong mathematical skills is expected to continue to grow as government and businesses emphasize the use of big data and analytics. The Associate of Science Degree with a Major in Mathematics is designed for students who intend to transfer to a four-year college to pursue a bachelor's degree in mathematics.

**Transfer and Professional Objectives**: A bachelor's degree in mathematics, along with teaching licensure, prepares students to become mathematics teachers at the secondary level. Grade 6-12 Mathematics Education has been identified by the Virginia Department of Education as one of the top ten critical shortage areas in the state. Mathematics professors, with a master's degree or doctorate, teach mathematics classes beyond the high school level in community colleges, technical schools, and public and private colleges and universities. They also conduct scholarly research in their field and publish books and articles.

Applied mathematicians and statisticians use advanced mathematical and statistical models to optimize business processes, collect and analyze data, forecast and assess financial risks, and generally apply mathematical techniques to solve real world problems. They are employed by government and private industry under a variety of different job titles, including actuary, mathematician, operations research analyst, and statistician. These careers have higher than average starting salaries.

A bachelor's degree in mathematics is also widely viewed as an excellent gateway to professional graduate degrees in law, medicine, and business, because it prepares students to think analytically and solve problems.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| SDV 101 | Orientation to College Success | 1 |
| ENG 111 | College Composition I | 3 |
| ART/HUM/MUS | ART/HUM/MUS/from UCGS[1] | 3 |
| MTH 263 | Calculus I | 4 |
| EEE | Approved Elective[2] | 3 |
| | **Total** | 14 |
| **Second Semester (Spring)** | | |
| ENG 112 | College Composition II | 3 |
| EEE | Approved Elective[2] | 3 |
| MTH 264 | Calculus II | 4 |
| CSC 221 | Introduction to Problem Solving and Programming | 3 |
| MTH 266 | Linear Algebra | 3 |
| | **Total** | 16 |
| **Third Semester (Fall)** | | |
| HIS 121 or HIS 122 | United States History to 1877 or United States History Since 1865 | 3 |
| PHY 241 | University Physics I | 4 |
| PSY 200 or SOC 200 | Principles of Psychology or Introduction to Sociology | 3 |
| MTH 267 | Differential Equations | 3 |
| MTH 283 or MTH 288/CSC 208 | Probability and Statistics or Discrete Mathematics/Introduction to Discrete Structures | 3 |
| | **Total** | 16 |
| **Fourth Semester (Spring)** | | |
| CST 100 | Principles of Public Speaking | 3 |
| PHY 242 | University Physics II | 4 |
| MTH 265 | Calculus III | 4 |
| ENG 245 or ENG 246 | British Literature or American Literature | 3 |
| | **Total** | 14 |
| **Total Minimum Credits** | | 60 |

Notes:

Students are urged to acquaint themselves with the requirements of the major department in the college or university to which transfer is contemplated; and further, students are urged to consult with their counselors and advisors at VHCC in planning their academic program and electives.

To Enroll in MTH 263, Calculus I, students may complete MTH 161/MTH 162 sequence or MTH 167 or demonstrate proficiency using the following multiple measures requirement.

- be within six years of high school graduation,
- graduate from high school with at least a 3.0 average,
- complete an advanced math course in trigonometry with at least a B in that course.

1. See UCGS Block II, parts A & B. Cannot be a literature course.

2. Approved Electives – BIO 101, BIO 102, BIO 141, BIO 142, CHM 111, CHM 112, CHM 241/245, CHM 242/246, EDU 200, ITE 119, ITE 152, MTH 245, or MTH 299. Students should consult with their faculty advisor to select the best courses for their intended transfer destination. For students interested in secondary education, EDU 200 is encouraged.

# Social Science Program

**Program Chair**: Cory Lewis • clewis@vhcc.edu • 276-739-2559

| |
|---|
| Associate of Science in Social Science |
| Associate of Science in Social Science – Major in Sociology |

## Associate of Science (AS) in Social Sciences

Four semesters; two years

The Associate of Science (AS) degree in Social Sciences is designed to provide the courses in general education for the student who plans to complete a baccalaureate degree in pursuit of a social sciences degree at a four-year institution.

In addition to the admission requirements established for the college, entry into the Associate of Science degree in Social Sciences has no additional requirements. Students with deficiencies in reading, writing, or mathematics may be required to take developmental studies.

Although the major emphasis in this curriculum is social sciences, the curriculum also includes courses in mathematics and science. Electives are provided so that the student can select the appropriate courses for the program as required in the first two years of the four-year college or university. In order to help prepare for upper division (junior class) standing at a four-year institution, the student usually must complete a program at the community college which is comparable in length and courses to the first two years of the program at the four-year institution. Upon satisfactory completion of the four-semester program described, the graduate will be awarded the Associate of Sciences (AS) degree in Social Sciences.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| SDV 101 | Orientation to College Success | 1 |
| ENG 111 | College Composition I | 3 |
| ART/HUM/MUS | ART/HUM/MUS from UCGS[1] | 3 |
| PSY 200 | Principles of Psychology | 3 |
| MTH 154 or MTH 161 | Quantitative Reasoning or Precalculus I | 3 |
| | **Total** | 13 |
| **Second Semester (Spring)** | | |
| ENG 112 | College Composition II | 3 |
| MTH 155 or MTH 245 | Statistical Reasoning or Statistics I | 3 |
| SOC 200 | Introduction to Sociology | 3 |
| EEE | Approved Course[2] | 3 |
| EEE | Approved Course[2] | 3 |
| | **Total** | 15 |
| **Third Semester (Fall)** | | |
| HIS 121 | United States History to 1877 | 3 |
| SCI | BIO, CHM, GOL, PHY from UCGS[3] | 4 |
| EEE | Approved Course[2] | 3 |
| EEE | Approved Course[2] | 3 |
| ENG 245 or ENG 246 | British Literature or American Literature | 3 |
| | **Total** | 16 |
| **Fourth Semester (Spring)** | | |
| CST 100 | Principles of Public Speaking | 3 |
| HIS 122 | United States History Since 1865 | 3 |
| SCI | BIO, CHM, GOL, PHY from UCGS[3] | 4 |
| EEE | Approved Course[2] | 3 |
| EEE | Approved Course[2] | 3 |
| | **Total** | 16 |
| **Total Minimum Credits** | | 60 |

Notes:

Students are urged to acquaint themselves with the requirements of the major department in the college or university to which transfer is contemplated; and further, students are urged to consult with their counselors and advisors at VHCC in planning their academic program and electives.

1. See UCGS Block II, parts A & B. Cannot be a literature course.
2. Approved Courses – ITE 119, ITE 152, PSY 210, PSY 211, PSY 215, PSY 216, PSY 219, PSY 225, SOC 211, SOC 236, SOC 266, or SOC 268.
3. See UCGS Block IV.

## Associate of Science (AS) in Social Sciences – Major in Sociology

Four semesters; two years

The Associate of Science (AS) degree in Social Sciences with a Major in Sociology is designed to provide the courses in general education for the student who plans to complete a baccalaureate degree in pursuit of a social sciences degree at a four-year institution.

In addition to the admission requirements established for the college, entry into the Associate of Science degree in Social Sciences with a Major in Sociology has no additional requirements. Students with deficiencies in reading, writing, or mathematics may be required to take developmental studies.

Although the major emphasis in this curriculum is sociology, the curriculum also includes courses in mathematics and science. Electives are provided so that the student can select the appropriate courses for the program as required in the first two years of the four-year college or university. In order to help prepare for upper division (junior class) standing at a four-year institution, the student usually must complete a program at the community college which is comparable in length and courses to the first two years of the program at the four-year institution. Upon satisfactory completion of the four-semester program described, the graduate will be awarded the Associate of Sciences (AS) degree in Social Sciences with a Major in Sociology.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| SDV 101 | Orientation to College Success | 1 |
| ENG 111 | College Composition I | 3 |
| ART/HUM/MUS | ART/HUM/MUS from UCGS[1] | 3 |
| SOC 200 | Introduction to Sociology | 3 |
| MTH 154 or MTH 161 | Quantitative Reasoning or Precalculus I | 3 |
| | **Total** | 13 |
| **Second Semester (Spring)** | | |
| ENG 112 | College Composition II | 3 |
| MTH 155 or MTH 245 | Statistical Reasoning or Statistics I | 3 |
| SOC 211 | Cultural Anthropology | 3 |
| PSY 200 | Principles of Psychology | 3 |
| SOC 236 | Criminology | 3 |
| | **Total** | 15 |
| **Third Semester (Fall)** | | |
| HIS 121 | United States History to 1877 | 3 |
| SCI | BIO, CHM, GOL, PHY from UCGS[2] | 4 |
| SOC 215 | Sociology of the Family | 3 |
| SOC 266 | Race and Ethnicity | 3 |
| ENG 245 or ENG 246 | British Literature or American Literature | 3 |
| | **Total** | 16 |
| **Fourth Semester (Spring)** | | |
| CST 100 | Principles of Public Speaking | 3 |
| HIS 122 | United States History Since 1865 | 3 |
| SCI | BIO, CHM, GOL, PHY from UCGS[2] | 4 |
| PSY 216 | Social Psychology | 3 |
| SOC 268 | Social Problems | 3 |
| | **Total** | 16 |
| **Total Minimum Credits** | | 60 |

Notes:

1. See UCGS Block II, parts A & B. Cannot be a literature course.
2. See UCGS Block IV.

# School of Business & Industry

With the increasing demand for skilled professionals in manufacturing, sales, construction, agri-business, transportation, and healthcare, the School of Business and Industry offers indispensable pathways towards fulfilling career aspirations in the business world. These programs are strategically designed and taught by subject matter experts to provide students with the comprehensive knowledge, practical skills, and hands-on experience necessary to thrive in diverse business environments. Whether aspiring entrepreneurs, managers, or specialists, students in business and industry associate degree programs embark on a journey towards academic excellence and professional success.

**Programs**

| |
|---|
| Business (Business Administration, Accounting, & Management) |
| Diesel Technology |
| Electrical Technology & Mechatronics |
| Heating, Ventilation, Air-Conditioning & Refrigeration Technology |
| Horticulture & Natural Resources |
| Hospitality & Tourism Management |
| Information Technology |
| Medical Coding & Office Management |
| Precision Machining |
| Welding Technology |
| AAS in Technical Studies |

# Business Program

**Program Chair**: Ben Bullen • bbullen@vhcc.edu • 276-739-2452

| |
|---|
| Associate of Science in Business Administration |
| |
| Associate of Applied Science in Accounting |
| Certificate in Accounting and Information Systems Technology |
| |
| Associate of Applied Science in Management |
| Career Studies Certificate in Industrial Supervision |
| Career Studies Certificate in Retail Management |
| Career Studies Certificate in Small Business Management |

## Associate of Science (AS) in Business Administration

Four semesters; two years

With the rapid development in business and industry in Virginia, there is a great demand for qualified personnel in business administration to help provide leadership for this economic growth. The Associate of Science Degree in Business Administration is designed for persons who plan to transfer to a four-year college or university to complete a baccalaureate degree program in a business area.

**Transfer Objectives**: Business Administration, Finance, Accounting, Public Administration, Management, Banking, Marketing, Economics, Human Resource Management

**Admission Requirements**: In addition to the admission requirements established for the College, entry into the Associate Science in Business degree program recommends the satisfactory completion of the following high school units or equivalent as a minimum: 4 units of English, 3 units of college preparatory mathematics, 1 unit of laboratory science, and 1 unit of social studies. Students with deficiencies in reading, writing or math will be required to take developmental studies.

**Course of Study Requirements**: The modern business world demands that its employees be knowledgeable in fields over and beyond business technology. Thus, this curriculum requires courses in the humanities, natural sciences, and social sciences in addition to the principles of economics and principles of accounting usually required in the first two years of a baccalaureate business curriculum. The curriculum also includes other business courses, as well as computer and math courses designed to prepare the student for the upper level business courses at a four-year college or university. In order to help prepare for upper division (junior class) standing at a four-year college or university, the student usually must complete a program at the community college which is comparable in length and courses to the first two years of the program at the four-year college or university. Upon completion of the four-semester curriculum listed, the graduate will be awarded the Associate of Science Degree in Business.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| SDV 101 | Orientation to College Success | 1 |
| ENG 111 | College Composition I | 3 |
| ART/HUM/MUS | ART/HUM/MUS from UCGS[1] | 3 |
| MTH 161 | Precalculus I | 3 |
| ECO 202 | Principles of Microeconomics | 3 |
| BUS 100 | Introduction to Business | 3 |
| | **Total** | 16 |
| **Second Semester (Spring)** | | |
| ENG 112 | College Composition II | 3 |
| MTH 245 | Statistics I | 3 |
| ECO 201 | Principles of Macroeconomics | 3 |
| ITE 152 | Introduction to Digital and Information Literacy and Computer Applications | 3 |
| BUS EEE | Approved Business Elective[2] | 3 |
| | **Total** | 15 |
| **Third Semester (Fall)** | | |
| HIS 121 or HIS 122 | United States History to 1877 or United States History Since 1865 | 3 |
| BIO 101 or CHM 111 | General Biology I or General Chemistry I | 4 |
| ACC 211 | Principles of Accounting I | 3 |
| BUS 240 | Introduction to Business Law | 3 |
| BUS EEE | Approved Business Elective[2] | 3 |
| | **Total** | 16 |
| **Fourth Semester (Spring)** | | |
| CST 100 | Principles of Public Speaking | 3 |
| ACC 212 | Principles of Accounting II | 3 |
| MTH 261 or BUS EEE | Applied Calculus I or Approved Business Elective[2] | 3 |
| ENG 245 or ENG 246 | British Literature or American Literature | 3 |
| BUS EEE | Approved Business Elective[2] | 3 |
| | **Total** | 15 |
| **Total Minimum Credits** | | 62 |

Notes:

Students are urged to acquaint themselves with the requirements of the major department in the college or university to which transfer is contemplated; and further, students are urged to consult with their counselors and advisors at VHCC in planning their academic program and electives.

1. See UCGS Block II, parts A & B. Cannot be a literature course.
2. BUS 200 Principles of Management, BUS 274 Entrepreneurship, ITE 140 Spreadsheeting for Business, or MKT 201 Introduction to Marketing.

## Associate of Applied Science (AAS) in Accounting

Four semesters; two years

With the rapid development of business and industry in Virginia, there is a great demand for qualified personnel who can accumulate, analyze, and interpret data, which is essential for reporting and decision-making. The Associate of Applied Science Degree curriculum in Accounting is designed primarily for persons who seek full-time employment in the accounting field immediately upon completion of the community college curriculum. Persons who are seeking their first employment in an accounting position in addition to those presently in accounting who are seeking a promotion may benefit from this curriculum.

**Occupational Objectives**: Accounting Clerk, Accounting Trainee, Accounting Technician, Junior Accountant, Accountant

**Admission Requirements**: In addition to the admission requirements established for the college entry into the Associate of Applied Science program in Accounting requires proficiency in high school English and mathematics. Students who are not proficient in English and mathematics will be required to correct their deficiencies in developmental courses.

**Course of Study Requirements**: The first two semesters (first year) of the Associate of Applied Science Degree curriculum in Accounting are similar to the AAS degree in Management. In the second year, each student will pursue his specialty in Accounting. The curriculum will include technical courses in accounting, related areas, general education, and electives. Instruction will include both the theoretical concepts and practical applications needed for future success in accounting. Each student is urged to consult with his/her counselor and faculty advisor in planning their program and selecting their electives. Upon successful completion of the four-semester curriculum listed, the graduate will be awarded the Associate of Applied Science Degree in Accounting.

**Notes on Transfer**: Associate of Applied Science Degree programs are designed primarily to provide occupational competence for employment entry. Though the courses can transfer to baccalaureate institutions at the discretion of the admitting institution, they are not designed for transfer.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| SDV 101 | Orientation to College Success | 1 |
| ENG 111 | College Composition I | 3 |
| ACC 211 | Principles of Accounting I | 3 |
| MTH 132 | Business Mathematics | 3 |
| BUS 100 | Introduction to Business | 3 |
| ITE 119 or ITE 152 | Information Literacy or<br>Introduction to Digital and Information Literacy and Computer Applications | 3 |
| | **Total** | 16 |
| **Second Semester (Spring)** | | |
| ACC 212 | Principles of Accounting II | 3 |
| BUS 200 | Principles of Management | 3 |
| ITE 140 | Spreadsheeting for Business | 3 |
| ACC 215 | Computerized Accounting | 4 |
| EEE | Humanities Elective | 3 |
| | **Total** | 16 |
| **Third Semester (Fall)** | | |
| ACC 221 | Intermediate Accounting I | 4 |
| ACC 231 | Cost Accounting I | 3 |
| BUS 240 | Introduction to Business Law | 3 |
| CST 100 | Principles of Public Speaking | 3 |
| ACC 261 | Principles of Federal Taxation I | 3 |
| | **Total** | 16 |
| **Fourth Semester (Spring)** | | |
| ACC 222 | Intermediate Accounting II | 4 |
| PSY 200 | Principles of Psychology | 3 |
| FIN 215 | Financial Management | 3 |
| BUS 225 | Applied Business Statistics[1] | 3 |
| SDV 106 | Preparation for Employment | 1 |
| EEE | General Education Elective | 3 |
| | **Total** | 17 |
| **Total Minimum Credits** | | 65 |

Notes: 1. Prerequisite MTH 132.

Additional approved humanities and social science electives are listed under General Education Courses.

## Certificate (C) in Accounting and Information Systems Technology

Two semesters; one year

This certificate program in Accounting and Information Systems Technology is designed to provide individuals with basic skills in accounting and computer information systems which will enable them to obtain employment immediately upon completion of the two-semester program. With the present growth in this area, there is a need for personnel who possess basic skills in accounting and personal computers who are unable to pursue a two-year degree program.

**Occupational Objectives**: Computerized Accounting Clerk, Computerized Inventory Clerk, Computerized Payroll Clerk, Computerized Bookkeeping Clerk, Computerized Information Input Clerk

**Admission Requirements**: In addition to the admission requirements established for the college, entry into the Accounting and Information Systems program requires proficiency in high school English and mathematics. Students who are not proficient in English and mathematics will be required to correct their deficiencies in developmental courses.

**Course of Study Requirements**: Upon successful completion of the curriculum, the student will be awarded a Certificate in Accounting and Information Systems Technology.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| ACC 211 | Principles of Accounting I | 3 |
| ITE 119 or<br>ITE 152 | Information Literacy or<br>Introduction to Digital and Information Literacy and Computer Applications | 3 |
| MTH 132 | Business Mathematics | 3 |
| ENG 111 | College Composition I | 3 |
| BUS 100 | Introduction to Business | 3 |
| SDV 101 | Orientation to College Success | 1 |
| | **Total** | 16 |
| **Second Semester (Spring)** | | |
| ACC 212 | Principles of Accounting II | 3 |
| ACC 215 | Computerized Accounting | 4 |
| BUS 240 | Introduction to Business Law | 3 |
| ITE 140 | Spreadsheeting for Business | 3 |
| CST 100 | Principles of Public Speaking | 3 |
| | **Total** | 16 |
| **Total Minimum Credits** | | 32 |

## Associate of Applied Science (AAS) in Management

Four semesters; two years

With the rapid development of business and industry in Virginia, there is a great demand for qualified management personnel to assist in this economic growth. The Associate of Applied Science Degree curriculum in Management is designed primarily for persons who seek full-time employment in various managerial positions immediately upon completion of the community college curriculum. Persons who are seeking their first employment in a managerial position as well as those presently in management who are seeking a promotion may benefit from this curriculum.

**Occupational Objectives**: Management Trainee, Manager of Small Business, Industrial Supervisor, Branch Manager, Department Head

**Admission Requirements**: In addition to the admission requirements established for the college, entry into the Associate of Applied Science Degree program in Management requires proficiency in high school English and mathematics. Students who are not proficient in English and mathematics will be required to correct their deficiencies in developmental courses.

**Course of Study Requirements**: The first two semesters (first year) of the Associate of Applied Science Degree curriculum in Management are similar to the AAS degree in Accounting. In the second year, each student will pursue his or her specialty in management. The curriculum will include technical courses in business and management, courses in related areas, general education and electives. Instruction will include both the theoretical concepts and practical applications needed for future success in a management career. Upon successful completion of the curriculum, the student will be awarded the Associate of Applied Science Degree in Management.

**Notes on Transfer**: Associate of Applied Science Degree programs are designed to provide occupational competence for employment entry. Though the courses can transfer to baccalaureate institutions at the discretion of the admitting institution, they are not designed for transfer.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| ACC 211 | Principles of Accounting | 3 |
| ENG 111 | College Composition I | 3 |
| BUS 100 | Introduction to Business | 3 |
| MTH 132 | Business Mathematics | 3 |
| ITE 119 or<br>ITE 152 | Information Literacy or<br>Introduction to Digital and Information Literacy and Computer Applications | 3 |
| SDV 101 | Orientation to College Success | 1 |
| | **Total** | 16 |
| **Second Semester (Spring)** | | |
| ACC 212 | Principles of Accounting II | 3 |
| BUS 200 | Principles of Management | 3 |
| CST 100 | Principles of Public Speaking | 3 |
| ITE 140 | Spreadsheeting for Business | 3 |
| ECO 201 | Principles of Macroeconomics | 3 |
| | **Total** | 15 |
| **Third Semester (Fall)** | | |
| BUS 240 | Introduction to Business Law | 3 |
| BUS 205 | Human Resource Management | 3 |
| MKT 201 | Introduction to Marketing | 3 |
| ECO 202 | Principles of Microeconomics | 3 |
| EEE | Degree Related Elective[2] | 3 |
| EEE | Humanities Elective | 3 |
| | **Total** | 18 |
| **Fourth Semester (Spring)** | | |
| BUS 274 | Foundations of Entrepreneurship | 3 |
| FIN 215 | Financial Management | 3 |
| PSY 120 | Human Relations | 3 |
| BUS 225 | Applied Business Statistics[1] | 3 |
| SDV 106 | Preparation for Employment | 1 |
| BUS 290 | Coordinated Internship | 3 |
| | **Total** | 16 |
| **Total Minimum Credits** | | 65 |

Notes: 1. Prerequisite MTH 132.

2. Any ACC, BUS, MKT, FIN, ECO course, AST 205, or any degree-related course as approved by the Program Chair.

Additional approved humanities and social science electives are listed under General Education Courses.

## Career Studies Certificate (CSC) in Small Business Management (Entrepreneurship)

One semester

The Small Business Management (Entrepreneurship) Career Studies Certificate is designed to support all of the College's students seeking careers that often involve contract employment and/or entrepreneurial ventures. The certificate can be completed in as little as one additional semester after students complete their current programs and enables students to secure much-needed business knowledge before they try to start a business on their own. The flexible Approved Program Elective enables students to address whatever missing skills they know they need to achieve their entrepreneurial goals.

| Course Number | Course Title | Credits |
|---|---|---|
| ACC 215 | Computerized Accounting | 4 |
| BUS 274 | Foundations of Entrepreneurship | 3 |
| CST 126 | Interpersonal Communication | 3 |
| MKT 160 | Marketing for Small Business | 3 |
| EEE | Approved Program Elective(s)[1] | 3-4 |
| | | |
| **Total Minimum Credits** | | 16-17 |

Notes:

[1] Students are encouraged to choose one of the Approved Program Electives below or work with their Academic Advisor to choose another course:

BUS 140 Grant Writing
BUS 205 Human Resource Management
BUS 240 Introduction to Business Law
HUM 246 Creative Thinking
ITE 119 Information Literacy
ITE 140 Spreadsheeting for Business
ITE 152 Introduction to Digital and Information Literacy and Computer Applications
MKT 216 Retail Management

Students may also work with their Academic Advisors to choose a combination of the courses below that fulfill the 3-credit hour Approved Program Elective requirement:

AST 195 Topics in Customer Service (2 credits)
SAF 127 Industrial Safety (2 credits)
SAF 130 Industrial Safety (1 credit)
HLT 105 Cardiopulmonary Resuscitation (1 credit)
HLT 106 First Aid and Safety (2 credits)
SDV 106 Preparation for Employment (1 credit)

## Career Studies Certificate (CSC) in Retail Management

Two semesters; one year

Designed for the retail industry, the Career Studies Certificate in Retail Management provides successful students with the knowledge, skills and competency required for managerial success.

**Occupational Objectives**: Managers, Assistant Managers and Department Managers.

**Admission Requirements**: A student eligible for admission to the College can normally be considered for admission to the Retail Management Certificate.

**Course of Study Requirements**: The curriculum will include technical, industrial, and behavioral management courses that will prepare students for future success in a retail management career. Upon completion of the program, students are awarded the Career Studies Certificate in Retail Management.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| ITE 119 or ITE 152 | Information Literacy or<br>Introduction to Digital and Information Literacy and Computer Applications | 3 |
| MKT 201 | Introduction to Marketing | 3 |
| AST 205 | Business Communication | 3 |
| BUS 205 | Human Resource Management | 3 |
| | **Total** | 12 |
| **Second Semester (Spring)** | | |
| BUS 200 | Principles of Management | 3 |
| BUS 201 | Organizational Behavior | 3 |
| FIN 215 | Financial Management | 3 |
| MKT 216 | Retail Management | 3 |
| | **Total** | 12 |
| **Total Minimum Credits** | | 24 |

## Career Studies Certificate (CSC) in Industrial Supervision

| Course Number | Course Title | Credits |
|---|---|---|
| PSY 120 | Human Relations | 3 |
| BUS 200 | Principles of Management | 3 |
| BUS 240 | Introduction to Business Law | 3 |
| CST 100 | Principles of Public Speaking | 3 |
| MKT 201 | Introduction to Marketing | 3 |
| SAF 127 | Industrial Safety | 2 |
| **Total Minimum Credits** | | 17 |

# Diesel Technology Program

**Program Chair**: Keith Harless • kharless@vhcc.edu • 276-739-2401

As diesel engines continue to power a wide array of vehicles and equipment crucial to industries such as transportation, agriculture, construction, and beyond, the demand for skilled technicians is ever-growing. Through hands-on training, industry-relevant coursework, and expert instruction, the Diesel Technology academic program prepares students to enter the workforce with confidence and proficiency in servicing, repairing, and maintaining diesel-powered machinery.

**Performance Standards for Laboratory and Technical Assignments:** In order to properly prepare students for the daily expectations of employers in the industrial and transportation industries, students must be able to perform all essential functions required for laboratory and technical assignments in this Diesel Technology program, with or without reasonable accommodation. The following standards outline the physical, cognitive, sensory, and behavioral abilities necessary to safely and effectively complete required coursework in classroom, laboratory, and field-based settings:

1. Critical Thinking: Ability to diagnose diesel engines and related systems, interpret service manuals, perform technical calculations, and apply mechanical reasoning.
2. Communication: Clear verbal and written communication skills for interacting with instructors and peers. This includes reading diagnostic data and completing service documentation.
3. Interpersonal Abilities: Professional conduct and the ability to collaborate effectively in shop environments and follow supervisory instruction. Regular attendance is expected for continued enrollment as well as communication with instructors when absent from shop and classroom instruction.
4. Physical Demands: Physical ability to frequently lift and carry up to 75 pounds; perform sustained standing, bending, kneeling, and reaching; and exert force to loosen or secure components.
5. Motor Skills: Gross and fine motor skills sufficient to operate diagnostic equipment, hand tools, pneumatic tools, and computerized systems safely and effectively.
6. Mobility: Ability to move safely within shop environments, access vehicle undercarriages, and maneuver around large equipment.
7. Visual: Sufficient vision to inspect components, read gauges and digital diagnostic screens, and identify leaks or wear patterns.
8. Hearing: Hearing ability adequate to detect engine irregularities, air pressure releases, alarms, and verbal instructions.
9. Environmental Tolerance: Ability to work in environments with engine noise, vibration, fuel odors, lubricants, dust, and occasional outdoor exposure.
10. Safety Awareness: Ability to consistently follow shop safety procedures, use personal protective equipment, and recognize mechanical and chemical hazards.

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The AAS degree in Technical Studies is an available option for students who wish to further their studies following the completion of this program.

## Career Studies Certificate (CSC) in Diesel Technology

Two Semesters; one year

The Career Studies Certificate in Diesel Technology provides successful students with the knowledge, skills and competency required for basic diesel technician positions. Graduates of the Diesel Technology CSC program will be able to work in several industries requiring diesel engines including heavy machinery, farming equipment, and tractor trailers.

Students completing the program will have the opportunity to earn the following industry-recognized credentials: NC3 Snap-on Certification: 525 Millimeter, NC3 Snap-on Certification: Battery Starting & Charging, MACS 609 Certification.

**Occupational Objectives**: Diesel Technician, Diesel Mechanic

**Admission Requirements**: A student eligible for admission to the College can normally be considered for admission to the program.

**Course of Study Requirements**: The curriculum will consist of both hands-on learning and classroom instruction. Students will need to be able to stand on their feet for several hours at a time.

**Track 1 (Day)**

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| DSL 111 | Introduction to Diesel | 2 |
| DSL 152 | Diesel Power Trains, Chassis, and Transmissions | 4 |
| DSL 143 | Diesel Truck Electrical Systems | 4 |
| DSL 176 | Transportation Air Conditioning | 2 |
| DSL 160 | Air Brakes | 3 |
| | **Total** | 15 |
| **Second Semester (Spring)** | | |
| DSL 121 | Diesel Engines I | 6 |
| DSL 122 | Diesel Engines II | 6 |
| | **Total** | 12 |
| **Total Minimum Credits** | | 27 |

**Track 2 (Evening)**

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| DSL 121 | Diesel Engines I | 6 |
| DSL 122 | Diesel Engines II | 6 |
| | **Total** | 12 |
| **Second Semester (Spring)** | | |
| DSL 111 | Introduction to Diesel | 2 |
| DSL 152 | Diesel Power Trains, Chassis, and Transmissions | 4 |
| DSL 143 | Diesel Truck Electrical Systems | 4 |
| DSL 176 | Transportation Air Conditioning | 2 |
| DSL 160 | Air Brakes | 3 |
| | **Total** | 15 |
| **Total Minimum Credits** | | 27 |

# Electrical Technology & Mechatronics Program

**Program Chair**: Donnie Melvin • dmelvin@vhcc.edu • 276-739-2453

This program is designed to prepare a student for employment in the Electrical, Electronic, or Industrial maintenance field. In addition, this program aids students that are eligible to sit for their Virginia Electrical journeyman license.

| |
|---|
| Associate of Applied Science in Electrical Technology |
| Career Studies Certificate in Practical Electrical Technician |
| Career Studies Certificate in Advanced Practical Electrical Technician |
| |
| Associate of Applied Science in Electrical Technology – Specialization in Mechatronics |
| Career Studies Certificate in Applied Mechatronics |
| Career Studies Certificate in Advanced Mechatronics |
| |
| Certificate in Electricity |
| |
| Associate of Applied Science in Electrical Technology – Specialization in Energy Technology |

**Performance Standards for Laboratory and Technical Assignments:** In order to properly prepare students for the daily expectations of employers in the industrial and residential Electrical industries, students must be able to perform all essential functions required for laboratory and technical assignments in the Electrical Technology and Mechatronics programs, with or without reasonable accommodation. The following standards outline the physical, cognitive, sensory, and behavioral abilities necessary to safely and effectively complete required coursework in classroom, laboratory, and industry-based settings:

1. Critical Thinking: Ability to interpret electrical schematics, analyze control systems, troubleshoot circuits, perform diagnostic procedures, and apply mathematical formulas related to voltage, current, resistance, and programmable logic controllers.
2. Communication: Clear verbal and written communication skills for interacting with instructors, peers, and industry partners. This includes reading technical manuals, wiring diagrams, and safety procedures, as well as completing written documentation.
3. Interpersonal Abilities: Professional conduct and the ability to collaborate effectively in team-based lab environments, accept supervision, and provide or receive constructive feedback.
4. Physical Demands: Physical ability to frequently lift and carry up to 30 pounds; perform prolonged standing for up to 4 hours; bend, kneel, crouch, reach overhead, and work in confined spaces.
5. Motor Skills: Gross and fine motor skills sufficient for using hand tools, power tools, wiring components, precision instruments, small fasteners, and computerized interfaces.
6. Mobility: Ability to move safely within laboratory environments, climb ladders up to 8 feet, access elevated platforms, and navigate industrial training areas.
7. Visual: Sufficient vision to distinguish wire color codes, read digital displays and measurement instruments, interpret schematics, and observe safety indicators.
8. Hearing: Hearing ability adequate to detect alarms, equipment malfunctions, verbal instructions, and auditory diagnostic cues.
9. Environmental Tolerance: Ability to work in settings with electrical equipment noise, vibration, dust, temperature changes, and occasional outdoor environments.
10. Safety Awareness: Ability to consistently follow electrical safety procedures, use personal protective equipment, identify hazardous conditions, and respond appropriately during emergencies.

## Associate of Applied Science (AAS) in Electrical Technology

Five semesters; two years

The Associate of Applied Science Degree in Electrical Technology is designed to prepare students for employment upon graduation as electrical technicians with emphasis on installation, power distribution, controls, programmable controls, mechanical systems and the maintenance of industrial machinery.

**Occupational Objectives**: Basic Electrician, Electrical/ Electronic Technician, Industrial Maintenance Technician, Industrial Technical Sales, Industrial Field Service, Maintenance Supervisor

**Admission Requirements**: A student eligible for admission to the College can normally be considered for admission to the Electrical Technology curriculum. Proficiency in high school English and mathematics is required. Direct enrollment guidelines using either multiple measures or informed placement will determine a student's placement into college-level English and mathematics courses

**Course of Study Requirements**: The Electrical Technology Degree is a two-year program with two-thirds of the program content in electrical and mechanical courses, and the remaining one-third consists of math, social sciences, English, humanities, and physical education. Course content will include the theoretical concepts and practical applications as they pertain to industry needs. The graduate will be awarded the Associate of Applied Science in Electrical Technology upon satisfactory completion of the two-year program.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| DRF 161 | Blueprint Reading | 2 |
| ELE 157 | Electricity Fundamentals | 6 |
| ELE 111 | Home Electric Power I | 3 |
| ENG 111 or ENG 115 | College Composition I or Technical Writing | 3 |
| SDV 101 | Orientation to College Success | 1 |
| SAF 130 | Industrial Safety – OSHA 10 | 1 |
| | **Total** | 16 |
| **Second Semester (Spring)** | | |
| MTH 111 | Basic Technical Mathematics | 3 |
| ELE 112 | Home Electric Power II | 3 |
| ELE 141 | DC & AC Machines | 4 |
| ITE 100 | Introduction to Information System[1] | 3 |
| ELE 131 | National Electrical Code I | 3 |
| | **Total** | 16 |
| **Third Semester (Fall)** | | |
| ELE 233 | Programmable Logic Controllers I | 3 |
| ELE 245 | Industrial Wiring | 3 |
| ELE 225 | Electrical Control Systems | 4 |
| BUS 100 | Introduction to Business | 3 |
| HUM EEE | Humanities Elective | 3 |
| | **Total** | 16 |
| **Fourth Semester (Spring)** | | |
| ELE 234 | Programmable Logic Controllers II | 3 |
| ELE 240 | Advanced Programmable Logic Controllers | 3 |
| PED | Physical Education | 1 |
| ELE 175 | Industrial Solid State Devices & Circuits | 3 |
| PSY 120 | Human Relations | 3 |
| | **Total** | 13 |
| **Fifth Semester (Summer)** | | |
| ELE 132 | National Electric Code II | 3 |
| MEC 161 | Basic Fluid Mechanics - Hydraulics/Pneumatics | 3 |
| | **Total** | 6 |
| **Total Minimum Credits** | | 67 |

Notes:

1. ITE 115, ITE 119, or ITE 152 are acceptable substitutes.

Additional approved humanities and social science electives are listed under General Education Courses.

## Career Studies Certificate (CSC) in Practical Electrical Technician

Two semesters; one year

This program is designed to prepare the student for full-time employment as an electrician's helper, immediately upon completion of the program. A student who completes the program is capable of performing the job skills normally expected of beginning electricians, working with a licensed electrician.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| ELE 111 | Home Electric Power I | 3 |
| ELE 157 | Electricity Fundamentals | 6 |
| SAF 130 | Industrial Safety – OSHA 10 | 1 |
| | **Total** | 10 |
| **Second Semester (Spring)** | | |
| ELE 112 | Home Electric Power II | 3 |
| ELE 131 | National Electric Code I | 3 |
| ELE 141 | DC and AC machines | 4 |
| | **Total** | 10 |
| **Total Minimum Credits** | | 20 |

## Career Studies Certificate (CSC) in Advanced Practical Electrical Technician

Three semesters; one year

This program is designed to prepare students for employment upon graduation as electrical technicians with emphasis on installation, power distribution, controls, programmable controls, mechanical systems and the maintenance of industrial machinery. Graduates are qualified for positions such as: Basic Electrician, Electrical/ Electronic Technician, Industrial Maintenance Technician, Industrial Technician.

Students must complete the Practical Electrical Technician Career Studies Certificate prior to enrollment in the Advanced Practical Electrical Technician Career Studies Certificate unless the Program Chair grants approval.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| ELE 233 | Programmable Logic Controller Systems I | 3 |
| ELE 225 | Electrical Control Systems | 4 |
| ELE 245 | Industrial Wiring | 3 |
| | **Total** | 10 |
| **Second Semester (Spring)** | | |
| ITE 100 | Intro. Information Systems or Fundamentals of Computer Technology | 3 |
| ELE 175 | Industrial Solid State Devices and Circuits | 3 |
| ELE 234 | Programmable Logic Controller Systems II | 3 |
| ELE 240 | Advanced Programmable Logic controller | 3 |
| | **Total** | 12 |
| **Third Semester (Summer)** | | |
| ELE 132 | National Electric Code II | 3 |
| MEC 161 | Basic Fluid Mechanics-Hydraulics/Pneumatics | 3 |
| | **Total** | 6 |
| **Total Minimum Credits** | | 28 |

## Associate of Applied Science (AAS) in Electrical Technology – Specialization in Mechatronics

Five semesters; two years

The Associate of Applied Science Degree in Electrical Technology specialization in Mechatronics is designed to prepare students for employment upon graduation as electrical technicians with emphasis on automation controls, programmable controls, mechanical systems and the maintenance of industrial machinery.

**Occupational Objectives**: Electrical/ Electronic Technician, Industrial Maintenance Technician, Industrial Technical Sales, Industrial Field Service, Maintenance Supervisor, automation technician

**Admission Requirements**: A student eligible for admission to the College can normally be considered for admission to the Mechatronics Technology curriculum. Proficiency in high school English and mathematics is required. Direct enrollment guidelines using either multiple measures or informed placement will determine a student's placement into college-level English and mathematics courses

**Course of Study Requirements**: The Mechatronics Degree is a two-year program with two-thirds of the program content in electrical, mechanical and automation courses, and the remaining one-third consists of math, social sciences, English, humanities, and physical education. Course content will include the theoretical concepts and practical applications as they pertain to industry needs. The graduate will be awarded the Associate of Applied Science in Mechatronics Technology upon satisfactory completion of the two-year program.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| ELE 157 | Electricity Fundamentals | 6 |
| MEC 140 | Intro to Mechatronics | 3 |
| ENG 111 or ENG 115 | College Composition I or Technical Writing | 3 |
| SDV 101 | Orientation to College Success | 1 |
| SAF 130 | Industrial Safety – OSHA 10 | 1 |
| | **Total** | 14 |
| **Second Semester (Spring)** | | |
| MTH 111 | Basic Technical Mathematics | 3 |
| ELE 141 | DC & AC Machines | 4 |
| ITE 100 | Introduction to Information System[1] | 3 |
| IND 243 | Principles and Applications of Mechatronics | 3 |
| HUM EEE | Humanities Elective | 3 |
| | **Total** | 16 |
| **Third Semester (Fall)** | | |
| ELE 233 | Programmable Logic Controllers I | 3 |
| ELE 245 | Industrial Wiring | 3 |
| ELE 225 | Electrical Control Systems | 4 |
| SSE | Social Science Elective[2] | 3 |
| EEE | General Education Elective[3] | 3 |
| | **Total** | 16 |
| **Fourth Semester (Spring)** | | |
| ELE 234 | Programmable Logic Controllers II | 3 |
| ELE 240 | Advance Programmable Logic Controllers | 3 |
| INS 232 | Systems Troubleshooting | 3 |
| ELE 175 | Industrial Solid State Devices & Circuits | 3 |
| | **Total** | 12 |
| **Fifth Semester (Summer)** | | |
| ELE 132 | National Electric Code II | 3 |
| MEC 161 | Basic Fluid Mechanics - Hydraulics/Pneumatics | 3 |
| | **Total** | 6 |
| **Total Minimum Credits** | | 64 |

Notes:

1. ITE 115, ITE 119, or ITE 152 are acceptable substitutes.
2. PSY 120 will **not** satisfy the social science elective requirement.
3. BUS 100 will **not** satisfy the general education elective requirement.

Additional approved humanities and social science electives are listed under General Education Courses.

## Career Studies Certificate (CSC) in Applied Mechatronics

Two semesters; one year

This program is intended for students with an electrical background. Those who complete the program have the skills to work as a Mechatronics Entry Level Maintenance Technician's Helper or Industrial Machine Operator.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| ELE 157 | Electricity Fundamentals | 6 |
| MEC 140 | Introduction to Mechatronics | 3 |
| SAF 130 | Industrial Safety – OSHA 10 | 1 |
| | **Total** | 10 |
| **Second Semester (Spring)** | | |
| IND 243 | Principles and Applications of Mechatronics | 3 |
| ITE 100/ETR 166 | Introduction to Information Systems | 3 |
| ELE 141 | DC and AC Machines | 4 |
| | **Total** | 10 |
| **Total Minimum Credits** | | 20 |

## Career Studies Certificate (CSC) in Advanced Mechatronics

Three semesters; one year

This program is intended for students with electrical and/or automation background. Those who complete the program have the skills to work as a Mechatronics Entry Level Maintenance Technician or Senior Level Industrial Machine Operator.

Students must complete the Applied Mechatronics Career Studies Certificate prior to enrollment in the Advanced Mechatronics Career Studies Certificate unless the Program Coordinator grants approval.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| ELE 225 | Electrical Control Systems | 4 |
| ELE 233 | Programmable Logic Controllers I | 3 |
| ELE 245 | Industrial Wiring | 3 |
| | **Total** | 10 |
| **Second Semester (Spring)** | | |
| INS 232 | Systems Troubleshooting | 3 |
| ELE 175 | Industrial Solid State Devices and Circuits | 3 |
| ELE 234 | Programmable Logic Controllers II | 3 |
| ELE 240 | Advanced Programmable Logic Controllers | 3 |
| | **Total** | 12 |
| **Third Semester (Summer)** | | |
| ELE 132 | National Electric Code II | 3 |
| MEC 161 | Basic Fluid Mechanics - Hydraulics/Pneumatics | 3 |
| | **Total** | 6 |
| **Total Minimum Credits** | | 28 |

## Certificate (C) in Electricity

Two semesters; one year

The Certificate program in Electricity is designed to prepare the student for full-time employment as an electrician, immediately upon completion of the program. A student who completes the program is capable of performing the job skills normally expected of beginning electricians, working with a licensed electrician.

**Occupational Objectives**: Residential, industrial, or maintenance electrician

**Admission Requirements**: A student eligible for admission to the College can normally be considered for admission to the Electricity curriculum. Proficiency in high school English is required. Direct enrollment guidelines using either multiple measures or informed placement will determine a student's placement into college-level English and mathematics courses.

**Course of Study Requirements**: Approximately two-thirds of the curriculum will include courses in electricity, with the remaining courses in related subjects, and general education. Instruction will include both the theoretical concepts and practical applications needed for future success as an electrician. Upon completion of the two-semester curriculum listed, the student will be awarded a Certificate in Electricity.

**Virginia Tradesman Certification Program**: Students who seek the Journeyman or Master levels of certification may, with appropriate documentation, help meet the practical experience requirement through the Cooperative Education Program.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| ENG 111 or 115 | College Composition I or Technical Writing | 3 |
| ECO 201 or ECO 202 | Principles of Macroeconomics or Principles of Microeconomics | 3 |
| ELE 111 | Home Electric Power I | 3 |
| ELE 157 | Electricity Fundamentals | 6 |
| SAF 130 | Industrial Safety – OSHA 10 | 1 |
| SDV 101 | Orientation to College Success | 1 |
| | **Total** | 17 |
| **Second Semester (Spring)** | | |
| MTH 111 | Basic Technical Mathematics | 3 |
| ELE 141 | DC & AC Machines | 4 |
| ELE 112 | Home Electric Power II | 3 |
| ELE 131 | National Electric Code I | 3 |
| | **Total** | 13 |
| **Total Minimum Credits** | | 30 |

## Associate of Applied Science (AAS) in Electrical Technology – Specialization in Energy Technology

Four semesters; two years

The Associate of Applied Science Degree in Electrical Technology – Specialization in Energy Technology is designed to prepare students for employment upon graduation as electrical technicians with emphasis on installation, power distribution, controls, programmable controls, mechanical systems and the maintenance of industrial machinery.

**Occupational Objectives**: Basic Electrician, Electrical/ Electronic Technician, Power Systems Technician, Solar Power Technician, Maintenance Supervisor

**Admission Requirements**: A student eligible for admission to the College can normally be considered for admission to the Electrical Technology – Specialization in Energy Technology curriculum. Proficiency in high school English and mathematics is required.

Direct enrollment guidelines using either multiple measures or informed placement will determine a student's placement into college-level English and mathematics courses.

**Course of Study Requirements**: The Electrical Technology Degree is a two-year program with two-thirds of the program content in electrical and mechanical courses, and the remaining one-third consists of math, social sciences, English, humanities, and physical education. The graduate will be awarded the Associate of Applied Science in Electrical Technology upon satisfactory completion of the two-year program. Course content will include the theoretical concepts and practical applications as they pertain to industry needs.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| ENG 111 or 115 | College Composition I or Technical Writing | 3 |
| DRF 161 | Blueprint Reading | 2 |
| ELE 111 | Home Electric Power I | 3 |
| ELE 157 | Electricity Fundamentals | 6 |
| SAF 130 | Industrial Safety – OSHA 10 | 1 |
| SDV 101 | Orientation to College Success | 1 |
| | **Total** | 16 |
| **Second Semester (Spring)** | | |
| ITE 100 | Introduction to Information Systems[1] | 3 |
| MTH 111 | Basic Technical Mathematics | 3 |
| ELE 141 | DC & AC Machines | 4 |
| ELE 112 | Home Electric Power II | 3 |
| ELE 131 | National Electrical Code I | 3 |
| | **Total** | 16 |
| **Third Semester (Fall)** | | |
| ENE 100 | Conventional and Alternate Energy Applications | 4 |
| MUS 121 or REL 230 | Music Appreciation I or Religions of the World[2] | 3 |
| ELE 176 | Introduction to Alternative Energy Including Hybrid Systems | 3 |
| ELE 245 | Industrial Wiring | 3 |
| BUS 100 | Introduction to Business[3] | 3 |
| | **Total** | 16 |
| **Fourth Semester (Spring)** | | |
| ELE 177 | Photovoltaic Energy Systems | 4 |
| ELE 175 | Industrial Solid State Devices & Circuits | 3 |
| ENE 200 | Power Monitoring | 4 |
| ELE 132 | National Electrical Code II | 3 |
| PED | Physical Education | 1 |
| ECO 201 or PSY 120 | Principles of Macroeconomics or Human Relations[4] | 3 |
| | **Total** | 18 |
| **Total Minimum Credits** | | 66 |

Notes:

1. ITE 115, ITE 119, or ITE 152 are acceptable substitutes.
2. Recommended Humanities Elective
3. Recommended General Education Elective
4. Recommended Social Science Elective

Additional approved humanities and social science electives are listed under General Education Courses.

# Heating, Ventilation, Air-Conditioning & Refrigeration Technology Program

**Program Chair**: Bruce Olivo • bolivo@vhcc.edu • 276-739-2560

| |
|---|
| Associate of Applied Science in Air Conditioning, Refrigeration, and Heating |
| Career Studies Certificate in Refrigeration |
| Career Studies Certificate in Commercial Refrigeration |

The Air Conditioning, Refrigeration, & Heating curriculum is designed to provide up-to-date technical skills for employment in the growing $150 billion HVACR industry. VHCC's 4,500 sq. ft. lab is equipped with various manufacturers' equipment, with student time divided in half between classroom theory and lab projects. Students will operate "live" equipment to improve skills in troubleshooting, maintenance, and installation. In addition, students will utilize manufacturer-training software, audiovisual materials, and specially designed trainers for electricity and refrigeration. There is a growing demand for trained HVACR technicians, due to record equipment sales, the introduction of new refrigerants, and technical improvements in equipment. The curriculum satisfies the entry-level training requirements for students new to the HVACR industry, as well as updating the skills of those who want to improve their current skills for advancement in the workplace.

**Admission Requirements**: A student eligible for admission to the College can normally be considered for admission to the Air Conditioning, Refrigeration and Heating programs. Proficiency in high school English and mathematics is required. Direct enrollment guidelines using either multiple measures or informed placement will determine a student's placement into college-level English and mathematics courses. Students from other schools or colleges or with appropriate industrial experience may submit transcripts or other documentation for evaluation and advanced placement. The HVACR industry changes related to EPA regulations involving refrigerants, DOE efficiency requirements for equipment, and equipment manufacturer requirements for updated training, will require that students requesting credit for any AIR classes older than 8 years old, from VHCC or other sources, will need to demonstrate competency and an understanding of current HVACR procedures to the HVACR faculty in order to receive approval.

**Performance Standards for Laboratory and Technical Assignments:** In order to properly prepare students for the daily expectations of employers in the commercial and residential HVAC industries, students must be able to perform all essential functions required for laboratory and technical assignments in this HVAC program, with or without reasonable accommodation. The following standards outline the physical, cognitive, sensory, and behavioral abilities necessary to safely and effectively complete required coursework in classroom, laboratory, and field-based settings:

1. Critical Thinking: Ability to diagnose heating, ventilation, air conditioning, and refrigeration systems; interpret technical diagrams; calculate airflow and refrigerant measurements; and apply mechanical and electrical principles.
2. Communication: Clear verbal and written communication skills for interacting with instructors and peers. This includes reading technical manuals, interpreting diagrams, and completing service documentation.
3. Interpersonal Abilities: Professional conduct and the ability to collaborate effectively in lab and field simulation environments, accept supervision, and follow instructions.
4. Physical Demands: Physical ability to frequently lift and carry up to 50 pounds; perform sustained standing, bending, kneeling, and reaching; and work in confined or elevated spaces.
5. Motor Skills: Gross and fine motor skills sufficient for using gauges, torches, hand tools, power tools, and diagnostic instruments safely and effectively.
6. Mobility: Ability to move safely within laboratory and training environments, climb ladders up to 12 feet, and maneuver in tight spaces.
7. Visual: Sufficient vision to read gauges, wiring diagrams, pressure scales, and identify mechanical irregularities or leaks.
8. Hearing: Hearing ability adequate to detect equipment operation changes, pressure releases, alarms, and verbal instructions.
9. Environmental Tolerance: Ability to work in environments with temperature changes, mechanical noise, dust, refrigerants, and occasional outdoor exposure.
10. Safety Awareness: Ability to consistently follow HVAC safety procedures, use personal protective equipment, and recognize electrical, mechanical, and fire hazards.

## Associate of Applied Science (AAS) in Air Conditioning, Refrigeration, and Heating

Four semesters; two years

**Occupational Objectives**: Air Conditioning Technician, Heating Technician, Refrigeration Technician, HVACR Technician, HVACR Contractor, Controls Technician, Indoor Air Quality Technician, HVACR Technical Sales, HVACR Installation, Service Maintenance Technician

**Course of Study Requirements**: The majority of the curriculum will consist of courses in Air Conditioning, Refrigeration and Heating, with the remaining courses in related subjects, general education, and electives. The program will consist of both theoretical concepts and practical applications needed for success in this skilled field. Each student is advised to consult with his/her advisor and counselor for program planning and in selecting electives.

Upon completion of the four-semester program listed in this catalog, the graduate will be awarded an Associate of Applied Science Degree.

Program can be completed in day or evening classes. The day program starts in even numbered years, and the evening program starts in odd numbered years.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| SDV 101 | Orientation to College Success | 1 |
| MTH 111 | Basic Technical Mathematics | 3 |
| AIR 111 | Air Cond. & Ref. Controls I[1] | 3 |
| AIR 171 | Refrigeration I[1] | 6 |
| AIR 121 | Air Conditioning and Refrigeration I[1] | 3 |
| AIR 159 | Heating and Cooling Safety | 1 |
| | **Total** | 17 |
| **Second Semester (Spring)** | | |
| AIR 112 | Air Cond. & Ref. Controls II[2] | 3 |
| AIR 276 | Refrigerant Usage EPA Certification | 1 |
| AIR 172 | Refrigeration II[2] | 6 |
| AIR 122 | Air Conditioning and Refrigeration II[2] | 3 |
| ENG 115 | Technical Writing | 3 |
| | **Total** | 16 |
| **Third Semester (Fall)** | | |
| HUM EEE | Humanities Elective | 3 |
| SSE | Social Science Elective | 3 |
| AIR 134 | Circuits and Controls I | 3 |
| AIR 176 | Air Conditioning | 6 |
| AIR 235 | Heat Pumps | 3 |
| | **Total** | 18 |
| **Fourth Semester (Spring)** | | |
| SSE | Social Science Elective | 3 |
| SAF 130 | Industrial Safety – OSHA 10 | 1 |
| AIR 154 | Heating Systems I | 3 |
| AIR 165 | Air Conditioning Systems I | 3 |
| AIR 205 | Hydronics and Zoning | 3 |
| AIR 231 | Circuits and Controls IV | 4 |
| | **Total** | 17 |
| **Total Minimum Credits** | | 68 |

Notes:

1. Co-Requisite courses: AIR 111, AIR 171, AIR 121
2. Co-Requisite Courses: AIR 112, AIR 172, AIR 122

Additional approved humanities and social science electives are listed under General Education Courses.

## Career Studies Certificate (CSC) in Refrigeration

One semester

Provide foundation training in Basic Refrigeration, including basic refrigeration system installation, components, leak testing, evacuation, operation, brazing, refrigerant recovery, refrigerant charging, and safety. Provide basic electrical training in Ohm's Law, series circuits, parallel circuits, and multi-meter use. This entry-level training is for students new to the HVACR industry, as well as updating the skills of those who want to improve their current skills for advancement in the workplace.

**Admission Requirements**: A student eligible for admission to the College can normally be considered for admission to the Refrigeration Career Studies Certificate. Proficiency in high school mathematics is required. Direct enrollment guidelines using either multiple measures or informed placement will determine a student's placement into college-level English and mathematics courses.

Due to HVACR industry changes related to EPA regulations involving refrigerants, DOE efficiency requirements for equipment, and equipment manufacturer requirements for updated training, students requesting advanced placement credit for any AIR classes more than 8 years old, from VHCC or other sources, will need to demonstrate competency, and an understanding of current HVACR procedures to the HVACR faculty in order to receive approval.

**Course of Study Requirements**: The majority of the curriculum will consist of courses in Basic Refrigeration. The program will consist of both theoretical concepts and practical applications needed for success in this skilled field. Training will include both classroom and hands-on with live equipment. Each student is advised to consult with his/her advisor and counselor for program planning. Upon successful completion, the student will be awarded a Career Studies Certificate Level I.

Program can be completed in day or evening classes. The day program starts in even numbered years, and the evening program starts in odd numbered years.

| Course Number | Course Title | Credits |
|---|---|---|
| SDV 101 | Orientation to college Success | 1 |
| AIR 111 | Air Conditioning and Refrigeration Controls I[1] | 3 |
| AIR 121 | Air Conditioning and Refrigeration I[1] | 3 |
| AIR 159 | Heating and Cooling Safety | 1 |
| AIR 171 | Refrigeration I[1] | 6 |
| MTH 111 | Basic Technical Mathematics | 3 |
| **Total Minimum Credits** | | 17 |

Notes:

1. Co-Requisite courses: AIR 111, AIR 171, AIR 121

## Career Studies Certificate (CSC) in Commercial Refrigeration

One semester

Provide training in Commercial Refrigeration, including the medium and low temperature refrigeration cycle, system installation, components, leak testing, evacuation, operation, refrigerant recovery, refrigerant charging, and safety. Provide basic electrical training in commercial refrigeration controls, including pressure, time, and temperature operated controls, defrost circuits, multi-meter use, and EPA regulations. This entry-level training is for students new to the HVACR industry, as well as updating the skills of those who want to improve their current skills for advancement in the workplace.

**Admission Requirements**: Students must complete the Refrigeration Career Studies Certificate prior to enrollment in the Commercial Refrigeration Career Studies Certificate unless the Program Coordinator grants approval. Proficiency in high school English is required. Direct enrollment guidelines using either multiple measures or informed placement will determine a student's placement into college-level English and mathematics courses.

Due to HVACR industry changes related to EPA regulations involving refrigerants, DOE efficiency requirements for equipment, and equipment manufacturer requirements for updated training, students requesting advanced placement credit for any AIR classes more than 8 years old, from VHCC or other sources, will need to demonstrate competency, and an understanding of current HVACR procedures to the HVACR faculty in order to receive approval.

**Course of Study Requirements**: The majority of the curriculum will consist of courses in Commercial Refrigeration. The program will consist of both theoretical concepts and practical applications needed for success in this skilled field. Training will include both classroom and hands-on with live equipment. Each student is advised to consult with his/her advisor and counselor for program planning. Upon successful completion, the student will be awarded a Career Studies Certificate in Commercial Refrigeration.

Program can be completed in day or evening classes. The day program starts in even numbered years, and the evening program starts in odd numbered years.

| Course Number | Course Title | Credits |
|---|---|---|
| AIR 112 | Air Conditioning and Refrigeration Controls II[1] | 3 |
| AIR 122 | Air Conditioning and Refrigeration II | 3 |
| AIR 172 | Refrigeration II[1] | 6 |
| AIR 276 | Refrigerant Usage EPA Certification[1] | 1 |
| ENG 115 | Technical Writing | 3 |
| **Total Minimum Credits** | | 16 |

Notes:

Students should have previous training and/or working knowledge of vapor-compression, common service equipment and procedures in HVAC/R.

1. Co-Requisite Courses: AIR 112, AIR 172, AIR 122

# Horticulture & Natural Resources Program

**Program Chair**: Ben Casteel • bcasteel1@vhcc.edu • 276-739-2441

Horticulture and Agriculture together are the number one industry in the Commonwealth of Virginia and VHCC's service region. The Horticulture & Natural Resources Technology program is designed to prepare students for employment in the agriculture / horticulture industry or a related natural resources field and to provide training for those who are currently working in the field and wish to improve their knowledge and skills. Students will not only develop skills in crop production, but also interpersonal and business management skills.

| |
|---|
| Associate of Science in Science – Major in Natural Resources |
| |
| Associate of Applied Science in Horticulture Technology |
| Associate of Applied Science in Horticulture Technology – Specialization in Business and Entrepreneurship |
| Career Studies Certificate in Agriculture Management |
| Career Studies Certificate in Horticulture Production |

## Associate of Science (AS) in Science with a Major in Natural Resources

Four semesters; two years

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| SDV 101 | Orientation to College Success | 1 |
| ENG 111 | College Composition I | 3 |
| HIS 121 or HIS 122 | United States History to 1877 or United States History Since 1865 | 3 |
| HRT or AGR | Approved Horticulture or Agriculture Course[1] | 3 |
| MTH 161 | Precalculus I | 3 |
| BIO 101 | General Biology I | 3 |
| | **Total** | 16 |
| **Second Semester (Spring)** | | |
| ENG 112 | College Composition II | 3 |
| BIO 102 | General Biology II | 4 |
| MTH 162 or MTH 261 | Precalculus II or Applied Calculus I | 3 |
| ECO 201 | Principles of Macroeconomics | 3 |
| HRT or AGR | Approved Horticulture or Agriculture Course[1] | 3 |
| | **Total** | 16 |
| **Third Semester (Fall)** | | |
| CHM 111 | General Chemistry I | 4 |
| BIO 215 | Plant Life of Virginia | 3 |
| HRT or AGR | Approved Horticulture or Agriculture Course[1] | 4 |
| ENG 245 or ENG 246 | British Literature or American Literature | 3 |
| | **Total** | 14 |
| **Fourth Semester (Spring)** | | |
| ECO 202 | Principles of Microeconomics | 3 |
| ART/HUM/MUS | ART/HUM/MUS from UCGS[2] | 3 |
| CHM 112 | General Chemistry II | 4 |
| HRT or AGR | Approved Horticulture or Agriculture Course[1] | 3 |
| HRT or AGR | Approved Horticulture or Agriculture Course[1] | 3 |
| | **Total** | 16 |
| **Total Minimum Credits** | | 62 |

Notes:

Students are urged to acquaint themselves with the requirements of the major department in the college or university to which transfer is contemplated; and further, students are urged to consult with their counselors and advisors at VHCC in planning their academic program and electives.

1. Approved Horticulture and Agriculture Courses – AGR 141, AGR 142, AGR 143, AGR 231, HRT 100, HRT 115, HRT 134, HRT 205, HRT 207, HRT 226, HRT 247, or HRT 275See UCGS Block II, parts A & B. Cannot be a literature course.

## Associate of Applied Science (AAS) in Horticulture Technology

Five semesters; two years

Horticulture is one of the fastest growing sectors of the Agricultural & Natural Resources Technology industry.

**Occupational Objectives**: Graduates of the program are prepared for managerial/supervisory level positions in all sectors of the agriculture / horticulture and natural resources industries including but not limited to animal and crop production, natural resource management, landscape design and installation, grounds maintenance, turf grass maintenance, floral design, greenhouse and nursery management, garden center operation, and sales and marketing and related industries.

**Admission Requirements**: The curriculum is designed to integrate courses from all sectors of the industry and related areas, general education, and electives. Students are advised to follow the curriculum as outlined in the College catalog and consult with their faculty advisor or counselor in planning their programs and selecting electives. A program-specific SDV 101 section that is taught by the program coordinator is available, and students are strongly encouraged to enroll in this section during the first semester. Students planning to transfer should explore opportunities with their faculty advisor or counselor.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| HRT 100 | Intro. to Horticulture | 3 |
| HRT 205 | Soils | 3 |
| BIO 215 | Plant Life of Virginia | 3 |
| ENG 111 OR 115 | College Composition I or Technical Writing | 3 |
| HRT 207 | Plant Pest Management* | 3 |
| SDV 101 | Orientation to College Success | 1 |
| | **Total** | 16 |
| **Second Semester (Spring)** | | |
| HRT 119 | Irrigation Systems for Turf & Ornamentals | 3 |
| HRT 134 | Four Season Food Production | 3 |
| HRT EEE | Horticulture Elective | 3 |
| HRT 115 | Plant Propagation | 3 |
| HUM EEE | Humanities Elective | 3 |
| | **Total** | 15 |
| **Summer Semester** | | |
| HRT 197 | Cooperative Education | 3 |
| | **Total** | 3 |
| **Third Semester (Fall)** | | |
| HRT 259 | Arboriculture* | 3 |
| EEE | Social Science Elective | 3 |
| HRT 295 | Topics in Cannabis Cultivation | 3 |
| BIO 101 | General Biology I | 4 |
| MTH 111 | Applied Technical Mathematics | 3 |
| | **Total** | 16 |
| **Fourth Semester (Spring)** | | |
| CST EEE | Communications Elective | 3 |
| HRT EEE | Horticulture Elective | 3 |
| HRT EEE | Horticulture Elective | 3 |
| HRT 226 | Greenhouse Management | 3 |
| | **Total** | 12 |
| **Total Minimum Credits** | | 62 |

Notes:

* Denotes a course with an industry-recognized credential.

Students are urged to the advisor for this degree when making elective selections.

Additional approved humanities and social science electives are listed under General Education Courses.

## Associate of Applied Science (AAS) in Horticulture Technology – Specialization in Business and Entrepreneurship

Five semesters; two years

The Horticulture Industry is one of the fastest growing industries in the VHCC service region. The Horticulture Technology Specialization: Business and Entrepreneurship program is designed to prepare students for employment or ownership in the horticulture industry or a related field. The specialization is designed to provide training for those who are currently working in the field and wish to improve their knowledge and skills. Students will not only develop skills applicable to nursery and garden center management, but they will also develop interpersonal and business management skills.

**Occupational Objectives**: Graduates of the program are prepared for managerial/supervisory or ownership level positions in the horticulture industry. These areas include greenhouse and nursery management, garden center operation, sales and marketing, and related industries.

**Course of Study Requirements**: The curriculum is designed to integrate courses in nursery management, greenhouse management, turf management and related areas, general education, and electives. Students are advised to follow the curriculum as outlined in the College catalog and consult with their faculty advisor or counselor in planning their programs and selecting electives. Students planning to transfer should explore opportunities with their faculty advisor or counselor. Upon satisfactory completion of the four-semester curriculum, the student will be awarded an Associate of Applied Science Degree in Horticulture Technology – Specialization in Business and Entrepreneurship.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| HRT 100 | Intro. to Horticulture | 3 |
| BUS 100 | Introduction to Business | 3 |
| EEE | Social Science Elective | 3 |
| ENG 111 OR 115 | College Composition I or Technical Writing | 3 |
| HRT 207 | Plant Pest Management* | 3 |
| SDV 101 | Orientation to College Success | 1 |
| | **Total** | 16 |
| **Second Semester (Spring)** | | |
| HRT 225 | Nursery & Garden Center Management | 3 |
| HRT 134 | Four Season Food Production | 3 |
| BUS EEE | Business / Entrepreneurship Elective | 3 |
| HRT 115 | Plant Propagation | 3 |
| HRT EEE | Horticulture Elective | 3 |
| | **Total** | 15 |
| **Summer Semester** | | |
| HRT 197 | Cooperative Education | 3 |
| | **Total** | 3 |
| **Third Semester (Fall)** | | |
| BIO 215 | Plant Life of Virginia | 3 |
| CST EEE | Communications Elective | 3 |
| HRT 259 | Arboriculture | 3 |
| BIO 101 | General Biology I | 4 |
| MTH 111 | Applied Technical Mathematics | 3 |
| | **Total** | 16 |
| **Fourth Semester (Spring)** | | |
| MKT 201 | Introduction to Marketing | 3 |
| HRT EEE | Horticulture Elective | 3 |
| HRT EEE | Horticulture Elective | 3 |
| HRT 285 | Management of a Horticultural Business | 3 |
| EEE | Humanities Electives | 3 |
| | **Total** | 15 |
| **Total Minimum Credits** | | 65 |

Notes:

* Denotes a course with an industry-recognized credential.

Students are urged to the advisor for this degree when making elective selections.

Additional approved humanities and social science electives are listed under General Education Courses.

## Career Studies Certificate (CSC) in Agriculture Management

Two semesters; one year

Students will develop skills directly applicable to agricultural production and management. This Career Studies Certificate will focus on introductory animal, plant, and soils science and technology.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| AGR 141 | Introduction to Animal Science and Technology | 4 |
| AGR 142 | Introduction to Plant Science and Technology | 3 |
| HRT 205 | Soils | 3 |
| HRT 207 | Plant Pest Management* | 3 |
| | **Total** | 13 |
| **Second Semester (Spring)** | | |
| AGR 143 | Introduction to Agribusiness & Financial Management | 3 |
| AGR 231 | Agribusiness Marketing, Risk Management, and Entrepreneurship | 3 |
| | **Total** | 6 |
| **Total Minimum Credits** | | 19 |

Notes:

* Denotes a course with an industry-recognized credential.

## Career Studies Certificate (CSC) in Horticulture Production

One-two semesters (depending on electives)

The certificate's purpose is to provide the knowledge and skills needed for entry-level positions in horticulture. Also appropriate for personal growth and development.

| Course Number | Course Title | Credits |
|---|---|---|
| HRT 100 | Intro. To Horticulture | 3 |
| BIO 215 | Plant Life of Virginia | 3 |
| HRT 205 | Soils | 3 |
| HRT 207 | Plant Pest Management* | 3 |
| HRT EEE | Horticulture Elective | 3 |
| HRT EEE | Horticulture Elective | 3 |
| **Total Minimum Credits** | | 18 |

Notes:

* Denotes a course with an industry-recognized credential.

# Hospitality & Tourism Management Program

**Program Chair**: Lee Hunt • lhunt@vhcc.edu • 276-739-2401

The Hospitality and Tourism Management Program is a new program created to answer the growing demand for managers in the hospitality, hotel, resort, and tourist destination industries in VHCC's service region. Southwest Virginia had the fastest growing tourism industry in the Commonwealth in 2024 due to the unique hospitable culture, history, music, and natural resources of the area and is predicted to continue to lead the state as more tourists experience all that the Appalachian Highlands have to offer.

As a result, graduates with this Associate of Applied Science degree will be able to step into first level management positions as front desk managers, shift managers, food and beverage managers, catering managers, hospitality sales associates, event planners, and culinary managers.

| |
|---|
| Associate of Applied Science in Hospitality & Tourism Management (Pending Approvals) |
| Cooperative Career Studies Certificate in Culinary Arts |

## Associate of Applied Science (AAS) in Hospitality & Tourism Management (Pending SCHEV and SACSCOC Approvals)

Four semesters; two years

The Hospitality and Tourism Management Program is a new program created to answer the growing demand for managers in the hospitality, hotel, resort, and tourist destination industries in VHCC's service region. Southwest Virginia had the fastest growing tourism industry in the Commonwealth in 2024 due to the unique hospitable culture, history, music, and natural resources of the area and is predicted to continue to lead the state as more tourists experience all that the Appalachian Highlands have to offer.

As a result, graduates with this Associate of Applied Science degree will be able to step into first level management positions as front desk managers, shift managers, food and beverage managers, catering managers, hospitality sales associates, event planners, and culinary managers.

The degree includes two pathways that will enable students to focus on the particular career that interests them: Tourism and Hotel Management or Culinary Arts. Of the approved program electives, VHCC will only teach the degree electives that support the Tourism and Hotel Management pathway. Students wishing to pursue careers in restaurants, food and beverage management, or catering will be able to earn those credits via Dual Enrollment Culinary Arts programs offered at Virginia High School, the Washington County Career Center, and Smyth County Technical Center.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| HRI 154 | Principles of Hospitality Management | 3 |
| HRI 103 | Introduction to Meeting Planning | 3 |
| AST 195 | Topics in Customer Service | 2 |
| EEE | Approved Program Elective | 3 |
| ENG 111 | College Composition I | 3 |
| SDV 101 | Orientation to College Success | 1 |
| | **Total** | **15** |
| **Second Semester (Spring)** | | |
| EEE | Approved Program Elective | 3 |
| HRI 256 | Principles and Applications of Catering[1] | 2 |
| CUL 136 | Storeroom Operations & Inventory Mgt. Laboratory[1] | 1 |
| AST 205 | Business Communications | 3 |
| BUS 100 | Introduction to Business | 3 |
| HUM 153 | Appalachian Studies | 3 |
| | **Total** | **15** |
| **Third Semester (Fall)** | | |
| EEE | Approved Program Elective | 3 |
| ITE 152 | Introduction to Digital & Information Literacy & Computer Applications | 3 |
| HRI 235 | Marketing of Hospitality Services[2] | 3 |
| HRI 255 | Human Res. Mgmt. and Trng. For Hospi. and Tourism[2] | 3 |
| HUM 246 | Creative Thinking | 3 |
| | **Total** | **15** |
| **Fourth Semester (Spring)** | | |
| EEE | Approved Program Elective | 3 |
| HRI 140 | Fundamentals of Quality for Hospitality Industry[3] | 3 |
| HRI 290 | Coordinated Internship | 3 |
| MTH 132 | Business Mathematics | 3 |
| SOC EEE | Social/Behavioral Science Elective | 3 |
| | **Total** | **15** |
| **Total Minimum Credits** | | **60** |

**Program Electives:**
Students will have two choices of pathways through the degree: Tourism and Hotel Management or Culinary Arts:

The following courses are the approved program electives that fall within the Tourism and Hotel Management pathway:

- TRV 195 Topics in Tourism and Economic Development (3 credits)
- HRI 265 Hotel Front Office Operations (3 credits)
- TRV 295 Topics in Festivals and Agritourism[4] (3 credits)
- HRI 229 Principles of Meeting Planning (3 credits).

The Approved Program Electives that fall within the Culinary Arts pathway can only be taken via dual enrollment as a part of the Culinary Arts CSC which can be found within the School of Business & Industry's section of this catalog.

**Program Prerequisites and Co-requisites:**
[1] HRI 257 and CUL 136 are co-requisites of each other
[2] Prerequisite - BUS 100
[3] HRI 140 is the capstone course for this degree. Prerequisites - TRV 195 & HUM 153
[4] Prerequisites - HRI 103 & HRI 154

## Cooperative Career Studies Certificate (CSC) in Culinary Arts

This certificate is offered only on a Dual Enrollment basis with Washington County Career & Technical Education Center, Smyth County Career & Technical Education Center, and Virginia High School.

Students must meet enrollment and eligibility requirements for the Dual Enrollment Sites listed above. Please contact the centers directly for enrollment information.

Student who complete this certificate will be able to apply these credits toward the Culinary Arts Pathway within the Hospitality and Tourism Management Associate of Applied Science degree.

| Course Number | Course Title | Credits |
|---|---|---|
| CUL 106 | Principles of Culinary Arts I | 3 |
| CUL 107 | Principles of Culinary Arts II | 3 |
| BAK 128 | Principles of Baking | 3 |
| HRI 158 | Sanitation and Safety | 3 |
| **Total Minimum Credits** | | 12 |

# Information Technology Program

**Program Chair**: Tamara Lasley • tlasley@vhcc.edu • 276-739-2503

| |
|---|
| Associate of Applied Science in Information Systems Technology |
| Associate of Applied Science in Information Systems Technology – Specialization in Networking (Cybersecurity) |
| Career Studies Certificate in Networking Fundamentals I |
| Career Studies Certificate in Networking Fundamentals II |
| Career Studies Certificate in Cyber Security |
| Career Studies Certificate in Small Unmanned Aerial Systems (sUAS) |

## Associate of Applied Science (AAS) in Information Systems Technology

Four semesters; two years

The Associate of Applied Science program is designed to provide a broad base of information systems and computer software experience, which will prepare the graduate to enter the work force upon graduation. With the rapid development of business and industrial applications of information systems, there is a growing demand of qualified personnel in this area.

**Occupational Objectives**: Software Applications Programmer, Database Associate, Help Desk Technician, Program Tester, Web Page Developer

**Admission Requirements**: In addition to the admission requirements established for the college, entry into the Associate of Applied Science Degree Program in Information Systems Technology requires proficiency in high school English and mathematics.

Direct enrollment guidelines using either multiple measures or informed placement will determine a student's placement into college-level English and mathematics courses.

Keyboarding skills are highly recommended. Students may enroll in AST 230 to upgrade keyboarding skills.

**Course of Study Requirements**: The curriculum includes courses in information systems, programming, web page design, help desk topics, productivity software, database management, business and related areas as well as general education. Instruction covers both the theoretical concepts and practical applications needed for future success in business and industry. Each student is urged to consult carefully with a counselor and/or a faculty advisor. Upon satisfactory completion of the four-semester curriculum listed, the graduate will be awarded the Associate of Applied Science Degree in Information Systems Technology.

**Notes on Transfer**: Associate of Applied Science Degree programs are designed primarily to provide occupational competence for employment entry and are not traditionally designed for transfer. Upon the student's request, courses may be modified to provide possible transfer acceptability by four-year colleges and universities.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| ENG 111 | College Composition I | 3 |
| ITD 110 | Web Page Design I | 3 |
| ITE 119 or ITE 152 | Information Literacy or Introduction to Digital and Information Literacy and Computer Applications | 3 |
| ITE 182 | User Support/Help Desk Principles | 3 |
| MTH 132 or MTH 155 | Business Mathematics or Statistical Reasoning[1] | 3 |
| SDV 101 | Orientation to College Success | 1 |
| | **Total** | 16 |
| **Second Semester (Spring)** | | |
| ENG 112 | College Composition II | 3 |
| CST 100 or CST 126 | Principles of Public Speaking or Interpersonal Communication | 3 |
| HUM EEE | Humanities Elective | 3 |
| CSC 221 | Introduction to Problem Solving and Programming[2] | 3 |
| ITE 140 | Spreadsheeting for Business | 3 |
| | **Total** | 15 |
| **Third Semester (Fall)** | | |
| ITE 150 | Desktop Database Software | 4 |
| ITN 101 | Introduction to Network Concepts | 3 |
| CSC 222 | Object Oriented Programming[3] | 4 |
| ITN 106 | Microcomputer Operating Systems | 3 |
| ECO 201 or ECO 202 | Principles of Macroeconomics or Principles of Microeconomics | 3 |
| | **Total** | 17 |
| **Fourth Semester (Spring)** | | |
| ITD 132 | Structured Query Language[4] | 4 |
| ITN 113 | Active Directory (Windows Server) | 3 |
| ITN 107 | Personal Computer Hardware and Troubleshooting | 3 |
| SOC EEE | Social Science Elective | 3 |
| EEE | Approved IT Elective or Co-op Education or approved General Education Elective | 3 |
| | **Total** | 16 |
| **Total Minimum Credits** | | 64 |

Notes:

1. Students with any intention of transfer should take MTH 155
2. Prerequisite: ITE 115, ITE 119, or ITE 152 and MTH 132 or division approval.
3. Prerequisite: CSC 221 or Division approval.
4. Prerequisite: ITE 115, ITE 119, or ITE 152 or Division Approval.

VHCC policy requires that students must keep their IT skills up to date. Therefore, IT courses transferred from other institutions and IT courses completed at VHCC must not be more than 5 years old for IT majors. If a student can demonstrate competency, the student may appeal the rule by requesting departmental approval from the lead faculty in the IT Department.

Students are urged to follow the recommended pathway for this degree when choosing electives.

Additional approved humanities and social science electives are listed under General Education Courses.

## Associate of Applied Science (AAS) in Information Systems Technology – Specialization in Networking (Cybersecurity)

Four semesters; two years

This Associate of Applied Science program is designed to provide a broad base of information systems and computer networking experiences, which will prepare the graduate to enter the work force upon graduation. With the rapid development of business and industrial applications of information systems, there is a growing demand of qualified personnel in this area.

**Occupational Objectives**: Network Administrator, Help Desk Technician, Computer Support Specialist

**Admission Requirements**: In addition to the admission requirements established for the college, entry into the Associate of Applied Science Degree Program in Information Systems Technology - Specialization in Networking requires proficiency in high school English and mathematics.

Direct enrollment guidelines using either multiple measures or informed placement will determine a student's placement into college-level English and mathematics courses. Keyboarding skills are highly recommended. Students may enroll in AST 230 to upgrade keyboarding skills.

**Course of Study Requirements**: The curriculum includes courses in information systems, programming, networking, operating systems, hardware, troubleshooting, server administration, help desk topics, productivity software, database management, business and related areas as well as general education. Instruction covers both the theoretical concepts and practical applications needed for future success in business and industry. Courses in operating systems and PC hardware prepare students for A+ certification. Each student is urged to consult carefully with a counselor and/or the faculty advisor. Upon satisfactory completion of the four-semester curriculum listed, the graduate will be awarded the Associate of Applied Science Degree in Information Systems Technology - Specialization in Networking.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| ENG 111 | College Composition I | 3 |
| ITE 119 or ITE 152 | Information Literacy or<br>Introduction to Digital and Information Literacy and Computer Applications | 3 |
| ITE 182 | User Support/Help Desk Principles | 3 |
| ITN 101 | Introduction to Network Concepts | 3 |
| MTH 132 or MTH 155 | Business Mathematics or Statistical Reasoning[1] | 3 |
| SDV 101 | Orientation to College Success | 1 |
| | **Total** | 16 |
| **Second Semester (Spring)** | | |
| SOC EEE | Social Science Elective | 3 |
| CSC 221 | Introduction to Problem Solving and Programming[2] | 3 |
| ITE 140 | Spreadsheeting for Business | 3 |
| ITN 107 | PC Hardware & Troubleshooting | 3 |
| ITN 113 | Active Directory | 3 |
| | **Total** | 15 |
| **Third Semester (Fall)** | | |
| ITN 260 | Network Security Basics[3] | 3 |
| CSC 222 | Objected Oriented Programming[4] | 4 |
| CST 100 or 126 | Principles of Public Speaking or Interpersonal Communication | 3 |
| ITN 106 | Micro. Operating Systems | 3 |
| ITE 105 | Cyber Careers and Ethics | 2 |
| | **Total** | 15 |
| **Fourth Semester (Spring)** | | |
| ITD 132 | Structured Query Language[5] | 4 |
| ITN 261 | Network Attacks, Computer Crime and Hacking | 3 |
| HUM EEE | Humanities Elective | 3 |
| ITN 170 | Linux System Administration | 3 |
| EEE | Approved IT Elective or Coordinated Internship or approved General Education Elective | 3 |
| | **Total** | 16 |
| **Total Minimum Credits** | | **62** |

Notes:

1. Students with any intention of transfer should take MTH 155
2. Prerequisite: ITE 115, ITE 119, or ITE 152 and MTH 132 or division approval
3. Prerequisite or corequisite: ITN 101
4. Prerequisite: CSC 221 or division approval
5. Prerequisite: ITE 115, ITE 119, or ITE 152 or Division Approval.

VHCC policy requires that students must keep their IT skills up to date. Therefore, IT courses transferred from other institutions and IT courses completed at VHCC must not be more than 5 years old for IT majors. If a student can demonstrate competency, the student may appeal the rule by requesting departmental approval from the lead faculty in the IT Department.

Students are urged to follow the recommended pathway for this degree when choosing electives.

Additional approved humanities and social science electives are listed under General Education Courses.

## Career Studies Certificate (CSC) in Networking Fundamentals I

Two semesters; one year

This certificate prepares students with introductory IT knowledge and skills to recognize, prevent and defend against threats to information and information systems. In order for students to be prepared in key areas of Cybersecurity and Network Administration, students need to be introduced to the basic topics of operating systems, computer hardware, networking concepts, programming and cybersecurity topics. This career studies certificate can be followed up by the Networking Fundamentals II career studies certificate and ultimately can lead to an Associate of Applied Science degree in Information Systems Technology - Specialization in Networking (Cybersecurity).

**Occupational Objective**: To create entry level employment opportunities in the network administration field. Students are encouraged to complete industry credentials associated with the coursework.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| SDV 101 | Orientation to College Success | 1 |
| ITE 105 | Cyber Careers and Ethics | 2 |
| ITN 106 | Microcomputer Operating Systems[1] | 3 |
| ITN 101 | Introduction to Network Concepts | 3 |
| ITN 260 | Network Security Basics[2] | 3 |
| | **Total** | 12 |
| **Second Semester (Spring)** | | |
| ITN 107 | Personal Computer Hardware and Troubleshooting[3] | 3 |
| ITN 261 | Network Attacks, Computer Crime and Hacking | 3 |
| ITE 152 or 119 | Intro to Digital and Information Literacy and Computer Applications or Information Literacy | 3 |
| CSC 221 | Introduction to Problem Solving and Programming[4] | 3 |
| | **Total** | 12 |
| **Total Minimum Credits** | | 24 |

Notes:

1. Upon successful completion of ITN 106 student may be prepared for CompTIA A+ Core 2 exam. Testing vouchers may be assigned if students meet instructor criteria. Both Core 1 AND Core 2 exams must be passed in order to receive A+ certification through CompTIA.
2. Prerequisite or corequisite: ITN 101.
3. Upon successful completion of ITN 107 student may be prepared for CompTIA A+ Core 1 exam. Testing vouchers may be assigned if students meet instructor criteria. Both Core 1 AND Core 2 exams must be passed in order to receive A+ certification through CompTIA.
4. Prerequisite: ITE 115, 119, or 152 and MTH 132 or division approval.

## Career Studies Certificate (CSC) in Networking Fundamentals II

Two semesters; one year

This certificate prepares students with introductory IT knowledge and skills to recognize, prevent and defend against threats to information and information systems. In order for students to be prepared in key areas of Cybersecurity and Network Administration, students need to be introduced to the basic topics of operating systems, computer hardware, networking concepts, programming and cybersecurity topics.

**Occupational Objective**: To create entry level employment opportunities in the network administration field.

Students must complete the Networking Fundamentals I Career Studies Certificate prior to enrollment in the Networking Fundamentals II Career Studies Certificate unless the Program Coordinator grants approval.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| EEE | Approved IT Elective | 3 |
| CSC 222 | Object Oriented Programming[1] | 4 |
| ITE 182 | User Support/Helpdesk Principles | 3 |
| | **Total** | 10 |
| **Second Semester (Spring)** | | |
| ITN 170 | Linux System Administration | 3 |
| ITN 113 | Active Directory | 3 |
| ITE 140 | Spreadsheeting for Business | 3 |
| ITD 132 | Structured Query Language | 4 |
| | **Total** | 13 |
| **Total Minimum Credits** | | 23 |

Notes:

1. Prerequisite: CSC 221 or Division approval

## Career Studies Certificate (CSC) in Cyber Security

Three semesters; one year

This career studies certificate in Cybersecurity is designed to prepare students for potential employment as Network security specialists. This career studies certificate also helps prepare students for the CompTIA Security+ certificate.

**Admission Requirements**: See the section on admission requirements in this catalog. A student eligible for admission to the College can normally be considered for admission to the Cyber Security program.

Criminal background may prevent you from obtaining employment in this field.

**Course of Study Requirements**: All courses in this curriculum will be computer science, information technology essentials, or networking courses. Upon completion of the program, the student will be awarded a Career Studies Certificate in Cyber Security.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Summer)** | | |
| CSC 221 | Introduction to Problem Solving and Programming[1] | 3 |
| | **Total** | 3 |
| **Second Semester (Fall)** | | |
| ITE 105 | Cyber Careers and Ethics | 2 |
| ITE 119 or<br>ITE 152 | Information Literacy or<br>Introduction to Digital and Information Literacy and Computer Applications | 3 |
| ITN 101 | Introduction to Network Concepts | 3 |
| CSC 222 | Object Oriented Programming[2] | 4 |
| ITN 260 | Network Security Basics[3] | 3 |
| | **Total** | 15 |
| **Third Semester (Spring)** | | |
| ITN 170 | Linux I | 3 |
| ITN 261 | Network Attacks, Computer Crime, and Hacking | 3 |
| ITN113 | Active Directory | 3 |
| | **Total** | 9 |
| **Total Minimum Credits** | | 28 |

Notes:

1. Prerequisite: ITE 115, 119, or 152 and MTH 132 or division approval.
2. Prerequisite: CSC 221 or Division approval.
3. Prerequisite or Corequisite of ITN 101.

## Career Studies Certificate (CSC) in Small Unmanned Aerial Systems (sUAS)

This career studies certificate is designed to prepare participants to skillfully fly and maintain a sUAS and to earn the FAA part 107 certificate. If you want to commercially fly a drone legally, you must earn your FAA Part 107 remote pilot certification. Knowledge of the safe and legal operation of an unmanned aircraft (drone) and the collection of imagery for customers is on the forefront of employer demand for many new and emerging fields. This program develops these competencies and allows participants to succeed in this challenging and demanding field. The novice pilot will learn manual flight skills and how to legally fly in a commercial operation. This curriculum uses program related electives from fields such as IT, Science, Agriculture, Horticulture, Electricity, and Criminal Justice, allowing students to graduate with both an AAS degree and this Career Studies Certificate.

| Course Number | Course Title | Credits |
|---|---|---|
| UMS 107 | Small Unmanned Aircraft Systems (sUAS) Remote Pilot Ground School[1] | 3 |
| UMS 111 | Small Unmanned Aircraft Systems (sUAS) I | 3 |
| UMS 177 | Small Unmanned Aircraft Systems (sUAS) Components and Maintenance | 3 |
| EEE | Program Related Elective[2] | 3 |
| EEE | Program Related Elective[2] | 3 |
| EEE | Program Related Elective[2] | 3 |
| **Total Minimum Credits** | | 18 |

Notes:

1. Students must be 16 years of age to sit for FAA Part 107 Remote Pilot Certification.
2. Program related electives include any 100/200 level course from fields of study such as Science (BIO, CHM, GOL, PHY, EGR), Agriculture (AGR, HRT), Information Systems Technology (ITE, ITN, ITP, ITD), Electricity (ELE) or Criminal Justice (ADJ). Other electives may be approved by division dean.

# Medical Coding & Office Management Program

**Program Chair**: Kathy Smith • ksmith@vhcc.edu • 276-739-2465

| |
|---|
| Technical Studies Associate of Applied Science in Medical Coding and Billing (Pending Approval) |
| Career Studies Certificate in Medical Coding Specialist |
| |
| Associate of Applied Science in Office Management |

## Associate of Applied Science (AAS) in Medical Coding and Billing (Pending SCHEV Approval)

Four semesters; two years

Pending SCHEV approval of the AAS in Medical Coding and Billing, students who want to pursue an associate degree in medical coding and billing, should contact Kathy Smith, ksmith@vhcc.edu, to arrange enrollment in a Technical Studies degree.

The Associate of Applied Science Degree curriculum in Medical Coding and Billing is designed to prepare students for full-time employment immediately upon graduation in a variety of workplace environments. Students receive instruction and opportunities for work-based learning to apply the skills and knowledge they gain through their coursework in medical terminology, billing and reimbursement, records management, ICD-10-CM, CPT and HCPCS coding, presentation software, pharmacology, spreadsheet development, and effective communication in customer service

Students completing the program will have the opportunity to earn the following industry-recognized credentials: Certified Medical Administrative Assistant (CMAA), Certified Billing and Coding Specialist, (CBCS), Certified Professional Coder (CPC), Certified Professional Biller (CPB), Certified Professional Medical Auditor (CPMA) and Certified Practice Manager (CPM).

**Occupational Objectives**: Practice Manager, Certified Coder, Certified Biller, Administrative Assistant, Coding Specialist.

**Admission Requirements**: A student eligible for admission to the College can normally be considered for admission to Medical Coding curriculum. Proficiency in high school English and mathematics is required.

**Course of Study Requirements**: The two-year curriculum in Medical Coding and Billing combines instruction in the areas required for competence as a medical professional in business, government, industry, doctors' offices, hospitals, and other organizations. From a foundation of general education, business, customer service, office software courses, this degree's curriculum strategically builds each semester upon the previous semester's coursework to prepare the medical coding and billing student to apply the degree's learning outcomes in a work-based learning environment through an internship.

Due to the kind of working professional this degree program attracts, this degree program can be completed online which requires strong time management, initiative, and organization skills. Students are advised to work closely with the program chair to find the most effective plan for each semester and especially their internship experience.

**Advanced Placement**: Students who have completed coursework or training in medical terminology or anatomy and physiology courses via a medical profession or who have had appropriate occupational experience may apply for exemption with credit. Proof of previous certifications must be presented to receive credit.

**Notes on Transfer**: Associate of Applied Science Degree programs are designed primarily to provide occupational competence for employment entry. Though the courses can transfer to baccalaureate institutions, they are not designed for transfer.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| SDV 101 | Orientation to Health Information Management | 1 |
| AST 176 | Medical Office /Unit Management | 3 |
| ENG 111 or ENG 115 | College Composition I [1]or Technical Writing[2] | 3 |
| HIM 113 | Medical Terminology and Disease Processes[3] | 3 |
| HIM 151 | Reimbursement Issues in Medical Practice Management | 2 |
| ITE 152 | Introduction to Digital and Information Literacy and Computer Applications | 3 |
| | **Total** | 15 |
| **Second Semester (Spring)** | | |
| AST 260 | Presentation Software (PowerPoint, Zoom) | 3 |
| HIM 163 | Anatomy and Physiology for Administrative Health Professionals | 3 |
| HIM 226 | Legal Aspects of Health Record Documentation | 2 |
| HIM 253 | Health Records Coding | 4 |
| MTH 132 | Business Mathematics | 3 |
| | Total | 15 |
| Third Semester (Fall) | | |
| AST 195 | Topics In Customer Service | 2 |
| BUS 100 | Introduction to Business | 3 |
| HIM 260 | Pharmacology for Health Information Technology | 3 |
| HIM 254 | Advanced Coding and Reimbursement | 4 |
| SOC EEE | Social/Behavioral Elective | 3 |
| | Total | 15 |
| Fourth Semester (Spring) | | |
| CST 126 | Interpersonal Communication | 3 |
| HIM 231 | Health Records Applications I | 3 |
| HIM 293 | Studies in Examination Preparation[4] | 1 |
| HIT 149 | Introduction to Medical Practice Management | 2 |
| HUM EEE | Humanities Elective | 3 |
| ITE 140 | Spreadsheeting for Business | 3 |
| | **Total** | 15 |
| **Total Minimum Credits** | | |

Notes:

1. This is a Passport Transfer course. Lecture 3 hours per week
2. Not intended to transfer
3. Pre-requisite for HIM 163
4. Students will have completed and/or be enrolled in HIM 253 and/or HIM 254 to enroll in this class.

Students are urged to work closely with their academic advisor when choosing electives and finding an internship. Additional approved humanities and social science electives are listed under General Education Courses.

## Career Studies Certificate (CSC) in Medical Coding Specialist

Two semesters; one year

The Medical Coding Career Studies Certificate program serves as a gateway into one of the fastest growing segments of the healthcare industry today. Medical coders play a crucial role in ensuring accurate billing, maintaining compliance with regulatory standards, and facilitating efficient healthcare delivery. Through comprehensive curriculum and industry-aligned instruction, this short but rigorous program equips students with the knowledge, skills, and credentials necessary to enter the rapidly evolving field of medical coding and billing.

Students completing the program will have the opportunity to earn the following entry-level industry-recognized credentials: Certified Medical Administrative Assistant (CMAA), Certified Billing and Coding Specialist (CBS) and Certified Professional Coder – Apprentice certification (CPC-A).

**Occupational Objectives**: Billing and Coding Specialist, Medical Coder (apprentice level), Medical Billing Manager, Medical Coding Specialist

**Admission Requirements**: A student eligible for admission to the College can normally be considered for admission to Clerical Studies curriculum. Proficiency in high school English and mathematics is required.

**Course of Study Requirements**: The majority of this certificate program is taught online which requires time management, initiative, and strong organization skills. This program is laid out on a full-time basis. Working professionals seeking a part-time schedule of classes are urged to work closely with the Program Chair to find the most effective plan for completing the program while adhering to critical prerequisites for certain courses.

**Advanced Placement**: Students who have already completed coursework in medical terminology and anatomy and physiology courses or who have had appropriate occupational experience may apply for exemption with credit. Documentation such as official transcripts of previous coursework or certifications must be presented to receive credit. Credit by examination is also accepted for certain courses.

**Note on the Medical Coding Curriculum:** Because ICD-9 was replaced by ICD-10-CM in 2015, Virginia Highlands Community College teaches the ICD-10-CM curriculum in its Medical Coding program. The transition to ICD-10 was coordinated by the Centers for Medicare & Medicaid Services (CMS) in the Department of Health and Human Services (HHS) and was made mandatory throughout the country at that time, because the new coding system greatly increased the specificity in identifying health conditions and billing accuracy, as a result. Any reference to ICD-9 in course descriptions should be disregarded. VHCC prepares its students to pass the current ICD-10 standards of the Certified Professional Coder – Apprentice (CPC-A) examination.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| SDV 101 | Orientation to Health Information Management | 1 |
| ITE 152 | Introduction to Digital and Information Literacy and Computer Applications | 3 |
| HIM 113 | Medical Terminology & Disease Processes I | 3 |
| HIM 151 | Reimbursement Issues in Medical Practice Management | 2 |
| HIM 226 | Legal Aspects of Health Record Documentation | 2 |
| HIM 253 | Health Records Coding | 4 |
| | **Total** | 15 |
| **Second Semester (Spring)** | | |
| AST 176 | Medical Office/Unit Management | 3 |
| HIM 163 | Anatomy and Physiology for Administrative Health Professionals[1] | 3 |
| HIM 231 | Health Records Applications 1 | 3 |
| HIM 254 | Advanced Coding and Reimbursement | 4 |
| HIM 293 | Studies in Examination Preparation | 1 |
| | **Total** | 14 |
| **Total Minimum Credits** | | 29 |

Notes:

1. Prerequisite- HIM 113.
2. Students will have completed and/or be enrolled in HIM 253 and/or HIM 254 to enroll in this class.

## Associate of Applied Science (AAS) in Office Management

Four semesters; two years

The Associate of Applied Science Degree curriculum in Office Management is designed to prepare persons for full-time employment immediately upon graduation in a variety of workplace environments. Students receive instruction and opportunities for work-based learning to apply the skills and knowledge they gain through their coursework in business communications, word processing, records management, spreadsheets, presentation software, virtual meetings, computerized accounting, and meeting planning. Students can also customize their degrees to gain valuable knowledge in legal or medical offices or for a more general business foundation in areas such as marketing, entrepreneurship, and human resources.

Students completing the program will have the opportunity to earn the following industry-recognized credentials: Microsoft Office Specialist (MOS) in Word, Microsoft Office Specialist (MOS) in Excel, Microsoft Office Specialist (MOS) in PowerPoint, and QuickBooks Certified User.

**Occupational Objectives**: Office Manager, Executive Secretary, Executive Administrative Assistant, Executive Office Assistant, Medical Office Assistant, Medical Secretary/Administrative Assistant, Legal Office Assistant

**Admission Requirements**: A student eligible for admission to the College can normally be considered for admission to Clerical Studies curriculum. Proficiency in high school English and mathematics is required.

**Course of Study Requirements**: The two-year curriculum in Office Management combines instruction in the areas required for competence as an office professional in business, government, industry, law offices, doctors' offices, hospitals, and other organizations. From a foundation of general education, business, customer service, office software courses, this degree's curriculum strategically builds each semester upon the previous semester's coursework to prepare the office management student to apply the degree's learning outcomes in a work-based learning environment through an internship.

Due to the kind of working professional this degree program attracts, this degree program can be completed online which requires strong time management, initiative, and organization skills. Students are advised to work closely with the program chair to find the most effective plan for each semester and especially their internship experience.

**Advanced Placement**: Students who have completed coursework or training in office technology courses at the high school level or who have had appropriate occupational experience may apply for exemption with credit. Proof of previous certifications must be presented to receive credit. Credit by examination can also be the basis upon which such advanced placement is granted.

**Notes on Transfer**: Associate of Applied Science Degree programs are designed primarily to provide occupational competence for employment entry. Though the courses can transfer to baccalaureate institutions, they are not designed for transfer.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| SDV 101 | Orientation to College Success | 1 |
| AST 195 | Topics in Customer Service Course | 2 |
| AST 230 | Introduction to Office Technology[1] | 3 |
| BUS 100 | Introduction to Business | 3 |
| ENG 111 | College Composition I | 3 |
| ITE 119 or<br>ITE 152 | Information Literacy or<br>Introduction to Digital & Information Literacy & Computer Applications | 3 |
| | **Total** | 15 |
| **Second Semester (Spring)** | | |
| AST 107 | Editing/Proofreading Skills | 3 |
| AST 205 | Business Communications | 3 |
| AST 238 | Word Processing Advanced Operations[2] | 2 |
| SSE | Social Science Elective | 3 |
| MTH 132 | Business Mathematics | 3 |
| | **Total** | 14 |
| **Third Semester (Fall)** | | |
| AST 137 | Records Management | 3 |
| AST 260 | Presentation Software (PowerPoint, Zoom) | 3 |
| ITE 140 | Spreadsheeting for Business | 3 |
| EEE | Approved Program Elective[5] | 3 |
| CEE | Communications Elective | 3 |
| | **Total** | 15 |
| **Fourth Semester (Spring)** | | |
| AST 243 | Office Administration I[3] | 3 |
| AST 290 | Coordinated Internship[4] | 3 |
| EEE | Approved Program Elective[5] | 3 |
| ACC 215 | Computerized Accounting | 4 |
| EEE | Humanities Elective | 3 |
| | **Total** | 16 |
| **Total Minimum Credits** | | 60 |

Notes:

1. Students who pass a keyboarding exemption exam can be granted credit for this course. Please see the Program Chair for more information.
2. Prerequisite – ITE 119.
3. Prerequisite- AST 137, AST 238, and BUS 100.
4. Requires approval by the Program Advisor.
5. Approved Program Electives:
   AST 176 Medical Office/Unit Management
   BUS 205 Human Resources Management
   BUS 240 Introduction to Business Law
   BUS 274 Entrepreneurship
   LGL 110 Introduction to Law and the Legal Assistant
   MKT 201 Introduction to Marketing

Students are urged to work closely with their academic advisor when choosing electives and finding an internship.

Additional approved humanities and social science electives are listed under General Education Courses.

# Precision Machining Program

**Program Chair**: Johnnie Keene • jkeene@vhcc.edu • 276-739-2455

| |
|---|
| Associate of Applied Science in Computer Numerical Control Machine Operations |
| Career Studies Certificate in Precision Machining |
| Career Studies Certificate in Advanced Precision Machining |

**Admission Requirements**: Students are required to meet the general requirements of the college as contained in this catalog. Students from other schools or colleges or with appropriate industrial experience should submit transcripts or other documentation for evaluation and advanced placement.

**Performance Standards for Laboratory and Technical Assignments:** In order to properly prepare students for the daily expectations of employers in the precision machining industry, students must be able to perform all essential functions required for laboratory and technical assignments in the Precision Machining and CNC Program, with or without reasonable accommodation. The following standards outline the physical, cognitive, sensory, and behavioral abilities necessary to safely and effectively complete required coursework in classroom, laboratory, and industry-based settings:

1. Critical Thinking: Ability to interpret blueprints, apply geometric dimensioning and tolerancing, perform precision calculations, and troubleshoot machining operations.
2. Communication: Clear verbal and written communication skills for interacting with instructors and peers. This includes reading technical drawings, recording measurements accurately, and following written and verbal instructions.
3. Interpersonal Abilities: Professional conduct and the ability to work safely and effectively in shared laboratory environments.
4. Physical Demands: Physical ability to frequently lift and carry up to 40 pounds; stand for extended periods up to 4 hours; bend, reach, and perform repetitive movements.
5. Motor Skills: Fine and gross motor skills sufficient to operate manual and CNC machinery, measure parts to required tolerances, and manipulate small components and precision tools.
6. Mobility: Ability to move safely between machines and workstations and maintain proper positioning around operating equipment.
7. Visual: Sufficient vision to read micrometers, calipers, digital displays, inspect surface finishes, and detect tool wear or defects.
8. Hearing: Hearing ability adequate to detect changes in machine operation, alarms, and verbal safety instructions.
9. Environmental Tolerance: Ability to work in environments with machine noise, vibration, metal shavings, lubricants, and temperature variations.
10. Safety Awareness: Ability to consistently follow shop safety procedures, use guards and personal protective equipment, and recognize unsafe machining conditions.

## Associate of Applied Science (AAS) in Computer Numerical Control Machine Operations

Five semesters; two years (day) / Seven semesters; three years (evening)

In addition to satisfying the needs of those students who enroll for the four-semester program three other groups are served: First, those who have completed the one-semester Precision Machining career studies certificate and the one-semester Advanced Precision Machining career studies certificate programs presently being offered; second, graduates of other schools who have completed a comparable one-year program; third, machine tool operators in industry who want to upgrade their skills. The program is designed to provide both theory and shop experiences of an advanced nature in the machining field.

**Occupational Objectives**: Machinist, Tool and Die Maker, Machine Shop Supervisor, Inspector, Computer Numerical Control Operator and Programmer

**Course of Study Requirements**: The Computer Numerical Control Machine Operations Curriculum consists of courses in both the machining and general education areas. Instruction will include both concepts of machining and practical applications on machine tools. Each student should consult with his/her counselor and faculty advisor in planning a program and selecting his/her electives. Upon completion of the five-semester program listed on this page, the graduate will be awarded an Associate of Applied Science Degree.

**Track 1 (Day)**

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| DRF 161 | Blueprint Reading I | 2 |
| SAF 130 | Industrial Safety – OSHA 10 | 1 |
| MAC 161 | Machine Shop Practices I | 3 |
| MAC 162 | Machine Shop Practices II | 3 |
| MAC 116 | Machinery's Handbook | 2 |
| SDV 101 | Orientation to College Success | 1 |
| MAC 121 | Numerical Control I | 3 |
| MAC 122 | Numerical Control II | 3 |
| | **Total** | |
| **Second Semester (Spring)** | | |
| MAC 150 | Introduction to Computer Aided Manufacturing | 3 |
| MAC 163 | Machine Shop Practices III | 3 |
| MAC 164 | Machine Shop Practices IV | 3 |
| MAC 123 | Numerical Control III | 3 |
| MAC 126 | Introductory CNC Programming (MAZAK) | 3 |
| | **Total** | 15 |
| **Third Semester (Summer)** | | |
| MAC 111 | Machine Trade Theory and Computation | 3 |
| | **Total** | 3 |
| **Fourth Semester (Fall)** | | |
| MAC 127 | Advanced CNC Programming | 3 |
| MAC 134 | CMM Operation and Programming | 2 |
| ENG 115 | Technical Writing | 3 |
| SSE | Social Science Elective | 3 |
| MTH 111 | Basic Technical Math | 3 |
| | **Total** | 14 |
| **Fifth Semester (Spring)** | | |
| MAC 206 | Production Machining Techniques | 6 |
| MAC 290 | Coordinated Internship or Technical Elective | 3 |
| HUM EEE | Humanities Elective | 3 |
| SSE | Social Science Elective | 3 |
| | **Total** | 15 |
| **Total Minimum Credits** | | 65 |

**Track 2 (Evening)**

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| MAC 161 | Machine Shop Practices I | 3 |
| MAC 121 | Numerical Control I | 3 |
| SAF 130 | Industrial Safety – OSHA 10 | 1 |
| SDV 101 | Orientation to College Success | 1 |
| | **Total** | 8 |
| **Second Semester (Spring)** | | |
| DRF 161 | Blueprint Reading I | 2 |
| MAC 162 | Machine Shop Practices II | 3 |
| MAC 116 | Machinery's Handbook | 2 |
| MAC 122 | Numerical Control II | 3 |
| | **Total** | 10 |
| **Third Semester (Fall)** | | |
| MAC 163 | Machine Shop Practices III | 3 |
| MAC 150 | Introduction to Computer Aided Manufacturing | 3 |
| MAC 123 | Numerical Control III | 3 |
| | **Total** | 9 |
| **Fourth Semester (Spring)** | | |
| MAC 164 | Machine Shop Practices IV | 3 |
| MAC 126 | Introduction to CNC Programming (MAZAK) | 3 |
| MAC 111 | Machine Trade Theory & Computation I | 3 |
| | **Total** | 9 |
| **Fifth Semester (Summer)** | | |
| ENG 115 | Technical Writing | 3 |
| MTH 111 | Basic Technical Mathematics | 3 |
| EEE | Social Science Elective | 3 |
| MAC 134 | CMM Operation and Programming | 2 |
| | **Total** | 11 |
| **Sixth Semester (Fall)** | | |
| MAC 206 | Production Machining Techniques | 6 |
| MAC 127 | Advanced CNC Programming | 3 |
| | **Total** | 9 |
| **Seventh Semester (Spring)** | | |
| MAC 290 | Coordinated Internship or Technical Elective | 3 |
| EEE | Humanities Elective | 3 |
| EEE | Social Science Elective | 3 |
| | **Total** | 9 |
| **Total Minimum Credits** | | 65 |

## Career Studies Certificate (CSC) in Precision Machining

One semester (Day) / Two Semesters (Evening)

This program is designed to provide individuals with manual machining concepts, blueprint reading and inspection procedures. Upon completion of this program, graduates will be prepared for employment as a manual lathe or mill operator.

**Occupational Objectives**: The Precision Machining Career Studies Certificate provides the basic skills necessary to secure an entry level job as a manual machinist. Students develop the basic skills necessary to read blueprints, function as a Lathe Operator, Drill Press Operator, and Milling Machine Operator.

**Admission Requirements**: General college curricular admission.

**Course of Study Requirements**: The curriculum will consist of both hands-on learning and classroom instruction. The program can be completed in one to two semesters and will prepare graduates for entry-level positions. Graduates will also obtain the OSHA-10-hour general industry safety certification.

**Track 1 (Day)**

| Course Number | Course Title | Credits |
|---|---|---|
| **Fall Semester** | | |
| DRF 161 | Blueprint Reading I | 2 |
| MAC 161 | Machine Shop Practices I | 3 |
| MAC 162 | Machine Shop Practices II | 3 |
| MAC 116 | Machinery's Handbook | 2 |
| SAF 130 | Industrial Safety OSHA-10 | 1 |
| MAC 121 | Numerical Control I | 3 |
| MAC 122 | Numerical Control II | 3 |
| **Total Minimum Credits** | | 17 |

**Track 2 (Evening)**

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| MAC 161 | Machine Shop Practices I | 3 |
| MAC 121 | Numerical Control I | 3 |
| SAF 130 | Industrial Safety OSHA-10 | 1 |
| | **Total** | 7 |
| **Second Semester (Spring)** | | |
| DRF 161 | Blueprint Reading I | 2 |
| MAC 162 | Machine Shop Practices II | 3 |
| MAC 116 | Machinery's Handbook | 2 |
| MAC 122 | Numerical Control II | 3 |
| | **Total** | 10 |
| **Total Minimum Credits** | | 17 |

## Career Studies Certificate (CSC) in Advanced Precision Machining

One semester (Day) / Two Semesters (Evening)

This Career Studies Certificate is designed to provide individuals with advanced machining concepts on lathes and machining centers. Students will learn conventional and conversational programming on each machine. Upon completion of this program, graduates will be prepared for employment as CNC lathe or mill operator.

**Occupational Objectives**: The Advanced Precision Machining Career Studies Certificate provides the basic skills necessary to secure an entry level job as a CNC machinist. Students develop the basic skills necessary to Set-up, program and operate CNC lathes and machining centers.

Students must complete the Precision Machining Career Studies Certificate prior to enrollment in the Advanced Precision Machining Career Studies Certificate unless the Program Chair grants approval.

**Track 1 (Day)**

| Course Number | Course Title | Credits |
|---|---|---|
| MAC 150 | Introduction to Computer Aided Manufacturing | 3 |
| MAC 163 | Machine Shop Practices III | 3 |
| MAC 164 | Machine Shop Practices IV | 3 |
| MAC 123 | Numerical Control III | 3 |
| MAC 126 | Introductory CNC Programming (MAZAK) | 3 |
| SAF 130 | Industrial Safety – OSHA 10 | 1 |
| **Total Minimum Credits** | | 16 |

**Track 2 (Evening)**

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| MAC 163 | Machine Shop Practices III | 3 |
| MAC 150 | Introduction to Computer Aided Manufacturing | 3 |
| MAC 123 | Numerical Control III | 3 |
| | **Total** | 9 |
| **Second Semester (Spring)** | | |
| MAC 164 | Machine Shop Practices IV | 3 |
| MAC 126 | Introductory CNC Programming (MAZAK) | 3 |
| SAF 130 | Industrial Safety – OSHA 10 | 1 |
| | **Total** | 7 |
| **Total Minimum Credits** | | 16 |

# Welding Technology Program

**Program Chair**: Eddie Fultz • efultz@vhcc.edu • 276-492-2065

| |
|---|
| Career Studies Certificate in Welding |
| Career Studies Certificate in Advanced Welding |

**Duration of the Welding Program:**
Two semesters for the day cohort and three semesters for the night cohort.

**Occupational Objectives:** This program is designed to provide essential educational principles and applications of multi-processes within the specifications of the American Welding Society. This is the national standard needed to effectively perform and meet the expectations of welding in manufacturing facilities and other welding businesses. This program will prepare individuals to become hired welders. Hired welders typically do the following:

- Weld in one or more of four standard processes (SMAW, GMAW, FCAW, and GTAW)
- Weld in positions 1-4 (flat, horizontal, vertical, and overhead)
- Read welding blueprints
- Layout metals for fabrication and welding
- Perform preparations of materials for welding
- Perform OXY/FUEL and Plasma cuts of assorted shapes in metals
- Operate within the safety standards of OSHA 10

**Admission Requirements:**

- Completion of the VHCC Application and a Welding Program information form
- Completion of a minimum of the tenth grade of High School
- Completion of a GED will be accepted
- Agree to attend a scheduled orientation with the Welding Program Chair on campus as follows:
  - Students enrolling before the last day of May must attend an on-campus orientation on the last Thursday in June.
  - Students enrolling after the last day of May and before the last day of June must attend a scheduled orientation on the last Thursday in July.

**Special Program Requirements:**

- A strict dress code is required for eligibility to perform assigned tasks in the welding lab.
- Students must provide leather boots, cotton pants, and long-sleeved shirts (unless possessing a welding jacket).
- Students must wear all proper PPE equipment to be eligible to perform assigned tasks in the welding lab
- During orientation, applicants will be provided with a list of personal protective equipment and instructions on how and where to purchase it.
- Students must maintain professional attitudes and follow safety protocols
- The prerequisite for enrollment in the Advanced Welding (CSC) is completing the Basic Welding (CSC) courses.

**Performance Standards for Laboratory and Technical Assignments:** In order to properly prepare students for the daily expectations of employers in the welding industry, students must be able to perform all essential functions required for laboratory and technical assignments in this Welding program, with or without reasonable accommodation. The following standards outline the physical, cognitive, sensory, and behavioral abilities necessary to safely and effectively complete required coursework in classroom, laboratory, and field-based settings:

1. Critical Thinking: Ability to interpret welding symbols and blueprints, select appropriate welding processes, and evaluate weld quality.
2. Communication: Clear verbal and written communication skills for interacting with instructors and peers. This includes following written welding procedures and documenting work performed.
3. Interpersonal Abilities: Professional conduct and the ability to function safely and effectively in shared welding environments.
4. Physical Demands: Physical ability to frequently lift and carry up to 40 pounds; stand for prolonged periods; kneel, crouch, and work in varied positions, including overhead and confined spaces.
5. Motor Skills: Fine and gross motor skills sufficient to maintain steady hand positioning for welding processes and safely operate welding equipment.
6. Mobility: Ability to move safely within welding booths and laboratory areas.
7. Visual: Sufficient vision to align joints, evaluate weld puddles, read measurements, and distinguish weld defects.
8. Hearing: Hearing ability adequate to detect equipment operation changes, alarms, and verbal safety commands.
9. Environmental Tolerance: Ability to work in environments with welding fumes, sparks, heat, ultraviolet light, and industrial noise.
10. Safety Awareness: Ability to consistently follow welding safety procedures, use protective equipment, and recognize fire and burn hazards.

**Program Re-Enrollment Requirements for Welding Students:**
Any student who has voluntarily withdrawn or who has been withdrawn due to unsatisfactory academic or personal performance may apply for re-admission the following academic year. Acceptance will be based upon space availability and Program Chair approval.

The AAS degree in Technical Studies is an available option for students who wish to further their studies following the completion of this program. Please refer to the "School of Business & Industry Special Degree" in this catalog for more information on that degree option.

## Career Studies Certificate (CSC) in Welding

One or two semesters

This program is designed to provide students training in blueprint/symbols reading, SMAW, FCAW, GMAW, and GTAW. Upon completion of Welding Career Studies Certificate, graduates will be prepared for employment as a basic welder.

**Occupational Objectives**: The Welding Career Studies Certificate provides the basic skills necessary to secure an entry level job as a manual or semiautomatic welder. Students will develop the basic skills necessary to read blueprints, and perform steel welds in 1F, 2F, 3F, 1G, 2G, and 3G positions. These will be accomplished in three different weld processes.

**Program Notes**: Along with the Career Studies Certificate in Welding, graduates will also obtain the OSHA-10-hour General Industry certification.

**Track 1 (Day)**

| Course Number | Course Title | Credits |
|---|---|---|
| **Fall Semester** | | |
| WEL 120 | Introduction to Welding | 2 |
| WEL 123 | Shielded Metal Arc Welding (SMAW) | 3 |
| WEL 150 | Welding Drawing & Interpretation | 3 |
| WEL 160 | Gas Metal Arc Welding (GMAW) | 3 |
| WEL 161 | Fluxed Cored Arc Welding (FCAW) | 3 |
| WEL 164 | Gas Tungsten Arc Welding (GTAW) | 3 |
| **Total Minimum Credits** | | 17 |

**Track 2 (Evening)**

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| WEL 120 | Introduction to Welding | 2 |
| WEL 123 | Shielded Metal Arc Welding (SMAW) | 3 |
| WEL 150 | Welding Drawing & Interpretation | 3 |
| WEL 160 | Gas Metal Arc Welding (GMAW) | 3 |
| | **Total** | 12 |
| **Second Semester (Spring)** | | |
| WEL 161 | Fluxed Cored Arc Welding (FCAW) | 3 |
| WEL 164 | Gas Tungsten Arc Welding (GTAW) | 3 |
| | **Total** | 6 |
| **Total Minimum Credits** | | 17 |

## Career Studies Certificate (CSC) in Advanced Welding

One or two semesters

This program is designed to provide students training in blueprint/symbols reading, SMAW, FCAW, GMAW, and GTAW. Upon completion of Welding Career Studies Certificate, graduates will be prepared for employment as a basic welder.

**Occupational Objectives**: The Welding Career Studies Certificate provides the basic skills necessary to secure an entry level job as a manual or semiautomatic welder. Students will develop the basic skills necessary to read blueprints, and perform steel welds in 1F, 2F, 3F, 1G, 2G, and 3G positions. These will be accomplished in three different weld processes.

**Program Notes**: Along with the Career Studies Certificate in Welding, graduates will also obtain the OSHA-10-hour General Industry certification.

**Track 1 (Day)**

| Course Number | Course Title | Credits |
|---|---|---|
| **Spring Semester** | | |
| HLT 106 | First Aid and Safety | 2 |
| SAF 130 | Industrial Safety – OSHA 10 | 1 |
| WEL 117 | Oxyfuel Welding and Cutting | 4 |
| WEL 124 | Shielded Metal Arc Welding (SMAW II) | 3 |
| WEL 130 | Inert Gas Welding | 4 |
| WEL 136 | Welding III (Inert Gas) | 2 |
| **Total Minimum Credits** | | 16 |

Track 2 (Evening)

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Spring)** | | |
| HLT 106 | First Aid and Safety | 2 |
| SAF 130 | Industrial Safety – OSHA 10 | 1 |
| WEL 124 | Shielded Metal Arc Welding (SMAW II) | 3 |
| WEL 136 | Welding III (Inert Gas) | 2 |
| | **Total** | 8 |
| **Second Semester (Summer)** | | |
| WEL 130 | Inert Gas Welding | 4 |
| WEL 117 | Oxyfuel Welding and Cutting | 4 |
| | **Total** | 8 |
| **Total Minimum Credits** | | 16 |

# School of Business & Industry Special Degree

**Program Chair**: Lee Hunt, Dean of the School of Business & Industry • lhunt@vhcc.edu • 276-739-2401

## Associate of Applied Science (AAS) in Technical Studies (specific discipline as needed)

Four semesters

The Associate of Applied Science Degree in Technical Studies is designed to provide a broad foundation of general education and technological knowledge, along with a concentration in a technical field that will prepare the graduate to enter or advance in technical fields upon graduation.

**Occupation Objective**: Technical training continues to be in high demand by employers and this degree allows a student to enter or advance in many different types of technical fields upon graduation based on their area of concentration.

**Admission Requirements**: A student eligible for admission to the College can normally be considered for admission to the Technical Studies program. Direct enrollment guidelines using either multiple measures or informed placement will determine a student's placement into college-level English and mathematics courses. See Table E and Table M.

**Course of Study Requirements**: The curriculum for the Technical Studies Degree combines general academic instruction in the humanities, social sciences, mathematics, science, and communication with a technical core of courses geared toward gaining competence for positions within business, industry, or government.

| Course Number | Credits |
|---|---|
| **General Education** | |
| Communications | 3-6 |
| Humanities | 3-6 |
| Social/Behavioral Sciences | 3-6 |
| Mathematics/Natural Sciences | 3-6 |
| **Subtotal** | 15 |
| Student Development | 1-2 |
| **Subtotal** | 1-2 |
| **Content Skills & Knowledge** | |
| One (1) or (2) existing certificates/career studies certificates may be combined with additional courses to create a coherent plan of study. May include experiential credit, such as credit for prior learning, internship credit, independent study, and/or apprenticeship credit. | |
| **Subtotal** | 44-52 |
| **Total Credits Required** | 60-69 |

Notes:

Students should work with the Program Chair in their major as well as the Academic Counselor to determine their specific pathway and schedule.

# School of Health Professions

The School of Health Professions includes Associate of Science (AS) and Associate of Applied Science (AAS) degrees that are intended for transfer and/or entrance into related career field. Additionally, the School of Health Professions offers certain Certificate (C) and Career Studies Certificates (CSC) to provide student access to specialized curriculum designed to support specific scientific and healthcare related educational pursuits.

**Programs**

| |
|---|
| Health Sciences |
| Medical Assisting |
| Nurse Aide |
| Practical Nursing |
| Nursing |
| Radiography |

# Health Sciences Program

The Associate of Science degree in Health Sciences is designed to prepare students for transfer into a four-year program related to Healthcare, Public Health, and/or Kinesiology.

**Program Chair**: Brigitte Casteel • bcasteel@vhcc.edu • 276-739-2440

| |
|---|
| Associate of Science in Health Sciences |
| Associate of Science in Health Sciences – Major in Kinesiology |
| Associate of Science in Health Sciences – Major in Public Health |
| Certificate in Health Sciences |

## Associate of Science (AS) in Health Sciences

Four semesters; two years

This program is designed to prepare students to transfer to four-year colleges and beyond to continue their education. Students will be prepared to study for a career in exercise science, health professions and pre-professional programs.

**Occupational Objectives**: Preparation in Health Sciences for transfer to four-year colleges to continue education in exercise science, health professions, and pre-professional programs.

**Admission Requirements**: The applicant must meet general requirements for admission to the College including any developmental work. Students who intend to transfer should verify specific program requirements with their four-year institution.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| SDV 101 | Orientation to College Success | 1 |
| ENG 111 | College Composition I | 3 |
| ART/HUM/MUS | ART/HUM/MUS from UCGS[1] | 3 |
| MTH 161, MTH 245 or MTH 263 | Precalculus I, Statistics I, or Calculus I | 3 |
| BIO 101 or CHM 111 | General Biology I or General Chemistry I | 4 |
| | **Total** | 14 |
| **Second Semester (Spring)** | | |
| ENG 112 | College Composition II | 3 |
| PSY 200 or SOC 200 | Introduction to Psychology or Introduction to Sociology | 3 |
| SCI | Approved Science Course[2] | 3 |
| SCI or HLT 143 | Approved Science Course[2] or Medical Terminology | 3 |
| BIO 102 or CHM 112 | General Biology II or General Chemistry II | 4 |
| | **Total** | 16 |
| **Third Semester (Fall)** | | |
| HIS 121 or HIS 122 | United States History to 1877 or United States History Since 1865 | 3 |
| BIO 141 | Human Anatomy and Physiology I | 4 |
| SCI | Approved Science Course[2] | 3 |
| SCI | Approved Science Course[2] | 3 |
| ENG 245, ENG 246, or PHI 220 | British Literature, American Literature, or Ethics & Society | 3 |
| | **Total** | 16 |
| **Fourth Semester (Spring)** | | |
| CST 100 | Principles of Public Speaking | 3 |
| EEE | Approved Elective[3] | 3 |
| BIO 142 | Human Anatomy and Physiology II | 4 |
| EEE | Approved Elective[3] | 3 |
| BIO 150 | Microbiology for Health Sciences | 4 |
| | **Total** | 17 |
| **Total Minimum Credits** | | 63 |

Notes:

Students should consult with their advisor to select the most appropriate Approved Elective for their chosen career goals. Some electives are four credits.

Students are urged to acquaint themselves with the requirements of the major department in the college or university to which transfer is contemplated; and further, students are urged to consult with their counselors and advisors at VHCC in planning their academic program and electives.

To Enroll in MTH 263 Calculus I students may complete MTH 161/162 sequence or MTH 167 or demonstrate proficiency using the following multiple measures requirement.

- be within six years of high school graduation
- graduate from high school with at least a 3.0 average
- complete an advanced math course in trigonometry with at least a B in that course

1. See UCGS Block II, parts A & B. Cannot be a literature course.
2. Approved Science Courses- BIO 101, BIO 102, CHM 111, CHM 112, CHM 241/245, CHM 242/246, PHY 201, PHY 202, PHY 241, or PHY 242.
3. Approved Electives - HLT 106, HLT 110, HLT 206, HLT 228, HLT 230, ITE 119, ITE 152, MTH 161, MTH 162, MTH 245, MTH 263; student is advised to consult with a faculty advisor to select the course best fit for the intended transfer destination.

## Associate of Science (AS) in Health Sciences – Major in Kinesiology

Four semesters; two years

This program is designed to prepare students to transfer to four-year colleges and beyond to continue their education. Students will be prepared to study for a career in exercise science, health professions and pre-professional programs.

**Occupational Objectives**: Preparation in Health Sciences for transfer to four-year colleges to continue education in exercise science, health professions, and pre-professional programs.

**Admission Requirements**: The applicant must meet general requirements for admission to the College including any developmental work. Students who intend to transfer should verify specific program requirements with their four-year institution.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| SDV 101 | Orientation to College Success | 1 |
| ENG 111 | College Composition I | 3 |
| ART/HUM/MUS | ART/HUM/MUS from UCGS[1] | 3 |
| MTH 245 or MTH 263 | Statistics I or Calculus I | 3 |
| CHM 111 | General Chemistry I | 4 |
| | **Total** | 14 |
| **Second Semester (Spring)** | | |
| ENG112 | College Composition II | 3 |
| PSY 200 | Introduction to Psychology | 3 |
| HLT 143 | Medical Terminology | 3 |
| CHM 112 | General Chemistry II | 4 |
| | **Total** | 13 |
| **Third Semester (Fall)** | | |
| HIS 121 or HIS 122 | United States History to 1877 or United States History Since 1865 | 3 |
| BIO 141 | Human Anatomy and Physiology I | 4 |
| HLT 206 | Introduction to Kinesiology | 3 |
| BIO 101 or PHY 241 | General Biology I or University Physics I | 4 |
| ENG 245 or ENG 246 | British Literature or American Literature | 3 |
| | **Total** | 17 |
| **Fourth Semester (Spring)** | | |
| CST 100 | Principles of Public Speaking | 3 |
| BIO 150 | Microbiology for Health Sciences | 4 |
| BIO 142 | Human Anatomy and Physiology II | 4 |
| BIO 151 | Human Gross Anatomy I[2] | 1 |
| HLT 106 | First Aid and Safety[2] | 2 |
| BIO 102 or PHY 242 | General Biology II or University Physics II | 4 |
| | **Total** | 18 |
| **Total Minimum Credits** | | 62 |

Notes:

Students should consult with their advisor to select the most appropriate Approved Elective for their chosen career goals. Some electives are four credits.

Students are urged to acquaint themselves with the requirements of the major department in the college or university to which transfer is contemplated; and further, students are urged to consult with their counselors and advisors at VHCC in planning their academic program and electives.

To Enroll in MTH 263 Calculus I students may complete MTH 161/162 sequence or MTH 167 or demonstrate proficiency using the following multiple measures requirement.

- be within six years of high school graduation
- graduate from high school with at least a 3.0 average
- complete an advanced math course in trigonometry with at least a B in that course

1. See UCGS Block II, parts A & B. Cannot be a literature course.
2. Students may take BIO 151 and HLT 106 OR may take HLT 230 only to satisfy requirements.

## Associate of Science (AS) in Health Sciences – Major in Public Health

Four semesters; two years

This program curriculum is designed for students seeking to pursue a transfer degree in Public Health-related field, designed for transfer.

**Occupational Objectives**: Students will be introduced to public health principles, practices, and policies. Students will be provided with an overview of public health systems globally to better understand the trends within public health and the public health effects on individuals and populations. They will learn about social determinants of health, the influence of culture on health, learn about health disparities, and will learn about the impact of effective health education and health promotion.
**Admission Requirements**: The applicant must meet general requirements for admission to the College including any developmental work. Students who intend to transfer should verify specific program requirements with their four-year institution.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| SDV 101 | Orientation to College Success | 1 |
| ENG 111 | College Composition I | 3 |
| ART/HUM/MUS | ART/HUM/MUS from UCGS[1] | 3 |
| MTH 245 or MTH 263 | Statistics I or Calculus I | 3 |
| BIO 101 | General Biology I | 4 |
| | **Total** | 14 |
| **Second Semester (Spring)** | | |
| ENG 112 | College Composition II | 3 |
| SOC 200 | Introduction to Sociology | 3 |
| HLT 143 | Medical Terminology | 3 |
| SCI or EEE | Approved Science Course[2] or Approved Elective[3] | 3 |
| BIO 102 | General Biology II | 4 |
| | **Total** | 16 |
| **Third Semester (Fall)** | | |
| HIS 121 or HIS 122 | United States History to 1877 or United States History Since 1865 | 3 |
| BIO 141 | Human Anatomy and Physiology I | 4 |
| HLT 228 | Introduction to Public Health | 3 |
| HLT 230 | Principles of Nutrition | 3 |
| ENG 245 or ENG 246 | British Literature or American Literature | 3 |
| | **Total** | 16 |
| **Fourth Semester (Spring)** | | |
| CST 100 | Principles of Public Speaking | 3 |
| HLT 110 | Personal and Community Health | 3 |
| BIO 142 | Human Anatomy and Physiology II | 4 |
| PSY 230 or SOC 200 | Developmental Psychology or Introduction to Sociology | 3 |
| BIO 150 | Microbiology for Health Sciences | 4 |
| | **Total** | 17 |
| **Total Minimum Credits** | | 63 |

Notes:

Students should consult with their advisor to select the most appropriate Approved Elective for their chosen career goals. Some electives are four credits.

Students are urged to acquaint themselves with the requirements of the major department in the college or university to which transfer is contemplated; and further, students are urged to consult with their counselors and advisors at VHCC in planning their academic program and electives.

To Enroll in MTH 263 Calculus I students may complete MTH 161/162 sequence or MTH 167 or demonstrate proficiency using the following multiple measures requirement.

- be within six years of high school graduation
- graduate from high school with at least a 3.0 average
- complete an advanced math course in trigonometry with at least a B in that course

1. See UCGS Block II, parts A & B. Cannot be a literature course.
2. Approved Science Courses - BIO 101, BIO 102, CHM 111, CHM 112, CHM 241/245, CHM 242/246, PHY 201, PHY 202, PHY 241, or PHY 242.
3. Approved Electives: Students are advised to consult with their faculty advisor at VHCC to select the course which offers the best fit for the intended transfer destination. Students may use recommended courses such as ITE 152, ITE 119, UCGS, and/or the AA or AS General Education Electives list to fulfill these credits.

## Certificate (C) in Health Sciences

Two semesters; one year

The growth and development of health professions as well as the changes in health care, requires the health care provider be multi-skilled and well prepared. This program is designed for those individuals interested in entering the health professions. The program will enable students interested in health care professions to acquire an academic foundation to continue their education in one of the health programs. Students should consult an academic advisor for any course substitutions to this curriculum.

**Occupational Objectives**: Preparation for entry into a health program and then into health profession.

**Admission Requirements**: The applicant must meet general requirements for admission to the College including any developmental work. Students who complete the Health Sciences certificate must still apply to their selected health program and meet the specific program criteria.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| ENG 111 | College Composition I | 3 |
| BIO 141 | Human Anatomy and Physiology I | 4 |
| SDV 101 | Orientation to College Success | 1 |
| PSY 230 | Developmental Psychology | 3 |
| EEE | Degree-related Elective[1] | 3 |
| HLT 105 | Cardiopulmonary Resuscitation | 1 |
| | **Total** | 15 |
| **Second Semester (Spring)** | | |
| ENG 112 | College Composition II | 3 |
| BIO 142 | Human Anatomy and Physiology II | 4 |
| EEE | Degree-related Elective[1] | 3-4 |
| EEE | Degree-related Elective[1] | 3-4 |
| HUM | Humanities Elective | 3 |
| | **Total** | 16-18 |
| **Total Minimum Credits** | | 31-33 |

Notes:

1. Degree-related electives:
   BIO 145 (intended for students pursuing PNE and EMS programs only; will not substitute for BIO 141 and BIO 142), BIO 150, EMS 111, EMS 120, HCT 101, HCT 102, HLT 105, HLT 143, MDL 105, MTH 154, MTH 155, NUR 135, HLT 140, SPA 163
   Students planning to pursue PN Program should take HLT 143 and BIO 145 (OR BIO 141 and BIO 142).
   Students planning to pursue RAD should take MTH 154 and HLT 143; students should see an advisor.
   Students planning to pursue Associates Degree in Nursing (ADN) should take HLT 143, BIO 150 and NUR 135; students should see an advisor.
   Students planning to pursue CNA should take HCT 101 and HCT 102; students should see an advisor.
   Students planning to pursue Phlebotomy CSC should take MDL 105, BIO 145, and HLT 140. See faculty advisor prior to registering for MDL 105.
   Students pursuing other health programs should see an advisor.

# Medical Assisting Program

This program will prepare individuals to serve as medical assistants in various medical settings. Phlebotomy Career studies certificate is a separate award that can be for students in the medical assisting program or is available for students interested in a career in phlebotomy.

**Program Chair**: Kim Felty • kfelty@vhcc.edu • 276-739-2534

| |
|---|
| Career Studies Certificate in Medical Assisting |
| Career Studies Certificate in Phlebotomy |

## Career Studies Certificate (CSC) in Medical Assisting

Two semesters; one year

This program will prepare individuals to serve as medical assistants in various medical office settings. Medical assistants typically do the following:

- Record patient history and personal information
- Measure vital signs, such as blood pressure
- Help the physician with patient examinations
- Give patients injections or medications as directed by the physician and as permitted by state law
- Schedule patient appointments
- Prepare blood samples for laboratory tests
- Enter patient information into medical records

**Occupational Objectives**: This program is designed to provide essential technological and practical knowledge required for a medical assistant to perform patient clinical skills in various medical office settings. Training experiences in nearby medical offices are provided.

At the successful completion of this program, the student will be eligible to take the CCMA exam offered by the National Healthcareer Association (NHA) for entry into the profession as a Certified Clinical Medical Assistant (CCMA) or the RMA exam offered by American Medical Technologists (AMT) for entry into the profession as a Registered Medical Assistant (RMA). Graduates are also eligible to take the CPT (Certified Phlebotomy Technician) exam.

The number of qualified applicants offered admission to the medical assisting program is contingent upon the space available in the classrooms and medical assistant laboratories, the program's access to sufficient clinical spaces in the region's healthcare settings in order to meet the program's learning outcomes, and the number of qualified medical assisting faculty to teach the students in classrooms, labs, and clinical settings.

This program demands a high level of English proficiency as well as extensive reading and writing.

**Admission Requirements**

- Completion of the VHCC Application
- Completion of High School English at level 12 with a "C" or better or documented proficiency
- Completion of a Science with a "C" or higher or documented proficiency
- Completion of Algebra I with a "C" or better or documented proficiency.
- Completion of a computer applications course with a "C" or better or completion of the computer application modules.
- Achievement of a minimum GPA (high school or college) or 2.0 or higher.
- Students will need to meet physical requirements for vision and hearing and must be able to complete all skills with reasonable accommodations.
- Each year, Medical Assisting Program application packets, including transcripts, will be accepted by the School of Health Professions until the established deadline.
- Participation in program informational session and possible interview.

**Special Program Requirements**

- Students in medical assisting program incur a variety of expenses in addition to college tuition and fees. These include, but are not limited to, the cost of uniforms, accessories, and travel to clinical assignments. Students are also responsible for testing fees.
- A strict dress code is required in the clinical setting. Students may be dismissed if they fail to comply with this dress code.
- Students are required to complete learning experiences at local clinics, private offices, and/or other community-based agencies. Students may be required to attend both day and/or evening clinical assignments.
- Students must provide their own transportation to clinical assignments. Strict attendance is required at clinical sites.
- Students must comply with all clinical contract protocols including immunization requirements, drug screening and background checks. The cost for criminal background checks, drug screenings, immunizations, and physicals will be the responsibility of the student. Students with criminal convictions who do not self-disclose this information are subject to dismissal from the program.
- Students must maintain current American Heart Association Basic Cardiac Life Support for Healthcare Providers.
- While enrolled in clinical courses, students may not replace or take the responsibility of "qualified" staff in affiliated facilities. However, after demonstrating proficiency, students may be permitted to perform specified procedures under careful supervision.
- Students are expected to demonstrate professional behavior consistent with standards associated with health care practitioners.
- Each course in the program major must be completed with a grade of "C" or better before taking the next course in the sequence and to satisfy graduation requirements, unless waived by the Division Dean upon the recommendation of the Program Director.
- All courses in the major must be taken in the sequence prescribed in the VHCC Catalog, unless otherwise approved by the Program Coordinator or Division Dean.
- Satisfactory physical and mental health must be maintained for continuance in the program. Applicants must be free of any physical and/or mental condition that might adversely affect their acceptance or performances in the program. The College reserves the right to require medical examinations to verify continuing compliance. Students with pre-existing physical and/or mental conditions which might adversely affect performance in the program who do not self-disclose this information are subject to dismissal from the program.

**Program Re-Enrollment Requirements for Medical Assisting Students**: Any student who has voluntarily withdrawn or who has been withdrawn due to unsatisfactory academic or clinical performance may apply for re-admission the following academic year. Acceptance will be based upon space availability, successful fulfillment of any contingencies agreed to in writing at the time of withdrawal, and Program Director approval.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| HLT 105 | Cardiopulmonary Resuscitation | 1 |
| MDA 100 | Intro. to Medical Assisting | 2 |
| MDA 101 | Medical Assistant Science I | 5 |
| MDA 107 | Pharmacology for Medical Assistants | 2 |
| MDA 104 | Medical Assistant Science IV | 3 |
| | **Total** | 13 |
| **Second Semester (Spring)** | | |
| MDA 102 | Medical Assistant Science II | 2 |
| MDA 209 | Medical Office Insurance | 2 |
| MDA 203 | Medical Office Procedures | 3 |
| MDA 196 | On-Site Training | 4 |
| HLT 140 | Introduction to Health Related Professions | 1 |
| | **Total** | 12 |
| **Total Minimum Credits** | | 25 |

Notes:

After completion of this program, students can earn two credentials: CCMA (Certified Clinical Medical Assistant)/RMA (Registered Medical Assistant) and CPT (Certified Phlebotomy Technician).

## Career Studies Certificate (CSC) in Phlebotomy

One semester

The Career Studies Certificate in Phlebotomy is a one semester 16-credit program designed to prepare personnel who collect and process blood, medical laboratory analysis in adults and children by venipuncture or micro-techniques. Graduates are eligible to take the CPT (Certified Phlebotomy Technician) exam.

**Occupational Objectives**: This program is designed to provide essential technological and practical knowledge required for a Phlebotomist to perform patient clinical skills in various healthcare settings. Training experiences in nearby clinical facilities are provided for students who are completing the CSC in Phlebotomy.

- **Admission Requirements**: In addition to the admission requirements established for the college, entry into the Career Studies Certificate in Phlebotomy has no additional requirements. Students with deficiencies in reading, writing, or mathematics may be required to take developmental studies. Students will need to meet physical requirements for vision and hearing and must be able to complete all skills with reasonable accommodations.

**Program Requirements**:

- Students in Phlebotomy program may incur a variety of expenses in addition to college tuition and fees. These may include cost of uniforms, travel to clinical assignments, and certification fees.
- A strict dress code is required in the clinical setting. Students may be dismissed if they fail to comply with this dress code.
- Students are required to complete learning experiences at local clinics, private offices, and/or other community-based agencies. Students may be required to attend both day and/or evening clinical assignments.
- Students must provide their own transportation to clinical assignments. Strict attendance is required at clinical sites.
- Students must comply with all clinical contract protocols including immunization requirements, drug screening and background checks. The cost for criminal background checks, drug screenings, immunizations, and physicals will be the responsibility of the student. Students with criminal convictions who do not self-disclose this information are subject to dismissal from the program.
- Students must maintain current American Heart Association Basic Cardiac Life Support for Healthcare Providers.
- Students are expected to demonstrate professional behavior consistent with standards associated with health care practitioners.
- Each course in the program major must be completed with a grade of "C" or better before taking the next course in the sequence and to satisfy graduation requirements, unless waived by the Division Dean upon the recommendation of the Program Director.

**Program Re-Enrollment Requirements for Phlebotomy Students**: Any student who has voluntarily withdrawn or who has been withdrawn due to unsatisfactory academic or clinical performance may apply for re-admission the following academic year. Acceptance will be based upon space availability, successful fulfillment of any contingencies agreed to in writing at the time of withdrawal, and Program Director approval.

**Other Requirements**: Students who intend to apply for Career Studies Certificate in Phlebotomy will be required to take both MDL 105 and MDL 190.

| Course Number | Course Title | Credits |
|---|---|---|
| HLT 140 | Orientation to Health Related Professions | 1 |
| MDL 105 | Phlebotomy[1] | 3 |
| MDL 196 | On Site Training[1] | 3 |
| HLT 143 | Medical Terminology | 3 |
| HLT 145 | Ethics for Health Care Personnel | 2 |
| BIO 145 | Basic Human Anatomy & Physiology | 4 |
| **Total Minimum Credits** | | 16 |

Notes:

Students should contact Program Chair prior to start of semester. Phlebotomy course (MDL 105) is offered as non-credit and credit.

1. MDL 196 will be offered only for students who are intending to complete the Phlebotomy Career Studies Certificate. Students must pass a background check and drug screen prior to enrolling in MDL 105 and/or MDL 196.

# Nurse Aide Program

This program is designed to prepare the student for a Career in the nursing field. Training will focus on the improvement and enhancement of quality of life for long-term care residents and introduce growing need in long-term care. Students who successfully complete HCT 101 and HCT 102 will be eligible for Nurse Aide certification exam (CNA). These two classes can be taken for credit and students may apply for financial aid OR students may apply through Fast Forward program for non-credit.

**Program Chair**: Dr. Teressa Wexler • twexler@vhcc.edu • 276-739-2482

## Career Studies Certificate (CSC) in Nurse Aide

Two semesters; one year

This program is designed to prepare the student for a Career in the nursing field. Training will focus on the improvement and enhancement of quality of life for long-term care residents and introduce growing need in long-term care. Students who successfully complete HCT 101 and HCT 102 will be eligible for Nurse Aide certification exam (CNA). These two classes can be taken for credit and students may apply for financial aid OR students may apply through Fast Forward program for non-credit.

**Occupational Objectives**: Becoming a nurse aide is a wonderful career for compassionate individuals who find it personally rewarding to care for and help people. While the job is often demanding, the opportunity to provide direct person to person care is high and nurse aides enjoy the opportunity of developing close relationships with patients. The program is designed to prepare students to sit for the Certified Nurse Aide (CNA) certification. Nurse aides have careers in a variety of healthcare settings including hospitals, home health, long term care, and assisted living facilities.

**Admission Requirements**: The applicant must meet the general requirements for admission to the College including any developmental work.

**Program Requirements**: Students who take HCT 101 and HCT 102 will be required to complete a background check prior to clinical experiences. Students may be required to complete a background check at their own expense.

**Other Requirements**: HCT 101 Health Care Technician and HCT 102 Health Care Technician II prepares students for licensing through the National Nurse Aide Assessment Program for certification in Nurse Aide (CNA) Students may take HCT 101 Health Care Technician and HCT 102 Health Care Technician II as credit courses and apply for financial aid OR students may apply through Workforce Development Office for FastForward program as non-credit. The other courses in the Career studies certificate (with the exception of HCT 101 and HCT 102) are credit courses.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| HLT 105 | Cardiopulmonary Resuscitation | 1 |
| HCT 101 | Health Care Technician I[1] | 3 |
| HCT 102 | Health Care Technician II[1] | 4 |
| ENG 111 | English Composition I | 3 |
| | **Total** | 11 |
| **Second Semester (Spring)** | | |
| EEE | Degree related elective (NUR 135, ITE 152, or HLT 145) | 2-3 |
| HLT 143 | Medical Terminology | 3 |
| HUM | Humanities Elective | 3 |
| | **Total** | 8-9 |
| **Total Minimum Credits** | | 19-20 |

Notes:

1. Approved by the Virginia Board of Nursing and prepares you to take the Nurse Aide licensure exam.
2. Students may choose from the Humanities general education course list. See advisor for assistance when choosing appropriate elective.

Criminal background may prevent you from participating in required clinical work. Students may be required to complete a background check at their own expense.

# Practical Nursing Program

**SPECIAL PROGRAM STATEMENT**: The VCCS is adopting a new statewide common curriculum for practical nursing. The current practical nursing program courses and sequence will not be offered in future academic years. Students who do not complete the program in the current sequence by the end of the Summer 2027 may have to reapply to the program and begin the new VCCS statewide common curriculum from the beginning. New curriculum and new starting semester for cohorts will begin in Summer 2027 for new cohorts pending VCCS and VHCC Curriculum Committee approval. PENDING APPROVAL—PN program will change to a Summer start program (Summer, Fall, and Spring) effective SUMMER 2027.

The 12-month certificate curriculum in practical nursing is designed to prepare selected students to qualify as contributing members of the health team providing safe and competent nursing care under the direction of registered nurses and doctors. Upon successful completion of the curriculum, students will be eligible to apply to take the National Council Licensure Examination for PN leading to licensure as a Licensed Practical Nurse (LPN).

**Program Chair**: Dr. Teressa Wexler • twexler@vhcc.edu • 276-739-2482

## Certificate (C) in Practical Nursing

Three semesters; one year

The 12-month certificate curriculum in practical nursing is designed to prepare selected students to qualify as contributing members of the health team providing safe and competent nursing care under the direction of registered nurses and doctors. Upon successful completion of the curriculum, students will be eligible to apply to take the National Council Licensure Examination for PN leading to licensure as a Licensed Practical Nurse (LPN).

**Occupational Objective**: Employment opportunities for the LPN include, but are not limited to, staff positions in hospitals, long-term care facilities, physician offices, clinics, home health agencies, public schools, day care centers, and other health related agencies under the direction of registered nurses and doctors.

**State Approval Status:** The Associate of Applied Science in Nursing degree program at VHCC is located in Abingdon, Virginia and is approved by the Virginia Board of Nursing, Perimeter Center 9960 Mayland Drive, Suite 300, Henrico, VA 23233-1463, (804)367-4515 Next on site review of the Associate of Applied Science in Nursing degree program will be in 2035.VHCC Practical Nursing Program has approval by the Virginia Board of Nursing, Perimeter Center 9960 Mayland Drive, Suite 300, Henrico, VA 232330-1463, (804) 367-4515. Next on site review of the VHCC Practical Nursing program will be in 2026.

**Program Student Learning Outcomes**:

1. Safety- Perform basic nursing skills in a safe, legal, and ethical manner for patients across the lifespan in a variety of settings including health promotion and treatment of illness.
2. Teamwork- Collaborate and communicate with all members of the healthcare team to ensure safe, quality patient care.
3. Relationship- Centered Care-Provide safe, holistic, culturally appropriate nursing care using evidence-based practice and the nursing process.
4. Quality- Assume responsibility and accountability for the quality of nursing care provided to patients and their families in a variety of healthcare settings.
5. System-Based Care- Apply knowledge of the community, the healthcare system, and the needs of the individual/ family to ensure the delivery of cost-effective quality client-centered care.
6. Professional Development- Function to the full scope of safe nursing practice specific to practical nursing, seeking assistance in situations beyond individual expertise to provide safe, quality care.

**Admission Requirements:** Admission to the VHCC Practical Nursing Program is a selective process. The program is open to applicants who are free of any physical or mental condition which might adversely affect performance as a member of the healthcare team. In addition to the requirements for admission to the college, the applicant must meet the following requirements by the application deadline:

1. Graduation from high school or satisfactory completion of the GED.
2. Good standing with the most recently attended institution with a minimum GPA of 2.0.
3. Demonstrated proficiency in mathematics as evidenced by:
    a. MTE 1-4 or MDE 10 either through the Virginia Placement Test (VPT) OR prescribed developmental work within the last 6 years OR
    b. Completion of a college level math course equivalent to MTE 1-4 with a grade of C or better OR
    c. SAT Score of 470/ACT Score 17 within the last 6 years, OR
    d. GED- Math score of 155 165 or above within the last 6 years, OR
    e. Has successfully completed developmental courses within the last 6 years, OR
    f. High School GPA (HSGPA) 2.0 or higher & Algebra II, o within the last 6 years with a “C” or better OR

   g. HSCGPA 3.0 or higher & Algebra I within last 6 years with a C or better
   h. ATI TEAS math percentile to be determined by the Dean of Health Professions before November 1 of each academic year (based on national proficiency standards.
4. Demonstrated competency in English as evidenced by:
   a. Virginia Placement Test with placement in ENG 111 or ENG 111 plus EDE 11 within the last 6 years, OR
   b. Completion of a college level English course equivalent to ENG 111 with grade of C or better, OR
   c. ACT Reading and Writing Score 15 or above within the last 6 years, OR
   d. SAT Reading/Writing 400 or above within the last 6 years, OR
   e. GED- English score of 165 or above within the last 6 years, OR
   f. Successfully completed applicable English developmental courses within the last 6 years OR
   g. High School GPA (HSGPA) 2.0 or higher within the last 6 years
5. Demonstrated competency in Science Biology as evidenced by:
   a. One unit of high school Biology or college equivalent with grade C or better OR
   b. Completion of BIO 145 with grade of C or better OR
   c. Completion of PNE 155 (Body Structure and Function) with grade of C or better OR
   d. Completion of BOTH BIO 141 and BIO 142 with grade of C or better
6. Completion of the Test of Essential Academic Skills (TEAS) with a National/Program percentile rank based on national proficiency standards showing "Proficient" (minimum of 57.8% total score)
7. Completion of BIO 145 and HLT 143 pre-requisites before Fall semester cohort starts.
8. A 2.0 grade point average (GPA) for high school courses** or a 2.0 curricular GPA for college coursework.
9. Completion of Practical Nursing Application for each academic year interested in being considered.

**Application:** Applications for the Practical Nursing program are online at www.vhcc.edu/future-students/nurse-ready. Students are encouraged to submit their application when they have completed the admission requirements of demonstrating proficiency in Math/English/Science, a TEAS score showing "Proficient" (57.8% total score) and completion of HLT 143 and BIO 145 general education courses. Once the criteria have been met an official acceptance letter will be sent to the applicant. The priority deadline for applications is March 15. Applications will continue to be accepted after the priority deadline only if seats are available.

The application process includes uploading official high school transcripts, all college transcripts; GED test scores (if applicable), and a copy of TEAS results.

If all transcripts are not included, the Admissions Office will suspend processing an application.

Transcripts from other Virginia Community Colleges are not required; however, any Virginia Community Colleges attended must be listed on both the Admissions Application and the Practical Nursing Application.

All prerequisites (general biology, English and math proficiency) must be met and all documents submitted by the application deadline.

Further details of the application process can be found at www.vhcc.edu/medapp (click Future Students > Admissions > Applications & Forms > Medical Program Applications).

Out-of-region applicants will only be considered for openings in the practical nursing program after all qualified in-region applicants are considered (see VHCC Student Handbook, Admission Priorities). To be considered in-region, an applicant must be domiciled within the service region for 12 months prior to the program application deadline.

**Transfer of Nursing Credit**: Students seeking to transfer credit from nursing programs at other institutions will be considered on an individual basis. Requested transfer courses will be evaluated for currency, comparability, relevancy to the nursing program degree, calculation of credit including didactic and clinical time and the grade earned. Transcripts of students transferring from non-regionally accredited colleges and universities will be evaluated on a course-by-course basis by the Coordinator of Admissions and Records.

Students must meet the admission requirements identified by the college and the VHCC PN Program. The student may be asked to provide course descriptions, documentation of completed direct patient care clinical time, course syllabi, achievement or progressive testing scores, demonstration of competency in critical nursing skills, and selected data from the course instructor or program director in order to determine placement in the nursing program. Consideration will be subject to availability of space. Since there frequently are differences among nursing programs, students wishing to transfer should be aware that there may be an interruption in program progression. Applicants must be in good standing at their previous college with a "C" average or better and must provide documentation from the Nursing School Program Director of eligibility to return to that nursing program as well as documentation of the number of hours of clinical experiences providing direct patient care supervised by a qualified instructor. Nursing courses which are being transferred must have been completed within three (3) years prior to admission to the nursing program.

Decisions on admission offers to transferring applicants will be determined by the VHCC PN Coordinator following official transcript analysis, review of completed nursing course outlines, and space and faculty availability. A transferring student must demonstrate expected level proficiencies by testing including demonstration of competency in critical skills. The transferring applicant may have to repeat courses.

**Notification of United States Department of Education Regulation**

Pursuant to United States Department of Education (US DOE) regulation 34 CFR 668.43 (a) (5) (v), the Virginia Highlands Community College (VHCC) Practical Nursing program provides the following information for all prospective and current students:

The VHCC PN program meets all Virginia Board of Nursing requirements for pre-licensure nursing education programs in the Commonwealth of Virginia.

The Commonwealth of Virginia participates with 32 other states in the National Council of State Boards of Nursing (NCSBN) National Licensing Compact (NLC) to allow nurses licensed in one state to provide nursing care across state lines in other compact states. The Uniform Licensing Requirements (ULRs) are found at: www.ncsbn.org/NLC_ULRs.pdf.

States currently in the NLC are found at: www.ncsbn.org/nlcmemberstates.pdf. Prospective and current students are strongly encouraged to evaluate all state requirements in jurisdictions where they intend to practice nursing. A list of all state requirements is found at: www.ncsbn.org/14730.htm.

VHCC has not determined if the PN program meets the requirements of any other states.

This statement serves to meet the US DOE regulation until further notice.

**Program Requirements:** The PN program is dependent on use of local clinical agencies to meet the experiential or clinical learning needs of its students. In order to protect patients and visitors as well as students, clinical agencies require that each student have proof of completion of clinical requirements. Students who do not complete and/or maintain clinical requirements by established deadlines will be prohibited from attending clinicals and will be administratively withdrawn from the nursing clinical course. Prior to enrollment in any PNE course, the student must provide the following documentation:

1. Required Student Forms.
2. Annual Student Statement of Health Form.
3. Student Information, Physical, Immunization Forms.
    a. A physical examination from must be completed by a medical practitioner, MD, PA, or CNP.
    b. Immunizations including Tetanus, Mumps-Measles-Rubella (MMR), Varicella, Hepatitis B, Influenza, and COVID
    c. Current 2-Step Tuberculosis testing for tuberculosis, either Mantoux Tuberculin Skin Test (TB Tine Test is not accepted) or chest X-ray if applicable.
    d. Documentation of ability to perform physical demands required in direct patient care activities.
4. Purchase a background check, drug screen, and document manager package.
5. Clearance of criminal background check and drug testing.
6. Proof of CPR certification, American Heart Association, Basic Life Support (BLS) for Healthcare Providers completed during the summer (May 15 – August 1) prior to clinical rotation start date or completion of HLT 105 during Fall semester (prior to clinical rotation start date) and maintained throughout the program.

The cost of these requirements is the responsibility of the student.

**Special Note:** The State Board of Nursing has the authority to deny license to any applicant who has violated any of the provisions of 54.1-3007 of the Code of Virginia. Most healthcare organizations are prohibited from hiring persons who have been convicted of certain criminal acts (For a list of crimes under this category refer to the Virginia Board of Nursing webpage under the heading, Licensure/Applicants: Article 90-55, click on the link, Joint statement of the Department of Health and The Department of Health Professions on Impact of Criminal Convictions on Nursing Licensure or Certification and Employment in Virginia, Revised December 2020). Students with criminal convictions must meet with the Dean of Health Professions. Permission for clinical assignments must be received from clinical affiliations for applicable students. Clinical facilities that will not approve student placement results in students being unable to complete program requirements and ineligible to continue the program. Students with positive drug screens are addressed individually and may result in being prohibited from clinical activities and therefore, unable to complete the program requirements. Contact the Dean of Health Professions for clarification of specific issues.

**Performance Standards for Clinical Laboratory Assignments:**

Students must be able to perform all essential job functions or performance standards in clinical settings with reasonable accommodation. The following performance standards are consistent with those identified by the Southern Regional Education Boards and include, but are not limited to:

1. Critical thinking: Critical thinking ability sufficient for clinical judgment and delivery of safe patient care.

2. Interpersonal abilities: Interpersonal abilities sufficient to interact with clients, families and groups from a variety of social, emotional, cultural, and intellectual backgrounds.
3. Communication: Communication abilities sufficient for interaction with others in verbal and written form.
4. Mobility: Physical abilities sufficient to move from room to room and maneuver in small spaces.
5. Motor skills: Gross and fine motor abilities sufficient to provide safe and effective nursing care.
6. Physical demands: Physical demands in this program include duties that frequently require squatting, bending, kneeling, reaching, and stair climbing; lifting and carrying up to 50 pounds; frequent pushing and pulling up to 200 pounds with assistance; occasional lifting up to 200 pounds with assistance and occasional carrying up to 51-74 pounds.
7. Hearing: Auditory ability sufficient to monitor and assess health needs.
8. Visual: Visual ability sufficient for nursing observation and assessment.
9. Tactile: Tactile ability sufficient for physical assessment.

**Financial Requirements**: In addition to the usual college tuition and fees, the nursing program requires pre-admission testing and other expenses in which students are responsible for. These include a digital device such as a laptop or tablet to use in classroom and lab, uniforms/shoes, watch, stethoscope, standardized program progressive products (ATI), textbooks, electronic technology, ViewPoint Criminal Background, drug screening, and document manager, HIPAA certification, AHA BLS-HP CPR certification, Physical exam and Immunizations, and Tuberculosis testing, and Health Insurance. Students are responsible for these required costs as well as the cost of transportation to and from the College and health agencies used for clinical experiences. Refer to the VHCC PN Handbook for further details. Refund of cost of tuition is dependent on the academic calendar last day to drop and receive a refund. Refund of other costs such as health physical examination, immunizations, AHA BLS-HP CPR, and ViewPoint are not refundable. Cost associated with textbooks and uniforms (and accessories) are contingent upon the individual vendor. It is the expectation of the student to have purchased required materials for each course in which they are enrolled.

**Financial Aid:** VHCC strives to assure that no one be denied the opportunity of attending the College for financial reasons. Students are encouraged to contact the Financial Aid office at VHCC to determine eligibility. Refer to the Financial Aid section in the Student Catalog for requirements. Potential scholarships are available through the VHCC Foundation.

**Course Requirements:** The student is required to complete a sequence of courses and learning experiences provided at the college and selected community agencies such as hospitals, long-term care facilities, clinics, physicians' offices and comparable facilities. The practical nursing faculty will observe and evaluate the student's suitability for nursing and direct patient care.

Students must complete all courses sequentially as listed in the curriculum. A student must have a "C" or above in theory plus "satisfactory" in clinical performance in all nursing courses to remain in the program. A grade of "C" or above in any related requirements is a prerequisite for continuing in the nursing program.

The nursing program faculty reserves the right to recommend, through appropriate channels, the withdrawal of any student who does not exhibit suitable demeanor/attendance.

**Program Progression:** Students must earn a minimum grade of "C" in all required courses and maintain a minimum cumulative GPA of 2.0 to remain eligible for continued enrollment in the nursing program. Any student who earns a final grade lower than a "C" in a required course (either general education or nursing courses) must repeat the course and earn a final grade of "C" or better before taking the next course in the sequence.

A student must obtain permission from the Dean of the School of Biological and Health Sciences to continue in the Practical Nursing Program under the following conditions:

1. Repeating a course with a grade below "C"
2. Withdrawal from a nursing course
3. Cumulative GPA below 2.0.

**Reapplication/Readmission Requirements**: Students who are not successful in the first practical nursing course, PNE 161, must reapply to the program. A new practical nursing program application packet must be submitted by the application deadline.

A student who wishes to reenter the practical nursing curriculum at any other level must write a letter to the Program coordinator and the Dean of the School of Biological and Health Sciences requesting readmission in the semester prior to the semester of enrollment. Re-enrollment must occur no later than three years from successful completion of PNE 161 or the student will have to repeat all practical nursing courses.

The student may be required to enroll in and satisfactorily complete specific courses before readmission. Additional data may be required including a new criminal background check and medical records.

The decision to readmit will be based on additional data, prior performance in the practical nursing program, and space availability.

Based on the course(s) that must be repeated, the student who is readmitted may be required to complete a skills competency course or demonstrate competency in critical nursing skills before progressing to the next level.

A student who has two academic failures or withdrawals in separate semesters will be ineligible for reenrollment in the program. A withdrawal is considered an enrollment. However, due to the pandemic for the academic years 2019-2021, a withdrawal will not be considered an enrollment for this period only. Such a student may not be readmitted if the cumulative grade point average is less than 2.0, including all courses attempted other than practical nursing courses.

According to the VCCS Policy 5.6.3 and VHCC Policy 5.7.4 "A student will normally be limited to two enrollments in the same credit course." Any exception to this policy must be approved by the program dean and the Vice President of Instruction and Student Services.

**Clinical Contracts**: Virginia Highlands Community College has contracts with clinical agencies for both student and patient safety. If students cannot comply with these contractual requirements, they will not be able to participate in clinical activities and will be asked to withdraw from the program. General guidelines follow:

1. Clinical agencies reserve the right to dismiss a student from their agency at any time with due cause. This will be done with advance notice except in an emergency.
2. Published policies of the clinical agency must be followed. Each student must successfully complete an orientation program prior to participating in activities at any clinical facility.
3. Clinical facilities require that all students have documentation of ability to perform the physical demands required in direct patient care activities.
4. Immunizations must be current and comply with clinical agency requirements.
5. Student releases any clinical agency, its agents and employees from any liability for any injury or death to himself or damage to his property arising out of agreement or use of the clinical agencies.
6. Proof of HIPAA, American Heart Association BLS-HP CPR Certification, and health insurance must be provided.

| Course Number | Course Title | Credits |
|---|---|---|
| **Pre-Requisite Courses Needed Prior to Start of Fall Practical Nursing Cohort** | | |
| BIO 145 | Basic Human Anatomy & Physiology[1] | 4 |
| HLT 143 | Medical Terminology | 3 |
| | **Total** | 7 |
| **First Semester (Fall)** | | |
| SDV 101 | Orientation to College Success[2] | 1 |
| PNE 143 | Applied Nursing Skills | 1 |
| PNE 161 | Nursing in Health Changes I | 6 |
| PNE 173 | Pharmacology for Practical Nurses | 2 |
| HLT 105 | Cardiopulmonary Resuscitation[3] | 1 |
| NUR 135 | Drug Dosage Calculations[4] | 2 |
| | **Total** | 13 |
| **Second Semester (Spring)** | | |
| PSY 230 | Developmental Psychology | 3 |
| PNE 162 | Nursing in Health Changes II | 10 |
| PNE 136 | Care of Maternal, Newborn, & Pediatric Patients | 4 |
| | **Total** | 17 |
| **Third Semester (Summer)** | | |
| ENG 111 | College Composition I | 3 |
| PNE 163 | Nursing In Health Changes III | 9 |
| PNE 145 | Trends in Practical Nursing | 1 |
| PNE 158 | Mental Health & Psychiatric Nursing | 2 |
| | **Total** | 15 |
| **Total Minimum Credits** | | 45 |

Notes:

1. BIO 141 and 142 are acceptable course substitutes recommended for progression to the LPN to RN Program (Track 2 or Track 4 of the Associate in Applied Science in Nursing degree program).
2. HLT 140 is an acceptable substitution for SDV 101. Students may choose to take either HLT 140 or SDV 101 to satisfy the requirements for the Practical Nursing program.
3. Students who have an active, unexpired BLS CPR certification card issued by the American Heart Association may request credit by previous experience for HLT 105.
4. NUR 135 may be taken prior to admission to the PN program.

# Nursing Program

The purpose of the nursing program at VHCC and other nursing programs of the Virginia Community College System (VCCS) is to provide affordable, community access to quality nursing education. The VCCS nursing programs prepare qualified students to provide safe, competent, entry-level nursing care in 21st century healthcare environments. Students are prepared to meet the ever-increasing complexity of the healthcare needs of the citizens of Virginia. After successful completion of the program, students are eligible to apply for the NCLEX RN exam provided by the National Council of State Boards of Nursing for licensure as a Registered Nurse.

**Program Director**: Katie Justice • kjustice@vhcc.edu • 276-739-2481

## Associate of Applied Science (AAS) in Nursing

**Nursing Program Options and Length:** (Length includes pre-requisites, general education courses, and nursing courses)

**Track 1**: Traditional Day Program; Five semesters; two years

**Track 2**: LPN to RN Transition Day Program; Five semesters; two years

**Track 3**: Part-time Evening/Weekend; Ten semesters; four years

**Track 4**: LPN to RN Transition Part-time Evening/Weekend; Eight semesters; three years

The Virginia Highlands Community College Nursing Program was part of the Virginia Appalachian Tricollege Nursing Program for nearly 50 years. In May 2020, VHCC Nursing became a stand-alone program maintaining the history and reputation of Nursing at VHCC. The program follows the Virginia Community College System (VCCS) common curriculum as mandated for all VCCS nursing programs.

**State Approval and Accreditation Status:** The Associate of Applied Science in Nursing degree program at VHCC is located in Abingdon, Virginia and is approved by the Virginia Board of Nursing, Perimeter Center 9960 Mayland Drive, Suite 300, Henrico, VA 23233-1463 (804)367-4515. The VHCC Nursing program is accredited by the Accreditation Commission for Education in Nursing (ACEN) 3390 Peachtree Road NE, Suite 1400 Atlanta, GA 30326 (404) 975-5000, www.acenursing.org/. The most recent ACEN accreditation decision made by the ACEN Board of Commissioners for the Virginia Highlands Community College Associate degree nursing program is continuing accreditation. ACEN is officially recognized as the national accrediting agency for nursing education by the Council on Post-secondary Accreditation (COPA) and by the U.S. Department of Education.

**Purpose/Mission/Goal**: The purpose of the nursing program at VHCC and other nursing programs of the Virginia Community College System (VCCS) is to provide affordable, community access to quality nursing education. The VCCS nursing programs prepare qualified students to provide safe, competent, entry-level nursing care in 21st century healthcare environments. Students are prepared to meet the ever-increasing complexity of the healthcare needs of the citizens of Virginia. After successful completion of the program, students are eligible to apply for the NCLEX RN exam provided by the National Council of State Boards of Nursing for licensure as a Registered Nurse.

**Student Learning Outcomes**:

1. **Client Centered Care**- Provide client-centered care promoting therapeutic relationships, caring behaviors, and self-determination across the lifespan for diverse populations.
2. **Safety-Practice**- safe nursing care that minimizes risk of harm across systems and client populations.
3. **Clinical Judgement**- Demonstrate nursing judgment through the use of clinical reasoning, the nursing process, and evidence-based practice in the provision of safe, quality care.
4. **Professional Behaviors**- Practice professional behaviors that encompass the legal/ethical framework while incorporating self-reflection, leadership and a commitment to recognize the value of life-long learning.
5. **Quality Improvement**- Manage client care through quality improvement processes, information technology, and fiscal responsibility to meet client needs and support organizational outcomes.
6. **Collaboration**- Demonstrate principles of collaborative practice within the nursing and interdisciplinary teams fostering mutual respect and shared decision-making to achieve stated outcomes of care.

**Program Outcomes**

1. 80% First-time pass rate of the NCLEX RN
2. 45% Student Ontime Completion Rate of program length
3. 85% Job Placement rate

**Employment Opportunities**: Employment opportunities for the Registered Nurse (RN) include, but are not limited to, staff positions in hospitals, nursing homes, health departments, physician offices, clinics, home health agencies, public schools, day care centers, and civil service.

**Admission to Program**: All Tracks admit once a year. Tracks 2, 3, and 4 admit students in the Summer session. Track 1 admits students in the Fall session.

**Admission Requirements**: Admission to the VHCC Nursing Program is a selective process. The program is open to applicants who are free of any physical or mental condition which might adversely affect performance as a member of the nursing profession. In addition to the requirements for admission to the college, the applicant must meet the following requirements:

1. Graduation from high school or satisfactory completion of the GED.
2. Good standing with the most recently attended institution with a minimum GPA of 2.0.
3. Demonstrated competency in science as evidenced by
    a. General Biology with lab (high school or college) with a grade C or better OR
    b. Chemistry with lab (high school or college) with a grade C or better OR
    c. Completion of BIO 141 and 142 with a C or better. Note: BIO 101 or CHM 5 can be taken to meet this requirement.
4. Demonstrated proficiency in mathematics as evidenced by
    a. MTE1-5 or MDE10 either through the Virginia Placement Test (VPT or prescribed developmental work within the last 6 years. OR
    b. HSGPA & Algebra II 3.0 or higher within the last 5 years,
    c. GED Math score of 165 or above within the last 6 years,
    d. OR SAT math score of 470 or ACT math score of 17 within last 5 years, OR
    e. Completion of college-level math class equivalent to MTH 1-5 OR
    f. ATI TEAS math score of 45th national percentile rank or an individual score of 65 or higher. NOTE (Pending update): For 2026-2027 academic year, Hesi A2 (Admissions) test will be used and specific math score to demonstrate math competency will be determined by program chair at beginning of the application cycle.
5. Demonstrated competency in English as evidenced by
    a. Completion of VPT English with placement into ENG111 or ENG III + EDE 11 within the last 6 years. OR
    b. OR Completion of a college level English course equivalent to ENG 111 with grade C or better
    c. SAT English/Reading/Writing score 400 or ACT Reading and Writing score 15 within last 6 years OR
    d. Successfully completed applicable English developmental courses within last 6 years OR
    e. GED- English score of 165 within last 6 years OR
    f. HSGPA 2.0 or higher within last 6 years.
6. Completion of the nursing entrance test (Test of Essential Academic Skills, or TEAS) with a National Percentile Rank of 45 or above prior to application. Nursing preadmission results will be accepted if completed within the last 3 years of applying to the nursing program. NOTE (Pending update): For 2026-2027 application year for Nursing, applicants will be required to take the HESI Admissions test during the 2026-2027 academic year prior to submitting application to admission. The required benchmark score will be posted on website and in application forms. Students may submit ATI TEAS scores (completed within the last 3 years) OR complete the Elsevier Hesi A2 (admissions test) during 2026-2027 prior to the application deadline.
7. A 2.5 cumulative grade point average (GPA)for ENG 111, BIO 141, PSY 230, NUR 135, HLT 143, and SDV 101. These courses must be completed prior to enrollment in nursing (NSG) classes.

**Licensed Practical Nurse Transition Advance Placement: (Tracks 2 & 4)**:

The VHCC Nursing Program's Advance Placement or "Transition Program," is designed to grant advanced placement to LPNs who meet the pre-requisite requirements. This program is designed to recognize the common abilities of nurses and to bridge the difference between LPN and RN knowledge base.

In addition to meeting the above admission requirements LPN applicants must also:

1. Include a copy of current LPN license AND
2. Documentation of graduation from an approved LPN program AND
3. Proof of work experience: LPNs who graduated **more than** three years prior to the application date **must** provide documentation of 2000 hours of LPN work experience in direct patient care during the past three years with written verification from employer at the time of application AND
4. LPN to RN Transition applicants for Track 2 and Track 4 must also complete BIO 142 and BIO 150.
5. Upon successful completion of NSG 115, the LPN transition student will be awarded 125 direct patient care clinical hours and 11 credits of NSG coursework.

All applicants must complete a Nursing Application for each academic year interested in being considered for the Nursing Program.

Applications for the Nursing Program are online at www.vhcc.edu/program-category/healthcare#nursing . Select the program track of interest and click Apply Now. Students are encouraged to submit their application when they demonstrate proficiency in Math/English/Science and a TEAS National percentile rank score of 45th or higher (for 2026-2027, HESI A2 (Admissions) test score determined by program chair. Students may be accepted on a contingency basis until completion of the following courses with at least a 2.5 GPA: SDV-101, ENG 111, PSY 230, BIO 141, NUR 135, and HLT 143. Once these criteria have been met an official acceptance letter may be sent to the applicant. The priority deadline for applications is March 15. Applications will continue to be accepted after the priority deadline only if seats are available.

The Admissions Office will suspend processing an application if all transcripts are not included. Transcripts from other Virginia Community Colleges are not required; however, any Virginia Community Colleges attended must be listed on both the Admissions Application and the Nursing Application.

Students residing in the college service area (Washington County, the western portion of Smyth County, or the city of Bristol) will be given priority consideration for admission to the program. Out-of-region applicants will only be considered for openings in the Nursing program after all qualified in-region applicants are considered (see Admission Priorities). To be considered in-region, an applicant must be domiciled within the service region for 12 months prior to the program application deadline.

Further details can be located at www.vhcc.edu/dream-becoming-nurse. **About the Nursing Application Selection Process**: The number of qualified applicants offered admission to the VHCC Nursing Program is contingent upon the space available in each track. When the number of qualified applicants exceeds the number of slots available, acceptance will occur using selection criteria consisting of the TEAS score (or HESI score) and the overall GPA in ENG-111, BIO 141, SDV-101, PSY-230, NUR 135, and HLT 143.

**Transfer of Nursing Credit**: Students seeking to transfer credit from nursing programs at other institutions will be considered on an individual basis. Requested transfer courses will be evaluated for currency, comparability, relevancy to the nursing program degree, calculation of credit including didactic and clinical time and the grade earned. Transcripts of students transferring from non-regionally accredited colleges and universities will be evaluated on a course-by-course basis by the Coordinator of Admissions and Records.

Students must meet the admission requirements identified by the college and the VHCC Nursing Program. The student may be asked to provide course descriptions, documentation of completed direct patient care clinical time, course syllabi, achievement or progressive testing scores, demonstration of competency in critical nursing skills, and selected data from the course instructor or program director in order to determine placement in the nursing program. Consideration will be subject to availability of space. Since there frequently are differences among nursing programs, students wishing to transfer should be aware that there may be an interruption in program progression. Applicants must be in good standing at their previous college with a "C" average or better and must provide documentation from the Nursing School Program Director of eligibility to return to that nursing program as well as documentation of the number of hours of clinical experiences providing direct patient care supervised by a qualified instructor. Nursing courses which are being transferred must have been completed within three (3) years prior to admission to the nursing program.

A student who wishes to transfer to the VHCC Nursing Program at any level (e.g., NSG 100, NSG 106, NSG 115, NSG 200, NSG 130, NSG 152, 170, 210, 211, 230, 252, 270) must write a letter to the program director requesting transfer in the semester prior to the semester of enrollment.

Once the letter of request is received, students will be advised of the requirement to complete the applicable ATI Proctored Test. A guide will be provided to students recommending study and preparation steps prior to taking the designated proctored test. A Level 1 or higher must be achieved on the test to be considered for transfer. Students are responsible for the cost of the testing. NOTE: Students requesting readmission into a cohort after Summer 2026, may be provided with Proctored testing guidelines in either ATI or Elsevier depending on student cohort/course request.

Below are the Courses and assigned Proctored Tests:

| Course requesting to reenter | Assigned Proctored Test |
|---|---|
| NSG 100, NSG 200, NSG 106, NSG 130 | Concepts I |
| NSG 170 or NSG 152 | Fundamentals |
| NSG 210 | Maternal Newborn |
| NSG 211 | Mental Health |
| NSG 252 or NSG 270 | Adult Medical-Surgical |
| NSG 230 | Leadership |

Students will be required to submit the official ATI transcript of the designated ATI Proctored Test or required Elsevier testing results as a part of the request for transfer.

Decisions on admission offers to transferring applicants will be determined by the VHCC Nursing Program faculty following official transcript analysis, review of completed nursing course outlines, the student's letter requesting transfer, GPA, ATI Proctored Test results (or Elsevier proctored test results if applicable), space and faculty availability. A transferring student must demonstrate expected level proficiencies by testing including demonstration of competency in critical skills. The transferring applicant may have to repeat courses.

**Notification of United States Department of Education Regulation**

Pursuant to United States Department of Education (US DOE) regulation 34 CFR 668.43 (a) (5) (v), the Virginia Highlands Community College (VHCC) Associate Degree in Nursing (ADN) program provides the following information for all prospective and current students:

The VHCC ADN program meets all Virginia Board of Nursing requirements for pre-licensure nursing education programs in the Commonwealth of Virginia. In addition, the VHCC ADN program meets all requirements for nationally recognized accreditation by the Accrediting Commission for Education in Nursing.

The Commonwealth of Virginia participates with 32 other states in the National Council of State Boards of Nursing (NCSBN) National Licensing Compact (NLC) to allow nurses licensed in one state to provide nursing care across state lines in other compact states. The Uniform Licensing Requirements (ULRs) are found at: www.ncsbn.org/NLC_ULRs.pdf.

States currently in the NLC are found at: www.ncsbn.org/nlcmemberstates.pdf. Prospective and current students are strongly encouraged to evaluate all state requirements in jurisdictions where they intend to practice nursing. A list of all state requirements is found at: www.ncsbn.org/14730.htm.

VHCC has not determined if the ADN program meets the requirements of any other states.

This statement serves to meet the US DOE regulation until further notice.

**Program Requirements**: The VHCC Nursing Program is dependent on use of local clinical agencies to meet the experiential or clinical learning needs of its students. In order to protect patients and visitors as well as students, clinical agencies require that each student have proof of completion of clinical requirements. Students who do not complete and/or maintain clinical requirements by established deadlines will be prohibited from attending clinicals and will be administratively withdrawn from the nursing clinical course.

Prior to beginning clinicals, the student must provide the required clinical requirement documentation.

1. Forms required by clinical agency.
2. Annual Student Statement of Health Form.
3. Student Information; Physical, and Immunization Forms. The physical examination form must be completed by a medical practitioner, MD, PA, or CNP.
    a. Immunizations include Tetanus, Mumps-Measles-Rubella (MMR), Varicella, Hepatitis B, Influenza, and COVID
    b. Must complete the 2-Step tuberculosis testing or documented alternate requirement as applicable.
    c. Documentation of ability to perform physical demands required in direct patient care activities.
4. Purchase a background check, drug screen, and medical document package.
5. Clearance of criminal background check and drug testing prior to enrolling in NSG clinical courses.
6. Copy of course completion card for Cardiopulmonary Resuscitation (CPR)- American Heart Association, Basic Life Support (BLS) for Healthcare Providers completed during the summer (May 15 – August 1) prior to admission to NSG courses and maintained throughout the program.
7. Proof of health insurance
8. Review of and adherence to Standards of Safe Clinical performance.

The cost of these requirements is the responsibility of the student.

**Criminal Background Checks/Barrier Crimes:** The State Board of Nursing has the authority to deny license to any applicant who has violated any of the provisions of 54.1-3007 of the Code of Virginia. Most healthcare organizations are prohibited from hiring persons who have been convicted of certain criminal acts (For a list of crimes under this category refer to the Virginia Board of Nursing webpage under the heading, Licensure/Applicants: Article 90-55, click on the link, Joint statement of the Department of Health and The Department of Health Professions on Impact of Criminal Convictions on Nursing Licensure or Certification and Employment in Virginia, Revised December 2020). Students with criminal convictions must meet with the Director of the Nursing Program. Permission for clinical assignments must be received from clinical affiliations for applicable students. Clinical facilities that will not approve student placement results in students being unable to complete program requirements and ineligible to continue the program. Students with positive drug screens are addressed individually and may results in being prohibited from clinical activities and therefore, unable to complete the program requirements. Contact the Director of the Nursing Program for clarification of specific issues.

**Performance Standards for Clinical Laboratory Assignments**: Students must be able to perform all essential job functions or performance standards in clinical settings with reasonable accommodation. The following performance standards are consistent with those identified by the Southern Regional Education Boards and include, but are not limited to:

1. Critical thinking: Critical thinking ability sufficient for clinical judgment and delivery of safe patient care.
2. Interpersonal abilities: Interpersonal abilities sufficient to interact with clients, families and groups from a variety of social, emotional, cultural, and intellectual backgrounds.
3. Communication: Communication abilities sufficient for interaction with others in verbal and written form.
4. Mobility: Physical abilities sufficient to move from room to room and maneuver in small spaces.
5. Motor skills: Gross and fine motor abilities sufficient to provide safe and effective nursing care.
6. Physical demands: Physical demands in this program include duties that frequently require squatting, bending, kneeling, reaching, and stair climbing; lifting and carrying up to 50 pounds; frequent pushing and pulling up to 200 pounds with assistance; occasional lifting up to 200 pounds with assistance and occasional carrying up to 51-74 pounds.
7. Hearing: Auditory ability sufficient to monitor and assess health needs.
8. Visual: Visual ability sufficient for nursing observation and assessment.

9. Tactile: Tactile ability sufficient for physical assessment.

These guidelines serve as essential elements basic to eligibility requirements for clinical participation in the VHCC Nursing Program.

**Financial Requirements**: In addition to the usual college tuition and fees, the nursing program requires pre-admission testing and other expenses in which students are responsible for. These include a digital device such as a laptop or tablet to use in classroom and lab, uniforms/shoes, watch, stethoscope, standardized program progressive products, textbooks, electronic technology, Viewpoint Criminal Background, drug screening, and document manager, CPR certification, Physical exam and Immunizations, and Tuberculosis testing, and Health Insurance. Students are responsible for these costs as well as the cost of transportation to and from the College and health agencies used for clinical experiences. Refer to the VHCC Nursing Handbook for further details. Refund of cost of tuition is dependent on the academic calendar last day to drop and receive a refund. Refund of other costs such as health physical examination, immunizations, CPR, and Viewpoint are not refundable. Cost associated with textbooks, ATI (or Elsevier), uniforms (and accessories) are contingent upon the individual vendor.

**Financial Aid**: VHCC strives to assure that no one be denied the opportunity of attending the College for financial reasons. Students are encouraged to contact the Financial Aid office at VHCC to determine eligibility. Refer to the Financial Aid section in the Student Catalog for requirements. Potential scholarships are available through the VHCC Foundation.

**Student Accommodations Statement**: Students admitted to the VHCC Nursing Program can be expected to complete course requirements that prepare them to perform essential job functions as a registered professional nurse. Those functions or skills that are essential to the profession must be performed with or without accommodations. Any student who thinks the student does not possess one or more of these functions should contact the Office of Disability Services. Provisions for accommodations will be made in compliance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990.

**Course Requirements**: The academic calendar will be followed and is available on the VHCC website. Course calendars provided by faculty follow the academic calendar and students are expected to abide by the course calendar. Students must complete all courses listed in the first year of the curriculum before entering the second year. Exceptions due to unusual circumstances must be approved by the Director of Nursing. A student must have a “C” (80%) or above in theory plus “satisfactory” in clinical performance in all nursing courses to remain in the program. A grade of “C” or above in any related requirement is a prerequisite for continuing in the nursing program.

The student is required to complete a sequence of courses and learning experiences provided at the college and selected community agencies such as hospitals, nursing homes, clinics, and comparable facilities. The nursing faculty will supervise and evaluate the student’s suitability for nursing and direct patient care. The nursing program faculty reserves the right to recommend, through appropriate channels, the withdrawal of any student who does not exhibit suitable demeanor/attendance.

**Course Delivery**: Nursing courses are delivered face to face, online, hybrid or a combination of delivery methods, Extenuating circumstances may alter the method of course delivery.

**Program Progression, Reapplication/Readmission Requirements**: All nursing courses in the curriculum, must be completed in sequence prior to progressing to the next semester. Students must earn a minimum grade of “C” (80%) in all nursing courses, a minimum grade of “C” in all non-nursing courses and maintain a minimum cumulative GPA of 2.0 to remain eligible for continued enrollment in the nursing program. In addition, during the NSG 106 or NSG 115 course, a Comprehensive Drug Calculation Exam (CDCE) will be administered to verify skills. Students must achieve at least 90 percent or higher score on the CDCE with no more than three attempts in order to achieve a passing grade in the course. Any student who earns a final grade lower than a "C" in a required course (either general education or nursing courses) must repeat the course and earn a final grade of "C" or better before taking the next course in the sequence.

Clinical performance in a course is graded as Satisfactory/Unsatisfactory. A student who does not meet the clinical learning outcomes will fail the course.

The following are program progression policies according to the VCCS Common Curriculum:

1. Students who are not successful in any first semester nursing (NSG) course must reapply to the nursing program.
2. Any student who drops or withdraws from NSG 106 or NSG 200 must also drop or withdraw from NSG 100 due to the inability to complete clinical requirements.
3. A student may continue in NSG 200 regardless of dropping or withdrawing from NSG 100 and/or NSG 106.
4. Any student who drops or withdraws from NSG 252 or NSG 270 must withdraw from the other course.

**VHCC Nursing Progression Policies**:

1. A student is allowed two enrollments for the traditional student Tracks 1 and/or Track 3 and two enrollments for the LPN to RN Tracks 2 and/or 4. A withdrawal is considered an enrollment. However, due to the pandemic for the academic years 2019-2021, a withdrawal will not be considered an enrollment for this period only.
2. Re-admission must occur no later than three years from successful completion of NSG 100 or 115, otherwise the student will have to repeat all nursing courses.

3. A student who wishes to reenter the nursing curriculum at any other level (e.g., NSG 100, 106, 115, 200, 130, 152, 170, 210, 211, 230, 252, 270) must write a letter to the program director requesting readmission in the semester prior to the semester of enrollment.

Once the letter of request is received, students will be advised of the requirement to complete the applicable ATI Proctored Test (or Elsevier proctored test-depending on cohort). A guide will be provided to students recommending study and preparation steps prior to taking the designated proctored test. A Level 1 or higher must be achieved on the test to be considered for readmission. Students are responsible for the cost of the testing. Updates to testing resources may affect the applicable testing requirements; see the program chair for assistance. Below are the Courses and assigned Proctored Tests:

| Course requesting to reenter | Assigned Proctored Test |
|---|---|
| NSG 100 | Concepts I |
| NSG 170 or NSG 152 | Fundamentals |
| NSG 210 | Maternal Newborn |
| NSG 211 | Mental Health |
| NSG 252 or NSG 270 | Adult Medical-Surgical |
| NSG 230 | Leadership |

Students will be required to submit the official ATI transcript of the designated ATI Proctored Test or appropriate Elsevier test

as a part of the request for readmission

Readmissions are reviewed and approved by faculty. The decision to readmit will be based on the student's letter requesting return, GPA, ATI Proctored Test or Elsevier proctored test results, additional requested data, prior performance in the nursing program and availability of clinical and classroom space. Students will be notified of the decision concerning the re-admission request by phone call, letter, or email prior to the first day of the requested class.

Students enrolled at VHCC repeating courses are required to agree to readmission conditions. Failure to follow the agreed upon conditions may result in administrative withdrawal. Repayment of financial aid may be required if withdrawal occurs.

Based on the course(s) that must be repeated, the student who is readmitted may be required to complete a skills competency course or demonstrate competency in critical nursing skills before beginning the repeated course.

According to the VCCS Policy 5.7.4, "A student will normally be limited to two enrollments in the same credit course." Any exception to this policy must be approved by the program Dean and the vice president of instruction and student services.

A student must obtain permission from the Director of VHCC Nursing Program to continue in the Nursing Program under the following conditions:

1. Repeating a course with a grade below "C";
2. Withdrawal from a nursing course;
3. Cumulative GPA below 2.0.

Any student who is not enrolled due to being unsuccessful or withdrawal in nursing courses for one semester or longer must meet clinical agency requirements including a new criminal background check and drug screen; documentation of current CPR and health insurance, statement of health, and physical prior to returning to reenrolling in nursing courses. A student who is not enrolled in clinical course for one semester or longer, will be required to demonstrate competency in critical nursing skills including head-to-toe assessments, before reenrolling in the program. Failure to demonstrate skills/assessment competencies before the course begins will result in the student not being allowed to reenroll in the program. If competency is not demonstrated the student may be required to repeat NSG 106 and/or NSG 200.

**Clinical Contracts**: The VHCC Nursing Program has contracts with clinical agencies for both student and patient safety. If students cannot comply with these contractual requirements, they will not be able to participate in clinical activities and will be asked to withdraw from the program. General guidelines follow:

1. Clinical agencies reserve the right to dismiss a student from their agency at any time with due cause. This will be done with advance notice except in an emergency.
2. Published policies of the clinical agency must be followed. Each student must successfully complete an orientation program prior to participating in activities at any clinical facility.
3. Clinical facilities require that all students have documentation of ability to perform the physical demands required in direct patient care activities.
4. Immunizations must be current.
5. Student releases any clinical agency, its agents and employees from any liability for any injury or death to himself or damage to his property arising out of agreement or use of the clinical agencies.
6. Proof of HIPAA and CPR completion must be provided.
7. Clinical facilities require a criminal background check and drug screen clearance as a condition for student placement.
8. Proper uniform and name badge must be worn when participating in clinical activities.

9. Proof of Health Insurance.

## Associate in Applied Science (AAS) in Nursing: Track 1

5 semesters; two years

The VHCC Nursing Program offers an opportunity for recent high school graduates and other eligible adults to complete the nursing degree program after two years of full-time attendance (4 semesters and 1 summer session). This is a rigorous and academically challenging program.

| Course Number | Course Title | Credits |
|---|---|---|
| **Pre-Nursing Courses** | | |
| BIO 141 | Human Anatomy & Physiology I | 4 |
| ENG 111 | College Composition I | 3 |
| NUR 135 | Drug Dosage Calculations | 2 |
| PSY 230 | Developmental Psychology | 3 |
| SDV 101 | Orientation to College Success | 1 |
| HLT 143 | Medical Terminology | 3 |
| | **Total** | 16 |
| **Fall Semester Year 1** | | |
| BIO 142 | Human Anatomy & Physiology II | 4 |
| NSG 100 | Intro to Nursing Concepts | 4 |
| NSG 106 | Competencies for Nursing Practice | 2 |
| NSG 130 | Professional Nursing Concepts | 1 |
| NSG 200 | Health Promotion & Assessment | 3 |
| | **Total** | 14 |
| **Spring Semester Year 1** | | |
| BIO 150 | Microbiology for Health Sciences | 4 |
| NSG 152 | Health Care Participant | 3 |
| NSG 170 | Health/Illness Concepts | 6 |
| | **Total** | 13 |
| **Fall Semester Year 2** | | |
| ENG 112 | College Composition II | 3 |
| NSG 210 | Health Care Concepts I | 5 |
| NSG 211 | Health Care Concepts II | 5 |
| | **Total** | 13 |
| **Spring Semester Year 2** | | |
| NSG 230 | Advanced Professional Nursing Concepts | 2 |
| NSG 252 | Complex Health Care Concepts | 4 |
| NSG 270 | Nursing Capstone | 4 |
| HUM | See list of approved electives.[1] | 3 |
| | **Total** | 13 |
| **Total Minimum Credits** | | 69 |

Notes:

1. Recommended Humanities elective may be selected from ART 201-202 History of Art I-II; CST 130 Introduction to Theater; CST 151-152 Film Appreciation; I-II; ENG 245 British Literature; ENG 246 American Literature; Humanities 200 or higher; MUS 221-222 Music History I-II; PHI 100 Introduction to Philosophy; PHI 260 Studies in Eastern Thinking; REL 200 Old Testament; REL 210 New Testament; REL 230 Religions of the World.

## Associate in Applied Science (AAS) in Nursing: Track 2 – LPN to RN Transition Curriculum

Five semesters; two years

Students who are LPNs are required to complete at least 24 hours of the general education courses before beginning the LPN to RN nursing classes. The length of this track depends on the amount of time needed to complete the general education classes. The nursing classes can be completed in one year.

| Course Number | Course Title | Credits |
|---|---|---|
| **Pre-Nursing Courses** | | |
| BIO 141 | Human Anatomy & Physiology I | 4 |
| BIO 142 | Human Anatomy & Physiology II | 4 |
| BIO 150 | Microbiology for Health Sciences | 4 |
| ENG 111 | College Composition I | 3 |
| NUR 135 | Drug Dosage Calculations | 2 |
| PSY 230 | Developmental Psychology | 3 |
| SDV 101 | Orientation to College Success | 1 |
| HLT 143 | Medical Terminology | 3 |
| | **Total** | 24 |
| **Summer Session Year 1** | | |
| NSG 115[1] | Health Care Concepts for Transition | 5 |
| NSG 200 | Health Promotion and Assessment | 3 |
| | **Total** | 8 |
| **Fall Semester Year 1** | | |
| ENG 112 | College Composition II | 3 |
| NSG 210 | Health Care Concepts I | 5 |
| NSG 211 | Health Care Concepts II | 5 |
| | **Total** | 13 |
| **Spring Semester Year 1** | | |
| NSG 230 | Advanced Professional Nursing Concepts | 2 |
| NSG 252 | Complex Health Care Concepts | 4 |
| NSG 270 | Nursing Capstone | 4 |
| HUM | See list of approved electives.[2] | 3 |
| | **Total** | 13 |
| **Total Minimum Credits** | | 58 |

Notes:

1. Upon successful completion of NSG 115, the LPN-RN Transition student will be awarded 125 direct patient care clinical hours and 11 credits of NSG coursework. These credits will appear on the student's official final transcript.
2. Recommended Humanities elective may be selected from ART 201-202 History of Art I-II; CST 130 Introduction to Theater; CST 151-152 Film Appreciation; I-II; ENG 245 British Literature; ENG 246 American Literature; Humanities 200 or higher; MUS 221-222 Music History I-II; PHI 100 Introduction to Philosophy; PHI 260 Studies in Eastern Thinking; REL 200 Old Testament; REL 210 New Testament; REL 230 Religions of the World.

## Associate in Applied Science (AAS) in Nursing: Track 3 – Part-time Evening/Weekend Curriculum

Ten semesters; four years

The VHCC Nursing Program Part-Time Evening/Weekend Track is specifically designed for working adults or other adults who are interested in becoming an RN but have other responsibilities that interfere with their abilities to attend the rigorous scheduling of Track 1. Classes will be provided in a combination of evening, weekend, and online learning. Some specialty clinical activities can only be scheduled throughout the week. Every effort is made to limit the frequency of this occurring. The program is designed at a slower pace and may be completed in 4 years.

| Course Number | Course Title | Credits |
|---|---|---|
| **Pre-Nursing Courses Year 1** | | |
| ENG 111 | College Composition I | 3 |
| BIO 141 | Human Anatomy & Physiology I | 4 |
| BIO 142 | Anatomy & Physiology II | 4 |
| NUR 135 | Drug Dosage Calculations | 2 |
| SDV 101 | Orientation to College Success | 1 |
| PSY 230 | Developmental Psychology | 3 |
| HLT 143 | Medical Terminology | 3 |
| | **Total** | 20 |
| **Summer Session Year 2** | | |
| NSG 200 | Health Promotion & Assessment | 3 |
| BIO 150 | Microbiology for Health Sciences | 4 |
| | **Total** | 7 |
| **Fall Semester Year 2** | | |
| NSG 100 | Introduction to Nursing Concepts | 4 |
| NSG 106 | Competencies for Nursing Practice | 2 |
| NSG 130 | Professional Nursing Concepts | 1 |
| | **Total** | 7 |
| **Spring Semester Year 2** | | |
| NSG 170 | Health/Illness Concepts | 6 |
| NSG 152 | Health Care Participant | 3 |
| | **Total** | 9 |
| **Summer Session Year 2 – No Scheduled Classes** | | |
| **Fall Semester Year 3** | | |
| NSG 211 | Health Care Concepts II | 5 |
| | **Total** | 5 |
| **Spring Semester Year 3** | | |
| NSG 210 | Health Care Concepts I | 5 |
| | **Total** | 5 |
| **Summer Session Year 3** | | |
| HUM | See list of approved electives[1] | 3 |
| ENG 112 | College Composition II | 3 |
| | **Total** | 6 |
| **Fall Semester Year 4** | | |
| NSG 252 | Complex Health Care Concepts | 4 |
| | **Total** | 4 |
| **Spring Semester Year 4** | | |
| NSG 230 | Advanced Professional Nursing Concepts | 2 |
| NSG 270 | Nursing Capstone | 4 |
| | **Total** | 6 |
| **Total Minimum Credits** | | 69 |

Notes:

1. Recommended Humanities elective may be selected from ART 201-202 History of Art I-II; CST 130 Introduction to Theater; CST 151-152 Film Appreciation; I-II; ENG 245 British Literature; ENG 246 American Literature; Humanities 200 or higher; MUS 221-222 Music History I-II; PHI 100 Introduction to Philosophy; PHI 260 Studies in Eastern Thinking; REL 200 Old Testament; REL 210 New Testament; REL 230 Religions of the World.

## Associate in Applied Science (AAS) in Nursing: Track 4 – Part-time Evening/Weekend LPN to RN Transition Curriculum

Eight semesters; three years

A part-time evening/weekend LPN to RN Transition Track is available for LPNs who work and/or wish to attend part time. Students who are LPNs are required to complete at least 24 hours of the general education courses before beginning the LPN to RN nursing classes. The length of this track depends on the amount of time needed to complete the general education classes. General education courses can be completed as night classes or by online learning options such as web-based learning. Nursing classes and clinical are taught in the evenings and weekends on an extended plan. Some specialty clinical activities can only be scheduled throughout the weekdays. Every effort is made to limit the frequency of this occurring. General education courses listed in Year 1 must be completed before the student will be able to begin Year 2 (NSG 115).

| Course Number | Course Title | Credits |
|---|---|---|
| **Pre-Nursing Courses Year 1** | | |
| BIO 150 | Microbiology for Health Sciences | 4 |
| ENG 111 | College Composition I | 3 |
| NUR 135 | Drug Dosage Calculations | 2 |
| SDV 101 | Orientation to College Success | 1 |
| BIO 141 | Human Anatomy and Physiology I | 4 |
| PSY 230 | Developmental Psychology | 3 |
| BIO 142 | Human Anatomy and Physiology II | 4 |
| HLT 143 | Medical Terminology | 3 |
| | **Total** | 24 |
| **Summer Session Year 2** | | |
| NSG 115[1] | Health Care Concepts for Transition | 5 |
| NSG 200 | Health Promotion | 3 |
| | **Total** | 8 |
| **Fall Semester Year 2** | | |
| NSG 211 | Health Care Concepts II | 5 |
| | **Total** | 5 |
| **Spring Semester Year 2** | | |
| NSG 210 | Health Care Concepts | 5 |
| | **Total** | 5 |
| **Summer Session Year 3** | | |
| ENG 112 | College Composition II | 3 |
| HUM EEE | See list of approved electives.[2] | 3 |
| | **Total** | 6 |
| **Fall Semester Year 3** | | |
| NSG 252 | Complex Health Care Concepts | 4 |
| | **Total** | 4 |
| **Spring Semester Year 3** | | |
| NSG 230 | Advanced Professional Nursing Concepts | 2 |
| NSG 270 | Nursing Capstone | 4 |
| | **Total** | 6 |
| **Total Minimum Credits** | | 58 |

Notes:

1. Upon completion of NSG 115, the LPN-RN Transition student will be awarded 125 direct patient care clinical hours and 11 credits of NSG coursework. These credits will appear on the student's official final transcript.
2. Recommended Humanities elective may be selected from ART 201-202 History of Art I-II; CST 130 Introduction to Theater; CST 151-152 Film Appreciation; I-II; ENG 245 British Literature; ENG 246 American Literature; Humanities 200 or higher; MUS 221-222 Music History I-II; PHI 100 Introduction to Philosophy; PHI 260 Studies in Eastern Thinking; REL 200 Old Testament; REL 210 New Testament; REL 230 Religions of the World.

# Radiography Program

The Radiologic Technology Program at Southwest Virginia Community College and Virginia Highlands Community College is a consortium dedicated to serving students from southwest Virginia, eastern Tennessee, southern West Virginia, and eastern Kentucky. The Program will provide a quality educational experience in the art and science of radiologic technology and help the students succeed, both academically and clinically, as entry-level registered radiographers. It is the Program's aim to provide a sound foundation for our students towards building a rewarding professional career, and an opportunity to qualify as a valued contributing member in the healthcare team for our region.

**Program Chair (VHCC)**: Sherrie Phillips • sphillips2@vhcc.edu • 276-739-2549

**Program Director**: Donna Corns • dcorns1@vhcc.edu • 276-964-7642

| |
|---|
| Associate of Applied Science in Radiography |
| Career Studies Certificate in Computerized Tomography |
| Advanced Studies Curriculum in Mammography |

## Associate of Applied Science (AAS) in Radiography

Six semesters; 22 months**

**Program with practical experience in a radiology department to complete requirements for ARRT certification.

**Program Mission**: The Radiologic Technology Program at Southwest Virginia Community College and Virginia Highlands Community College is a consortium dedicated to serving students from southwest Virginia, eastern Tennessee, southern West Virginia, and eastern Kentucky. The Program will provide a quality educational experience in the art and science of radiologic technology and help the students succeed, both academically and clinically, as entry-level registered radiographers. It is the Program's aim to provide a sound foundation for our students towards building a rewarding professional career, and an opportunity to qualify as a valued contributing member in the healthcare team for our region.

**Accreditation:** This program is fully accredited by the Joint Review Committee for Radiologic Technology Education (JRCERT), 20 North Wacker Drive, Suite 2850, Chicago, Illinois, 60606-3182, phone (312)704-5300. You may also contact JRCERT at mail@jrcert.org or at www.jrcert.org. Detailed Program Effectiveness Data is available from the link on the right side of the page. The JRCERT also publishes program effectiveness data, available at Program Effectiveness Data.

**Occupational Objectives**: Employment opportunities for well-trained registered radiographer are available in hospitals, clinics, education, industry, government agencies, and private offices.

- Upon completion of the radiography program, graduates will be required to take the American Registry of Radiologic Technologist national board examination to be eligible for employment in a hospital-based imaging department.
- State license requirements for employment outside a hospital setting vary from state to state.
- Licensure requirements can be obtained from the state's board of health. If a student plans to live or move outside Virginia, a list of state educational requirements can be obtained by consulting the program director.

**Admission Requirements**: In addition to the general admission requirements to the College, applicants must be high school graduates, or equivalent, and must reflect "C" average. A cumulative GPA of 2.5 must be achieved on all college work. Students will complete the Radiography Program application including uploads of TEAS score and Shadowing/Observation documentation with the application prior to the February 15 deadline for applications.

**To meet the Radiography Program specific admission requirements the applicant must have completed and submit for file at the college by February 15th**:

- One unit of Biology with lab, and one unit of Chemistry with lab with a "C" or better.
- Biology 101 and Chemistry 5 or 111 at VHCC will be considered equivalent to high school biology and chemistry.
- Students must be eligible for ENG 111 and MTH 154. All prescribed development work must be completed prior to admission to program.
- Submit a Radiography application (including all high school and college transcripts or copy of GED) by the February 15 deadline.
- Hospital observation requirement in a Radiology Department for a minimum of twelve (12) hours; this observation is to be documented on the program shadowing form by the radiology personnel denoting date(s) and time(s) or alternative assignment during adverse conditions (See Program Director for applicability). Report (PDF) must be attached to the application sent to admissions, and emailed to dcorns1@vhcc.edu.
- Attend an information session with Radiography Program faculty. Information session(s) are held in March after the application deadline. The Program Coordinator will email all applicants who have a complete application per the admissions office.
- Applicants to the Radiography program must have taken the Test of Essential Academic Skills - also known as the ATI TEAS - Allied Health within the last three years. ATI TEAS—Allied Health total score must be a minimum of 65% to be eligible for the program. (We will also accept the ATI TEAS, if students have taken that version in order to apply to a nursing program.) The ATI TEAS Score Report (PDF) must be attached to the application sent to admissions, and emailed to dcorns1@vhcc.edu. Register for the TEAS test at www.atitesting.com/. Choose Abingdon, Virginia for testing delivered at Virginia Highlands. Study information for the ATI TEAS-Allied Health can be found at www.atitesting.com.

The Radiology Program admission requirements listed must be completed and on file by the established deadline.

Students should make their advisor aware of any plans to transfer to a senior institution. Students who are planning to transfer to a senior institution may be advised to take upper-level math and science courses as prerequisites to the Radiography Program.

Students selected for the Radiography Program are required to submit a Health Certificate complete with a physical examination/vaccination history signed by a physician prior to final admission to the program. The certificate will be furnished by the program and when returned, it will be kept on file for program documentation. Applicants are to wait for selection notification from the program before proceeding with the physical examination due to the expense involved.

When enrollments must be limited for any curriculum, priority shall be given to all qualified applicants who are residents of the political subdivisions (Washington County, the City of Bristol, and the western half of Smyth County), supporting the College and to Virginia residents not having access to a given program at their local community college, provided such students apply for admission to the program prior to registration

or by a deadline established by the College. In addition, residents of localities with which the College has clinical-site or other agreements may receive equal consideration for admission. To be considered as a Virginia resident, an applicant must be domiciled within Virginia for 12 months prior to February 15. Applicants moving out-of-state between February 15 and the first day of classes will lose their preferred status and any offer of admission to the program will be withdrawn. Out-of-region applicants who are Virginia residents will be considered for program openings available after April 1 and out-of-state applicants for openings available May 1.

**TECHNICAL STANDARDS**

**Physical Demands**:

A. Duties frequently require squatting, bending, kneeling, reaching, and stair climbing. Also includes occasional crawling and climbing.

B. Duties include lifting/positioning of patients and equipment required to provide care:

- frequent lifting and carrying up to 50 pounds
- frequent pushing and pulling up to 200 pounds with assistance
- occasional lifting up to 200 pounds with assistance
- occasional carrying up to 51-74 pounds

C. Duties require constant use of acute sense of sight, hearing, and touch.

- ability to read orders, test results, instructions, labels differentiate color, consistency
- must be able to hear heart sounds, etc.
- must be able to palpate and distinguish heat/cold

**Environmental Conditions**: Environmental conditions include procedures that involve handling blood and body fluids using universal precautions.

**Program Requirements**: Upon admission and during the course of the program, the radiologic faculty will carefully observe and evaluate the student's suitability for the profession. If, in the opinion of the radiologic faculty, a student does not exhibit professional behavior, the student may be asked to withdraw from the program.

Once enrolled, students who receive a final grade lower than "C" in any of the courses in radiography or related areas must obtain permission from the program director to continue the major in radiography.

Selected learning experiences will be provided at the cooperating hospitals within the geographic areas served by the college. The student is expected to provide transportation to such facilities. Travel, time and expense, must be anticipated because of program design and location. Travel distance will vary from 1-60 miles one way from your home campus depending on the hospital clinical assignment.

The purchase of items such as student's uniforms, accessories, health and liability insurance are the financial responsibility of the individual student.

**Shadowing Requirement**: Shadowing must be completed by January 15.

**Criminal Background Checks/Drug Testing**: Background checks for criminal history and sex offender crimes against minors are required for entrance into some clinical agencies. Students with convictions may be prohibited from clinical practice and may not complete the program. Clinical agencies may require drug testing prior to placement of students for clinical rotations. Students with positive drug test results may be prohibited from clinical practice and may not complete the program. Cost for criminal background checks and drug testing will be the responsibility of the student.

Program Contact: Donna Corns dcorns1@vhcc.edu, or at SWCC: donna.corns@sw.edu, 276-964-7642.

| Course Number | Course Title | Credits |
|---|---|---|
| **Summer Session** | | |
| RAD 105 | Intro to Radiology Protection & Patient Care (Term II) | 3 |
| SDV 101/100 | Orientation to Health Technologies | 1 |
| ENG 111 | College Composition I1 | 3 |
| | **Total** | 7 |
| **First Semester (Fall)** | | |
| MTH 154 | Quantitative Reasoning | 3 |
| BIO 141 | Human Anatomy & Physiology I | 4 |
| RAD 110 | Imaging Equipment and Protection | 3 |
| RAD 121 | Radiographic Procedures I | 4 |
| | **Total** | 14 |
| **Second Semester (Spring)** | | |
| HLT 143 | Medical Terminology | 3 |
| BIO 142 | Human Anatomy and Physiology II | 4 |
| RAD 112 | Radiologic Science II | 4 |
| RAD 221 | Radiographic Procedures II | 4 |
| RAD 190-01 | Coordinated Internship | 1 |
| | **Total** | 16 |
| **Summer Session** | | |
| RAD 205 | Radiation Protection & Radiobiology (Term I) | 3 |
| RAD 190-02 | Coordinated Internship (Term I)[2] | 2 |
| RAD 190-03 | Coordinated Internship (Term II)[3] | 2 |
| | **Total** | 8 |
| **Third Semester (Fall)** | | |
| RAD 290-01 | Coordinated Internship | 3 |
| RAD 290-02 | Coordinated Internship | 3 |
| RAD 256 | Radiographic Film Evaluation | 3 |
| RAD 270 | Digital Image Acquisition & Display | 2 |
| PSY 230 | Developmental Psychology | 3 |
| | **Total** | 14 |
| **Fourth Semester (Spring)** | | |
| RAD 290-01 | Coordinated Internship | 3 |
| RAD 290=02 | Coordinated Internship | 3 |
| RAD 240 | Radiographic Pathology | 3 |
| RAD 215 | Correlated Radiographic Theory | 2 |
| EEE | Humanities/Fine Arts Elective[4] | 3 |
| | **Total** | 14 |
| **Total Minimum Credits** | | 72 |

Notes:

1. Students who wish to pursue a Baccalaureate Degree are advised to take both ENG 111 and 112.
2. RAD 190 – 2 credit hours (Term I) - 5-week summer sessions will spend 30 hours per week for 5 weeks, equaling 150 total hours.
3. RAD 190 – 2 credit hours (Term II) – 5-week summer sessions will spend 40 hours per week for 5 weeks, equaling 200 total hours.
4. Students may substitute PSY 231-232 (both required) for PSY 230. Humanities/Fine Arts: Students may choose from the following courses: Philosophy, Religion, Music Appreciation and Art Appreciation.

Download the Radiography Handbook [pdf]

Download the Shadow/Observation Form [pdf]

## Career Studies Certificate (CSC) in Computerized Tomography

Two semesters; one year

***Program offered in cooperation with Southwest Virginia Community College. Career Studies Certificate awarded by Virginia Highlands Community College.***

**Purpose**: The Career Studies Certificate in Computed Tomography Imaging is designed to prepare selected students to qualify as contributing members of the allied health interdisciplinary team. Upon completion of the curriculum (and successful completion and documentation of all required clinical competencies as set for by the American Registry of Radiologic Technologists), the student is eligible to apply to take the National Registry examination leading to advanced certification as a Registered Radiographer in CT by the ARRT.

**Admission Requirements**: The student in Computed Tomography must have completed an approved program in radiography, radiation therapy, or nuclear medicine technology (either ARRT or NMTCB). Students must be either ARRT or CNMT registered technologists in order to be eligible for entry into the CT program. All students must have a current CPR certification and must maintain that certification throughout the program. Applicants must have maintained a "C" average in past program courses in the discipline or certification.

Applicants must provide the following prior to consideration for admission.

- Application to VHCC
- Official transcripts of all other colleges attended
- CT Program Application

The student in Computerized Tomography must abide by all community college policies as well as hospital policies while enrolled in the program.

**Program Requirements**: Upon admission and during the course of study, the college and hospital faculty will carefully observe and evaluate the student's progress. If, in the opinion of the faculty, a student does not exhibit professional behavior, the student will be asked to withdraw from the program. Students will not be eligible to receive the certificate until a grade of "C" or better is obtained in each of the required courses.

**Criminal Background Checks/Drug Testing**: Background checks for criminal history and sex offender crimes against minors are required for entrance into some clinical agencies. Students with convictions may be prohibited from clinical practice and may not complete the program. Clinical agencies may require drug testing prior to placement of students for clinical rotations. Students with positive drug test results may be prohibited from clinical practice and may not complete the program. Cost for criminal background checks and drug testing will be the responsibility of the student.

| Course Number | Course Title | Credits |
|---|---|---|
| **First Semester (Fall)** | | |
| RAD 247 | Cross Sectional Anatomy for CT/MR | 3 |
| RAD 242 | CT Procedures and Instrumentation | 2 |
| RAD 195 | Topics in Ethics, Teamwork & Professional Development | 1 |
| RAD 196 | On Site Training Clinical Internship in CT | 1 |
| | **Total** | 7 |
| **Second Semester (Spring)** | | |
| RAD 295 | Topics in CT Registry Preparation | 3 |
| RAD 196 | On Site Training Clinical Internship in CT[1] | 2 |
| HLT 143 | Medical Terminology I | 3 |
| HLT 145 | Ethics for Healthcare Personnel | 2 |
| | **Total** | 10 |
| **Total Minimum Credits** | | 17 |

Notes:

1. Students who can provide documentation of continuous employment in CT for a minimum of 1 year prior to the application deadline have the option of NOT completing the RAD 196 clinical class requirements.

## Advanced Studies Curriculum in Mammography

One semester

***Program offered in cooperation with Southwest Virginia Community College. Credits awarded by Virginia Highlands Community College.***

**Purpose**: The Mammography Advanced Studies curriculum is designed to prepare selected students to qualify as contributing members of the allied health interdisciplinary team. Upon completion of these advanced studies (and successful completion and documentation of all required clinical competencies as set for by the American Registry of Radiologic Technologists), the student is eligible to apply to take the National Registry examination leading to advanced certification as a Registered Mammographer by the ARRT.

**Advanced Study Admission Requirements**: The student in Mammography Advanced Studies must have completed an approved program in radiography. The student must be registered (or registry eligible) by the appropriate certification agency (ARRT). (Students applying for Advanced Studies in Mammography who are not ARRT registered or registry eligible must be in their last year of studies in an accredited Radiography program, and complete that radiography program before entering the RAD 196 clinical component of the advanced studies.) All students must have a current CPR certification and must maintain that certification throughout the program. Applicants must have maintained a "C" average in past program courses in the discipline or certification. Applicants must provide the following to be considered for admission.

- Application to VHCC
- Official transcripts of all other colleges attended submitted to the appropriate admissions office at VHCC
- Completed Mammography program application
- Copy of current ARRT certification card, or current unofficial Radiography Program transcript
- If you require the RAD 196 clinical education (75 total clinical hours):
    - Copy of current CPR certification by the American Heart Association
    - Current PPD
    - Immunization records (Varicella, MMR, Hepatitis B, Flu)
    - *HIPAA training, criminal background check, and drug screen will be required at the student's cost (approximately $95). Hospital facility orientation will be required. These must be complete before the student can begin clinical education. The faculty will provide instructions to students who are accepted into the Mammography Advanced Studies track.

The student in Mammography must abide by all community college policies as well as hospital policies while enrolled in the program.

**Advanced Study Requirements:** Upon admission and during the course of study, the college and hospital faculty will carefully observe and evaluate the student's progress. If, in the opinion of the faculty, a student does not exhibit professional behavior, the student will be asked to withdraw from the advanced study.

Students will not be eligible to receive the certificate until a grade of "C" or better is obtained in each of the required courses. Before entering the clinical areas, the student must receive complete clinical clearance. Please see Wendy Horn (wendy.horn@sw.edu) for details.

**Criminal Background Checks/Drug Testing**: Background checks for criminal history and sex offender crimes against minors are required for entrance into some clinical agencies. Students with convictions may be prohibited from clinical practice and may not complete the advanced study. Clinical agencies may require drug testing prior to placement of students for clinical rotations. Students with positive drug test results may be prohibited from clinical practice and may not complete the advanced study. Cost for criminal background checks and drug testing will be the responsibility of the student.

This advanced study curriculum is typically offered in a 14-week fall semester. For further information contact: Donna Corns dcorns1@vhcc.edu or Wendy Horn wendy.horn@sw.edu.

| Course Number | Course Title | Credits |
|---|---|---|
| **Fall Session** | | |
| RAD 233 | Anatomy and Positioning of the Breast | 1 |
| RAD 234 | Breast Imaging/Instrumentation | 1 |
| RAD 235 | Quality Assurance in Mammography | 1 |
| RAD 196 | On-Site Training Clinical Internship in Mammography | 1 |
| **Total Minimum Credits** | | 4 |

Students have the option of NOT completing the RAD 196 clinical class requirements; however, without clinical competencies, the student is ineligible to apply to sit for ARRT Registry examination, nor does the student complete MQSA requirements. Students can complete those competencies through employment, if their employer provides those cross-training opportunities.

# Workforce Development & Continuing Education

## Workforce Development

### FastForward Programs

#### Advanced Emergency Medical Technician

Course Fee: $3,201.00
FastForward Price: $1,067.00
Financial Assistance Price: $106.70

#### Aluminum Welding - Level 4

Course Fee: $3,900.00
FastForward Price: $1,300.00
Financial Assistance Price: $130.00

#### Certified Billing & Coding Specialist

Course Fee: $3,333.00
FastForward Price: $1,111.00
Financial Assistance Price: $111.10

#### Certified Clinical Medical Assistant

Course Fee: $1,995.00
FastForward Price: $665.00
Financial Assistance Price: $66.50

#### Certified Medical Administrative Assistant

Course Fee: $1,545.00
FastForward Price: $515.00
Financial Assistance Price: $51.50

#### Certified Production Assistant

Course Fee: $1,890.00
FastForward Price: $630.00
Financial Assistance Price: $63.00

#### Commercial Driver's License Program

Course Fee: $6,000.00
FastForward Price: $2,000.00
Financial Assistance Price: $200.00

#### Emergency Medical Technician

Course Fee: $2,850.00
FastForward Price: $950.00
Financial Assistance Price: $95.00

#### ESCO EPA 608 Technician

Course Fee: $429.00
FastForward Price: $143.00
Financial Assistance Price: $14.30

#### Fiber Optics Technician Program

Course Fee: $4,500.00
FastForward Price: $1,500.00
Financial Assistance Price: $150.00

#### NCCER Carpentry - Level 1/Core Craft Skills

Course Fee: $3,447.00
FastForward Price: $1,149.00
Financial Assistance Price: $114.90

#### NCCER Heavy Equipment Operator - Level 1/Core Craft Skills

Course Fee: $4,500
FastForward Price: $1,500.00
Financial Assistance Price: $150.00

#### NCCER Heavy Equipment Operator - Level 2

Course Fee: $4,500
FastForward Price: $1,500.00
Financial Assistance Price: $150.00

#### NCCER Plumbing - Level 1/Core Craft Skills

Course Fee: $2,697
FastForward Price: $899.00
Financial Assistance Price: $89.90

#### NIMS CNC Turning & Milling - Level 1

Course Fee: $6,600
FastForward Price: $2,200
Financial Assistance Price: $220

#### NIMS Job Planning, Benchwork, & Layout

Course Fee: $6,600
FastForward Price: $2,200
Financial Assistance Price: $220

### NIMS Materials, Measurements, & Safety

Course Fee: $6,600
FastForward Price: $2,200
Financial Assistance Price: $220

### Nurse Aide

Course Fee: $2,445.00
FastForward Price: $815.00
Financial Assistance Price: $81.50

### Phlebotomy Technician Program

Course Fee: $2,334.00
FastForward Price: $778.00
Financial Assistance Price: $77.80

### Photovoltaic - Entry Level (NABCEP)

Course Fee: $1,875.00
FastForward Price: $625.00
Financial Assistance Price: $62.50

### Remote Airman Training

Course Fee: $534.00
FastForward Price: $178.00
Financial Assistance Price: $17.80

### Six Sigma Green Belt

Course Fee: $2,700.00
FastForward Price: $900.00
Financial Assistance Price: $90.00

### Six Sigma Yellow Belt

Course Fee: $1,500.00
FastForward Price: $500.00
Financial Assistance Price: $50.00

**For more information, to register, or for financial assistance questions visit www.vhcc.edu/workforce or call (276)739-2445.**

# Course Descriptions

## Accounting

**ACC 197 Co-op** (2-5 credits)
Requires curriculum advisor approval.
Supervises in on-the-job training for pay in approved business, industrial and service firms, coordinated by the college's cooperative education office. Is applicable to all occupational- technical curricula at the discretion of the college. Credit/work ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.

**ACC 211 Principles of Accounting I** (3 credits)
Introduces accounting principles with respect to financial reporting. Demonstrates how decision makers use accounting information for reporting purposes. Focuses on the preparation of accounting information and its use in the operation of organizations, as well as methods of analysis and interpretation of accounting information. Lecture 3 hours per week.

**ACC 212 Principles of Accounting II** (3 credits)
***Prerequisite***: ACC 211
Introduces accounting principles with respect to cost and managerial accounting. Focuses on the application of accounting information with respect to product costing, as well as its use within the organization to provide direction and to judge performance. Lecture 3 hours per week.

**ACC 215 Computerized Accounting** (4 credits)
Introduces the computer in solving accounting problems. Focuses on operation of computers. Presents the accounting cycle and financial statement preparation in a computerized system and other applications for financial and managerial accounting. Lecture 4 hours per week.

**ACC 221 Intermediate Accounting I** (4 credits)
***Prerequisite***: ACC 212 or equivalent
Covers accounting principles and theory, including a review of the accounting cycle and accounting for current assets, current liabilities and investments. Introduces various accounting approaches and demonstrates the effect of these approaches on the financial statement users. Lecture 4 hours per week.

**ACC 222 Intermediate Accounting II** (4 credits)
***Prerequisite***: ACC 221 or equivalent
Continues accounting principles and theory with emphasis on accounting for fixed assets, intangibles, corporate capital structure, long-term liabilities, and investments. Lecture 4 hours per week.

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

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

**ACC 290 Coordinated Internship** (3 credits)
Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.

**ACC 297 Co-op** (2-5 credits)
Requires curriculum advisor approval.
Supervises in on-the-job training for pay in approved business, industrial and service firms, coordinated by the college's cooperative education office. Is applicable to all occupational-technical curricula at the discretion of the college. Credit/work ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.

## Administration of Justice (Criminal Justice)

**ADJ 100 Survey of Criminal Justice** (3 credits)
Presents an overview of the United States Criminal Justice System; introduces the major system components – Law Enforcement, Judiciary, and Corrections. Lecture 3 hours per week.

**ADJ 107 Survey of Criminology** (3 credits)
Surveys the volume and scope of crime; considers a variety of theories developed to explain the causation of crime and criminality. Lecture 3 hours per week.

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

**ADJ 115 Patrol Procedures** (3 credits)
Describes, instructs and evaluates street-level procedures commonly employed by patrol officers in everyday law enforcement operations. Lecture 3 hours per week.

**ADJ 118 - Crisis Intervention and Critical Issues** (3 credits)
Addresses basic problems involved in crisis intervention and current critical issues in law enforcement and the administration of justice; emphasizes practical approaches to discover and implement solutions. Lecture 3 hours per week.

**ADJ 130 Introduction to Criminal Law** (3 credits)
Surveys the general principles of American criminal law, the elements of major crimes, and the basic steps of prosecution procedure. Lecture 3 hours per week.

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

**ADJ 140 Introduction to Corrections** (3 credits)
Focuses on societal responses to the offender. Traces the evolution of practices based on philosophies of retribution, deterrence, and rehabilitation. Reviews contemporary correctional activities and their relationships to other aspects of the criminal justice system. Lecture 3 hours per week.

**ADJ 138 Defensive Tactics** (2 credits)
Surveys and demonstrates the various types of non-lethal force tools and tactics for use by criminal justice personnel in self-defense, arrest, search, restraint and transport of those in custody. Lecture 2 hours per week.

**ADJ 164 Case Studies in Murder/Violent Crime** (3 credits)
Introduces the student to the investigation of murder and other violent crimes by means of classic case studies and, to the extent feasible, local case files. Includes methodology, strategy and tactics, analysis, relevant law, and future trends. Covers evidentiary techniques and technologies with a primary focus on how critical thinking is applied to serious violent crime. Lecture 3 hours per week.

**ADJ 171 - 172 Forensic Science I - II** (4 credits/4 credits)
***Prerequisite for ADJ 172***: ADJ 171 and ADJ 236
These courses are designed primarily for second-year students in Police Science. Others may enroll with the permission of the instructor. Introduces student to crime scene technology, procedures for sketching, diagramming, and using casting materials. Surveys the concepts of forensic chemistry, fingerprint classification/identification and latent techniques, drug identification, hair and fiber evidence, death investigation techniques, thin-layer chromatographic methods, and arson materials examination. Lecture 3 hours, Laboratory 3 hours, Total 6 hours per week.

**ADJ 227 Constitutional Law for Justice Personnel** (3 credits)
***Prerequisites***: ADJ 111 and 130
Surveys the basic guarantees of liberty described in the U.S. Constitution and the historical development of these restrictions on government power, primarily through U.S. Supreme Court decisions. Reviews rights of free speech, press, assembly, as well as criminal procedure guarantees (to counsel, jury trial, habeas corpus, etc.) as they apply to the activities of those in the criminal justice system. Lecture 3 hours per week.

**ADJ 229 Community Policing in Modern Society** (3 credits)
Examines the process through which community problems are identified and addressed by police departments in cooperation with the community. Considers current efforts by law enforcement officers to achieve an effective working relationship with the community. Lecture 3 hours per week.

**ADJ 233 - Multiculturalism in Policing (3 credits)**
Examines the impacts of historical events and social changes on law enforcement. Evaluates the complexity of providing police services to multicultural communities. Develops sensitivity and understanding of diverse populations and communities of color. Lecture 3 hours. Total 3 hours per week.

**ADJ 236 Principles of Criminal Investigation** (3 credits)
Limited to students who have completed all first-year Police Science courses or who have received departmental permission. Surveys the fundamentals of criminal investigation procedures and techniques. Examines crime scene search, collecting, handling and preserving of evidence. Lecture 3 hours per week.

**ADJ 237 Advanced Criminal Investigation** (3 credits)
***Prerequisite***: ADJ 236 or division approval
Introduces specialized tools and scientific aids used in criminal investigation. Applies investigative techniques to specific situations and preparation of trial evidence. Lecture 3 hours per week.

**ADJ 246 Correctional Counseling** (3 credits)
Presents concepts and principles of interviewing and counseling as applied in the correctional setting. Lecture 3 hours per week.

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

**ADJ 290 Coordinated Internship** (1-5 credits)
Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours. 1-5 credits

**ADJ 295 - Topics In Victimology** (3 credits)
Provides an opportunity to explore topical areas of interest to or needed by students. May be used also for special honors courses. May be repeated for credit.

**ADJ 297 Co-op** (2-5 credits)
Requires curriculum advisor approval.
Cooperative education in police science. Designed to provide practical work experience for the police science student. Minimum on-the-job training is 10 hours per week.

**ADJ 299 - Supervised Study** (3 credits)
Assigns problems for independent study incorporating previous instruction and supervised by the instructor. Lecture 3 credits.

## Administrative Support Technology (Office Management)

**AST 101 Keyboarding I** (4 credits)
Teaches the alpha/numeric keyboard with emphasis on correct techniques, speed, and accuracy. Teaches formatting of basic personal and business correspondence, reports and tabulation. A laboratory corequisite (AST 103) may be required. Lecture 4 hours per week.

**AST 102 Keyboarding II** (4 credits)
***Prerequisite***: AST 101 or equivalent
Develops keyboarding and document production skills with emphasis on preparation of specialized business documents. Continues skill-building for speed and accuracy. 4 hours per week.

**AST 107 - Editing/Proofreading Skills** (3 credits)
Develops skills essential to creating and editing business documents. Covers grammar, spelling, diction, punctuation, capitalization, and other usage problems. Lecture 3 hours per week.

**AST 137 Records Management** (3 credits)
Teaches filing and records management procedures for hard copy, electronic, and micrographic systems. Identifies equipment, supplies, and solutions to records management problems. Lecture 3 hours per week.

**AST 141 Word Processing (Microsoft Word)** (3 credits)
***Prerequisite***: AST 101 or equivalent
Teaches creating and editing documents, including line and page layouts, columns, fonts, search/replace, cut/paste, spell/thesaurus, and advanced editing and formatting features of word processing software. Lecture 3 hours per week.

**AST 176 Medical Office/Unit Management** (3 credits)
Develops administrative and support skills for a medical setting including effective communications, ethical and legal issues, research techniques, and insurance claims processing. Lecture 3 hours per week.

**AST 195 - Topics In Customer Service** (2credits)
Provides an opportunity to explore topical areas of interest to or needed by students. Lecture 3 hours per week.

**AST 205 Business Communications** (3 credits)
Teaches techniques of oral and written communications. Emphasizes writing and presenting business-related materials. Lecture 3 hours per week.

**AST 206 Professional Development** (3 credits)
Develops professional awareness in handling business and social situations. Emphasizes goal setting, critical thinking, decision-making, and employment skills. Lecture 3 hours per week.

**AST 230 Introduction to Office Technology** (3 credits)
Introduces principles, methods, and techniques involved in office technology. Emphasizes the use of microcomputer equipment and software. Lecture 3 hours per week.

**AST 238 - Word Processing Advanced Operations** (2 credits)
***Prerequisite***: ITE 119 or ITE 152 or AST 141
Teaches advanced word processing features including working with merge files, macros, and graphics; develops competence in the production of complex documents. Lecture 2 hours per week.

**AST 243 Office Administration I** (3 credits)
***Prerequisite***: AST137, AST 238, and BUS 100.
Develops an understanding of the administrative support role and the skills necessary to provide organizational and technical support in a contemporary office setting. Emphasizes the development of critical-thinking, problem-solving, and job performance skills in a business office environment. Lecture 3 hours per week.

**AST 260 Presentation Software (PowerPoint, Zoom)** (3 credits)
Teaches creation of slides including use of text, clip art, and graphs. Includes techniques for enhancing presentations with on-screen slide shows as well as printing to transparencies and hand-outs. Incorporates use of sound and video clips. Lecture 3 hours per week.

**AST 290 Coordinated Internship** (3 credits)
Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. 3 credits

**AST 297 Co-op** (1-5 credits)
Requires curriculum advisor approval.
Supervises in on-the-job training for pay in approved business, industrial and service firms, coordinated by the college's cooperative education office. Is applicable to all occupational- technical curricula at the discretion of the college. Credit/work ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.

## Agriculture

**AGR 141 Introduction to Animal Science and Technology** (4 credits)
Introduces the science and technology involved in sustainable animal production and management practices. Includes beef, sheep, horses, dairy, swine, goats, and poultry, with emphasis on practical experiences in laboratory and farm settings.
Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

**AGR 142 Introduction to Plant Science and Technology** (3 credits)
Introduces students to plant science, ecology, plant morphology, plant and soil relations and energy conversions. Includes surveying agricultural crops and their importance in the economy. Lecture 2 hours. Lab 2 hours. 4 hours per week.

**AGR 143 Introduction to Agribusiness and Financial Management** (3 credits)
Introduces agriculture's importance to society and ways to start a farm or agribusiness. Evaluates forms of business including cooperatives and create financial statements and reports necessary for routine accounting and tax preparation. Utilizes financial tools for decision making, budgets and time value of money. Explores retirement, transition planning, personal financial management, and capital acquisition techniques. 2 Lecture, 2 Lab, 4 Contact Hours. Local college option.

**AGR 144 Agriculture Human Resource Management** (3 credits)
Covers principles and management practices utilized to attract, retain and motivate agricultural employees. Emphasizes interviewing techniques, employer/employee relationships, motivation theory, legal issues, safety, and environmental concerns. Includes development of team building and interpersonal skills through activities and cases. Explores diversity and cultural differences at they apply to human resource compliance and performance issues. Lecture 3 hours.

**AGR 231 - Agribusiness Marketing, Risk Management, and Entrepreneurship** (3 credits)
Covers marketing techniques required to create an effective marketing plan addressing product, price, place, promotion, and people considerations of an agribusiness. Emphasizes unique aspects of agricultural products and risk management including price fluctuations and biosecurity. Projects explore entrepreneurship and creative marketing plans for a proposed farm or agribusiness. Lecture 3 hours.

**AGR 299 Supervised Study** (1 credit)
Assigns problems for independent study incorporating previous instruction and supervised by the instructor. May be repeated for credit. Variable hours.

## A/C and Refrigeration

**AIR 111 - Air Conditioning and Refrigeration Controls I** (3 credits)
***Corequisites***: AIR 171, AIR 121
Presents electron theory, magnetism, Ohm's Law, resistance, current flow, instruments for electrical measurement, A.C. motors, power distribution controls and their application. Part I of II. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

**AIR 112 - Air Conditioning and Refrigeration Controls II** (3 credits)
***Corequisites***: AIR 172, AIR 122
Presents electron theory, magnetism, Ohm's Law, resistance, current flow, instruments for electrical measurement, A.C. motors, power distribution controls and their application. Part II of II. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

**AIR 121 - Air Conditioning and Refrigeration I** (3 credits)
Studies refrigeration theory, characteristics of refrigerants, temperature, and pressure, tools and equipment, soldering, brazing, refrigeration systems, system components, compressors, evaporators, metering devices. Presents charging and evaluation of systems and leak detection. Explores servicing the basic system. Explains use and care of oils and additives and troubleshooting of small commercial systems. Part I of II. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

**AIR 122 - Air Conditioning and Refrigeration II** (3 credits)
Studies refrigeration theory, characteristics of refrigerants, temperature, and pressure, tools and equipment, soldering, brazing, refrigeration systems, system components, compressors, evaporators, metering devices. Presents charging and evaluation of systems and leak detection. Explores servicing the basic system. Explains use and care of oils and additives and troubleshooting of small commercial systems. Part II of II. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

**AIR 134 Circuits and Controls I** (3 credits)
***Corequisite***: AIR 176 or AIR 235
Presents circuit diagrams for air conditioning units, reading and drawing of circuit diagrams, types of electrical controls. Includes analysis of air conditioning circuits, components, analysis and characteristics of circuits and controls, testing and servicing. Introduces electricity for air conditioning which includes circuit elements, direct current circuits and motors, single and three-phase circuits and motors, power distribution systems, and protective devices. Studies the electron and its behavior in passive and active circuits and components. Demonstrates electronic components and circuits as applied to air conditioning system. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

**AIR 154 Heating Systems I** (3 credits)
***Corequisite***: AIR 231
Introduces types of fuels and their characteristics of combustion; types, components and characteristics of burners, and burner efficiency analyzers. Studies forced air heating systems including troubleshooting, preventive maintenance and servicing. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

**AIR 159 Heating and Cooling Safety** (1 credit)
Presents standard safety procedures used in the heating and cooling industry. Discusses proper handling of equipment refrigerants and electricity. Lecture 1 hour.

**AIR 165 Air Conditioning Systems I** (3 credits)
Introduces comfort survey, house construction, load calculations, types of distribution systems, and equipment selection. Introduces designing, layout, installing and adjusting of duct systems, job costs, and bidding of job. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

**AIR 171 - Refrigeration I** (6 credits)
***Corequisite***: AIR 111, AIR 121
Introduces basic principles of refrigeration. Includes refrigeration systems, cycles, and use and care of refrigeration tools. Studies shop techniques including soldering, brazing, leak testing, tube testing, tube bending, flaring, and swaging. Analyzes mechanical (vapor compression) systems. Assembles and repairs them including evacuating, charring, testing, and electrical repairs. Introduces advanced troubleshooting and repairs for domestic, commercial and industrial units. Includes medium, low, and ultra low temperature systems of the single and multiple unit types. Includes equipment selection, system balancing, and installation procedures. Part I of II. Lecture 4 hours. Laboratory 6 hours. Total 10 hours per week.

**AIR 172 - Refrigeration II** (6 credits)
***Corequisite***: AIR 112, AIR 122
Introduces basic principles of refrigeration. Includes refrigeration systems, cycles, and use and care of refrigeration tools. Studies shop techniques including soldering, brazing, leak testing, tube testing, tube bending, flaring, and swagging. Analyzes mechanical (vapor compression) systems. Assembles and repairs them including evacuating, charring, testing, and electrical repairs. Introduces advanced troubleshooting and repairs for domestic, commercial and industrial units. Includes medium, low, and ultra low temperature systems of the single and multiple unit types. Includes equipment selection, system balancing, and installation procedures. Part II of II. Lecture 4 hours. Laboratory 6 hours. Total 10 hours per week.

**AIR 176 Air Conditioning** (6 credits)
***Corequisite***: AIR 134
Presents residential and commercial air conditioning systems, including air conditioning principles, psychometrics and pressure balancing. Includes window units, residential central systems, small commercial (air- and water-cooled condensers) and automobile units. Lecture 4 hours. Laboratory 4 hours, Total 8 hours per week.

**AIR 190** Coordinated Internship (1-5 credits)
Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours. 1-5 credits

**AIR 197 Co-op** (2-5 credits)
Requires curriculum advisor approval.
Cooperative education in air conditioning and refrigeration. Designed to provide practical work experience for the air conditioning and refrigeration student. Minimum on-the-job training is 10 hours per week.

**AIR 205 Hydronics and Zoning** (3 credits)
***Corequisites***: AIR 231
Presents installation, servicing, troubleshooting, and repair of hydronic systems for heating and cooling. Includes hot water and chilled water systems using forced circulation as the transfer medium. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

**AIR 231 Circuits and Controls IV** (4 credits)
***Corequisites***: AIR 154
Applies controls and control circuits to air conditioning and refrigeration, including components, pilot devices and controls, and circuit diagrams. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

**AIR 235 Heat Pumps** (3 credits)
***Corequisites***: AIR 134
Studies theory and operation of reverse cycle refrigeration including supplementary heat as applied to heat pump systems, including service, installation and maintenance. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

**AIR 276 - Refrigerant Usage EPA Certification** (1 credit)
Prepares HVAC technicians for a refrigerant certification test mandated by the Environmental Protection Agency (EPA). Reviews refrigerant recovery, recycle, and reclamation procedures for service work associated with air conditioning and refrigeration. Examines environmental impact including ozone depletion resulting from refrigeration utilization.
Students should have previous training and/or working knowledge of vapor-compression, common service equipment and procedures in HVAC/R. Lecture 1 hour.

**AIR 290 Coordinated Internship** (3 credits)
Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit.

**AIR 297 Co-op** (2-5 credits)
Requires curriculum advisor approval.
Cooperative education in air conditioning, refrigeration, and heating. Designed to provide practical work experience for the air conditioning, refrigeration and heating student. Minimum on-the-job training is 10 hours per week.

## American Sign Language

**ASL 101 - Beginning American sign Language I** (4 credits)
Introduces cultural awareness, comprehension and production skills, and emphasizes basic sentence structure in American Sign Language with a focus on interactive communicative competence. Part I of II. This is a UCGS transfer course. Lecture 4 hours. Total 4 hours per week.

**ASL 102 - Beginning American sign Language II** (4 credits)
***Prerequisite***: ASL 101 or placement by test.
Introduces cultural awareness, comprehension and production skills, and emphasizes basic sentence structure in American Sign Language with a focus on interactive communicative competence. Part II of II. This is a UCGS transfer course. Lecture 4 hours. Total 4 hours per week.

**ASL 125 History of the U.S. Deaf Community** (3 credits)
Examines the history of the Deaf Community. Presents an overview of various aspects of Deaf culture, including educational and legal issues in American history. Lecture 3 hours.

**ASL 201 - Intermediate American Sign Language I** (3 credits)
***Prerequisite***: ASL 102 or by placement test.
Continues to develop cultural awareness, comprehension and production skills, and emphasizes a variety of sentence structures in American Sign Language with a continued focus on interactive communicative competence. Part I of II. This is a UCGS transfer course. Lecture 3 hours. Total 3 hours per week.

**ASL 202 - Intermediate American Sign Language II** (3 credits)
***Prerequisite***: ASL 201 or by placement test.
Continues to develop cultural awareness, comprehension and production skills, and emphasizes a variety of sentence structures in American Sign Language with a continued focus on interactive communicative competence. Part II of II. This is a UCGS transfer course. Lecture 3 hours. Total 3 hours per week.

## Arts

**ART 101 – History of Art: Prehistoric to Gothic** (3 credits)
Surveys the history and interpretation of architecture, painting and sculpture from the prehistoric era through the Gothic. This is a Passport Transfer course. Lecture 3 hours. Total 3 hours per week.

**ART 102 - History of Art: Renaissance to Modern** (3 credits)
Surveys the history and interpretation of architecture, painting and sculpture from the Renaissance through the modern era. This is a Passport Transfer course. Lecture 3 hours. Total 3 hours per week.

**ART 121 Foundations of Drawing** (3 credits)
Develops basic drawing skills and understanding of visual language through studio instruction/lecture. Introduces concepts such as line, proportion, space, perspective, value and composition as applied to still life, landscape and figure. Uses drawing media such as pencil, charcoal and ink wash. Includes field trips and gallery assignments as appropriate. Lecture 1 hour. Studio Instruction 4 hours. Total 5 hours per week. This is a UCGS transfer course. Lecture 1hours. Studio instruction 4 hours. Total 5 hours per week.

**ART 125 Introduction to Painting** (3 credits)
Introduces study of color, composition and painting techniques. Places emphasis on experimentation and enjoyment of oil and /or acrylic paints and the fundamentals of tools and materials. Lecture 2 hours. Studio instruction 3 hours. Total 5 hours per week.

**ART 131 Two-Dimensional Design** (3 credits)
Introduces the elements and principles of design as applied to two-dimensional studio projects. Introduces two-dimensional media, techniques, compositional strategies, and color concepts and interactions. Supports conceptual development through introduction to historical and contemporary practices and critical analysis. May include field trips as required. Lecture 1 hour. Studio instruction 4 hours. Total 5 hours per week.

**ART 132 Three-Dimensional Design** (3 credits)
Introduces the elements and principles of design as applied to three-dimensional studio projects. Introduces three-dimensional media, techniques, compositional strategies, and color concepts and interactions. Supports conceptual development through introduction to historical and contemporary practices and critical analysis. May include field trips as required. Lecture 1 hour. Studio instruction 4 hours. Total 5 hours per week.

**ART 133 – Time Studio** (3 credits)
Introduces time-based art concepts and explores the impact of sequence and duration on video, sound, installation, and performance art. Emphasizes the integration of traditional, non-traditional, and emerging production methods and materials in creating time-based artworks. Lecture 1 hour. Studio instruction 4 hours. Total 5 hours per week.

**ART 180 - Introduction to Computer Graphics** (3 credits)
Provides a working introduction to computer-based electronic technology used by visual artists and designers. Presents the basics of operating platforms and standard industry software. Introduces problems in which students can explore creative potential of the new electronic media environment. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

**ART 215 - History of Modern Art**
Surveys the history of modern architecture, sculpture, painting and graphic arts in representational and non-representational forms. Focuses on the periods and movements that influenced the arts of the twentieth century as well as the influence of modernism on contemporary art. The assignments in the course require the reading of scholarly articles and research-based writing. Lecture 3 hours. Total 3 hours per week.

## Baking and Pastry Arts

**BAK 128 Principles of Baking** (3 credits)
Instructs the student in the preparation of breads, pastries, baked desserts, candies, frozen confections, and sugar work. Applies scientific principles and techniques of baking. Promotes the knowledge/skills required to prepare baked items, pastries and confections. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

# Biology

**BIO 101 General Biology** (4 credits)
Focuses on biological processes with a chemical foundation, including macromolecules, cellular structure, metabolism, and genetics in an evolutionary context. Explores the core concepts of evolution; structure and function; information flow, storage and exchange; pathways and transformations of energy and matter; and systems biology. Emphasizes the process of science, interdisciplinary approach, and relevance of biology to society. Part I of a two-course sequence. Assignments require college-level reading fluency, coherent written communication, and basic mathematical skills. This is a Passport Transfer course. Credit toward graduation cannot be awarded for both BIO 101 and BIO 106. (effective Summer 2023) Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

**BIO 102 General Biology II** (4 credits)
***Prerequisite***: BIO 101 or Departmental Permission
Focuses on biological processes with a chemical foundation, including macromolecules, cellular structure, metabolism, and genetics in an evolutionary context. Explores the core concepts of evolution; structure and function; information flow, storage and exchange; pathways and transformations of energy and matter; and systems biology. Emphasizes the process of science, interdisciplinary approach, and relevance of biology to society. Part II of a two-course sequence. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

**BIO 106 Life Science (4 credits)**
Surveys the basic concepts of life science. Engages in the scientific process by developing hypotheses, gathering data, and analyzing results. Explores topics within the context of societal implications of science. Intended for students not majoring in science. Assignments require college-level reading fluency, coherent written communication, and basic mathematical skills. This is a Passport and UCGS transfer course. Credit toward graduation cannot be awarded for both BIO 101 and BIO 105. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

**BIO 141 Human Anatomy and Physiology I** (4 credits)
***Corequisite or prerequisite***: Demonstration of NAS 2 concepts of Chemical Concepts, Cytology, and Inheritance through NAS 2 completion; or assessment; or module completion; or equivalent. Presents the study of anatomy & physiology including anatomical terminology, homeostasis, histology, integumentary system, skeletal system, muscular system, and nervous system. Part I of II. Assignments require college-level reading fluency, coherent written communication, and basic mathematical skills. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

**BIO 142 Humana Anatomy and Physiology II** (4 credits)
***Prerequisite***: Completion of BIO 141 with a grade of C or better.
Continues study of anatomy and physiology including endocrine system, blood and cardiovascular system, lymphatic system and immunity, respiratory system, urinary system, fluid, electrolyte, and acid-base balance, digestive system and nutrient metabolism, reproductive system, and prenatal development. Part II of II. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

**BIO 145 Basic Human Anatomy and Physiology** (4 credits)
Surveys human anatomy and physiology. Covers basic chemical concepts, cellular physiology, anatomy, and physiology of human organ systems. Assignments require college-level reading fluency, coherent written communication, and basic mathematical skills. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

**BIO 150 Microbiology for Health Sciences** (4 credits)
***Prerequisites***: BIO 101 or BIO 141
Focuses on the general characteristics, cellular structure, and metabolism of microorganisms. Emphasizes microbial relationships with individual and community health. Includes impact of microbes on human health and disease, microbial pathogenicity, identifying and managing infectious diseases and controlling microbial growth, healthcare associated infections and epidemiology. Studies aseptic culturing techniques with hands-on experience in safe microbiology practices. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

**BIO 151-152 Human Gross Anatomy I – II** (1 credit)
***Prerequisite***: BIO 141; Placement into EDE 11 or higher
Introduces students to human anatomy through dissection of a cadaver. Human Gross Anatomy I includes dissection of back, chest and abdominal muscles, spinal cord structures and upper and lower limb structures. Human Gross Anatomy II includes dissection of thoracic, abdomino-pelvic and cranial cavities. Laboratory 3 hours per week.

**BIO 215 Plant Life of Virginia** (3 credits)
Focuses on identification and ecological relationships of the native plants of Virginia. Emphasizes shrubs, vines, weeds, wildflowers, ferns, and mushrooms. Lecture 2 hours. Recitation and laboratory 3 hours. Total 5 hours per week.

**BIO 278 Coastal Ecology** (3 credits)
Investigates beach, saltmarsh, and estuarine ecosystems including the effects of chemical, geological, and physical factors upon the distribution of organisms. Discusses the effects of pollution and human manipulation of the coastline. Includes observation and identification of coastal plants and animals, and analysis of the dynamics of coastal community structure and function in a field-based setting. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

**BIO 299 Supervised Study** (1 credit).
Assigns problems for independent study incorporating previous instruction and supervised by the instructor.
May be repeated for credit. Variable hours.

## Business Management and Administration

**BUS 100 Introduction to Business** (3 credits)
Presents a broad introduction to the functioning of business enterprise within the U.S. economic framework. Introduces economic systems, essential elements of business organization, production, human resource management, marketing, finance, and risk management. Develops business vocabulary. Lecture 3 hours per week.

**BUS 140 - Introduction to Grant Proposal Writing** (3 credits**)**
Introduces the complete process of grant proposal development. Focuses on identifying achievable and fundable projects and preparing a full proposal package for submission. Presents strategies to seek external grant funding from private, community, and corporate foundations. Lecture 3 hours per week.

**BUS 195 Topics in (discipline)** (1-5 credits)
Provides an opportunity to explore topical areas of interest to or needed by students. May be used also for special honors courses. May be repeated for credit. Variable hours.

**BUS 197 Co-op** (1-5 credits)
Requires curriculum advisor approval.
Supervises in on-the-job training for pay in approved business, industrial and service firms, coordinated by the college's cooperative education office. Is applicable to all occupational- technical curricula at the discretion of the college. Credit/work ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.

**BUS 200 Principles of Management** (3 credits)
Teaches management and the management functions of planning, organizing, leading, and controlling. Focuses on application of management principles to realistic situations managers encounter as they attempt to achieve organizational objectives. Lecture 3 hours per week.

**BUS 201 Organizational Behavio**r (3 credits)
Presents a behaviorally oriented course combining the functions of management with the psychology of leading and managing people. Focuses on the effective use of human resources through understanding human motivation and behavior patterns, conflict management and resolution, group functioning and process, the psychology of decision-making, and the importance of recognizing and managing change. Lecture 3 hours per week.

**BUS 205 Human Resource Management** (3 credits)
Introduces employment, selection, and placement of personnel, forecasting, job analysis, job descriptions, training methods and programs, employee evaluation systems, compensation, benefits, and labor relations. Lecture 3 hours per week.

**BUS 224 Business Statistics** (3 credits)
***Prerequisite***: MTH 161
Introduces methods of probability assessment and statistical inference. Includes data presentation; descriptive statistics; basic probability concepts; discrete and continuous probability distributions; decision theory; estimation and sampling distributions; Central Limit Theorem; simple linear regression and hypothesis testing for a single sample or population. Emphasizes business and economic applications. Utilizes computer software as a tool for problem-solving. Lecture 3 hours.

**BUS 225 Applied Business Statistics** (3 credits)
***Prerequisite***: MTH 132 or division approval
Introduces statistics as a tool in decision making. Emphasizes ability to collect, present, and analyze data. Employs measures of central tendency and dispersion, statistical inference, index number, and time series analysis. Lecture 3 hours per week.

**BUS 240 Introduction to Business Law** (3 credits)
Presents an introduction to the American legal system, including an overview of the courts, civil and criminal law. Develops an in-depth understanding of contracts, agency law, and business organizations. Also includes an overview of property, UCC Sales, and Commercial Paper. Lecture 3 hours per week.

**BUS 242 Business Law II** (3 credits)
***Prerequisite***: BUS 241 or division approval
Focuses on business organization and dissolution, bankruptcy and Uniform Commercial Code. Introduces international law and the emerging fields of E-Commerce and Internet Law. Lecture 3 hours per week.

**BUS 274 Foundations of Entrepreneurship** (3 credits)
Introduces students to the principles of entrepreneurship, covering business models, responsibilities, and successful practices. BUS 274 serves both transfer and CTE programs. Lecture 3 hours per week.

**BUS 290 Coordinated Internship** (3 credits)
Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours. 1-5 credits

**BUS 297 Co-op** (1-6 credits)
Requires curriculum advisor approval.
Supervises in on-the-job training for pay in approved business, industrial and service firms, coordinated by the college's cooperative education office. Is applicable to all occupational- technical curricula at the discretion of the college. Credit/work ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.

## Chemistry

**CHM 05 Developmental Chemistry for Health Sciences** (1-5 credits)
***Prerequisite***: MDE 10
Introduces basic principles of inorganic, organic, and biological chemistry. Emphasizes applications to the health sciences.

**CHM 101 - Introductory Chemistry** (4 credits)
***Prerequisite***: Competency level MDE 54 (MTE 1-5).
Explores the experimental and theoretical concepts of general chemistry while emphasizing scientific reasoning, critical and analytical thinking. Designed for the non-science major. This is a Passport Transfer course. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

**CHM 111 General Chemistry I** (4 credits)
***Prerequisites***: MDE 61 and EDE 11 Eligible
Explores the fundamental laws, theories, and mathematical concepts of chemistry. Designed primarily for science and engineering majors. Requires a strong background in mathematics. Students must earn a grade of C or higher in the lecture portion of the course to earn an overall grade of C or higher. Part I of II. This is a Passport Transfer course. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

**CHM 112 General Chemistry II** (4 credits)
***Prerequisite***: CHM 111 with a grade of C or higher
Explores the fundamental laws, theories, and mathematical concepts of chemistry. Designed primarily for science and engineering majors. Requires a strong background in mathematics. Students must earn a grade of C or higher in the lecture portion of the course to earn an overall grade of C or higher. Part II of II. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

**CHM 241 Organic Chemistry I** (3 credits)
***Prerequisites***: CHM 112 with a grade of C or higher
Introduces fundamental chemistry of carbon compounds, including structures, physical properties, syntheses, and typical reactions. Emphasizes reaction mechanisms. Part I of II
Lecture 3 hours. Total 3 hours per week.

**CHM 242 Organic Chemistry II** (3 credits)
***Prerequisite***: CHM 241 with grade of C or higher
Introduces fundamental chemistry of carbon compounds, including structures, physical properties, syntheses, and typical reactions. Emphasizes reaction mechanisms. Part II of II. Lecture 3 hours. Total 3 hours per week.

**CHM 245 Organic Chemistry I Laboratory** (2 credits)
***Prerequisite***: CHM 112 with a grade of C or better
***Corequisite***: CHM 241
Introduces various methods and procedures used in present day organic laboratories. Covers the general techniques, organic synthesis, and the use of common spectroscopic instrumentation; synthesizing a variety of compounds; and analyzing the products through physical properties and spectroscopy. Part I of II. Lecture 1 hour. Laboratory 3 hours. Total 4 hours per week.

**CHM 246 Organic Chemistry II Laboratory** (2 credits)
***Prerequisite***: CHM 245
***Corequisite***: CHM 242
Introduces various methods and procedures used in present day organic laboratories. Covers the general techniques, organic synthesis, and the use of common spectroscopic instrumentation; synthesizing a variety of compounds; and analyzing the products through physical properties and spectroscopy. Part II of II. Lecture 1 hour. Laboratory 3 hours. Total 4 hours per week.

**CHM 260 Introductory Biochemistry (3 credits)**
Explores fundamentals of biological chemistry. Includes study of macromolecules, metabolic pathways, and biochemical genetics. Lecture 3 hours per week. Prerequisite: CHM 112 or divisional approval.

**CHM 299 Supervised Study** (1 credit).
Assigns problems for independent study incorporating previous instruction and supervised by the instructor.
May be repeated for credit. Variable hours.

## Childhood Development

**CHD 118 Language Arts for Young Children** (3 credits)
Presents techniques and methods for encouraging the development of language and perceptual skills in young children. Stresses improvement of vocabulary, speech and methods to stimulate discussion. Surveys children's literature, examines elements of quality storytelling and story reading, and stresses the use of audiovisual materials. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

**CHD 120 Introduction to Early Childhood Education** (3 credits)
Introduces early childhood development through activities and experiences in nursery, pre-kindergarten, kindergarten, and primary programs. Investigates classroom organization and procedures and use of classroom time and materials, approaches to education for young children, professionalism, and curricular procedures. Lecture 3 hours per week.

**CHD 164 Working with Infants and Toddlers in Inclusive Settings** (3 credits)
Examines developmental and behavioral principles and practices and how these provide the most developmentally suitable curriculum and learning environment for very young children. Includes working with very young children with typical development, as well as those who are gifted, or have developmental delays or disabilities. Lecture 3 hours per week.

**CHD 165 Observation and Participation in Early Childhood/Primary Settings** (3 credits)
Focuses on observation as the primary method for gathering information about children in early childhood settings. Emphasizes development of skills in the implementation of a range of observation techniques. Includes 40 hours of field placement in early learning setting. Seminar 2 hours. Field placement 2 hours.

**CHD 166 Infant and Toddler Programs** (3 credits)
Examines child growth and development from birth to 36 months. Focuses on development in the physical, cognitive, social, emotional, and language domains. Emphasizes the importance of the environment and relationships for healthy brain development during the child's first three years of life. Investigates regulatory standards for infant/toddler care giving. Lecture 3 hours per week.

**CHD 205 Guiding the Behavior of Children** (3 credits)
Explores positive ways to build self-esteem in children and help them develop self-control. Presents practical ideas for encouraging pro-social behavior in children and emphasizes basic skills and techniques in classroom management. Lecture 3 hours per week.

**CHD 210 Introduction to Exceptional Children** (3 credits)
Reviews the history of and legal requirements for providing intervention and educational services for young children with special needs. Studies the characteristics of children with a diverse array of needs and developmental abilities. Explores concepts of early intervention, inclusion, guiding behavior and adapting environments to meet children's needs. Lecture 3 hours per week.

**CHD 216 Early Childhood Programs, School, and Social Change** (3 credits)
Explores methods of developing positive, effective relations with families to enhance their developmental goals for children. Considers culture and other diverse needs, perspectives, and abilities of families and educators. Emphasizes advocacy and public policy awareness as an important role of early childhood educators. Describes risk factors and identifies community resources. Lecture 3 hours per week.

**CHD 265 - Advanced Observation and Participation in Early Childhood/Primary Settings** (3 credits)
Focuses on implementation of activity planning and observation of children through participation in early childhood settings. Emphasizes responsive teaching practices and assessment of children's development. Reviews legal and ethical implications of working with children. Supports the student in creating a professional education portfolio. Includes 40 hours of field placement in early learning setting. Seminar 2 hours. Field Placement 2 hours. Total 4 hours per week.

**CHD 298 - Seminar and Project** (1-5 credits)
***Corequisite***: CHD 265
Requires completion of a project or research report related to the student's occupational objectives and a study of approaches to the selection and pursuit of career opportunities in the field. May be repeated for credit. Variable hours.

## Communication Studies and Theatre

**CST 100 - Principles of Public Speaking** (3 credits)
Applies theory and principles of public address with emphasis on preparation and delivery. Lecture 3 hour per week.

**CST 126 Interpersonal Communication (3 credits)**
Teaches interpersonal communication skills for both daily living and the world of work, including perception, self-concept, self-disclosure, listening and feedback, nonverbal communication, attitudes, assertiveness, and other interpersonal skills. The assignments in the course require college-level reading and analysis of scholarly studies and coherent communication through written reports including the production of at least one APA/MLA-formatted individual writing assignment. Lecture 3 hours per week.

**CST 130 Introduction to the Theatre** (3 credits)
Surveys the principles of drama, the development of theatre production, and selected plays to acquaint the student with various types of theatrical presentations. Lecture 3 hours per week.

**CST 131 - Acting I** (3 credits)
Develops personal resources and explores performance skills through such activities as theatre games, role playing, improvisation, work on basic script units, and performance of scenes. Part I of II. Lecture 2 hours. Laboratory 3 hour. Total 5 hours per week.

**CST 132 - Acting II** (3 credits)
***Prerequisite***: CST 131
Extends students' understanding of the craft of acting. Builds on Acting I skills through individual and group text work that include practice listening, point-of-view recognition, personalization, and text analysis. Part II of II. Lecture 2 hours. Laboratory 2 hour. Total 4 hours per week.

**CST 136 Theatre Workshop** (1 credits)
Enables students to work in various activities of play production. The student participates in performance, set design, stage carpentry, sound, costuming, lighting, stage managing, props, promotion, or stage crew.

**CST 145 Stagecraft** (3 credits)
Acquaints the student with fundamental methods, materials, and techniques of set construction for the stage. Lecture 2 hours. Laboratory 2 hour. Total 4 hours per week.

**CST 147 - Costume Construction** (3 credits)
Introduces students to the basic techniques, materials and methods of theatrical costume construction. Covers hand sewing, machine sewing, familiarity with different types of materials and their uses, the use of patterns, shop safety, distressing techniques and wardrobe duties. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

**CST 149 - Introduction to Theatrical Makeup** (3 credits)
Introduces students to the basic anatomy of the human face, and the methods, materials and techniques used to alter the appearance of themselves and others through the use of the fundamentals of stage makeup and prosthetics used to create different characters and looks for different styles and types of theatrical productions. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

**CST 151 Film Appreciation I** (3 credits)
Provides students with a critical understanding of film through the discussion and viewing of motion pictures with emphasis upon the study of film history and the forms and functions of film. Students will develop skills to analyze the shared social, cultural and historical influences of films and their contexts. Part I of II. Lecture 3 hours per week.

**CST 160 - Improvisation I** (3 credits)
Explores the basic techniques of improvisation through short and long form exercises and the study of the history of improvisation and improvisation theory and practices. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

**CST 210 - Dramatic Literature** (3 credits)
Introduces script analysis through exploration into the theatrical theories, styles, dramaturgical structures, and types of dramatic literature that have influenced playwriting and theatrical practice from ancient times to present day in Western and Non-Western Cultures. The assignments in this course require students to be able to read scholarly works from different cultures and to write analytic evaluations of theatrical scripts and performances. Lecture 3 hours. Total 3 hours per week.

**CST 237 - Movement I** (3 credits)
Introduces the basic techniques and theories of stage movement for the purpose of creating truthful physical behavior in the theatre. Part I of II. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

## Computer Science

**CSC 205 - Computer Organization** (3 credits)
***Prerequisite***: CSC 221
Examines the hierarchical structure of computer architecture. Focuses on multi-level machine organization. Uses assembler programming to complete simple projects. Includes processors, instruction, execution, addressing techniques, data representation and digital logic. Lecture 3 hours. Total 3 hours per week.

**CSC 208 - Introduction to Discrete Structures** (3 credits)
Introduces discrete mathematics concepts in relation to computer science. Applies the use of Boolean algebra, analysis of algorithms such as logic, sets and functions, recursive algorithms, and recurrence relations, combinatorics, graphs, and trees. Assignments in this course require a basic understanding of programming concepts, problem solving, basic college algebra and trigonometry skills. Lecture 3 hours. Total 3 hours per week.

**CSC 215 - Computer Systems** (3 credits)
***Prerequisite***: CSC 221
Examines the hierarchical structure of computer systems. Explores the representation of instructions and data, memory organization/structure, structure of a CPU, programming hierarchy and operating system interactions. Lecture 3 hours. Total 3 hours per week.

**CSC 221 Introduction to Problem Solving and Programming** (3 credits)
Introduces problem solving and implementation of solutions using a high-level programming language in a structured programming environment. Includes concepts and practice of structured programming, problem-solving, top-down design of algorithms, a high-level programming language syntax, control structures, arrays, and an introduction into object-oriented programming. First course in a three-course sequence (CSC 221, CSC 222, CSC 223). The assignments in this course require mathematical problem-solving skills, algebraic modeling and functions, and use of variables. Lecture 3 hours. Total 3 hours per week.

**CSC 222 Object-Oriented Programming** (4 credits)
***Prerequisite***: CSC 221 or equivalent, or departmental consent.
Introduces the concepts and techniques of object-oriented programming to students with a background in procedural programming and problem solving. Uses a high-level computer language to illustrate and implement the topics. Second course in a three-course sequence (CSC 221, CSC 222, CSC 223). Lecture 4 hours. Total 4 hours per week.

**CSC 223 Data Structures and Analysis of Algorithms** (4 credits)
***Prerequisite***: CSC 222 or departmental consent.
***Corequisite***: CSC 208 or equivalent.
Explores and contrasts data structures, algorithms for manipulating data structures, and their use and appropriateness in writing efficient real-world programming applications. Investigates implementations of different data structures for efficient searching, sorting, and other transformer operations. Third course in a three-course sequence (CSC 221, CSC 222, CSC 223). Lecture 4 hours. Total 4 hours per week.

## Culinary Arts

**CUL 106 Principles of Culinary Arts I** (3 credits)
Introduces the fundamental principles of food preparation and basic culinary procedures. Stresses the use of proper culinary procedures combined with food science, proper sanitation, standards of quality for food items that are made, and proper use and care of kitchen equipment. Part I of II. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

**CUL 107 Principles of Culinary Arts II** (3 credits)
Introduces the fundamental principles of food preparation and basic culinary procedures. Stresses the use of proper culinary procedures combined with food science, proper sanitation, standards of quality for food items that are made, and proper use and care of kitchen equipment. Part II of II. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

**CUL 136 Storeroom Operations and Inventory Management Laboratory** (1 credit)
***Corequisite:*** HRI 256
Explores through laboratory activities the flow of foods, beverages, and supplies in food service establishments, including product identification, purchasing, receiving, storage, measuring, data entry systems, inventory, and evaluation through discussion and demonstration. Laboratory 5 hours. Total 5 hours per week.

## Diesel

**DSL 111 Introduction to Diesel Engine** (2 credits)
Studies the modern diesel engine, including its fuel, cooling, induction, and exhaust systems. Covers construction, fabrication, maintenance, tune-up, and minor repair and adjustment. Lecture 1 hour. Laboratory 2 hours. Total 3 hours per week.

**DSL 121 Diesel Engines I** (6 credits)
Studies the basic principles involved in the construction and operation of diesel engines. Examines fuel, air, cooling, and control system of various designs. Emphasizes engine overhaul and repair, including gauging proper measuring instruments and tools for these tasks. Part I of II. Lecture 3 hours. Laboratory 6 hours. Total 8hours per week.

**DSL 122 Diesel Engines II** (6 credits)
Studies the basic principles involved in the construction and operation of diesel engines. Examines fuel, air, cooling, and control system of various designs. Emphasizes engine overhaul and repair, including gauging proper measuring instruments and tools for these tasks. Part II of II. Lecture 3 hours. Laboratory 6 hours. Total 8 hours per week.

**DSL 143 Diesel Truck Electrical Systems** (4 credits)
Studies the theory and operation of various truck and tractor electrical systems. Covers preheating, starting, generating, and lighting systems. Uses modern test equipment for measurement, adjustment, and troubleshooting. Lecture 2 hours per week. Laboratory 4 hours. Total 6 hours per week.

**DSL 152 Diesel Power Trains, Chassis, and Suspension** (4 credits)
Studies the chassis, suspension, steering and brake systems found on medium and heavy-duty diesel trucks. Covers construction features, operating principles and service procedures for such power train components as clutches, multi-speed transmissions, propeller shafts, and rear axles. Teaches operations of modern equipment to correct and adjust abnormalities. Lecture 2 hours. Laboratory 4 hours. Total 6 hours per week.

**DSL 160 Air Brake Systems** (3 credits)
Studies the basic operational theory of pneumatic and air brake systems as used in heavy-duty and public transportation vehicles. Covers various air control valves, test system components, and advanced air system schematics. Teaches proper service and preventative maintenance of systems. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

**DSL 176 Transportation Air Conditioning** (2 credits)
Studies fundamentals of transportation air conditioning. Includes repair, service, and troubleshooting of the refrigeration systems used in road vehicles and heavy equipment. Lecture 1 hour. Laboratory 2 hours. Total 3 hours per week.

## Drafting

**DRF 160 Machine Blueprint Reading** (3 credits)
Introduces interpreting of various blueprints and working drawings. Applies basic principles and techniques such as visualization of an object, orthographic projection, technical sketching and drafting terminology. Requires outside preparation. Lecture 3 hours per week.

**DRF 161 Blueprint Reading I** (2 credits)
Teaches the application of basic principles, visualization, orthographic projection, detail of drafting shop process and terminology, assembly drawings and exploded views. Considers dimensioning, changes and corrections, classes of fits, tolerance and allowances, sections and convention in blueprint reading. Lecture 1 hour. Laboratory 3 hours. Total 4 hours per week.

**DRF 202 Computer Aided Drafting and Design II** (3-4 credits)
Teaches production drawings and advanced operations in computer aided drafting. Lecture 2-3 hours. Laboratory 2-3 hours. Total 4-6 hours per week.

## Economics

**ECO 201 Principles of Macroeconomics (3 credits)**
Presents the fundamental macroeconomic concepts, theories, and issues including the study of scarcity and opportunity cost, supply and demand, national economic growth, inflation, recession, unemployment, fiscal and monetary policies, and international trade. Develops an appreciation of how these economic concepts apply to consumer, business, and government decisions, and their effect on the overall economy. This is a Passport Transfer course. Lecture 3 hours.

**ECO 202 Principles of Microeconomics** (3 credits)
Presents the fundamental microeconomic concepts, theories, and issues including the study of scarcity and opportunity cost, supply and demand, elasticities, marginal revenues and costs, profits, production and distribution. Develops an appreciation of how these economic concepts apply to consumer and business decisions, and their effect on the individual. Lecture 3 hours.

## Education

**EDU 120 - Math for Elementary and Middle School Educators** (4 credits)
Provides a comprehensive and conceptual examination of fundamental mathematical concepts covered in VDOE K-8 Standards of Learning (SOLs). Designed for future K-8 mathematics educators. Emphasizes problem-solving, logical reasoning, the establishment of connections between mathematical concepts, effective communication of mathematical ideas, and the utilization of multiple representations. This is a cross-listed course with MTH 120. Lecture 4 hours. Total 4 hours per week.

**EDU 200 Foundations of Education** (3 credits)
Explores the foundational topics related to education. Emphasizes the historical, philosophical, social, legal, ethical, and professional aspects of teaching. This course requires a practicum with a minimum of 20 hours of observation in a K-12 setting. Lecture 3 hours.

**EDU 204 Teaching in a Diverse Society** (3 credits)
***Prerequisite***: EDU 200.
Examines how personal and professional identities, positioning, and intersectional positionalities, values, attitudes, beliefs, and behaviors impact teaching and learning. Develops an understanding of similar and unique characteristics of PreK-12 students and their families, including culture, race, ethnicity, religion, language and learning abilities, gender socializations and sexual orientation. This course requires a practicum with a minimum of 20 hours of observation in a K-12 setting. Lecture 3 hours. Total 3 hours per week.

**EDU 206 Classroom and Behavioral Management** (3 credits)
***Prerequisite***: EDU 200.
Provides an overview of developing a positive and inclusive learning environment. Emphasizes methods for managing the diverse needs of students in order to promote a positive learning environment. Addresses how to establish and communicate expectations for effective instruction. Lecture 3 hours. Total 3 hours per week.

**EDU 250 Foundations of Exceptional Education** (3 credits)
***Prerequisite***: EDU 200.
Explores the historical, ethical, social, cultural, and legal practices for providing educational services for individuals with exceptionalities including early intervention, inclusion, adapting environments, and supporting positive behavior. Includes the study of characteristics of individuals with exceptionalities and the influence of culture and environment on development. Focuses on models, theories, and trends in special education. Lecture 3 hours. Total 3 hours per week.

**EDU 270 Introduction to Autism Spectrum Disorders** (3 credits)
***Prerequisite***: EDU 200 or departmental approval.
Explores the nature of autism and related development disorders. Includes an exploration of assessment measures and diagnostic criteria. Discusses intervention strategies to support students in school settings. Lecture 3 hours. Total 3 hours per week.

## Electrical Technology

**ELE 111 - 112 Home Electric Power I - II** (3 credits/3 credits)
Teaches fundamentals of residential power distribution, circuits, enclosures, protective devices, and transformers. Studies various charts and tables of the National Electrical Code. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

**ELE 131 National Electrical Code I** (3 credits)
Provides comprehensive study of the purpose and interpretations of the National Electric Code as well as familiarization and implementation of various charts, code rulings and wiring methods including state and local regulations. Part I of II. Lecture 3 hours per week.

**ELE 132 National Electrical Code II** (3 credits)
Provides comprehensive study of the purpose and interpretations of the National Electric Code as well as familiarization and implementation of various charts, code rulings and wiring methods including state and local regulations. Part II of II.
Lecture 3 hours per week.

**ELE 141 DC and AC Machines I** (4 credits)
***Prerequisite***: ELE 133/134
Teaches construction, theory of operation, connections, and applications of direct current motors, generators; single and polyphase alternating current alternators, synchronous and induction motors. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

**ELE 157 Electricity Fundamentals** (6 credits)
Teaches the theories and laws of the flow of electricity, magnetism, inductance, capacitance, and the fundamentals of direct and alternating currents. Provides practical application by the use of test and measuring equipment, circuitry, and electrical apparatus. Lecture 3 hours. Laboratory 6 hours. Total 9 hours per week.

**ELE 175 Industrial Solid State Devices and Circuits** (3 credits)
The theory, symbols, properties, and applications of solid-state devices in industry. Lecture 2 hours. Laboratory 3 hours.
Total 5 hours per week.

**ELE 176 Introduction to Alternative Energy Including Hybrid Systems** (3 credits)
Introduces Alternative Energy with an emphasis on solar photovoltaic systems, small wind turbines technology, the theory of PV technology, PV applications, solar energy terminology, system components, site analysis, PV system integration and PV system connections and small wind turbine technology site analysis. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

**ELE 177 Photovoltaic Energy Systems** (4 credits)
Teaches techniques for conduct site surveys, installing system components, installing inverters and performing system sizing and system maintenance. Introduces different battery configurations, and charge controllers. Introduces safety, system design and layout, National Electric Code, Component Selection, wiring and installation techniques. Lecture 3 hours. Laboratory 3 hours.
Total 6 hours per week.

**ELE 197 Co-op** (2-5 credits)
Requires curriculum advisor approval.
Cooperative education in electricity. Designed to provide practical work experience for the electricity student. Minimum on-the-job training is 10 hours per week.

**ELE 225 Electrical Control Systems** (4 credits)
***Prerequisite***: ELE 217 or equivalent.
Studies components, equipment and circuits that are used to control the operation of electrical machines. Explains the physical and operating characteristics of various electromagnetic, static, and programmable control devices. Investigates control schemes used to accomplish specific control objectives.
Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

**ELE 233 Programmable Logic Controller Systems I** (3 credits)
***Prerequisite***: ETR 156 and ETR 211 or equivalent.
Teaches operating and programming of programmable logic controllers. Covers analog and digital interfacing and communication schemes as they apply to system. Part I of II.
Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

**ELE 234 Programmable Logic Controller Systems II** (3 credits)
***Prerequisite***: ETR 156 and ETR 211 or equivalent.
Teaches operating and programming of programmable logic controllers. Covers analog and digital interfacing and communication schemes as they apply to system. Part II of II.
Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

**ELE 239 Programmable Controllers** (3 credits)
***Prerequisite***: ELE 157 or equivalent
Deals with installation, programming, interfacing, and concepts of troubleshooting programmable controllers.
Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

**ELE 240 Advanced Programmable Logic Controllers** (3 credits)
***Prerequisite:*** ELE 233 or ELE 239
Advances further study of Programmable Logic Controllers that was initiated in ELE 239. Students will learn to use more advanced program instructions, including data manipulation, sequences and program control, and advanced PLC features, including timers, counters. Covers connectivity and use of a variety of real world I/O devices. Lecture 2 hours. Laboratory 3 hours.
Total 5 hours per week.

**ELE 245 - Industrial Wiring** (3 credits)
Teaches the practical applications of industrial and commercial wiring. Includes the principles essential to the understanding of conduit applications and other raceway installations. Includes conduit sizing, cutting, bending, and threading.
Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

**ELE 290 Coordinated Internship** (3 credits)
Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit.
Variable hours. 1-5 credits

**ELE 297 Co-op** (2-5 credits)
Requires curriculum advisor approvals.
Cooperative education in electricity. Designed to provide practical work experience for the electricity or the Electrical/Electro student. Minimum on-the-job training is 10 hours per week.

## Electronics Technology

**ETR 166 - Fundamentals of Computer Technology** (3 Credits)
Introduces computer use and literacy. Includes operating systems, high level language programming, word processors, spreadsheets and other generic software. Uses engineering terms, standards and methods.
Lecture 2 hours. Laboratory 1 hour. Total 3 hours per week.

## Emergency Medical Services

**EMS 100 CPR for Healthcare Providers** (1 credit)
Provides instruction in Cardiopulmonary Resuscitation that meets current Emergency Cardiac Care (ECC) guidelines for Cardiopulmonary Resuscitation education for Healthcare Providers. Equivalent to HLT 105. Lecture 1 hours per week.

**EMS 111 Emergency Medical Technician** (7 credits)
***Prerequisite***: EMS 100/equivalent
***Corequisite***: EMS 120
Prepares student for certification as a Virginia and National Registry EMT. Focuses on all aspects of pre-hospital basic life support as defined by the Virginia Office of Emergency Medical Services curriculum for Emergency Medicine Technician. 5 lecture hours; 4 lab hours; 9 hours per week.

**EMS 120 Emergency Medical Technician - Basic Clinical** (1 credit)
Observes in a program approved clinical/field setting. Includes topics for both EMS 111 and EMS 113, dependent upon the program in which the student is participating and is a corequisite to both EMS 111 and EMS 113. Lab 2 hours; 2 hours per week.

**EMS 123 EMS Clinical Preparation** (1 credit)
***Prerequisite***: Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS
Introduces the student to local clinical agencies and prepares the student for clinical activities above the level of EMT. Includes prerequisites required by clinical affiliates, therapeutic communication, primary assessment, history taking, secondary assessment, reassessment, monitoring devices and documentation. Laboratory 2 hours. Total 2 hours per week.

**EMS 180 Advanced EMS Foundations** (1 credit)
***Prerequisite***: Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.
Introduces fundamental concepts established by the National Emergency Medical Service Education Standards (NEMSES) for the Advanced EMT curriculum. Includes EMS systems, introduction to research, workforce safety and wellness, EMS system communications, therapeutic communication, and legal and ethical issues. Lecture 1 hour. Total 1 hour per week.

**EMS 181 Advanced Airway and Shock Management** (1 credit)
***Prerequisite***: Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.
Co-requisite: EMS 182
Introduces core principles of airway, shock, and resuscitation as outlined by the National Emergency Medical Service Education Standards (NEMSES) within the Advanced EMT curriculum. Provides students with a fundamental knowledge of the Cardiopulmonary system, including its assessment and management of shock. Covers cardiac arrest and post-arrest management. Lecture 1 hour. Total 1 hour per week.

**EMS 182 Advanced Airway and Shock Management Lab** (1 credit)
***Prerequisite***: Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.
Co-requisite: EMS 181
Examines assessment and management of trauma emergencies as outlined by the National Emergency Medical Service Education Standards (NEMSES) within the Advanced EMT curriculum. Provides students with specific skills related to airway, resuscitation and shock management. Laboratory 2 hours. Total 2 hours per week.

**EMS 183 Advanced Medical Care** (2 credits)
***Prerequisite***: Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.
***Corequisite***: EMS 184
Examines the assessment and management of medical emergencies as outlined by the National Emergency Medical Service Education Standards (NEMSES) within the Advanced EMT curriculum. Lecture 2 hours. Total 2 hours per week.

**EMS 184 Advanced Medical Care Laboratory** (1 credit)
***Prerequisite***: Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS program.
***Corequisite***: EMS 183
Focuses on specific skills related to the assessment and management of common medical emergencies as outlined by the National Emergency Medical Service Education Standards (NEMSES) within the Advanced EMT curriculum. Laboratory 2 hours. Total 2 hours per week.

**EMS 185 Advanced Trauma Care** (2 credits)
***Prerequisite***: Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.
Co-requisite: EMS 186
Examines the assessment and management of trauma emergencies as outlined by the National Emergency Medical Service Education Standards (NEMSES) within the Advanced EMT curriculum. Lecture 2 hours. Total 2 hours per week.

**EMS 186 Advanced Trauma Care Laboratory** (1 credit)
***Prerequisite***: Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.
***Corequisite***: EMS 185
Focuses on specific skills related to the assessment and management of trauma emergencies as outlined by the National Emergency Medical Service Education Standards (NEMSES) within the Advanced EMT curriculum. Laboratory 2 hours. Total 2 hours per week.

**EMS 221 Paramedic Cardiovascular Care** (3 credits)
***Prerequisite***: Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.
***Corequisite***: EMS 222
Covers in-depth assessment and management of cardiovascular conditions, as outlined by the National Emergency Medical Service Education Standards (NEMSES) for Paramedics. Lecture 3 hours. Total 3 hours per week.

**EMS 222 Paramedic Cardiovascular Care Laboratory** (1 credit)
***Prerequisite***: Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.
***Corequisite***: EMS 221
Focuses on skills involved in the assessment and management of cardiac-related emergencies as outlined by the National Emergency Medical Service Education Standards (NEMSES) for Paramedics. Develops competency in basic dysrhythmia recognition and overall cardiac patient care. Laboratory 2 hours. Total 2 hours per week.

**EMS 223 Paramedic Patient Care I** (3 credits)
***Prerequisite***: Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.
***Corequisite***: EMS 224
Covers the breadth of medical and trauma conditions as outlined by the National Emergency Medical Service Education Standards (NEMSES) for Paramedics. Part I of II. Lecture 3 hours. Total 3 hours per week.

**EMS 224 Paramedic Patient Care I Laboratory** (1 credit)
***Prerequisite***: Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.
***Corequisite***: EMS 223
Covers the skills related to the breadth of medical and trauma conditions as outlined by the National Emergency Medical Service Education Standards (NEMSES) for Paramedics. Part I of II. Laboratory 2 hours. Total 2 hours per week.

**EMS 225 Paramedic Patient Care II** (5 credits)
***Prerequisite***: Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.
***Corequisite***: EMS 226:
Covers the depth of medical and trauma conditions as outlined by the National Emergency Medical Service Education Standards (NEMSES) for Paramedics. Part II of II. Lecture 5 hours. Total 5 hours per week.

**EMS 226 Paramedic Patient Care Laboratory II** (2 credits)
***Prerequisite***: Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.
***Corequisite***: EMS 225
Covers the skills related to the depth of medical and trauma conditions as outlined by the National Emergency Medical Service Education Standards (NEMSES) for Paramedics. Part II of II. Laboratory 4 hours. Total 4 hours per week.

**EMS 241 Paramedic Internship I** (2 credits)
***Prerequisite***: Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.
Introduces students to live patient assessment and management in the clinical and field setting. Begins a continuum of learning involving live patients that leads to entry-level competence at the paramedic level. Part I of II. Laboratory 6 hours. Total 6 hours per week.

**EMS 246 Paramedic Internship II** (2 credits)
***Prerequisites***: Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.
Introduces students to live patient assessment and management in the clinical and field set. Continues the learning experience with live patients that leads to entry-level competence at the paramedic level. Part II of II. Laboratory 6 hours. Total 6 hours per week.

**EMS 170 ALS Internship I** (1credits)
***Prerequisites***: EMS 151
Begins the first in a series of clinical experiences providing supervised direct patient contact in appropriate patient care facilities in and out of hospitals. Includes but not limited to patient care units such as the Emergency Department, Critical Care units, Pediatric, Labor and Delivery, Operating Room, Trauma centers and various advanced life support units. Laboratory 3 hours per week.

## Energy Technology

**ENE 100 Conventional and Alternate Energy Applications** (4 credits)
***Prerequisite***: ELE 176 or instructor approval.
Provides an overview of hydroelectric, coal, and nuclear energy production methods and renewable solar, geothermal, wind, and fuel cell technology. A complete system breakdown of conventional power production methods, efficiency, and sustainability when compared with solar. Lecture 3 hours. Laboratory 3 ours. Total 6 hours per week.

**ENE 197 Cooperative Education** (1-5 credits)
Supervises in on-the-job training for pay in approved business, industrial and service firms, coordinated by the college's cooperative education office. Is applicable to all occupational- technical curricula at the discretion of the college. Credit/work ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.

**ENE 200 Power Monitoring** (4 credits)
***Prerequisites***: ELE 157 and MDE 10 or equivalents.
Covers the equipment, connections, and use of monitoring power production necessary for offsite and onsite use. Includes study of computer applications used for monitoring including real time storage and historical storage of data. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

**ENE 290 Coordinated Internship** (3 credits)
Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours. 1-5 credits

**ENE 297 Cooperative Education** (1-5 credits)
Supervises in on-the-job training for pay in approved business, industrial and service firms, coordinated by the college's cooperative education office. Is applicable to all occupational- technical curricula at the discretion of the college. Credit/work ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.

## Engineering

**EGR 121 Foundations of Engineering** (2 credits)
***Prerequisites***: ENG 111 eligible; MTH 162 or MTH 167, or equivalent; or departmental approval.
Introduces the engineering profession and its impact on society and the environment, including engineering problem solving, the engineering design process, and professional practices. Covers fundamental engineering calculations, descriptive statistics, basic spreadsheet and mathematical scripting language applications, professional ethics, teamwork, and communication. Lecture 2 hours. Total 2 hour per week.

**EGR 122 Engineering Design** (3 credits)
***Prerequisite***: EGR 121 or departmental permission.
Applies engineering methods to a semester-long team design project with an emphasis on engineering software involving 2D and 3D computer aided design; data modeling and analysis; and iterative programming solutions. Covers design drawings and dimensioning; spreadsheet software usage; mathematical scripting language; and professional practices. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

**EGR 140 Engineering Mechanics—Statics** (3 credits)
***Prerequisite***: MTH 263, **Corequisite**: MTH 264
Introduces mechanics of vector forces and space, scalar mass and time, including S.I. and U.S. customary units. Teaches equilibrium, free-body diagrams, moments, couples, distributed forces, centroids, moments of inertia analysis of two-force and multi-force members. Lecture 3 hours per week.

**EGR 206 Engineering Economics** (3 credits).
Presents economic analysis of engineering alternatives. Studies economic and cost concepts, calculation of economic equivalence, comparison of alternatives, replacement economy, economic optimization in design and operation, depreciation, and after-tax analysis. Lecture 3 hours per week.

**EGR 240 Statics** (3 credits)
***Prerequisite***: MTH 263 or departmental approval.
Description: Introduces basic concepts of engineering mechanics, systems of forces and couples, equilibrium of particles and rigid bodies, and internal forces and analysis of structures, including SI and U.S. customary units. Includes trusses, frames, machines, beams, distributed forces, friction, and centroids. Lecture Hours: 3 hours per week.

**EGR 245 Dynamics** (3 credits)
***Prerequisites***: EGR 240 or departmental approval
Presents approach to kinematics of particles in linear and curvilinear motion. Includes kinematics of rigid bodies in plane motion. Teaches Newton's second law, work-energy and power, impulse and momentum, and problem-solving using computers. Lecture 3 hours per week.

**EGR 246 Mechanics of Materials** (3 credits)
***Prerequisite***: EGR 240 or departmental approval
Teaches concepts of stress, strain, deformation, internal equilibrium, and basic properties of engineering materials. Analyses axial loads, torsion, bending, shear and combines loading. Studies stress transformation and principle stresses, column analysis and energy principles. Lecture 3 hours per week.

**EGR 299 Supervised Study** (1-5 credits)
Provides an opportunity to explore topical areas of interest to or needed by students. May be used also for special honors courses. May be repeated for credit. Variable hours.

# English

**ENG 111 College Composition I** (3 credits)
See Table E for Placement
Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport Transfer course. Lecture 3 hours per week.

**ENG 112 College Composition II** (3 credits)
***Prerequisite***: ENG 111
Continues to develop college writing with increased emphasis on critical essays, argumentation, and research, developing these competencies through the examination of a range of texts about the human experience. Requires students to locate, evaluate, integrate, and document sources and effectively edit for style and usage. Prerequisite: Students must successfully complete ENG 111 or its equivalent, and must be able to use word processing software. Lecture 3 hours per week.

**ENG 115 Technical Writing** (3 credits)
See Table E for Placement
Develops ability in technical writing through extensive practice in composing technical reports and other documents. Guides students in achieving voice, tone, style, and content in formatting, editing, and graphics. Introduces students to technical discourse through selected reading. Lecture 3 hours per week. Not intended to transfer.

**ENG 211 Creative Writing I** (3 credits)
***Prerequisite***: ENG 112 or divisional approval.
Introduces the student to the fundamentals of writing imaginatively. Students write in forms to be selected from poetry, fiction, drama, and essays. Part I of II. Lecture 3 hours per week.

**ENG 245 British Literature** (3 credits)
***Prerequisite***: ENG 112, ENG 113, or departmental approval.
Examines British literary traditions and texts from diverse time periods, genres, and authors. Develops critical thinking and interpretive skills through close reading, discussion, and analysis of literary texts in their historical, cultural, social, and/or literary contexts. Lecture 3 hours per week.

**ENG 246 American Literature** (3 credits)
***Prerequisite***: ENG 112, ENG 113, or departmental approval.
Examines American literary traditions and texts from diverse time periods, genres, and authors. Analyzes literary works within their historical, cultural, social, and/or literary contexts. Emphasizes skills of close reading. Develops critical thinking and interpretive skills through discussion, interpretation, and analysis of these texts. Lecture 3 hours per week.

**ENG 250 - Children's Literature** (3 credits)
Examines the history and development of children's literature of diverse genres, time periods, and authors. Focuses on analysis of texts for literary qualities and audience. Develops critical thinking and interpretive skills through close reading, discussion, and analysis of literary texts. This is a UCGS transfer course.
Lecture 3 hours. Total 3 hours per week.
Prerequisites: ENG 112, ENG 113, or departmental approval.

## English Direct Enrollment

**EDE English Composition Preparation** (3 credits)
Provides academic skills and support for introductory composition. Students will identify and apply academic skills including critical reading, writing, thinking, and research. Upon successful completion of EDE 10, instructors recommend enrollment in EDE 11/ENG 111 or ENG 111 or ENG 115/ENG 131. Lecture 3 hours. Total 3 hours per week.

**EDE 11 English Composition Readiness** (3 credits)
***Corequisite***: ENG 111
Provides academic support for successful completion of ENG 111. Students will identify and apply academic skills including critical reading, writing, thinking, and introductory research. Lecture 3 hours. Total 3 hours per week.

## Environmental Science

**ENV 121 General Environmental Science I** (4 credits)
Explores fundamental components and interactions that make up the natural systems of the earth. Introduces the basic science concepts in the discipline of biological, chemical, and earth sciences that are necessary to understand and address environmental issues. This is a Passport and UCGS transfer course. Lecture 3 hours. Recitation and Laboratory 3 hours. Total 6 hours per week. Part I of II.

**ENV 122 General Environmental Science II** (4 credits)
Explores fundamental components and interactions that make up the natural systems of the earth. Introduces the basic science concepts in the disciplines of biological, chemical, and earth sciences that are necessary to understand and address environmental issues. This is a UCGS transfer course. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week. Part II of II.

## Financial Services

**FIN 215 Financial Management** (3 credits)
Introduces basic financial management topics including statement analysis, working capital, capital budgeting, and long-term financing. Focuses on Net Present Value and Internal Rate of Return techniques, lease vs. buy analysis, and Cost of Capital computations. Uses problems and cases to enhance skills in financial planning and decision making. Lecture 3 hours per week.

## Geography

**GEO 210 People and the Land: Intro to Cultural Geography** (3 credits)
Provides an introduction to themes in human geography and the ways in which human geographers study spatial relationships in the world. Emphasizes geospatial tools and concepts to examine global patterns of human demographics, culture, geopolitics, and economic and environmental interdependence through introduction to a broad range of subject matter. This is a Passport and UCGS transfer course. Lecture 3 hours a week.

## Geology

**GOL 105 Physical Geology** (4 credits)
Introduces the science of physical geology through a comprehensive systems-based examination of Earth's structure, composition, rocks and minerals, landforms, geomorphology, and agents responsible for shaping and modifying its environments. Explores the origin and evolution of Earth's topographic and bathymetric features, geologic phenomena, and geologic hazards, resulting from plate tectonics. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

**GOL 106 Historical Geology** (4 credits)
Traces the evolution of the earth and life through time. Presents scientific theories of the origin of the earth and life and interprets rock and fossil record. Lecture 3 hours, Laboratory 3 hours, Total 6 hours per week.

**GOL 299 Supervised Study** (1 credit).
Assigns problems for independent study incorporating previous instruction and supervised by the instructor.
May be repeated for credit. Variable hours.

## Health

**HLT 95/195/295 Topics in Health** (1-5 credits)
Provides an opportunity to explore topic areas of an evolving nature or of short-term importance in the discipline. Variable hours per week.

**HLT 105 Cardiopulmonary Resuscitation** (1 credit)
Provides training in coordinated mouth-to-mouth artificial ventilation and chest compression, choking, life-threatening emergencies and sudden illness. Lecture 1 hour per week. HLT 106 First Aid and Safety (2 credits)
Focuses on the principles and techniques of safety and first aid. Lecture 2 hours per week.

**HLT 110 Concepts of Personal and Community Health** (3 credits)
Studies the concepts related to the maintenance of health, safety and the prevention of illness at the personal and community level. Lecture 3 hours per week.
**HLT 121 Introduction to Drug Use and Abuse** (3 credits)
Explores the use an abuse of drugs in contemporary society with emphasis upon sociological, physiological, and psychological effects of drugs. Lecture 3 hours per week.

**HLT 125 Anatomy and Physiology for Exercise Science** (3 credits)
Presents basic principles of human anatomy and physiology including the body structure, systems and functions. The course provides a foundation to build and apply concepts in the study of Exercise Science, Group Fitness, Personal Training, and related fitness studies. 3 Credits, 3 Hours Lecture, 3 Contact Hours

**HLT 135 - Child Health and Nutrition** (3 credits)
Focuses on the physical needs of the preschool child and the methods by which these are met. Emphasizes health routines, hygiene, nutrition, feeding and clothing habits, childhood diseases, and safety as related to health growth and development. Lecture 3 hours per week.

**HLT 140 Orientation to Health Professions** (1 credit)
Explores the interrelated roles and functions of various members of the health team. Lecture 1 hour per week.

**HLT 143 Medical Terminology I** (3 credits)
Provides an understanding of medical abbreviations and terms. Includes the study of prefixes, suffixes, word stems, and technical terms with emphasis on proper spelling, pronunciation, and usage. Emphasizes more complex skills and techniques in understanding medical terminology. Part I of II. Lecture 3 hours per week.

**HLT 145 Ethics for Health Care Professionals** (2 credits)
Focuses on ethical concepts of health care. Emphasizes confidentiality, maintaining patient records, personal appearance, professionalism with patients/clients, associates, and an awareness of health care facilities. Lecture 2 hours. Total 2 hours per week.

**HLT 156 Health Care for Athletic Injuries** (2-3 credits)
Teaches prevention and care of athletic injuries, recognition and management of head and spinal injuries, fractures, strains, sprains, as well as cardiac emergencies. Discusses taping, protective equipment, and medical referral. Lecture 2-3 hours per week.

**HLT 206 Exercise Science** (3 credits)
Surveys scientific principles, methodologies, and research as applied to exercise and physical fitness. Emphasizes physiological responses and adaptions to exercise. Addresses basic elements of kinesiology, biomechanics, and motor learning. Presents an introduction to the physical fitness industry. Lecture 3 hours per week.

**HLT 228 Principles of Public Health** (3 credits)
Provides an overview of public health in America and globally with an emphasis on fundamental functions, essential services and health determinants. Explores the history, core areas and current trends within public health as well as how public health affects individuals and populations. Lecture 3 hours. Total 3 hours per week.

**HLT 230 Principles of Nutrition and Human Development** (3 credits)
Teaches the relationship between nutrition and human development. Emphasizes nutrients, balanced diet, weight control, and the nutritional needs of an individual. Lecture 3 hours per week.

**HLT 261 Basic Pharmacy I** (3 credits)
Explores the basics of general pharmacy, reading prescriptions, symbols, packages, pharmacy calculations. Teaches measuring compounds of drugs, dosage forms, drug laws, and drug classifications. Lecture 3 hours per week.

**HLT 262 Basic Pharmacy II** (3 credits)
Explores the basics of general pharmacy, reading prescriptions, symbols, packages, pharmacy calculations. Teaches measuring compounds of drugs, dosage forms, drug laws, and drug classifications. Part II of II. Lecture 3 hours per week.

## Health Care Technology

**HCT 101 Health Care Technician I** (3 credits)
Teaches basic care skills with emphasis on physical, social, emotional, and spiritual needs of patients. Covers procedures, communications and interpersonal relations; observation, charting and reporting; care planning, safety and infection control; anatomy and physiology, nutrition and patient feeding; ethics, death and dying. Prepares multi-skilled health care workers to care for patients of various ages with special emphasis on geriatric nursing, home health, long and short term care facilities. Lecture 3 hours per week.

**HCT 102 Health Care Technician II** (3 credits)
***Prerequisite***: HCT 101
Applies theory through laboratory experience for health care technicians to word in home health, long and short term facilities. Lecture 1 hours. Laboratory 6 hours. Total 7 hours per week.

## Health Information Management

**HIM 113 Medical Terminology and Disease Processes I** (3 credits)
Includes the study of prefixes, suffixes, stem words, and technical terms; puts emphasis on the causes and treatment of selected disease processes. Part I of II. Lecture 3 hours per week.

**HIM 151 - Reimbursement Issues in Medical Practice Management** (2 credits)
Introduces major reimbursement systems in the United States. Focuses on prospective payment systems, managed care, and documentation necessary for appropriate reimbursement. Emphasizes management of practice to avoid fraud. Lecture 2 hours per week.

**HIM 163 Anatomy and Physiology for Administrative Health Professionals** (3 credits)
***Prerequisite***: HIM 113 or HLT 143.
Introduces the structure and function of the systems of the human body as applied by administrative health professionals. Lecture 3 hours per week.

**HIM 253 Health Records Coding** (4 credits)
Examines the development of coding classification systems. Introduces ICD-9-CM coding classification system, its format and conventions. Stresses basic coding steps and guidelines according to body systems. Provides actual coding exercises in relation to each system covered. Lecture 4 hours per week.

**HIM 254 Advanced Coding and Reimbursement** (4 credits)
Stresses advanced coding skills through practical exercises using actual medical records. Introduces CPT-4 coding system and guidelines for out-patient/ambulatory surgery coding. Introduces prospective payment system and its integration with ICD-CM-9 coding. Lecture 4 hours per week.

## History

**HIS 101 Western Civilization Pre-1600 CE** (3 credits)
Examines the development of western civilization from ancient times to 1600 CE. Lecture 3 hours per week.

**HIS 102 Western Civilization Post-1600 CE** (3 credits)
Examines the development of western civilization from 1600 CE to present. Lecture 3 hours per week.

**HIS 111 World Civilizations Pre-1500 CE** (3 credits)
Surveys the history of Asia, Africa, the Americas, and Europe from antiquity to approximately 1500. This is a Passport Transfer course. Lecture 3 hours per week.

**HIS 112 World Civilizations Post-1500 CE** (3 credits)
Surveys the history of Asia, Africa, Europe, and the Americas from approximately 1500 CE through the present. This is a Passport Transfer course. Lecture 3 hours per week.

**HIS 121 United States History to 1877** (3 credits)
Introduces the history of the United States from its origins to 1877. Includes the European exploration, development of the American colonies and their institutions, the Revolution, major political, social and economic developments, geographical expansion, the Civil War, and Reconstruction. This is a Passport Transfer course. Lecture 3 hours per week.

**HIS 122 United States History Since 1865** (3 credits)
Introduces the history of the United States from 1865 to present. Includes major political, social and economic developments since 1865, overseas expansion, the two world wars, the Cold War and the post-Cold War era. This is a Passport Transfer course. Lecture 3 hours per week.

**HIS 205 - Local History** (3 credits)
Studies the history of the local community and/or region. Lecture 3 hours per week.

## Horticulture

**HRT 100 Introduction to Horticulture** (3 credits) (Fall)
Introduces commercial horticulture industry with emphasis on career opportunities. Examines equipment, facilities, and physical arrangements of production, wholesale and retail establishments. Surveys individual areas within horticulture industry. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

**HRT 115 Plant Propagation** (3 credits) (Fall)
Teaches principles and practices of plant propagation. Examines commercial and home practices. Provides experience in techniques using seed-spores, cuttings, grafting, budding, layering and division. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

**HRT 134 Four Season Food Production** (3 credits) (Spring)
Familiarizes students with organic small-scale food production through lecture and demonstration. Includes seed saving, cover crops, and gardening planning. Lecture 3 hours per week.

**HRT 197 Co-op** (3 credits)
Requires curriculum advisor approval.
Cooperative education in ornamental horticulture. Designed to provide practical work experience for the horticulture student. Minimum on-the-job training is 225 work hours over the course of a semester.

**HRT 205 Soils** (3 credits) (Fall)
Teaches theoretical and practical aspects of soils and other growing media. Examines media components, chemical and physical properties, and soil organisms. Discusses management and conservation. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

**HRT 207 Plant Pest Management** (3 credits) (Fall)
Teaches principles of plant pest management. Covers morphology and life cycles of insects and other small animal pests and plant pathogens. Lab stresses diagnosis, chemical and non-chemical control of specific pests, and pesticide safety. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

**HRT 225 Nursery and Garden Center Management** (3 credits) (every other Spring, even years)
Covers aspects of nursery management, including culture, plant handling, and facilities layout. Discusses aspects of garden center management, including planning and layout, purchasing, product selection, marketing, merchandising, and display. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

**HRT 226 Greenhouse Management** (3 credits) (Spring)
Discusses the theoretical and applied practices of managing a greenhouse facility. Emphasizes greenhouse construction and design, environmental control, energy conservation, and related topics. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

**HRT 231 Planting Design I** (3 credits) (every other Spring, even years)
Applies landscape theory and principles of drawing to the planning of residential and small scale commercial landscape designs. Lecture 2 hours. Laboratory 2 hours.
Total 4 hours per week.

**HRT 247 Indoor Plants** (3 credits)
Studies identification, culture, and uses of indoor plants in interior landscaping. Includes tropical, subtropical and non-hardy temperate plants. Teaches scientific and common names of plants. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

**HRT 259 Arboriculture** (3 credits) (every other Fall, odd years)
Studies the techniques of tree care. Covers surgery, pruning, insect and disease recognition and control, fertilization, cabling, and lightning rod installation. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

**HRT 275 Landscape Construction and Maintenance** (3 credits)
(every other Spring, even years)
Examines practical applications of commercial landscape construction techniques, and materials used. Covers construction, planting, and maintenance. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

**HRT 285 - Management of a Horticultural Business** (3 credits)
Studies the business and selling practices which relate to wholesale and retail horticultural businesses including garden centers, greenhouses, nurseries, and flower shops. Examines planning and layout, suppliers, merchandising, maintenance, and display of horticultural items. Lecture 2 hours. Laboratory 2 hours.
Total 4 hours per week.

**HRT 295 Topics In Cannabis Cultivation** (3 credits) (online only)
Provides an opportunity to explore topical areas of interest to or needed by students. May be used also for special honors courses. May be repeated for credit. Variable hours.

**HRT 297 Cooperative Education** (1-6 credits)
Supervises in on-the-job training for pay in approved business, industrial and service firms, coordinated by the college's cooperative education office. Is applicable to all occupational- technical curricula at the discretion of the college. Credit/work ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.

**HRT 299 Supervised Study** (1 credit)
Assigns problems for independent study incorporating previous instruction and supervised by the instructor.
May be repeated for credit. Variable hours.

## Hospitality-Restaurant-Institutional Management

**HRI 103 Introduction to Meeting Planning (**3 credits)
Focuses on basic aspects and skills involved in planning and managing meetings, exhibitions, events, and conventions. Covers the entire spectrum of the meetings industry, treating all aspects with a broad approach. Emphasizes types of meetings, meeting markets, industry suppliers and affiliates, budget and program planning, site selection and legal issues, registration and housing, and the development of timelines. This course is cross-listed with TRV 130. Credit will not be awarded to both.
Lecture 3 hours per week.

**HRI 140 Fundamentals of Quality for the Hospitality Industry**
(3 credits)
***Prerequisites***: HRI 103 & HRI 154
Teaches quality in the hospitality industry, including material on the total quality management movement. Emphasizes quality from the customer's perspective. Lecture 3 hours per week.

**HRI 154 Principles of Hospitality Management** (3 credits)
Presents basic understanding of the hospitality industry by tracing the industry's growth and development, reviewing the organization and management of lodging, food, and beverage operations, and focusing on industry opportunities and future trends.
Lecture 3 hours per week.

**HRI 158 Sanitation and Safety** (3 credits)
Covers the moral and legal responsibilities of management to ensure a sanitary and safe environment in a food service operation. Emphasizes the causes and prevention of foodborne illnesses in conformity with federal, state and local guidelines. Focuses on OSHA standards in assuring safe working conditions. Lecture 3 hours.

**HRI 229 - Principles of Meeting Planning** (3 credits)
***Prerequisite:*** HRI 103 or industry experience.
Focuses on planning and managing meetings. Examines entire sequence of events from conceptual stage of the first meeting plan through completion of the event. Emphasizes technical planning skills including site selection, negotiation with suppliers, meeting specifications, preparation, budgeting, special event planning, and working with facility staff to manage a successful meeting. This course is cross listed with TRV 235. Credit will not be awarded for both. Lecture 3 hours per week.

**HRI 235 - Marketing of Hospitality Services** (3 credits)
***Prerequisite:*** BUS 100
Studies principles and practices of marketing the services of the hotel and restaurant industry. Emphasizes the marketing concept with applications leading to customer satisfaction. Reviews methods of external and internal stimulation of sales. May include a practical sales/marketing exercise and computer applications. Lecture 3 hours per week

**HRI 255 Human Res. Mgmt, and Trng. for Hospi. and Tourism** (3 credits)
***Prerequisite:*** BUS 100
Prepares the students for interviewing, training and developing employees. Covers management skills (technical, human, and conceptual) and leadership. Covers the establishment and use of effective training and evaluative tools to improve productivity. Emphasizes staff and customer relations. Lecture 3 hours per week.

**HRI 256 Principles and Applications of Catering** (2 credits)
***Corequisite:*** CUL 136 or divisional approval.
Analyzes and compares the principles of on-premise and off-premise catering. Includes student presentations in a series of catered functions where they assume typical managerial/employee positions emphasizing planning, organizing, operating, managing and evaluating. Lecture 2 hours.

**HRI 265 Hotel Front Office Operations** (3 credits)
Analyzes hotel front office positions and the procedures involved in reservation registration, accounting for and checking out guests, and principles and practices of night auditing. Covers the complete guest operation in both traditional and computerized operations.
Lecture 3 hours per week.

**HRI 290 Coordinated Internship**
Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.
1-3 credits

## Humanities

**HUM 153 Appalachian Studies (3 Credits)**
Explores the Appalachian region from a cross-disciplinary perspective, with readings on Appalachia drawn primarily from the humanities. Considers the historical, environmental, political and economic contexts that shape Appalachia.
Lecture 3 hours per week.

**HUM 246 Creative Thinking** (3 credits)
Examines, analyzes, and develops creative and critical thinking processes with individual and group applications to solve business, scientific, social, environmental, and other practical problems. The assignments in this course require college-level reading, analysis of scholarly studies, and coherent communication through properly cited and formatted written reports. Lecture 3 hours per week.

**HUM 256 Comparative Mythology** (3 credits)
Studies the cultural expressions of mythology. Considers selected mythologies representing diverse global culture, with emphasis on parallels and divergences in structure, purpose, and representation in literature and the arts. The assignments in this course require college-level reading, analysis of scholarly studies, and coherent communication through properly cited and formatted written reports. Lecture 3 hours per week.

## Human Services

**HMS 100 Introduction to Human Services** (3 credits)
Introduces human service agencies, roles and careers. Presents a historical perspective of the field as it relates to human services today. Additional topics include values clarification and needs of target population. Lecture 3 hours per week.

**HMS 121 Basic Counseling Skills I (3 credits)**
Develop skills needed to function in a helping relationship. Emphasizes skills in attending, listening and responding. Clarifies personal skill strengths, deficits and goals for skill improvement. Lecture 3 hours per week.

**HMS 141 Group Dynamics I** (3 credits)
Examines the stages of group development, group dynamics, the role of the leader in a group, and recognition of the various types of group processes. Discusses models of group dynamics that occur as a result of group membership dynamics. Lecture 3 hours per week.

**HMS 145 Effects of Psychoactive Drugs** (3 credits)
Provides information on the biochemical, physiological, and behavioral aspects of substance addiction and will review the symptoms of addiction. Emphasizes areas of chemical dependency, medical epidemiology, physiological threats of addiction, and methods of identifying multiple drug abusers. Lecture 3 hours per week.

**HMS 161 - Professional Skill Development for Human Services (3 credits)**
Teach professional skills necessary to make the transition from the role of MH consumer/client to that of services provider. Will cover confidentiality, professionalism, boundaries and roles, cultural diversity and personal values.
Lecture 3 hours per week.

**HMS 162 - Communication Skills for Human Services Professionals (3 credits)**
Covers basic written and verbal communication skills, including, listening skills, interviewing techniques, and completing written documentation to professional standards.
Lecture 3 hours per week.

**HMS 198 - Seminar and Project** (1-5 credits)
Requires completion of a project or research report related to the student's occupational objectives and a study of approaches to the selection and pursuit of career opportunities in the field. May be repeated for credit. Variable hours.

**HMS 227 The Helper as a Change Agent** (3 credits)
Teaches the following skills for implementing alternative models of change and influence: action research, problem-solving, consultation, workshop development, and outreach and advocacy for diverse client populations. Lecture 3 hours per week.

**HMS 230 Ethics in Human Services** (3 credits)
Examines ethical concepts specific to human services organizations and careers. Considers self-determination, informed consent, confidentiality, boundaries, conflict of interest, dual relationships, as well as value clarification and the impact of culture. Lecture 3 hours. Total 3 hours per week.

**HMS 250 Principles of Case Management** (3 credits)
Provides an overview of current case management theory and practice in the field of mental health. Lecture 3 hours per week.

**HMS 251 Substance Abuse I** (3 credits)
Provides knowledge, skills, and insight for working in drug and alcohol abuse programs. Emphasizes personal growth and client growth measures in helping relationships. Stresses various methods of individual and group techniques for helping the substance abuser. Lecture 3 hours per week.

**HMS 252 Substance Abuse II** (3 credits)
***Prerequisite***: HMS 251
Expands knowledge and skill in working with the substance abuser. Focuses on assisting substance abusers in individual and group settings and explores client treatment modalities. May provide opportunities for field experience in treatment centers. Lecture 3 hours per week.

**HMS 258 Case Management and Substance Abuse** (3 credits)
Focuses on the process for interviewing substance abuse clients. Includes intake, assessment, handling denial, and ending the interview. Teaches skills for writing short-term goals and treatment plans with emphasis on accountability. Examines various reporting devices. Lecture 3 hours per week

**HMS 260 Substance Abuse Counseling** (3 credits)
Provides an understanding of the skills of guidance of clients and those associated with being an advocate. Examines the dynamics of the client/counselor relationship in developing treatment plans and empowerment skills. Lecture 3 hours per week.

**HMS 290 Coordinated Internship** (1-5 credits)
Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.

**HMS 297 Cooperative Education** (1-6 credits)
Supervises on-the-job training for pay in approved business, industrial and service firms, coordinated by the college's cooperative education office. Is applicable to all occupational- technical curricula at the discretion of the college. Credit/work ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.

## Industrial Engineering Technology

**IND 243 Principles and Applications of Mechatronics** (3 credits)
***Prerequisite***: Divisional Approval.
Introduces terminology and principles related to Mechatronic system design and application. Integrates concepts of electrical/electronic, mechanical and computer technologies in the development, setup, operation and troubleshooting of automated products and systems. Covers breakdown of various automated manufacturing operations with emphasis on system planning, development and troubleshooting processes. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

## Information Technology Design and Database

**ITD 110 Web Page Design I** (3 credits)
***Corequisite***: ITE 119 or 152 or equivalent (introduction to the Internet) or division approval.
Stresses a working knowledge of web site designs, construction, and management using HTML or XHTML. Includes headings, lists, links, images, image maps, tables, forms, and frames. Lecture 3 hours per week.

**ITD 132 Structured Query Language** (4 credits)
***Prerequisite***: ITE 115 119 or 152 or division approval.
Incorporates a working introduction to commands, functions and operators used in SQL for extracting data from standard databases. Lecture 4 hours per week.

**ITD 197 Cooperative Education** (1-5 credits)
Requires curriculum advisor approval.
Supervises in on-the-job training for pay in approved business, industrial and service firms, coordinated by the college's cooperative education office. Is applicable to all occupational- technical curricula at the discretion of the college. Credit/work ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.

**ITD 290 Coordinated Internship** (3 credits)
Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours. 1-5 credits

**ITD 297 Cooperative Education in Web Design, Graphics and Database** (1-5 credits)
Requires curriculum advisor and co-op advisor approvals.
Supervises in on-the-job training for pay in approved business, industrial and service firms, coordinated by the college's cooperative education office. Is applicable to all occupational- technical curricula at the discretion of the college. Credit/work ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.

## Information Technology Essentials

**ITE 100 Introduction to Information Systems** (3 credits)
Covers the fundamentals of computers and computing and topics which include impact of computers on society, ethical issues, and terminology. Provides discussion about available hardware and software as well as their application. Lecture 3 hours per week.

**ITE 105 Careers and Cyber Ethics** (2 credits)
Career paths in Information Technology will be explored to help the student determine the appropriate degree plan. Career paths will include but not be limited to software development, computer science, database, networking, system administration and operations, end user support, web design, and management. The student will learn ethical concerns in business and information technology including the ACM Code of Ethics. Lecture 2 hours per week.

**ITE 119 Information Literacy** (3 credits)
Presents the information literacy core competencies focusing on the use of information technology skills. Skills and knowledge will be developed in database searching, computer applications, information security and privacy, and intellectual property issues. Lecture 3 hours per week.

**ITE 140 Spreadsheeting for Business** (3 credits)
Provides a working knowledge of a commercial spreadsheet package to include design and development of a variety of worksheets, preparing graphs, working with database queries, macro writing, menu techniques, and decision analysis tools. Lecture 3 hours per week.

**ITE 150 Desktop Database Software** (4 credits)
Incorporates instruction in planning, defining, and using a database; performing queries; producing reports; working with multiple files; and concepts of database programming. Includes database concepts, principles of table design and table relationships, entering data, creating and using forms, using data from different sources, filtering, creating mailing labels. Lecture 4 hours per week.

**ITE 152 Introduction to Digital and Information Literacy and Computer Applications** (3 credits)
Develops understanding of digital literacy. Introduces basic computer concepts in hardware, software, cyber, cloud, database, and operating systems. Includes hands-on experience developing word processing, spreadsheet and presentation documents. Evaluates the reliability of sources. Covers creating a simple web page. Examines topics such as social, legal, and ethical issues. Lecture 3 hours per week.

**ITE 170 Multimedia Software** (3-4 credits)
Explores technical fundamentals of creating multimedia projects with related hardware and software. Students will learn to manage resources required for multimedia production and evaluation and techniques for selection of graphics and multimedia software. Lecture 3-4 hours per week.

**ITE 182 User Support/Help Desk Principles** (3 credits)
Introduces a variety of tools and techniques that are used to provide user support in help desk operations. Includes help desk concepts, customer service skills, troubleshooting problems, writing for end users, help desk operations, and software, needs analysis, facilities management, and other related topics related to end user support. Lecture 3 hours per week.

**ITE 195 Topics in (discipline)** (1-5 credits)
Provides an opportunity to explore topical areas of interest to or needed by students. May be used also for special honors courses. May be repeated for credit. Variable hours.

**ITE 270 Advanced Multimedia Development** (3 credits)
Refines multimedia skills, focusing on project development using digital media; video clips, still images, and audio (sounds, music, and narration). ***Prerequisite***: ITE 170. Lecture 3 hours per week.

## Information Technology Networking

**ITN 106 Microcomputer Operating Systems** (3 credits)
Teaches use of operating system utilities and multiple-level directory structures, creation of batch files, and configuration of microcomputer environments. May include a study of graphical user interfaces. Lecture 3 hours per week.

**ITN 107 Personal Computer Hardware and Troubleshooting** (3 credits)
Includes specially designed instruction to give a student a basic knowledge of hardware and software configurations. Includes the installation of various peripheral devices as well as basic system hardware components. Lecture 3 hours per week.

**ITN 113 Active Directory (Windows Server 2008)** (3 credits)
Emphasizes instruction in installation, configuration, and administration, monitoring, and troubleshooting of Active Directory (Specify Version) components, DNS, Group Policy objects, RIS, and security. Lecture 3 hours per week.

**ITN 154 Introduction to Networks – CISCO I** (4 credits)
Provides instruction in the fundamentals of networking environments, the basics of router operations, and basic router configuration. Lecture 3 hours. Laboratory 2 hours. Total 6 hours per week.

**ITN 155 Switching, Routing, and Wireless Essentials – CISCO II** (4 credits)
***Prerequisite***: ITN 154
Provides the skills and knowledge to install, operate, and troubleshoot a small-to-medium sized branch office enterprise network, including configuring several switches and routers, configuring wireless devices, configuring VLANS, connecting to a WAN, and implementing network security. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

**ITN 156 Enterprise Networking, Security, and Automation – CISCO III** (4 credits)
***Prerequisite***: ITN 155
Centers instruction in LAN segmentation using bridges, routers, and switches. Includes fast Ethernet, access lists, routing protocols, spanning tree protocol, virtual LANS and network management. Lecture 4 hours per week.

**ITN 170 Linux System Administration** (3 credits)
Focuses instruction on the installation, configuration and administration of the Linux operating system and emphasizes the use of Linux as a network client and workstation. Lecture 3 hours per week.

**ITN 197 Cooperative Education in Networking** (1-5 credits)
Supervises in on-the-job training for pay in approved business, industrial and service firms, coordinated by the college's cooperative education office. Is applicable to all occupational- technical curricula at the discretion of the college. Credit/work ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours. 1-5 credits.

**ITN 260 Network Security Basics** (3 credits)
***Prerequisite or corequisite***: ITN 154
Provides instruction in the basics of network security in depth. Includes security objectives, security architecture, security models and security layers; risk management, network security policy, and security training. Includes the five security keys, confidentiality integrity, availability, accountability and auditability. Lecture 3 hours per week.

**ITN 261 Network Attacks, Computer Crime and Hacking** (3 credits)
Encompasses in-depth exploration of various methods for attacking and defending a network. Explores network security concepts from the viewpoint hackers and their attack methodologies. Includes topics about hackers, attacks, Intrusion Detection Systems (IDS) malicious code, computer crime and industrial espionage. Lecture 3 hours per week.

**ITN 262 Network Communication, Security and Authentication** (3 credits)
Covers an in-depth exploration of various communication protocols with a concentration on TCP/IP. Explores communication protocols from the point of view of the hacker in order to highlight protocol weaknesses. Includes Internet architecture, routing, addressing, topology, fragmentation and protocol analysis, and the use of various utilities to explore TCP/IP. Lecture 3 hours per week.

**ITN 266 Network Security Layers** (3 credits)
Provides an in-depth exploration of various security layers needed to protect the network. Explores Network Security from the viewpoint of the environment in which the network operates and the necessity to secure that environment to lower the security risk to the network. Includes physical security, personnel security, operating system security, software security and database security. Lecture 3 hours per week.

**ITN 290 Coordinated Internship** (3 credits)
Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours. 1-5 credits

**ITN 297 Cooperative Education in Networking** (1-5 credits)
Requires curriculum advisor approval.
Supervises in on-the-job training for pay in approved business, industrial and service firms, coordinated by the college's cooperative education office. Is applicable to all occupational- technical curricula at the discretion of the college. Credit/work ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours. 1-5 credits.

## Information Technology Programming

**ITP 100 Software Design** (3-4 credits)
***Prerequisite***: ITE 115, 119 or 152 and MTH 132 or division approval
Introduces principles and practices of software development. Includes instruction in critical thinking, problem solving skills, and essential programming logic in structured and object-oriented design using contemporary tools. Lecture 3-4 hours per week.

**ITP 120 Java Programming I** (3-4 credits)
***Prerequisite***: ITP 100 or division approval
Entails instruction in fundamentals of object-oriented programming using Java. Emphasizes program construction, algorithm development, coding, debugging, and documentation of console and graphical user interface applications. Lecture 3-4 hours per week.

**ITP 140 Client Side Scripting** (3 credits)
Provides instruction in fundamentals of Internet application design, development, and deployment using client side scripting language(s). Lecture 3 hours per week.

**ITP 197 Cooperative Education in Programming** (1-5 credits)
Requires curriculum advisor approval.
Supervises in on-the-job training for pay in approved business, industrial and service firms, coordinated by the college's cooperative education office. Is applicable to all occupational- technical curricula at the discretion of the college. Credit/work ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.

**ITP 240 Server Side Programming** (3 credits)
Centers around instruction in fundamentals of Internet application design, development, and deployment. Includes implementation of server component models, security, and database connectivity using server-side programming. Lecture 3 hours per week.

**ITP 290 Coordinated Internship** (3 credits)
Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours. 1-5 credits

**ITP 297 Cooperative Education in Programming** (1-5 credits)
Requires curriculum advisor approval.
Supervises in on-the-job training for pay in approved business, industrial and service firms, coordinated by the college's cooperative education office. Is applicable to all occupational- technical curricula at the discretion of the college. Credit/work ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.

## Instrumentation

**INS 232 - System Troubleshooting** (3 credits)
Presents system troubleshooting theory and real troubleshooting applications. Uses a hands-on approach to provide troubleshooting experience in multiple areas such as programmable logic controllers (PLC), control automation systems and process control systems. Lecture 2 hours. Laboratory 3 hours.

## Interpreter Education

**INT 130 Interpreting: An Introduction to the Profession** (3 credits)
Introduces basic principles and practices of interpreting, focusing on the history of the profession, logistics of interpreting situations, regulatory and legislative issues, resources, and the Code of Ethics. Describes the state quality assurance screening and national certification exam systems, including test procedures. Lecture 3 hours per week.

## Legal Administration

**LGL 110 Introduction to Law and the Legal Assistant** (3 credits)
Introduces various areas of law in which a legal assistant may be employed. Includes study of the court system (Virginia and federal) as well as a brief overview of criminal law, torts, domestic relations, evidence, ethics, the role of the legal assistant, and other areas of interest. Lecture 3 hours per week.

**LGL 127 Legal Research and Writing** (3 credits)
***Prerequisite***: ENG 111 or division approval
Provides a basic understanding of legal research and the proper preparation of legal documents, including brief writing. Lecture 3 hours per week.

**LGL 130 Law Office Administration and Management** (3 credits)
Introduces management principles and systems applicable to law firms, including record keeping, disbursements, escrow accounts, billing, and purchasing. May include accounting methods and software packages applicable to law firms. Lecture 3 hours per week.

## Machine Technology

**MAC 111 Machine Trade Theory and Computation I** (3 credits)
Covers shop theory and mathematics dealing with fractional and precision measuring tools. Includes layout, bandsaws, drill presses, the twist drill, thread cutting, taper turning, vertical and horizontal milling machines, lathe tool bit geometry, and engine lathe operations. Lecture 3 hours per week.

**MAC 116 Machinist Handbook** (2 credits)
Uses the machinist handbook as a ready reference book of tabular data, formulas, designs and processes relating to machine technology. Lecture 2 hours per week.

**MAC 121 - 122 Numerical Control I - II** (2 credits/2 credits)
Focuses on numerical control techniques in metal forming and machine processes. Includes theory and practice in lathe and milling machine computer numerical control program writing, setup and operation. Lecture 1 hour, Laboratory 2 hours, Total 3hours per week.

**MAC 123 Numerical Control III** (3 credits)
***Prerequisite***: MAC 121, 122
Focuses on numerical control techniques in metal forming and machine processes. Includes theory and practice in lathe and milling machine computer numerical control program writing, setup and operation. Lecture 2 hours, Laboratory 3 hours, Total 5 hours per week.

**MAC 126 Introductory CNC Programming** (3 credits)
Introduces programming of computerized numerical control machines with hands-on programming and operation of CNC machines. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

**MAC 127 Advanced CNC Programming** (3 credits)
***Prerequisite***: MAC 123
Provides in-depth study of programming computerized numerical control machines. Lecture 3 hours per week.

**MAC 134 CMM Operation and Programming** (2 credits)
Focuses on inspection using a Coordinate Measuring Machine. Includes hands-on demonstration of CMM setup, initialization and operation. Covers the essential aspects of the software and CMM operation, using a sample part for hands-on practice. Lecture 1 hour. Lab 2 hours. Total 3 hours per week.

**MAC 150 Introduction to Computer Aided Manufacturing** (3 credits)
Introduces computer aided manufacturing (CAM) with emphasis on programming of numerical control machinery. Teaches Program writing procedures using proper language and logic and a CAM programming system to produce numerical control code for machines. Teaches basic computer usage and code-to-machine transfer. Lecture 2 hours per week. Laboratory 2 hours per week. Total 4 hours per week.

**MAC 161 Machine Shop Practices I** (3 credits)
Introduces safety procedures, bench work, hand tools, precision measuring instruments, drill presses, cut-off saws, engine lathes, manual surface grinders, and milling machines. Part I of II. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

**MAC 162 Machine Shop Practices II** (3 credits)
Introduces safety procedures, bench work, hand tools, precision measuring instruments, drill presses, cut-off saws, engine lathes, manual surface grinders, and milling machines. Part II of II. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

**MAC 163 Machine Shop Practices III** (3 credits)
Offers practice in the operation of the drill press, engine lathe, vertical milling machine, horizontal milling machine, and the surface grinder. Introduces practical heat treatment of directly hardenable steels commonly used in machine shops. Part I of II. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

**MAC 164 Machine Shop Practices IV** (3 credits)
Offers practice in the operation of the drill press, engine lathe, vertical milling machine, horizontal milling machine, and the surface grinder. Introduces practical heat treatment of directly hardenable steels commonly used in machine shops. Part II of II. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

**MAC 206 Production Machining Techniques** (6 credits)
Offers practice in advanced machine shop. Emphasizes mass production techniques and interchangeable parts manufacture. Covers setup and operation of tooling and fixtures to manufacture workpieces to specified tolerances. Lecture 4 hours. Laboratory 6 hours. Total 10 hours per week.

**MAC 209 Standards, Measurements and Calculations** (3 credits)
Presents typical mathematical and mechanical problems requiring the use of reference standards such as the Machinery's Handbook for solution. Presents use of the Coordinate Measuring Machine for solution. Lecture 3 hours per week.

**MAC 290 Coordinated Internship** (3 credits)
Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours. 1-5 credits

**MAC 295 Supervised Study (Computer Numerical Control Machining)** (4 credits)
Introduction to the programming, set-up, and operation of various computer numerical control machines.

**MAC 297 Co-op** (2-5 credits)
Requires curriculum advisor approval.
Cooperative education as a machinist. Designed to provide practical work experience for the machinist student. Minimum on-the-job training is 10 hours per week.

**MAC 298 Seminar and Project** (3 credits)
Requires completion of a project or research report related to the student's occupational objectives and a study of approaches to the selection and pursuit of career opportunities in the field. May be repeated for credit. Variable hours. 1-5 credits

**MAC 299 Supervised Study (Advanced Computer Numerical Control Machining)** (4 credits)
***Prerequisite***: MAC 127
Advanced course in programming, setup, and operation of various computer numerical control machines.

## Marketing

**MKT 160 Marketing for Small Business** (3 credits)
Presents the development of the marketing mix for a small business. Includes areas such as product development, pricing, promotion, salesmanship, customer relations, and consumer behavior. Lecture 3 hours per week.

**MKT 201 Introduction to Marketing** (3 credits)
Introduces students to the discipline of marketing and the need to create customer value and relationships in the marketplace. Presents an overview of the marketing principles and management strategies, along with the analytical tools used by organizations in the creation of a marketing plan. Lecture 3 hours per week.

**MKT 216 Retail Organization and Management** (3 credits)
Examines the organization of the retail establishment to accomplish its goals in an effective and efficient manner. Includes study of site location, internal layout, store operations, and security. Examines the retailing mix, the buying or procurement process, pricing, and selling. Studies retail advertising, promotion, and publicity as a coordinated effort to increase store traffic. Lecture 3 hours per week.

## Mathematics

**MTH 111 Basic Technical Mathematics** (3 credits)
See Table M for Math Placement.
Provides a foundation in mathematics with emphasis in arithmetic, unit conversion, basic algebra, geometry and trigonometry. This course is intended for CTE programs. Lecture 3 hours. Total 3 hours per week.

**MTH 132 Business Mathematics** (3 credits)
See Table M for Math Placement
Provides instruction, review, and drill in percentage, cash and trade discounts, mark-up, payroll, sales, property and other taxes, simple and compound interest, bank discounts, loans, investments, and annuities. This course is intended for occupational/technical programs. Lecture 3 hours. Total 3 hours per week.

**MTH 154 Quantitative Reasoning** (3 credits)
See Table M for Math Placement
Presents topics in proportional reasoning, modeling, financial literacy and validity studies (logic and set theory). Focuses on the process of taking a real-world situation, identifying the mathematical foundation needed to address the problem, solving the problem and applying what is learned to the original situation. *This is a Passport Transfer course. Lecture 3 hours. Total 3 hours per week.

**MTH 155 Statistical Reasoning** (3 credits)
See Table M for Math Placement
Presents elementary statistical methods and concepts including visual data presentation, descriptive statistics, probability, estimation, hypothesis testing, correlation and linear regression. Emphasis is placed on the development of statistical thinking, simulation, and the use of statistical software. *This is a Passport Transfer course. Lecture 3 hours, Total 3 hours per week.

**MTH 161 Precalculus I** (3 credits)
See Table M for Math Placement
Presents topics in power, polynomial, rational, exponential, and logarithmic functions, and systems of equations and inequalities. Credit will not be awarded for both MTH 161: Precalculus I and MTH 167: Precalculus with Trigonometry or equivalent. *This is a Passport Transfer course. Lecture 3 hours. Total 3 hours per week.

**MTH 162 Precalculus II** (3 credits)
***Prerequisites***: Placement or completion of MTH 161: Precalculus I or equivalent with a grade of C or better.
Presents trigonometry, trigonometric applications including Law of Sines and Cosines and an introduction to conics. Credit will not be awarded for both MTH 162: Precalculus II and MTH 167: Precalculus with Trigonometry or equivalent. *This is a Passport Transfer course. Lecture 3 hours. Total 3 hours per week.

**MTH 245 Statistics I** (3 credits)
***Prerequisite***: Completion of MTH 154 or MTH 161 or equivalent with a grade of C or better.
Presents an overview of statistics, including descriptive statistics, elementary probability, probability distributions, estimation, hypothesis testing, correlation, and linear regression. Credit will not be awarded for both MTH 155: Statistical Reasoning and MTH 245: Statistics I or equivalent. This is a Passport Transfer course. Lecture 3 hours. Total 3 hours per week.

**MTH 246 Statistics II** (3 credits)
***Prerequisite***: Completion of MTH 245: Statistics I or equivalent with a grade of C or better.
Lecture 3 hours. Total 3 hours per week.

**MTH 261 Applied Calculus I** (3 credits)
***Prerequisite***: Completion of MTH 161 or equivalent with a grade of C or better.
Introduces limits, continuity, differentiation and integration of algebraic, exponential and logarithmic functions, and techniques of integration with an emphasis on applications in business, social sciences and life sciences. *This is a Passport Transfer course. Lecture 3 hours. Total 3 hours per week.

**MTH 262 Applied Calculus II** (3 credits)
***Prerequisite***: Completion of MTH 261 or equivalent with a grade of C or better.
Covers techniques of integration, an introduction to differential equations and multivariable calculus, with an emphasis throughout on applications in business, social sciences and life sciences. Lecture 3 hours. Total 3 hours per week.

**MTH 263 Calculus I** (4 credits)
***Prerequisite***: Completion of MTH 167 or MTH 161/162 or equivalent with a grade of C or better.
Presents concepts of limits, derivatives, differentiation of various types of functions and use of differentiation rules, application of differentiation, antiderivatives, integrals and applications of integration. *This is a Passport Transfer course. Lecture 4 hours. Total 4 hours per week.

**MTH 264 Calculus II** (4 credits)
***Prerequisite***: Completion of MTH 263 or equivalent with a grade of C or better.
Continues the study of calculus of algebraic and transcendental functions including rectangular, polar, and parametric graphing, indefinite and definite integrals, methods of integration, and power series along with applications. Features instruction for mathematical, physical and engineering science programs. This is a Passport Transfer course. Lecture 4 hours. Total 4 hours per week.

**MTH 265 Calculus III** (4 credits)
***Prerequisite***: Completion of MTH 264: Calculus II or equivalent with a grade of C or better.
Focuses on extending the concepts of function, limit, continuity, derivative, integral and vector from the plane to the three-dimensional space. Covers topics including vector functions, multivariate functions, partial derivatives, multiple integrals and an introduction to vector calculus. Features instruction for mathematical, physical and engineering science programs. Lecture 4 hours. Total 4 hours per week.

**MTH 266 Linear Algebra** (3 credits)
***Prerequisite***: Completion of MTH 263 or equivalent with a grade of B or better or MTH 264 or equivalent with a grade of C or better.
Covers matrices, vector spaces, determinants, solutions of systems of linear equations, basis and dimension, eigenvalues, and eigenvectors. Features instruction for mathematical, physical and engineering science programs. Lecture 3 hours. Total 3 hours per week.

**MTH 267 Differential Equations** (3 credits)
***Prerequisite***: Completion of MTH 264 or equivalent with a grade of C or better.
Introduces ordinary differential equations. Includes first order differential equations, second and higher order ordinary differential equations with applications and numerical methods. Lecture 3 hours. Total 3 hours per week.

**MTH 283 Probability and Statistics** (3 credits)
***Prerequisite***: Completion of MTH 264 with a grade of C or better or equivalent.
Presents basic concepts of probability, discrete and continuous random variables, and probability distributions. Presents sampling distributions and the Central Limit Theorem, properties of point estimates and methods of estimation, confidence intervals, hypothesis testing, linear models and estimation by least squares, and analysis of variance. Lecture 3 hours. Total 3 hours per week.

**MTH 288 Discrete Mathematics** (3 credits)
***Prerequisites***: Completion of MTH 263, Calculus I with a grade of C or better or equivalent.
Presents topics in sets, counting, graphs, logic, proofs, functions, relations, mathematical induction, Boolean Algebra, and recurrence relations. Lecture 3 credits. Total 3 credits per week.

**MTH 299 Supervised Study** (1 credit) Assigns problems for independent study incorporating previous instruction and supervised by the instructor. May be repeated for credit. Variable hours.

## Mathematics Direct Enrollment

**MDE 10 Mathematics Direct Enrollment** (3 credits)
Covers topics in arithmetic through introduction to variables and equations. Lecture 3 hours. Total 3 hours per week.

**MDE 54 Learning Support for Quantitative Reasoning** (3 credits)
***Corequisite***: MTH 154
Provides support to ensure success for students co-enrolled in Quantitative Reasoning (MTH 154). Course will review foundational topics through direct instruction, guided practice, and individualized support. Lecture 3 hours. Total 3 hours per week.

**MDE 55 Learning Support for Statistical Reasoning** (3 credits)
***Corequisite***: MTH 155
Provides support to ensure success for students co-enrolled in Statistical Reasoning (MTH 155). Course will review foundational topics through direct instruction, guided practice, and individualized support. Lecture 3 credits. Total 3 hours per week.

**MDE 60 Intermediate Algebra** (3 credits)
Covers topics in algebra. Lecture 3 hours. Total 3 hours per week.

**MDE 61 Learning Support for Pre-Calculus** (3 credits)
***Corequisite***: MTH 161
Provides support to ensure success for students co-enrolled in Pre-Calculus (MTH 161). Course will review foundational topics through direct instruction, guided practice, and individualized support. Lecture 3 hours. Total 3 hours per week.

## Mechanical Engineering Technology

**MEC 140 Introduction to Mechatronics** (3 credits)
Presents foundational concepts in mechatronics including analog and digital electronics, sensors, actuators, microprocessors, and microprocessor interfacing to electromechanical systems. Surveys components and measurement equipment used in the design, installation, and repair of mechatronic equipment and circuits. This course is cross-listed with ETR 140. Credit will not be awarded for both. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

**MEC 161 Basic Fluid Mechanics - Hydraulics/Pneumatics** (3 credits)
Introduces theory, operation and maintenance of hydraulic/ pneumatics devices and systems. Emphasizes the properties of fluids, fluid flow, fluid statics, and the application of Bernoulli's equation. Lecture 2 hours, Laboratory 2 hours, Total 4 hours per week.

## Medical Assisting

**MDA 100 Introduction to Medical Assisting** (2 credits)
Introduces the student to the medical practice environment. Stresses the responsibilities of the humanistic approach in the rendering of health care. Lecture 2 hours per week.

**MDA 101 Medical Assistant Science I** (5 credits)
Provides an in-depth study of medical terminology, anatomy and physiology, and pathology for the medical assistant. Focuses on clinical application and decision-making in the health environment. Lecture 4 hours. Laboratory 2 hours. Total 6 hours per week.

**MDA 102 Medical Assistant Science II** (2 credits)
Prepares students to perform patient care procedures including but not limited to respiratory care procedures, basic nursing arts, equipment maintenance, and patient teaching. Lecture 1 hours. Laboratory 3 hours. Total 4 hours per week.

**MDA 104 Medical Assistant Science IV** (3 credits)
Prepares students to perform diagnostic tests and assist with physical examinations including ECG administration, basic pulmonary function, testing, catheterization and assisting with minor surgery including sterilization. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

**MDA 107 Pharmacology for Medical Assistants** (2 credits)
Focuses on the administration of medications by the Medical Assistant. Introduces general principles of drug action, pharmacology of the major drug classifications, and drug effects. Lecture 2 hours per week.

**MDA 196 On-Site Training** (1-5 credits)
Specializes in career orientation and training program without pay in selected businesses and industry, supervised and coordinated by the college. Credit/work ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.

**MDA 203 Medical Office Procedures** (3 credits)
Instructs the student in the practice of the management of medical offices in areas such as receptionist duties, telephone techniques, appointment scheduling, verbal and written communications, medical and non-medical record management. Explains library and editorial duties, inventory, care of equipment and supplies, security, office maintenance, management responsibilities, placement, and professional ethics and professionalism. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

**MDA 209 Medical Office Insurance** (2 credits)
Focuses on various medical insurance policies with in-depth study of health insurance and managed care including capitation versus few for service in the HMO area. Discusses managed care companies in this area and their requirements. Lecture 1 hour. Laboratory 3 hours. Total 4 hours per week.

## Medical Laboratory

**MDL 105 Phlebotomy** (3 credits)
Introduces basic medical terminology, anatomy, physiology, components of health care delivery and clinical laboratory structure. Teaches techniques of specimen collection, specimen handling, and patient interactions. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

**MDL 196 On Site Training**
Specializes in career orientation and training program without pay in selected businesses and industry, supervised and coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours. 1-5 credits

## Music

**MUS 111 Music Theory I** (4 credits)
Discusses elements of musical construction of scales, intervals, triads, and chord progressions. Develops ability to sing at sight and write from dictation. Introduces the analysis of the Bach chorale style. Expands facility with harmonic dictation and enables the student to use these techniques at the keyboard. Part I of II. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

**MUS 112 Music Theory II** (4 credits)
Discusses elements of musical construction of scales, intervals, triads, and chord progressions. Develops ability to sing at sight and write from dictation. Introduces the analysis of the Bach chorale style. Expands facility with harmonic dictation and enables the student to use these techniques at the keyboard. Part II of II. Pre-requisite: MUS 111 or equivalent. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

**MUS 121 Music in Society** (3 credits)
Explores the language of music through an introduction to basic elements, forms and styles across time. Acquaints students with composers' lives and influential creative individualities, discovering representative works and milestones in western society. Develops techniques for listening analytically and critically. Reviews historical development and significance of art music within the context of evolving societal structures. Lecture 3 hours. Total 3 hours per week.

**MUS 136 Applied Music-Voice** (1 credit)
Teaches singing, proper breath control, diction, and development of tone. Studies the standard vocal repertoire. Private lessons are available for either 1 or 2 hours of credit per semester. The length of the lessons will be 1/2 hour for 1 hour credit and 1 hour for 2 hours credit per semester. All courses in applied music may be repeated for a total of 8 hours for the major and 4 hours for the minor. One or two half-hour lessons per week. Four to eight hours practice required. Laboratory 4 hours per week. Total 4 hours per week.

**MUS 137 - Chorus Ensemble** (2 credits)
Ensemble consists of performance from the standard repertoires, including study of ensemble techniques and interpretation. May be repeated for credit. Laboratory 6 hours per week.

**MUS 141 Class Piano I** (2 credits)
Offers the beginning piano student activities in learning musical notation, in accomplishing sight-reading skills, and in mastering techniques of keyboard playing. Presents appropriate literature. Open to all students and may be used to fulfill applied minor instrument requirement for music major. Part I of II. Lecture 1 hour. Laboratory 2 hours. Total 3 hours per week.

**MUS 142 Class Piano II** (2 credits)
Offers the beginning piano student activities in learning musical notation, in accomplishing sight-reading skills, and in mastering techniques of keyboard playing. Presents appropriate literature. Open to all students and may be used to fulfill applied minor instrument requirement for music major. Part II of II. Pre-requisite MUS 141 Lecture 1 hour. Laboratory 2 hours. Total 3 hours per week.

**MUS 145 Applied Music – Keyboard** (1 credit)
Teaches piano, organ, harpsichord, or synthesizer. Studies the standard repertoire. Private lessons are available for either 1 or 2 hours of credit per semester. The length of the lessons will be 1/2 hour for 1 hour credit. All courses in applied music may be repeated for a total of 8 hours for the major and 4 hours for the minor. 1 half-hour lessons per week, 4 hours practice (laboratory) required. Laboratory 4 hours. Total 4 hours per week.

**MUS 150 Old Time String Band** (3 credits)
Introduces the student to the history and performance of traditional old-time string band music of the central Appalachian region with topics on musicians, instrumentation, regional influences, and tunes. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

**MUS 155 Applied Music – Woodwinds** (1 credit)
Teaches fundamentals of the woodwind instruments. Studies the standard repertoire. Private lessons are available for either 1 or 2 hours of credit per semester. The length of the lessons will be 1/2 hour for 1 hour credit. All courses in applied music may be repeated for a total of 8 hours for the major and 4 hours for the minor. 1 half-hour lessons per week, 4 hours practice (laboratory) required. Laboratory 4 hours per week. Total 4 hours per week.

**MUS 165 Applied Music – Strings** (1 credit)
Teaches fundamentals of string instruments, harp, or guitar. Studies the standard repertoire. Private lessons are available for either 1 or 2 hours of credit per semester. The length of the lessons will be 1/2 hour for 1 hour creditr. All courses in applied music may be repeated for a total of 8 hours for the major and 4 hours for the minor. 1half-hour lessons per week, 4hours practice (laboratory) required. Laboratory 4 hours per week. Total 4 hours per week.

**MUS 175 Applied Music – Brass** (1 credit)
Teaches fundamentals of brass instruments. Studies the standard repertoire. Private lessons are available for either 1 or 2 hours of credit per semester. The length of the lessons will be 1/2 hour for 1 hour credit. All courses in applied music may be repeated for a total of 8 hours for the major and 4 hours for the minor. 1 half-hour lessons per week, 4 hours practice (laboratory) required. Laboratory 4 hours per week. Total 4 hours per week.

**MUS 211 Advanced Music Theory I** (4 credits)
Increases facility in the analysis and usage of diatonic and chromatic harmonies. Continues harmonic analysis of Bach style. Includes exercises in sight-singing, ear-training, and keyboard harmony. Part I of II. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week. Prerequisite: MUS 111- MUS 112 or equivalent.

**MUS 212 Advanced Music Theory II (4 credits)**
Increases facility in the analysis and usage of diatonic and chromatic harmonies. Continues harmonic analysis of Bach style. Includes exercises in sight-singing, ear-training, and keyboard harmony. Part II of II. Pre-requisite: MUS 211 or equivalent.
Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

**MUS 221 History of Music I** (3 credits)
Presents the chronology of musical styles from antiquity to the present time. Relates the historical development of music to parallel movements in art, drama, and literature. Develops techniques for listening analytically and critically to music. Part I of II. Lecture 3 hours per week.

**MUS 222 History of Music II** (3 credits)
Presents the chronology of musical styles from antiquity to the present time. Relates the historical development of music to parallel movements in art, drama, and literature. Develops techniques for listening analytically and critically to music. Part II of II. Lecture 3 hours per week.

**MUS 248 Orchestra** (2 credits)
Ensemble consist of performance from the standard repertoires, including study of ensemble techniques and interpretation. Divisional approval required. May be repeated for credit. Continues MUS 148. Laboratory 6 hours per week.

**MUS 249 Band Ensemble** (2 credits)
Ensemble consist of performance from the standard repertoires, including study of ensemble techniques and interpretation. Divisional approval required. May be repeated for credit. Laboratory 6 hours per week.

**MUS 295 Topics In Music** (1-5 credits)
Provides an opportunity to explore topical areas of interest to or needed by students. May be used also for special honors courses. May be repeated for credit. Variable hours. 1-5 credits.

## Nursing

**NSG 100 Introduction to Nursing Concepts** (4 credits)
***Prerequisites***: Acceptance to the Nursing Program, BIO 141, ENG 111, PSY 230, SDV 101, NUR 135, HLT 143
***Co-requisite***: BIO 142
Introduces concepts of nursing practice and conceptual learning. Focuses on basic nursing concepts with an emphasis on safe nursing practice and the development of the nursing process. Provides supervised learning experiences in college nursing laboratories, clinical/community settings, and/or simulated environments. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

**NSG 106 Competencies for Nursing Practice** (2 credits)
***Prerequisites***: Acceptance to the Nursing Program, BIO 141, ENG 111, MDE 10 or equivalent, PSY 230, SDV 101, NUR 135, HLT 143
***Co-requisite***: BIO 142
Focuses on the application of concepts through clinical skill development. Emphasizes the use of clinical judgment in skill acquisition. Includes principles of safety, evidence-based practice, informatics and math computational skills. Prepares students to demonstrate competency in specific skills and drug dosage calculation including the integration of skills in the care of clients in simulated settings. Provides supervised learning experiences in college nursing laboratories, clinical/community settings, and/or simulated environments. Lecture 1 hour. Laboratory 4 hours. Total 5 hours per week.

**NSG 115 Healthcare Concepts for Transition** (5 credits)
***Prerequisites***: BIO 141, BIO 142, ENG 111, PSY 230, SDV 101, BIO 150, NUR 135, HLT 143, Acceptance to the Transition Program
***Co-requisite***: NSG 200
Focuses on role transition from Licensed Practical Nurse to Registered professional nurse. Incorporates concepts of nursing practice and conceptual learning to promote health and wellness across the lifespan. Uses the nursing process to explore care delivery for selected diverse populations with common and predictable illness. Emphasizes the use of clinical judgement in skill acquisition. Lecture 3 hours. Laboratory 6 hours. Total 9 hours per week.

**NSG 130 Professional Nursing Concepts** (1 credit)
***Prerequisites***: Acceptance to the Nursing Program, BIO 141, ENG 111, PSY 230, SDV 101, NUR 135, HLT 143
Introduces the role of the professional nurse and fundamental concepts in professional development. Focuses on professional identity, legal/ethical issues and contemporary trends in professional nursing. Lecture 1 hour. Total 1 hour per week.

**NSG 152 Health Care Participant** (3 credits)
***Prerequisites***: BIO 142, NSG 100, NSG 106, NSG 130, NSG 200
***Co-requisite***: BIO 150
Focuses on the health and wellness of diverse individuals, families, and the community throughout the lifespan. Covers concepts that focus on client attributes and preferences regarding healthcare. Emphasizes population-focused care. Provides supervised learning experiences in college nursing laboratories, clinical/community settings, and/or cooperating agencies, and/or simulated environments. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

**NSG 170 Health/Illness Concepts** (6 credits)
***Prerequisites***: BIO 142, NSG 100, NSG 106, NSG 130, NSG 200
***Co-requisite***: BIO 150
Focuses on the nursing care of individuals and/or families throughout the lifespan with an emphasis on health and illness concepts. Includes concepts of nursing care for the antepartum client and clients with common and predictable illnesses. Provides supervised learning experiences in college nursing laboratories, clinical/community settings, and/or simulated environments. Lecture 4 hours, Laboratory 6 hours. Total 10 hours per week.

**NSG 200 Health Promotion and Assessment** (3 credits)
***Prerequisites***: Acceptance to Nursing Program, BIO 141, ENG 111, ITE 119, PSY 230, SDV 101, NUR 135, HLT 143
***Co-requisite***: BIO 142
Introduces assessment and health promotion for the individual and family. Includes assessment of infants, children, adults, geriatric clients and pregnant females. Emphasizes health history and the acquisition of physical assessment skills with underlying concepts of development, communication, and health promotion. Prepares students to demonstrate competency in the assessment of clients across the lifespan. Provides supervised learning experiences in college nursing laboratories, clinical/community settings, and/or simulated environments. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

**NSG 210 Health Care Concepts I** (5 credits)
***Prerequisites***: BIO 150, NSG 152, NSG 170
Focuses on care of clients across the lifespan in multiple settings including concepts related to physiological health alterations and reproduction. Emphasizes the nursing process in the development of clinical judgment for clients with multiple needs. Provides supervised learning experiences in college nursing laboratories, clinical/community settings, and/or simulated environments. Part I of II. Lecture 3 hours, Laboratory 6 hours. Total 9 hours per week.

**NSG 211 Health Care Concepts II** (5 credits)
***Prerequisites***: BIO 150, NSG 152, NSG 170
Focuses on care of clients across the lifespan in multiple settings including concepts related to psychological and physiological health alterations. Emphasizes the nursing process in the development of clinical judgment for clients with multiple needs. Provides supervised learning experiences in college nursing laboratories, clinical/community settings, and/or simulated environments. Part II of II. Lecture 3 hours. Laboratory 6 hours. Total 9 hours per week.

**NSG 230 Advanced Professional Nursing Concepts** (2 credits)
***Prerequisites***: NSG 210, NSG 211
Develops the role of the professional nurse in the healthcare environment in preparation for practice as a registered nurse. Introduces leadership and management concepts and focuses on the integration of professional behaviors in a variety of healthcare settings. Lecture 2 hours. Total 2 hours per week.

**NSG 252 Complex Health Care Concepts** (4 credits)
***Prerequisites***: NSG 210, NSG 211
Focuses on nursing care of diverse individuals and families integrating complex health concepts. Emphasizes clinical judgment, patient-centered care and collaboration. Lecture 4 hours. Total 4 hours per week.

**NSG 270 Nursing Capstone** (4 credits)
***Prerequisites***: NSG 210, NSG 211
Provides students with the opportunity to comprehensively apply and integrate learned concepts from previous nursing courses into a capstone experience. Emphasizes the mastery of patient- centered care, safety, nursing judgment, professional behaviors, informatics, quality improvement, and collaboration in the achievement of optimal outcomes of care. Provides supervised learning experiences in faculty and/or preceptor-guided college nursing laboratories, clinical/community settings, and/or simulated environments. Laboratory 12 hours. Total 12 hours per week.

**NUR 135 Drug Dosage Calculations** (2 credits)
Focuses on apothecary, metric, household conversion in medication dosage calculation for adult and pediatric clients. Provides a practical approach to learning to calculate and prepare medications and solutions. Includes calculating intravenous flow rates. Lecture 2 hours per week.

## Philosophy

**PHI 100 Introduction to Philosophy** (3 credits)
Presents an introduction to philosophical problems and perspectives with emphasis on the systematic questioning of basic assumptions about meaning, knowledge, reality, and values. The assignments in the course require college-level reading fluency and coherent communication through written reports. Lecture 3 hours. This is a Passport and UCGS transfer course.

**PHI 111 Logic** (3 credits)
Introduces inductive and deductive reasoning, with an emphasis on common errors and fallacies. The assignments in the course require college-level reading fluency and coherent communication through written reports. This is a Passport and UCGS transfer course. Lecture 3 hours. Total 3 hours per week.

**PHI 220 Ethics and Society** (3 credits)
Description: Provides a systematic study of representative ethical concepts and theories and discusses their application to concrete moral dilemmas and social issues and problems. Lecture 3 hours. This is a Passport and UCGS transfer course.

## Physical Education and Recreation

**PED 101 Fundamentals of Physical Activity I** (1 credit)
Presents principles underlying the components of physical fitness. Utilizes conditioning activities involving cardiovascular strength and endurance, respiratory efficiency, muscular strength, and flexibility. May include fitness assessment, nutrition and weight control information, and concepts of wellness. Part I of II. Lecture 0 hours. Laboratory 2 hours. Total 2 hours per week.

**PED 147 Hiking** (1 credit)
Introduces physical and mental benefits of walking or hiking as a form of physical exercise. Skills developed include how to plan for a hike, what to take, and how to select a trial relative to individual abilities. Provides hiking opportunities to explore local regions. Develops awareness of safety, weather, and ecological considerations. Laboratory 2 hours per week.

## Physics

**PHY 241 University Physics I** (4 credits)
***Prerequisites***: MTH 263 or divisional approval.
Teaches principles of classical and modern physics. Includes mechanics, wave phenomena, heat, electricity, magnetism, relativity, and nuclear physics. Part I of II. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

**PHY 242 University Physics II** (4 credits)
***Prerequisites***: PHY 241 and MTH 264 or divisional approval.
Teaches principles of classical and modern physics. Includes mechanics, wave phenomena, heat, electricity, magnetism, relativity, and nuclear physics. Part II of II. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

**PHY 299 Supervised Study** (1 credit)
Assigns problems for independent study incorporating previous instruction and supervised by the instructor. May be repeated for credit. Variable hours.

## Political Science

**PLS 135 U.S. Government and Politics** (3 credits)
Teaches the political structure, processes, institutions, and policymaking of the US national government. Focuses on the three branches of government, their interrelationships, and how they shape policy. Addresses federalism; civil liberties and civil rights; political socialization and participation; public opinion, the media; interest groups; political parties; elections; and policymaking. The assignments in the course require college-level reading fluency and coherent communication through written reports. This is a Passport Transfer course. Lecture 3 hours. Total 3 hours per week.

**PLS 140 Introduction to Comparative Politics** (3 credits)
Teach concepts and methods of comparative politics. Includes empirical analyses of domestic governmental, political, and societal institutions and norms of countries around the world. The assignments in the course require college-level reading fluency and coherent communication through written reports. This is a Passport and UCGS transfer course. Lecture 3 hours. Total 3 hours per week.

## Practical Nursing

**PNE 136 - Care of Maternal, Newborn, and Pediatric Patients** (4 credits)
Uses a family-centered approach; studies normal and common complications in pregnancy, childbirth, post-partum, the neonate, and children through adolescence. Covers milestones in all aspects of growth and development and common childhood disorders at various ages. Lecture 4 hours per week.

**PNE 143 Applied Nursing Skills** (1 credit)
Applies principles and procedures essential to the basic nursing care of patients.
Laboratory 3 hours per week.

**PNE 145 Trends in Practical Nursing** (1 credit)
Studies the role of the Licensed Practical Nurse. Covers legal aspects, organizations, and opportunities in practical nursing. Assists students in preparation for employment. Lecture 1 hour per week.

**PNE 155 Body Structure and Function** (3 credits)
Studies the structure and function of the body. Lecture 3 hours per week.

**PNE 158 Mental Health and Psychiatric Nursing** (2 credits)
Recognizes emotional needs of patients. Provides knowledge of the role that emotions play. Enables students to understand their own behavior as well as patient behavior. Lecture 2 hours per week.

**PNE 161 Nursing in Health Changes I** (6 credits)
Focuses on nursing situations and procedures necessary to assist individuals in meeting special needs related to human functions. Lecture 4 hours. Laboratory 6 hours. Total 10 hours per week.

**PNE 162 Nursing in Health Changes II** (10 credits)
Continues the focus on nursing situations and procedures necessary to assist individuals in meeting special needs related to human functions. Lecture 6 hours. Laboratory 12 hours. Total 18 hours per week.

**PNE 163 Nursing in Health Changes III** (9 credits)
Continues the focus on nursing situations and procedures necessary to assist individuals in meeting special needs related to human functions. Lecture 4 hours. Laboratory 15 hours. Total 19 hours per week.

**PNE 173 Pharmacology for Practical Nurses** (2 credits)
Studies history, classification, sources, effects, uses and legalities of drugs. Teaches problem solving skills used in medication administrations. Emphasizes major drug classes and specific agents within each class. Lecture 2 hours per week.

## Psychology

**PSY 120 Human Relations** (3 credits)
Introduces the theory and practice of effective human relations. Increases understanding of self and others and interpersonal skills needed to be competent and cooperative communicator. Lecture 3 hours per week.

**PSY 200 Principles of Psychology** (3 credits)
Surveys the basic concepts of psychology. Covers the scientific study of behavior and mental processes, research methods, biological bases of behavior, sensation and perception, developmental psychology, learning, memory, thinking, intelligence, personality, social psychology, and psychological disorders and treatment. The assignments in the course require college-level reading fluency and coherent communication through written reports. This is a Passport Transfer course. Lecture 3 hours per week.

**PSY 210 Statistics for Behavioral Science** (4 credits)
***Prerequisites***: PSY 200
***Corequisite***: MTH 245 or equivalent
Introduces the principles and processes of statistics for behavioral science research. Focuses on selection and application of appropriate statistical tests and accurate interpretation of behavioral science data. Utilizes statistical software for conducting statistical analysis. Lecture 4 hours. Total 4 hours per week.

**PSY 211 Research Methodology for Behavioral Sciences** (4 credits)
***Prerequisites***: PSY 200 AND PSY 210 (currently PSY 213) or departmental approval.
Introduces the principles and processes of various research methods for applying the scientific method to understanding behavior. Includes preparation for and fundamental experience with designing, conducting, interpreting, and evaluating behavioral science research studies. Prepares students for creating APA-style research manuscripts to summarize research. Lecture 3 hours. Total 3 hours per week.

**PSY 215 Psychopathology** (3 credits)
***Prerequisite***: PSY 200 or departmental approval.
Explores historical views and current perspectives of psychopathology. Emphasizes major diagnostic categories and criteria, individual and social factors of maladaptive behavior, and types of treatments. Includes methods of clinical assessment and research strategies. Lecture 3 hours per week.

**PSY 216 Social Psychology** (3 credits)
***Prerequisites***: PSY 200 or departmental consent.
Examines individuals in social contexts, their social roles, group processes and intergroup relations. Acquaints students with a scientific understanding of how the presence of other people, interactions with other people, and other situational factors influence human thoughts and behaviors. The assignments in the course require college-level reading, analysis of scholarly studies, and coherent communication through written reports (including the production of at least one APA-formatted individual writing assignment). Lecture 3 hours. Total 3 hours per week.

**PSY 219 Cross-Cultural Psychology** (3 credits)
Investigates psychological principles from a cross-cultural perspective. Examines cultural basics for views of reality. Describes topics such as time, space, values, sex-roles, and human development in relation to culture. Lecture 3 hours. Total 3 hours per week.

**PSY 225 Theories of Personality** (3 credits)
***Prerequisite***: PSY 200 or equivalent
Studies the major personality theories and their applications. Includes psychodynamic, behavioral, cognitive, and humanistic perspectives. Lecture 3 hours. Total 3 hours per week.

**PSY 230 Developmental Psychology** (3 credits)
Traces development in context from pre-conception to death, including the physical, cognitive, and psychosocial domains. Examines methods of scientific inquiry as they apply to lifespan development. Addresses the interrelatedness of developmental domains, as well as the interdependent influences of environment and biology. Students majoring in or considering a major in Psychology should complete PSY 200 prior to PSY 230. Lecture 3 hours per week.

## Public Service

**PBS 265 Interviewing** (3 credits)
Analyzes the principles and techniques of interviewing in various organizational settings. Examines reliability and validity of information gained through survey interviewing, employment and selection interviewing, performance appraisal and disciplinary interviewing as well as counseling interviewing. Lecture 3 hours per week.

**PBS 266 Group Leadership** (3 credits)
Focuses on the dynamics of individual behavior and group processes. Examines the role of group members' decision making, use of power, creativity and controversy, problem solving, and group public discussion. Lecture 3 hours per week.

# Radiography

**RAD 105 Introduction to Radiology, Protection and Patient Care** (3 credits)
***Prerequisite***: Acceptance into the Radiography Program.
Presents brief history of radiologic profession, code of ethics, conduct for radiologic students, and basic fundamentals of radiation protection. Teaches the care and handling of the sick and injured patient in the radiology department. Introduces the use of contract media necessary in the investigation of the internal organs. Lecture 3 hours per week.

**RAD 110 Imaging Equipment and Protections** (3 credits)
***Prerequisites***: RAD 105 and RAD 245
Discusses the basic components of a radiographic unit, principles of x-ray production, principles of image receptors, automatic processing, film evaluation and concepts in radiation protection and radiobiology. Lecture 3 hours per week.

**RAD 111 - 112 Radiologic Science I - II** (4 credits/4 credits)
***Prerequisites***: RAD 105 and RAD 245
Teaches concepts of radiation, radiography physics, fundamentals of electromagnetic radiation, electricity and magnetism, and application of these principles to radiography. Focus on x-ray production, emission, and x-ray interaction with matter. Lecture 3 hours, Laboratory 3 hour, Total 6 hours per week.

**RAD 121 Radiographic Procedures I** (4 credits)
***Prerequisites***: RAD 105 and RAD 245
Introduces procedures for positioning the patient's anatomical structures relative to x-ray beam and image receptor. Emphasizes procedures for routine examination of the chest, abdomen, extremities, and axial skeleton. Lecture 3 hours, Laboratory 3 hours, Total 6 hours per week.

**RAD 190 Coordinated Internship** (1-5 credits)
Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.

**RAD 195 Topics in Ethics, Teamwork & Professional Development** (1-5 credits)
Provides an opportunity to explore topical areas of interest to or needed by students. May be used also for special honors courses. May be repeated for credit. Variable hours.

**RAD 196 On-Site Training Clinical Internship** (1-5 credits)
Specializes in career orientation and training program without pay in selected businesses and industry, supervised and coordinated by the college. Credit/work ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.

**RAD 205 Radiation Protection and Radiobiology** (3 credits)
***Prerequisites***: RAD 110, RAD 112 and RAD 121-221
Studies methods and devices used for protection from ionizing radiation. Teaches theories of biological effects, cell and organism sensitivity, and the somatic and genetic effects of ionizing radiation. Presents current radiation protection philosophy for protecting the patient and technologist. Lecture 3 hours per week.

**RAD 215 Correlated Radiographic Theory** (2 credits)
***Prerequisites***: RAD 110, RAD 112 and RAD 121-221
Presents intensive correlation of all major radiologic technology subject areas. Studies interrelationships of biology, physics, principles of exposure, radiologic procedures, patient care, and radiation protection. Lecture 2 hours per week.

**RAD 221 Radiographic Procedures II** (4 credits)
***Prerequisites***: RAD 110 and RAD 121
Continues procedures for positioning the patient's anatomical structures relative to x-ray beam and image receptor. Emphasizes procedures for routine examination of the skull, contrast studies of internal organs, and special procedures employed in the more complicated investigation of the human body. Lecture 3 hours, Laboratory 3 hours, Total 6 hours per week.

**RAD 233 Anatomy and Positioning of the Breast** (1 credits)
***Prerequisite***: ARRT or eligible
Presents the risk factors for breast disease, anatomy and physiology of the breast and discusses the various pathologies identified through mammography. Includes routine and special projections of the breast. Lecture 1 hour per week.

**RAD 234 Breast Imaging/Instrumentation** (1 credits)
***Prerequisite***: ARRT or eligible
Discusses the dedicated radiography equipment necessary for breast imaging. Includes proper technical factors, radiation protection techniques, and proper accessory equipment. Lecture 1 hour per week.

**RAD 235 Quality Assurance in Mammography** (1 credits)
***Prerequisite***: ARRT or eligible
Discusses the components of quality assurance in mammography and the accreditation programs developed to ensure quality in breast imaging facilities. Lecture 1 hour per week.

**RAD 240 Radiographic Pathology** (3 credits)
***Prerequisite***: BIO 141-142 and RAD 121-221
Presents a survey of common medical and surgical disorders that affect radiographic image. Discusses conditions related to different systems of the human body. Studies the correlation of these conditions with radiographs. Lecture 3 hours per week.

**RAD 242 Computed Tomography Procedures and Instrumentation** (2 credits)
***Prerequisite***: AART or eligible
Focuses on the patient care, imaging procedure and physics and instrumentation related to computed tomography imaging. Lecture 2 hours per week.

**RAD 246 Special Procedures** (2 credits)
***Prerequisites***: BIO 141-142 and RAD 121-221
Studies special radiographic and surgical procedures and equipment employed in the more complicated investigation of internal conditions of the human body. Lecture 2 hours per week.

**RAD 247 Cross-Sectional Anatomy** (3 credits)
***Prerequisites***: ARRT or eligible, BIO 141-142 and RAD 121-221
Presents a specialized study of cross-sectional anatomy relevant to sectional imaging modalities such as computed tomography and magnetic resonance imaging. Lecture 3 hours per week.

**RAD 256 Radiographic Film Evaluation** (3 credits)
***Prerequisites***: BIO 141, BIO 142, RAD 111, RAD 112, RAD 121, RAD 221
Presents a concentrated study and practical evaluation of radiographic quality and disease affects on radiographs. Focuses on technical factors, procedural factors, equipment malfunctions, and other difficulties associated with radiographs. Lecture 3 hours per week.

**RAD 270 Digital Image Acquisition and Display** (2 credits)
Includes basic principles of digital radiography, image acquisition, image acquisition errors, software image processing, fundamental principles of exposures, image evaluation, quality assurance and maintenance issues, and digital display. Lecture 1 hour. Laboratory 3 hours. Total 4 hours per week.

**RAD 290 Coordinated Internship** (1-5 credits)
Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.

**RAD 295 Topics in CT Registry Preparation** (1-5 credits)
Provides an opportunity to explore topical areas of interest to or needed by students. May be used for special honors courses. May be repeated for credit. Variable hours.

**RAD 298 Seminar and Project** (1-5 credits)
Requires completion of a project or research report related to the student's occupational objectives and a study of approaches to the selection and pursuit of career opportunities in the field. May be repeated for credit. Variable hours.

## Religion

**REL 230 Religions of the World** (3 credits)
Introduces the major religions of the world: Judaism, Christianity, Islam, Hinduism, and Buddhism. Focuses on origins, history, basic beliefs, values, ethics, and practices. This is a Passport and UCGS transfer course. Lecture 3 hours. Total 3 hours per week.

## Safety

**SAF 127 Industrial Safety** (2 credits)
Provides basic understandings of safety and health in an industrial situation. Includes hazardous materials, substances, conditions, activities and habits as well as the prescribed methods and equipment needed for the apprentice to protect himself/herself and others. Lecture 2 hours per week.

**SAF 130 Industrial Safety - OSHA 10** (1 credit)
Presents an introduction to occupational health and safety and its application in the workplace. Emphasizes safety standards and the Occupational Safety and Health Act (OSHA), its rules and regulations (OSHA 10). Lecture 1 hour per week.

## Sociology

**SOC 200 Introduction to Sociology** (3 credits)
Introduces the fundamental concepts and principles of sociology with attention to sociological theory, research methods, and the impact of social inequality. Examines a variety of topics such as culture, race, social class, gender, major social institutions and their role in contemporary society, and the processes of social change. Lecture 3 hours per week.

**SOC 211 Cultural Anthropology** (3 credits)
Examines the origins, development, research, diversification and evolution of human cultures. Includes exposure to the variability of both Western and Non-Western aspects of culture. Provides an introduction to the nature of culture and its relationship to various social institutions and societies. This is a Passport Transfer course. Lecture 3 hours per week.

**SOC 215 Sociology of the Family** (3 credits)
Studies topics such as marriage and family in social and cultural context. Addresses the single scene, dating and marriage styles, child-rearing, husband and wife interaction, single parent families, alternative life-styles. Lecture 3 hours per week.

**SOC 235 Juvenile Delinquency** (3 credits)
Studies demographic trends, casual theories and control of juvenile delinquency. Presents juveniles' interaction with family, school, police, courts, treatment programs, and facilities. Also approved for ADJ juvenile curriculum. Lecture 3 hours per week.

**SOC 236 Criminology** (3 credits)
Studies research and casual theories of criminal behavior. Examines crime statistics, crime victims, and types of criminal offenses. Introduces role of police, judicial and correctional systems in treatment and punishment of offenders. Is also approved for ADJ criminology. Lecture 3 hours per week.

**SOC 266 Race and Ethnicity** (3 credits)
***Prerequisite***: Ability to read in English at the college level.
Considers race and ethnicity as social constructs that deeply affect our personal experience and our social institutions. Examines the relationships of racial and ethnic groups with each other and with the larger society, and the ways in which these relationships are constantly changing. Explores the experience of different groups and examines ideas of racial justice and equality. Introduces significant theoretical approaches to the study of race and ethnicity. Lecture 3 hours, Total 3 hours per week.

**SOC 268 Social Problems** (3 credits)
Introduces the fundamental concepts underlying social problems construction with attention to how these problems are defined, understood and arbitrated. Examines a variety of topics such as researching social problems and policymaking.

## Spanish

**SPA 101 Beginning Spanish I** (4 credits)
Introduces cultural awareness, listening, speaking, reading, and writing skills, and emphasizes basic sentence structure. Part I of II. This is a UCGS transfer course. Lecture 4 hours. Total 4 hours per week.

**SPA 102 Beginning Spanish II** (4 credits)
***Prerequisite: SPA 101***, or two years of successful completion of high school Spanish, or demonstrated experiential learning, or by placement test, or equivalent.
Introduces cultural awareness, listening, speaking, reading, and writing skills and emphasizes basic sentence structure. Part II of II. This is a UCGS transfer course. Lecture 4 hours. Total 4 hours per week.

**SPA 163 Spanish for Health Professionals I** (3 credits)
Introduces Spanish to those in the health sciences. Emphasizes oral communication and practical medical vocabulary. May include oral drill and practice. Part I of II. Lecture 3 hours per week.

**SPA 201 Intermediate Spanish** (3 credits)
***Prerequisite***: SPA 102, or three years of successful completion of high school Spanish, or demonstrated experiential learning, or by placement test, or equivalent.
Continues to develop cultural awareness, listening, speaking, reading, and writing skills, and introduces complex sentence structures. Classes may be conducted in target language. Part I of II. This is a UCGS transfer course. Lecture 3 hours. Total 3 hours per week.

**SPA 202 Intermediate Spanish II** (3 credits)
***Prerequisite***: SPA 201, or four years of successful completion of high school Spanish, or demonstrated experiential learning, or by placement test, or equivalent.
Continues to develop cultural awareness, listening, speaking, reading, and writing skills, and emphasizes complex sentence structures. Classes may be conducted in the target language. Part II of II. This is a UCGS transfer course. Lecture 3 hours. Total 3 hours per week.

## Student Development

All students enrolled in an associate degree or certificate program must complete an orientation (SDV) course during their first semester in college.

**SDV 100 College Success Skills** (1 credit)
Assists students in transition to colleges. Provides overviews of college policies, procedures, curricular offerings. Encourages contacts with other students and staff. Assists students toward college success through information regarding effective study habits, career and academic planning, and other college resources available to students. May include English and Math placement testing. Strongly recommended for beginning students. Required for graduation. Lecture 1 hour per week.

**SDV 101 Orientation to College Success** (1 credit)
Introduces students to the skills which are necessary to achieve their academic goals, to the services offered at the college and to the discipline in which they are enrolled. Covers topics such as services offered at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline. Lecture 1 hours per week.

**SDV 106 Preparation for Employment** (1 credit)
Provides experience in resume writing, preparation of applications, letters of application, and successfully preparing for and completing the job interview. Assists students in identifying their marketable skills and aptitudes. Develops strategies for successful employment search. Assists students in understanding effective human relations techniques and communication skills in job search. Lecture 1 hours per week.

## Travel and Tourism

**TRV 195 Topics in Tourism and Economic Development** (3 credits)
Provides an opportunity to explore topical areas of interest to or needed by students. May be used also for special honors courses. May be repeated for credit.

**TRV 295 Topics in Festivals and Agritourism** (3 credits)
***Prerequisites:*** HUM 153 & TRV 195
Provides an opportunity to explore topical areas of interest to or needed by students. May be used also for special honors courses. May be repeated for credit. Variable hours. 2 hours lecture. 2 hours lab.

## Unmanned Systems

**UMS 107 Small Unmanned Aircraft Systems (sUAS) Remote Pilot Ground School** (3 credits)
Presents the aeronautical knowledge required for FAA approved commercial operations as a Remote Pilot with small Unmanned Aircraft Systems (sUAS) rating. Covers the regulations applicable to small UAS operations, loading and performance, emergency procedures, crew resource management, determining the performance of the small unmanned aircraft, and maintenance/inspection procedures. Prepares students for the FAA written examination required to obtain the Remote Pilot certificate. Lecture 3 hours. Total 3 hours per week.

**UMS 111 Small Unmanned Aircraft Systems (sUAS) I** (3 credits)
Introduces students to the history of small Unmanned Aerial Systems (sUAS), surveys current platforms, applications, components, and sensors. Covers the theory of flight, operations, manual flight, maintenance, and required record keeping. Introduces mission planning, crew management, and autonomous control. Emphasizes the ethical, legal, and safe use of sUAS. Lecture 3 hours. Total 3 hours per week.

**UMS 177 Small Unmanned Aircraft Systems (sUAS) Components and Maintenance** (3 credits)
Provides an introduction to the basic equipment and techniques used in maintaining, repairing, and upgrading sUAS to assure airworthiness and proper operation of the other components. Emphasizes safe practices in repair and handling of components and develops fundamental skills in troubleshooting/repair of the circuits, subsystems and components typically found in the complete sUAS. Covers payload sensor mounting, power management and security threat management. Lecture 2 hours. Laboratory 2 hours. Total hours per week 4.

## Welding

**WEL 110 Welding Processes** (3 credits)
Introduces types of welding, their advantages and disadvantages. Points out effects of welds on metals to be machined. Provides practice and demonstration in welding. Lecture 2 hours, Laboratory 3 hours, Total 5 hours per week.

**WEL 117 Oxyfuel Welding and Cutting** (4 credits)
Introduces history of oxyacetylene welding, principles of welding and cutting, nomenclature of the equipment, development of the puddle, running flat beads, and butt welding in different positions. Explains silver brazing, silver and soft soldering, and safety procedures in the use of tools and equipment. Lecture 2 hours. Laboratory 6 hours. Total 8 hours per week.

**WEL 120 Introduction to Welding** (2 credits)
Introduces history of welding processes. Covers types of equipment, and assembly of units. Stresses welding procedures such as fusion, non-fusion, and cutting oxyacetylene. Introduces arc welding and plasma arc cutting. Emphasizes procedures in the use of tools and equipment. Lecture 1 hours. Laboratory 2 hours.

**WEL 123 Shielded Metal ARC Welding (Basic)** (3 credits)
Teaches operation of AC and DC power sources, welding polarities, heats, and electrodes for use in joining various metal alloys by the arc welding process. Deals with running beads, butt, and fillet welds in all positions. Emphasizes safety procedures. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

**WEL 124 Shielded Metal Arc Welding (Advanced)** (3 credits)
Continues instruction on operation of AC and DC power sources, welding polarities, heats and electrodes for use in joining various metal alloys by the arc welding process. Deals with running beads, butt, and fillet welds in all positions. Emphasizes safety procedures. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

**WEL 130 Inert Gas Welding** (4 credits)
Introduces practical operations in the uses of inert-gas-shield arc welding. Discusses equipment, safety operations, welding practice in the various positions, process applications, and manual and semi-automatic welding. Lecture 2 hours. Laboratory 6 hours. Total 8 hours per week.

**WEL 136 Welding III (Inert Gas)** (2 credits)
Studies Tungsten and metallic inert gas procedures and practices including principles of operation, shielding gasses, filler rods, process variations and applications, manual and automatic welding, equipment and safety. Lecture 1 hour. Laboratory 3 hours. Total 4 hours per week.

**WEL 150 Welding Drawing and Interpretation** (3 credits)
Teaches fundamentals required for successful drafting as applied to the welding industry. Includes blueprint reading, geometric principles of drafting and freehand sketching, basic principles of orthographic projection, preparation of drawings and interpretation of symbols. Lecture 3 hours per week.

**WEL 160 Gas Metal Arc Welding** (3 credits)
Introduces semi-automatic welding processes with emphasis on practical application. Includes the study of filler wires, fluxes, and gases. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week

**WEL 161 Flux Cored Arc Welding (FCAW)** (3 credits)
Introduces flux cored semi-automatic welding processes with emphasis on practical application. Includes the study of filler wires, fluxes, and gases. Lecture 2 hours. Laboratory 3 hours.

**WEL 164 Gas Tungsten Arc Welding (GTAW), Tungsten Inert Gas (TIG)** (3 credits)
Introduces practical operations in the use of tungsten arc welding and equipment. Studies equipment operation setup, safety, and practice of Gas Tungsten Arc Welding (GTAW), Tungsten Inert Gas (TIG). Lecture 2 hours. Laboratory 3 hours.

# Administration, Faculty, Instructional & Support Staff

## Administration

**Ms. Brigitte Casteel**
*Dean, School of Health Professions*
B.S.N., East Tennessee State University, 1994
M.S.N., Old Dominion University, 2006

**Ms. Karen T. Cheers**
*EXCEL Director*
B.A., Emory & Henry College, 1983
M.A., Liberty University, 2005

**Mr. Ken Fairbanks**
*Director of Learning Resources*
A.A.&S., Virginia Highlands Community College, 1987
B.S., East Tennessee State University, 1993
M.B.A., King University, 2004

**Ms. Christine Fields**
*Vice President of Financial & Administrative Services*
B.S., University of Virginia's College at Wise, 1992
M.Ed., University of Virginia, 2006

**Ms. Cindy Fields**
*Project Director, Small Business Development Center*
B.A., Emory & Henry College, 1991
M.Acc., East Tennessee State University, 1993

**Dr. Lee Hunt**
*Dean, School of Business & Industry*
B.F.A., University of Tennessee, 1991
M.B.A., University of Tennessee, 1995
Ph.D., University of South Carolina, 2026

**Dr. Adam Hutchison**
*President*
A.A.S., Bob Jones University, 1995
B.S., Bob Jones University, 1996
M.A., Liberty University, 2012
Ph.D., Old Dominion University, 2018

**Ms. Paige M. Kelly**
*Coordinator of Admissions & Records*
B.A., Virginia Intermont College, 1984
M.S., Radford University, 1999

**Ms. Barbara Manuel**
*Dean, School of Arts & Sciences*
A.A.&S., Virginia Highlands Community College, 1990
B.A., Emory & Henry College, 1992
M.A.Ed., Emory & Henry College, 2000

**Mr. Robert E. May**
*Director of Institutional Research & Effectiveness*
B.S., Louisiana State University, 1988
M.S., Florida State University, 1992

**Dr. Michael McBride**
*Dean of Students and Title IX Coordinator*
B.S., University of Virginia's College at Wise, 2007
M.S., Radford University, 2009
Cert. of Adv. Graduate Studies, Regent University, 2013
Ed.D., Regent University, 2023

**Ms. Traci Mitchell**
*Coordinator of Upward Bound*
B.A., Virginia Intermont, 1998
M.A., Liberty University, 2011

**Ms. Shannon Mutter**
*Dean of Workforce Development & Continuing Education*
B.S., King College, 2007
M.Ed., Liberty University, 2018

**Ms. Laura Pennington**
*Vice President of Institutional Advancement*
B.A., University of San Diego, 1989
M.S.Ed., Oklahoma State University, 1995

**Dr. Derek Whisman**
*Vice President of Instruction & Student Services*
B.A., University of Virginia's College at Wise, 2007
M.A., Virginia Polytechnic Institute & State University, 2010
Ed.D., Northeastern University, 2016

# Faculty and Instructional Staff

**Dr. James Baker**
*Professor of Computer Science*
B.S., King University, 1982
M.S., Vanderbilt University, 1986
Ph.D., Vanderbilt University, 1989

**Mr. Thomas Bryant**
*Assistant Professor of English*
B.A., King College, 2001
M.A., Hollins University, 2004

**Mr. D. Ben Bullen**
*Professor of Accounting, Management, & Business*
B.S., Presbyterian College, 1991
M.Acct., University of Mississippi, 1992
J.D., University of Mississippi School of Law, 1998

**Mr. Benjamin Casteel**
*Instructor of Horticulture*
Certificate, Virginia Highlands Community College, 2005
A.A.S., Virginia Highlands Community College, 2007
B.A., Prescott College, 2010
M.S., Virginia Polytechnic Institute & State University, 2017

**Ms. Karen Copenhaver**
*Excel Personal Counselor and ADA Coordinator*
B.S., East Tennessee State University, 1992
M.A., East Tennessee State University, 1999

**Ms. Donna Corns**
*Radiography Program Coordinator*
A.S., Southwest Virginia Community College, 1988
B.S., Old Dominion University, 2006
M.S., Old Dominion University, 2016

**Ms. Sandra L. Davis**
*Associate Professor of Chemistry*
B.S., Valparaiso University, 1984
M.S., University of Illinois, 1987

**Mr. Ein Denti**
*Instructor of Air Conditioning, Refrigeration and Heating*
A.A.S., Virginia Highlands Community College, 2019

**Dr. Kelly Emery**
*Assistant Professor of Education*
B.S., Milligan University, 1987
M.S., Walden University, 2008
Ed.S.. Lincoln Memorial University, 2016
Ed.D., Liberty University, 2021

**Ms. Elizabeth Fairbanks**
*Instructor of Biology*
B.A., Emory & Henry College, 1992
M.S., Radford University, 2006

**Mr. Erick Farris**
*Instructor of Electrical Technology*
A.A.S., Virginia Highlands Community College, 2015
A.A.S., Virginia Highlands Community College, 2015

**Ms. Kimberly Felty**
*Associate Professor of Medical Assisting*
A.A.S., Virginia Highlands Community College, 1993
B.S.N., Capella University, 2018

**Dr. M. Winona Fleenor**
*Professor of Human Services and Psychology*
B.S., Radford College, 1971
M.S., University of Tennessee, 1976
Ed.D., East Tennessee State University, 2009

**Mr. Eddie Fultz**
*Instructor of Welding*
Certificate, Mountain Empire Community College, 2014
A.A.S., Mountain Empire Community College, 2014

**Mr. William Galliher**
*Assistant Professor of Mathematics*
B.S., Appalachian State University, 1993
M.S., East Tennessee State University, 1997

**Ms. Lizzie Goodpasture**
*Assistant Professor of Nursing*
A.A.S., Virginia Highlands Community College, 2012
B.S.N., King University, 2013
M.S.N.-Ed., Walden University, 2023

**Mr. Brian Hale**
*Associate Professor of Engineering*
A.A.&S., Southwest Virginia Community College, 1993
B.S., Virginia Polytechnic Institute & State University, 1995
M.S., Virginia Polytechnic Institute & State University, 1998

**Ms. Amy Hampton**
*Associate Professor of Nursing*
B.S.N, East Tennessee State University, 1994
M.S.N., East Tennessee State University, 2012

**Mr. Keith Harless**
*Instructor of Diesel Technology*
Certificate, Washington County Adult Skills Center

**Ms. Bethaney Hilt**
*Associate Professor of Nursing/Coordinator of Simulation Lab*
A.A.S., Virginia Highlands Community College, 2010
B.S.N., King University, 2011
M.S.N., King University, 2016

**Ms. Jessica Jennings**
*Assistant Professor of Nursing*
A.A.S, Southwest Virginia Community College
B.S.N., King University, 2014
M.S.N.-F.N.P., King University, 2019

**Ms. Julianna Jones**
*Instructor of English & MARC Coordinator*
B.S., Radford University, 2009
M.S., Radford University, 2014

**Ms. Kathryn Justice**
*Associate Professor of Nursing/Director of Nursing*
A.A.S., Southwest Virginia Community College, 1997
B.S.N., King University, 2012
M.S.N., Liberty University, 2013

**Mr. Johnnie Keene, Jr.**
*Assistant Professor of Machine Technology*
Certificate, Virginia Highlands Community College, 2009
A.A.S., Virginia Highlands Community College, 2010

**Ms. Karen Kilgore**
*Excel Transfer Counselor*
B.S., Radford University, 1986
M.S., Radford University, 1999

**Mr. Jason Lachniet**
*Assistant Professor of Mathematics*
A.S., Grand Rapids Community College, 1998
B.S., Michigan State University, 2000
M.S., East Tennessee State University, 2007

**Ms. Tamara Lasley**
*Associate Professor of Information Systems Technology*
B.A., Radford University, 2001
M.S., Old Dominion University, 2004

**Ms. Dona Lee**
*Associate Professor of Communications, Speech and Theatre*
B.A., Virginia Intermont College, 1982
M. Ed., Virginia Polytechnic Institute & State University, 1997

**Mr. Cory Lewis**
*Assistant Professor of Sociology*
B.A., University of Tennessee, 2001
M.A., East Tennessee State University, 2004

**Mr. Donnie Melvin**
*Instructor of Electromechanical Technology*
Diploma, Virginia Highlands Community College, 2013
A.A.S., Virginia Highlands Community College, 2013
A.A.S., Virginia Highlands Community College, 2022

**Ms. Judy K. Miller**
*Associate Professor of English*
A.S., Virginia Highlands Community College, 1974
B.S., East Tennessee State University, 1982
M.A., East Tennessee State University, 1984
M.Ed., Arizona State University, 1997

**Ms. Kayla Mullins**
*Assistant Professor of Nursing/Simulation Lab Instructor*
A.A.S, Mountain Empire Community College, 2014
B.S.N., King University, 2020
M.S.N., King University, 2024

**Mr. Bruce Olivo**
*Instructor of Air Conditioning, Refrigeration and Heating*
A.A.S., Virginia Highlands Community College, 2013

**Mr. Aaron Osborne**
*Assistant Professor of Nursing*
A.A.S., Virginia Highlands Community College, 2016
B.S.N., King University, 2018
M.S.N., Liberty University, 2024

**Ms. Danielle Pennington**
*Instructor of Radiography*
Certificate, Virginia Highlands Community College, 2020
A.A.S., Virginia Highlands Community College, 2020
B.S., Boise State University, 2024

**Dr. Whitney Peters**
*Assistant Professor of Biology*
B.S., King University, 2013
D.P.T., Emory & Henry College, 2018

**Ms. Sherrie Phillips**
*Professor of Nursing*
Certificate, William E. Neff Vocational Center, 1987
Diploma, Slater School of Practical Nursing, 1993
A.A.S., Virginia Highlands Community College, 2002
B.S.N., King College, 2005
M.S.N., Old Dominion University

**Ms. Marie Porterfield**
*Assistant Professor of Art*
B.F.A., East Tennessee State University, 2008
M.F.A., The University of Georgia, 2011

**Ms. Courtney Ricks**
*Librarian*
B.A., Virginia Polytechnic Institute & State University, 2012
M.S., University of Kentucky, 2021

**Mr. David A. Smith**
*Associate Professor of Mathematics and Physics*
B.S., Case Institute of Technology, 1970
M.S., Case Western Reserve University, 1972

**Ms. Kathy Smith**
*Associate Professor of Medical Coding and Billing & Office Management*
B.S., Bluefield College, 2007
M.B.A., Liberty University, 2008

**Dr. Patricia Tymon**
*Professor of English*
B.A., Louisiana State University in Shreveport, 1998
M.A., Louisiana State University in Shreveport, 2000
Ph.D., University of the Cumberlands, 2022

**Ms. Hannah Vaughn**
*Assistant Professor of Psychology*
AA&S, Mountain Empire Community College, 1999
B.A., Virginia Intermont College, 2003
M.Ed., Lindsey Wilson College, 2017

**Ms. Nicole Watson**
*Associate Professor of Biology*
B.A., Virginia Polytechnic Institute & State University, 2009
M.S., Virginia Polytechnic Institute & State University, 2009

**Dr. Teressa Wexler**
*Professor*
*Practical Nursing Program Coordinator*
LPN, Kingsport School of Practical Nursing, 1984
A.D.N., East Tennessee State University, 1995
B.S.N., East Tennessee State University, 2004
M.S.N.-Ed., University of Phoenix, 2006
Ed.D., University of Phoenix, 2019
D.N.P., Chamberlain University, 2021

**Dr. Ryan Whittington**
*Assistant Professor of Music*
B.A., Wake Forest, 2014
B.A., Wake Forest, 2014
M.M., Florida State University, 2016
Ph. D., Florida State University, 2023

**Ms. Robin Widener**
*Professor of Criminal Justice*
B.S., Mars Hill College, 1993
M.S., Radford University, 2003
M.A., Liberty University, 2019

**Ms. Cynthia Woosley**
*Assistant Professor of Biology*
B.S, Murray State University, 1999
M.S., University of Nebraska-Kearney, 2018
M.S., Ohio University, 2020

## PROFESSORS EMERITI

**Mr. Charles Edward Blevins**
*Professor Emeritus, 1982*

**Ms. Mary W. Roten**
*Professor Emeritus, 1986*

**Ms. Virginia G. Crumpler**
*Professor Emeritus, 1988*

**Mr. Charlie S. Herndon**
*Professor Emeritus, 1989*

**Mr. John B. Roberts**
*Professor Emeritus, 1992*

**Ms. Marthalynn M. Greer**
*Professor Emeritus, 1993*

**Mr. Larry K. Richman**
*Professor Emeritus, 1999*

**Ms. Virginia A. Alvis**
*Professor Emeritus, 2001*

**Mr. Bobby G. Necessary**
*Professor Emeritus, 2002*

**Mr. Edward A. Colley**
*Professor Emeritus, 2003*

**Dr. Jim E. Geiger**
*Professor Emeritus, 2003*

**Dr. Charles H. Owens**
*Professor Emeritus, 2003*

**Dr. Edwin T. Hardison**
*Professor Emeritus, 2004*

**Mr. Charles W. Locke**
*Professor Emeritus, 2004*

**Mr. Joe L. Kennedy**
*Professor Emeritus, 2005*

**Ms. Lois S. Caldwell**
*Professor Emeritus, 2006*

**Mr. Clark Fleming**
*Professor Emeritus, 2008*

**Mr. William Van Keyser**
*Professor Emeritus, 2008*

**Dr. G. Michael Rush**
*Professor Emeritus, 2009*

**Mr. W. Kenneth Shoun**
*Professor Emeritus, 2009*

**Dr. Patricia A. Hunter**
*Professor Emeritus, 2021*

**Dr. F. David Wilkin**
*Professor Emeritus, 2013*

**Dr. Deborah C. Clear**
*Professor Emeritus, 2013*

**Mr. Jim Johnson**
*Professor Emeritus, 2013*

**Mr. Gary Aday**
*Professor Emeritus, 2014*

**Dr. Susan Fleming**
*Professor Emeritus, 2016*

**Mr. Gary Thomas**
*Professor Emeritus, 2018*

**Ms. Elizabeth Smith**
*Professor Emeritus, 2019*

**Dr. Kathy Mitchell**
*Professor Emeritus, 2020*

**Mr. Ben Jennings**
*Professor Emeritus, 2020*

**Ms. Sara Combs**
*Professor Emeritus, 2021*

**Dr. Mary Beth Page**
*Professor Emeritus, 2023*

**Dr. Melba Boling**
*Professor Emeritus, 2025*

**Mr. Jimmy Kroll**
*Professor Emeritus, 2025*

**Ms. Mary Munsey**
*Professor Emeritus, 2025*

## Support Staff

**Ms. Katie Applegate**
*Housekeeping Worker**

**Ms. Debbie Aylor**
*Clinical Coordinator*

**Mr. Preston Ball**
*IT Services Coordinator*

**Ms. Amy Baumgardner**
*Testing Center Assistant**

**Mr. Jeremy Bise**
*UX Designer*

**Ms. Tiffanie Bishop**
Grant Writer/Sponsored Programs Office

**Mr. Glen Booher**
*Buildings & Grounds Technician**

**Ms. Nicole Boothe**
*Design & Content Specialist*

**Mr. Adam Brock**
*Accountant*

**Ms. Susan Buchanan**
*Student Accounts Specialist*

**Mr. Skyler Burkett**
Housekeeping Worker

**Ms. Melanie Bush**
*Financial Aid Technician*

**Ms. Karen Campbell**
*College Success Coach*

**Mr. Tim Carter**
*Housekeeping Worker**

**Mr. Jon Carty**
*Police Officer*

**Ms. Alexandra Centeno**
*Payroll Specialist*

**Ms. Nicole Christie**
*Administrative Assistant, RSVP Grant*

**Mr. Chris Church**
*Helpdesk Manager*

**Ms. Kimberly Cline**
*Police Officer**

**Ms. Linda Colley**
*RSVP Success Coach**

**Ms. Pam Conley**
*PeopleSoft Queries Specialist**

**Ms. Juliet Dixon**
*Pathfinder**

**Ms. Stacey Dorton**
*Academic Coordinator, Upward Bound*

**Ms. Jennifer Dufresne**
*Horticulture Assistant**

**Ms. Betty Jo Duty**
*Housekeeping Worker**

**Ms. Taylor Evans**
*Cashier/Fiscal Assistant*

**Ms. Amanda Fleenor**
*Great Expectations Coach*

**Mr. Raymond Frederick**
*Buildings & Grounds Technician*

**Ms. Andi Fultz**
*Administrative Assistant, Workforce Development**

**Mr. Marlin Goff**
*Police Officer**

**Mr. Luke Green**
*Buildings and Grounds Technician*

**Mr. Joshua Greenwell**
*Academic Advisor*

**Mr. Joseph Hamil**
*G3 Coach/Advisor*

**Mr. Trevor Harrison**
*Veterans & Financial Aid Advisor*

**Mr. Brandon Hensley**
*Recruitment & Engagement Coordinator*

**Ms. Lindsey Honaker**
*Navigator*

**Ms. Joyce Horn**
*Housekeeping Worker*

**Ms. Becky Kell**
*Connections Coach*

**Dr. Cheri Long**
*Navigator*

**Ms. Caitlin Manuel**
*Recruitment and Activities Specialis*t

**Ms. Beatrice Martino**
*Pathfinder**

**Ms. Tammy McCracken**
*Database Administrator*

**Ms. Deborah McCroskey**
*Development Officer, Institutional Advancement*

**Ms. D'Lisa Mullins**
*Financial Specialist, Institutional Advancement**

**Ms. Sharon Nechtman**
*Office Manager, Business & Industry*

**Mr. Dallas Nelson**
*Warehouse Clerk*

**Ms. Debra Nelson**
*Information Center Specialist*

**Mr. Ernest Nunley**
*Superintendent of Buildings & Grounds*

**Mr. Andy Olson**
*Director of Marketing & Communications*

**Ms. Jessie O'Quinn**
*Executive Assistant to the President*

**Ms. Kelli Peck**
*Financial Aid & Promise Program*

**Mr. Brad Pennington**
*Buildings & Grounds Technician*

**Ms. Heather Perry**
*Business Operations Manager*

**Ms. Michelle Phillips**
*Admissions & Records Specialist*

**Ms. Donna Price**
*Financial Aid Director*

**Ms. Ella Ratcliffe-Sutherland**
*Office Manager, Upward Bound and EXCEL*

**Ms. Andrea Repass**
*Office Manager, Instruction & Student Services*

**Mr. Adam Rhea**
*Computer Technology Specialist*

**Ms. Alesha Russell**
*Wolf Grounds Manager**

**Mr. Jeffery Russell**
*Research & Assessment Specialist*

**Ms. Reva Russell**
*Testing Center Specialist*

**Mr. Scotty Russell**
*Evening IT Technician**

**Mr. Dillon Scott**
*Library Circulation Assistant**

**Mr. Adam Sparks**
*Navigator*

**Ms. Kayla Spenser-Davidson**
*Office Manager, Buildings & Grounds**

**Mr. Paul Taylor**
*Housekeeping Worker**

**Mr. Danny Thomas**
*Buildings and Grounds Technician*

**Ms. Vota Thomas**
*Office Manager, Workforce Development & Continuing Education*

**Ms. Julie Tilson**
*Student Support Specialist*

**Ms. Alyssa Toney**
*Pathfinder**

**Ms. Kristy Trent**
*Director of Budget & Finance*

**Ms. Ann Trivette**
*Navigator**

**Ms. Tiffany VanBuren**
*Director of Human Resources*

**Ms. Karen Viers**
*Fast Forward Career & Credentials Coach*

**Ms. Karin Widener**
*Office Manager, Health Professions*

**Mr. Kevin Widener**
*Police Chief*

**Mr. Colton Williams**
*Advancement & Marketing Specialist*

**Mr. Cody Wilson**
*Testing Center Assistant**

**Ms. Shasta Wilson**
*Academic Advisor*

**Ms. Emileigh Yates**
*Payroll Specialist*

**Ms. Cathy Zeigler**
*Admissions Assistant*

**Part-time Staff*

## CLASSIFIED STAFF EMERITI

**Judy Plummer**
*Classified Staff Emeritus, 2006*

**Peggy Bailey**
*Classified Staff Emeritus, 2007*

**Linda Carty**
*Classified Staff Emeritus, 2008*

**Judy Sullins**
*Classified Staff Emeritus, 2009*

**Patricia Fullen**
*Classified Staff Emeritus, 2010*

**Dorothy Adams**
*Classified Staff Emeritus, 2010*

**Deborah Hale**
*Classified Staff Emeritus, 2013*

**Cecil Holmes**
*Classified Staff Emeritus, 2014*

**Joyce Crusenberry**
*Classified Staff Emeritus, 2014*

**Ralph "Bucky" Farris**
*Classified Staff Emeritus, 2022*

**Nancy Hope**
*Classified Staff Emeritus, 2023*

**Rachel Law**
*Classified Staff Emeritus, 2024*

Virginia Highlands COMMUNITY COLLEGE

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