VIRGINIA HIGHLANDS COMMUNITY COLLEGE

2014-15 Catalog & Student Handbook

PROGRAMS OF STUDY

Associate of Arts and Sciences (AA&S)
Associate of Applied Science (AAS)
Career Studies Certificates (CSC)
Certificate (C)
Diploma (D)

*Southwest Virginia Community College

COLLEGE CALENDAR

Holidays, 2014-15

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.

2014	**July**	4	Friday	Independence Day
	September	1	Monday	Labor Day
	November	27, 28	Thurs.-Fri.	Thanksgiving
	December	24-31	Wed. – Fri. & Mon. – Wed.	Christmas
2015	**January**	1	Thursday	New Year's Day
	January	19	Monday	Martin L. King, Jr. Day
	May	25	Monday	Memorial Day

ACADEMIC CALENDAR 2014-15

SUMMER SESSIONS 2014

SUMMER FULL SESSION 2014

JUNE

2 Monday First day of class – All tuition payments should be finalized.

11 Wednesday Last day to add a course; change from audit to credit; drop a class and receive a tuition refund. Current enrollment will be canceled for any outstanding tuition balance.

JULY

4 Friday Independence Day holiday – College closed – No classes

11 Friday Last day to withdraw from class without academic penalty.

AUGUST

7 Thursday Classes end/Final Exams

SUMMER A SESSION 2014

JUNE

2 Monday First day of class – All tuition payments should be finalized.

6 Friday Last day to add a course; change from audit to credit; drop a class and receive a tuition refund. Current enrollment will be canceled for any outstanding tuition balance.

20 Friday Last day to withdraw from class without academic penalty.

JULY

3 Thursday Classes End/Final Exams

SUMMER B SESSION 2014

JULY

7	Monday	First Day of Class – All tuition payments should be finalized.
11	Friday	Last day to add a course; change from audit to credit; drop a class and receive a tuition refund. Current enrollment will be canceled for any outstanding tuition balance.
25	Friday	Last day to withdraw from class without academic penalty.

AUGUST

7	Thursday	Classes End/Final Exams

FALL SESSIONS 2014

FALL FULL SESSION 2014

AUGUST

1	Friday	Last day to pay tuition for early enrollment. All tuition payments must be finalized or current enrollment will be canceled.
18-22	Mon. – Fri.	Faculty in-service
25	Monday	Classes begin - All tuition payments should be finalized.
29	Friday	Last day to add without faculty permission.

SEPTEMBER

1	Monday	Labor Day holiday - College closed - No classes
5	Friday	Last day to add a course with faculty permission.
12	Friday	Last day to change from audit to credit; drop a class and receive a tuition refund. Current enrollment will be canceled for any outstanding tuition balance.

OCTOBER

28	Tuesday	Faculty research day - No classes

NOVEMBER

3	Monday	Open enrollment for spring semester
4	Tuesday	Last day to withdraw from class without academic penalty.
26	Wednesday	Faculty Research Day - No classes
27-28	Thursday-Friday	Thanksgiving holidays - College closed - No classes

DECEMBER

12	Friday	Last day of classes
15-19	Monday - Friday	Final Exams
22-23	Mon. & Tues.	Faculty Workday
24	Wednesday	Faculty research day
25	Thursday	Christmas Day – College closed
26	Friday	College closed
29-31	Mon. – Wed.	College closed

FALL SDV SESSION 2014

AUGUST

25	Monday	Classes begin - All tuition payments should be finalized.
29	Friday	Last day to add a course; change from audit to credit; drop a class and receive a tuition refund.

SEPTEMBER

1	Monday	Labor Day holiday - College closed - No classes
16	Tuesday	Last day to withdraw from class without academic penalty.
29	Monday	Last day of classes

Fall 10 WEEK SESSION 2014

SEPTEMBER

30	Tuesday	First day of class – All tuition payments should be finalized.

OCTOBER

10	Friday	Last day to add a course; change from audit to credit; drop a class and receive a tuition refund. Current enrollment will be canceled for any outstanding tuition balance.
28	Tuesday	Faculty research day – No classes

NOVEMBER

3	Monday	Open enrollment for spring semester
18	Tuesday	Last day to withdraw from class without academic penalty.
26	Wednesday	Faculty research day – No classes
27-28	Thursday – Friday	Thanksgiving holidays – College closed – No classes

DECEMBER

12	Friday	Last day of classes
15-19	Monday – Friday	Final exams

SPRING SESSIONS 2015

SPRING FULL SESSION 2015

JANUARY

1	Thursday	New Year's Day – College closed
2	Friday	Faculty workday
5-6	Mon. & Tues.	Faculty workdays
7	Wednesday	First day of classes - All tuition payments should be finalized.
14	Wednesday	Last day to add a course without faculty permission.
19	Monday	Martin Luther King, Jr. holiday - College closed - No classes
21	Wednesday	Last day to add a course with faculty permission
26	Monday	Last day to change from audit to credit; drop a class and receive a tuition refund. Current enrollment will be canceled for any outstanding tuition balance.

FEBRUARY

17 & 18	Tues. & Wed.	Faculty in-service - No classes

MARCH

9-13	Monday-Friday	Faculty / Student Spring Break - No classes
16	Monday	Open enrollment for all summer sessions, and fall semester begins.
31	Tuesday	Last day to withdraw from class without academic penalty.

APRIL

2 & 3	Thurs. & Fri.	Faculty research days – No classes

MAY

5	Tuesday	Last day of classes
6-8	Wed. – Fri.	Final exams for day & night classes
11-12	Mon. & Tues	
13	Wednesday	Faculty work day
14	Thursday	Faculty research day
15	Friday	Graduation

SPRING SDV SESSION 2015

JANUARY

7	Wednesday	First day of classes - All tuition payments should be finalized.
12	Monday	Last day to add a course; change from audit to credit; drop a class and receive a tuition refund.
19	Monday	Martin Luther King, Jr. holiday - College closed - No classes
28	Wednesday	Last day to withdraw without academic penalty

FEBRUARY

11	Wednesday	Last day of classes

SPRING 10 WEEK SESSION 2015

FEBRUARY

12	Thursday	First day of classes - All tuition payments should be finalized.
17 & 18	Tues. & Wed.	Faculty in-service – No classes
26	Thursday	Last day to add a course; change from audit to credit; drop a class and receive a tuition refund. Current enrollment will be canceled for any outstanding tuition balance.

MARCH

9-13	Monday-Friday	Faculty / Student Spring Break - No classes
16	Monday	Open enrollment for all summer sessions, and fall semester begins.

APRIL

2 & 3	Thurs. & Fri.	Faculty research day – No classes
14	Tuesday	Last day to withdraw from class without academic penalty

MAY

5	Tuesday	Last day of classes
6-8	Wed. – Fri.	Final exams
11-12	Mon. & Tues	

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.

Over its 36 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 3,200 students were served this past year by 121 full-time and 168 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 Center for Business and Industry 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, the service learning initiative is teaching VHCC students the value of volunteerism, and the Tobacco Outreach program is providing tuition assistance for tobacco farmers and their families.

State-of the-art technology has made it possible to take distance education courses and has provided the entire College community with modern, up-to-date computer facilities. Through Federal Trio programs – Student Support Services (Project EXCEL), Upward Bound and Educational Talent Search – middle school, 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 is aggressively pursuing a 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 & 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 Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097: Telephone number 404-679-4501) to award the associate degree. (*Note: Inquiries to the Commission should relate only to the accreditation of VHCC, and not general admission information*.)

The Nursing Program is approved by the Virginia State Board of Nursing and is accredited by the Accreditation Commission for Education in Nursing (ACEN), 3343 Peachtree Road NE, Suite 850, Atlanta, Georgia 30326, Phone: (404) 975-5000, www.acenursing.org, 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 Radiography program is accredited by the Joint Review Committee on Education in Radiography, which is recognized by the Council on Post-secondary Accreditation (COPA) and by the U.S. Department of Education as the national accrediting agency for radiologic education.

The Emergency Medical Services Technology program is accredited by the Committee on Accreditation of Allied Health Educational Programs (CAAHEP), 1361 Park St. Clearwater, FL 33756, 727-210-2350.

VHCC is approved for listing in U.S. Department of Education directories and for participation in various federally sponsored programs of students aid and educational assistance. It has also been approved by the Committee on Veterans Education and the State Department of Education for training of veterans.

VHCC is an institutional member of the American Association of Community Colleges, the Southern Association of Community, Junior, and Technical Colleges, and the Association of Virginia Colleges.

Mission and Vision

Mission of the College

Virginia Highlands Community College serves our community by providing quality and affordable education, training, and cultural activities through an array of flexible, diverse programs that enable community members to succeed today and in the future.

Vision Statement

Enriching lives by being a premier educational, cultural and training center in our community.

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. Refer to the online catalog at www.vhcc.edu/catalog for the most recent version of the catalog.

ADMISSIONS

Admission as Curricular or Non-curricular Students

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

For all curricular students, the following items are required:

1. A completed official application for admission with social security number requested and
2. 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.
3. 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. Non-curricular students must satisfy all required course pre-requisites of placement testing requirements before enrolling in specific college level courses. Information about noncredit continuing education programs is available in the Office of Workforce Training and Continuing Education.

After a person has been admitted to the College as a curricular student, he/she will be given an opportunity to meet with a College counselor to discuss educational interests, to determine curricular needs, and to plan application for admission to a specific curriculum or program at the College.

It is the policy of the VCCS to maintain and promote equal employment and educational opportunities without regard to race, color, sex or age (except where sex or age is a bona fide occupational qualification), religion, handicap, national origin, or other non-merit factors.

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 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 Counselors 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 appropriate Counselor.

All transfer students must complete the “Transcript Evaluation Request Form” to receive transfer credit **at Virginia Highlands Community College.**

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 English, Math, Biology or Chemistry Courses

Admission to specific courses is approved only when the student meets the prerequisite requirements or has instructor approval for the course.

1. All students must pass VHCC placement tests in reading and writing before entry into the first college level English composition course.
2. Enrollment in Biology 101 requires reading and writing scores appropriate for placement into ENG 111. Enrollment in Biology 141 requires reading scores appropriate for placement into ENG 111
3. All students must complete VHCC placement tests in math before entry into any math course.
4. Virginia Placement Test –Mathematics Scores are required for enrollment in any chemistry course above CHM 05.
5. Students who bypass this policy and register for an English or mathematics, biology or chemistry class without appropriate placement scores are subject to administrative withdrawal.
6. Students may not retest any portion of the placement test without written approval from a counselor or English/math faculty member. Policy requires that students requesting a retest meet specified criteria identified in the next section.
7. Students who have submitted SAT or ACT scores may be exempt from the English and mathematics placement test. SAT scores of at least 500 on both verbal and writing tests and/or an ACT sore of 21 on both English and verbal tests exempts the student from the reading and writing placement tests. SAT math score of at least 520 or ACT score of at least 22 from a test within the last two years exempts a student from all developmental courses in mathematics and allows enrollment into MTH 241 and all other math courses with numbers below MTH 170. Enrollment in courses higher than MTH 170 requires completion of the Virginia Placement Test – Mathematics testing to determine proper placement.

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 (VPT, COMPASS or ASSET), or otherwise be considered eligible by the College to be accepted to an associate degree, diploma, or certificate program. High/home school transcripts are requested unless the record is ten or more years old and official transcripts of all work completed at regionally accredited colleges or universities are required unless waived by the Director of Admissions.

Application for Readmission to the College

If a student in "good academic standing" has not been enrolled within the last three years (nine terms), he/she 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 Office of Admissions 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 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
   Limitations/Exclusions
   - no developmental courses may be approved for a dual enrollment arrangement

   G. **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 who withdraw from a class without penalty.

• 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 "Principal's Permission to Enroll" form to the Director of Admissions.

• Abingdon High School uses certain criteria to identify students for dual enrollment courses. These criteria may include teacher recommendations, participation in an accelerated program, minimum grade point average, self-selection, etc. Refer http://ahs.wcs.k12.va.us/guidance.html for specific course information.

• Federal regulations do not permit financial aid to be awarded to college students who are simultaneously enrolled in public or private secondary educational programs.

Disability Service

To support the educational pursuits of persons with disabilities in our service area, it is the mission of Virginia Highlands Community College to 1) disseminate information to increase awareness of services available to persons with disabilities, 2) assist with the matriculation of persons with disabilities into the college environment, 3) develop and implement disability-related support services that promote the educational and personal development of persons with disabilities by networking with campus and community based resources, and 4) assist with the successful integration of persons with disabilities into continued educational activities and/or the world of work.

Students with disabilities who seek accommodations should provide documentation from a qualified professional that includes a full clinical description, current functional limitations, and a prognosis to include any expected future decline in functional ability. This documentation should also include information about the methodology used to make a diagnosis, specific results of the assessments used, summary data, and specific assessment scores based on adult norms where having such additional information will assist colleges in engaging in a deliberative and collaborative decision-making process that considers each student's unique situation and experience. Students should submit the documentation to the Project EXCEL Coordinator, located in ISC 120.

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. Those transferring from other colleges and universities should also complete a "Transcript Evaluation Request Form" to receive transfer credit at Virginia Highlands Community College. The College also provides and requires a "Self Reported Health" form for admission to 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.

• Abingdon High School uses certain criteria to identify students for dual enrollment courses. These criteria may include teacher recommendations, participation in an accelerated program, minimum grade point average, self-selection, etc. Refer http://ahs.wcs.k12.va.us/guidance.html for specific course information.

• Federal regulations do not permit financial aid to be awarded to college students who are simultaneously enrolled in public or private secondary educational programs.

General Admission Exceptions

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:

	VPT	Compass	Asset
Reading	ENF 1	62	35
Writing	ENF 1	32	35
Math	MTE 1	25	33

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. 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, the College has the right to apply these provisions to dis-enroll currently enrolled students during a given semester session (examples are convicted sex offenders and highly dangerous or disruptive students.) 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 Vice President of Instruction and Student Services that the applicant/enrolled student has exhibited threatening, violent, intimidating or disruptive behavior or any violation of the Violence Prevention Policy, the Vice President of Instruction and Student Services 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 he/she 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 Vice President of Instruction and Student Services 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 Admissions & Records office will place a hold (negative service indicator) on the applicant's file.
2. The Admissions & Records office 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 Director of Admissions will facilitate the meeting with the student. During the meeting, the following information will be gathered:
    a. Nature of the offense for which he/she 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 Director of Admissions 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 student of the Student Affairs 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.

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 distance 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 longest 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 an 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 Enrollment Services/Admission. 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 and 234 on the computer based TOEFL test 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 Admission Office 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 (COMPASS) 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. **Academic Transcripts**
   Non-English 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 studies must be submitted in English translation of the syllabus. Application without this information cannot be considered. It is recommended that transfer students seeking admission from international educational systems have a professional evaluation service review their transcripts and other educational credentials. 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: Ms. Debbie Barrett, Virginia Highlands Community College, P.O. Box 828 Abingdon, VA 24212 or by e-mail at dbarrett@vhcc.edu. Below is a checklist of admission requirements for international students:

   1. Application for Admission/Readmission 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 test and 234 on the computer-based TOEFL test 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.

Placement Testing and Retest Policy

Like other institutions of higher learning, Virginia Highlands Community College requires students to take English and mathematics placement tests.

Students who submit official satisfactory ACT or SAT scores taken within the last two years may exempt a student from the placement test requirement. Satisfactory scores are:

English: Any student with either SAT minimum score of 500 on both the critical reading and writing sections, or ACT minimum combined score of 21 on both the English and Writing tests taken within the last two years, is exempt from taking the Virginia Placement Test (VPT) English Test.

Math: SAT math score of at least 520 or ACT score of at least 22 from a test within the last two years exempts a student from all developmental courses in mathematics and allows enrollment into MTH 241 and all other math courses with numbers below MTH 170. Enrollment in courses higher than MTH 170 requires completion of the Virginia Placement Test (VPT) Mathematics testing to determine proper placement.

Official scores should be submitted to the Admissions and Records Office. An official report can be requested at www.collegeboard.com.

1. **Purpose of Placement Test**
   The purpose of these tests is to assure that students are academically prepared for college level work, regardless of prior grades, work experience, or academic history.

2. **When to Schedule Testing**
   It is recommended that students schedule testing prior to enrollment period and not wait until enrollment days. For example, if a student plans to enroll during fall semester, testing should occur during the summer prior to fall registration. All students must complete the VHCC Application for Admissions before placement testing. The Testing Center administers all placement tests (LRC 121A).

3. **Preparation for Testing**
   VHCC recommends that students plan to actively prepare and review for English testing. There are various suggestions available to guide preparation on the VHCC website under *Future Student>Placement Testing.* Also, a short video has been prepared which students are encouraged to watch prior to testing. The short video can be

accessed by following these simple steps: Go to www.vhcc.edu/podcast, click on the play video link and watch the show on your browser.

VHCC recommends that students plan to actively prepare and review for mathematics testing. There are several suggestions available to guide preparation on the VHCC website on the *Future Students>Placement Testing* page in the Math Resources section**.**

4. **Placement Scores**
   VPT recommendations are required for all placements in mathematics and English. If a student has two placement scores on record in the Virginia Community College System (VCCS) and both tests were taken within the past two years, VHCC will accept and use the higher placement recommendation. Placement data aid counselors, advisors and students to design academic plans that offer a higher likelihood of academic success. VPT Placement Test scores are valid for two years.

5. **Placement Scores from Other Institutions**
   Developmental course work completed outside of the Virginia Community College System is not transfer eligible. Transfer students outside the VCCS who have not completed ENG 111 with a C or better at another institution must take the VPT English placement before enrolling in ENG 111.

6. **Retest Policy for English**
   The Academic Divisions will adhere to a strict retest policy requiring students to appeal to the counselors and/or English faculty for retest. Retests will be limited to one retest. Students who take the placement test and who do not enroll in developmental English courses (ENF) are allowed to take one retest within twelve months provided they demonstrate they have prepared for the retest. Students who attempt developmental English courses (ENF) are not eligible for retest.

7. **Retest Policy for Mathematics**
   The academic divisions will adhere to a strict retest policy requiring students to appeal to the counselors and/or faculty in the respective disciples for retest. Retesting for mathematics placement will follow the VCCS policy given below:

   6.4.0.2.1 Math Placement
   Test scores are valid for two (2) years after the date of the test. Students who take the placement test and who do not enroll in developmental math are allowed to take one (1) retest within twelve (12) months. Students who attempt developmental mathematics will be ineligible for a retest. Exceptions to this policy may be made on a case-by-case basis.

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.

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. Merit 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 Merit 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. Veterans need to contact the VHCC Veterans' Office (276-739-2460) for enrollment status.

Academic Standing

1. **Good Academic Standing.** Students are considered to be "in good academic standing" if they maintain a semester minimum GPA of 2.00, are eligible to reenroll at the College, and are not on academic suspension or dismissal status.
2. **Academic Warning.** Any student who fails to attain a minimum GPA of 2.0 for any semester will receive an academic warning. Students on academic warning should be encouraged to consult with their counselor and take advantage of academic support services provided by the College.
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. Students on probation are ineligible for appointive or elective office in student organizations unless special permission is granted by Vice President of Instruction and Student Services. 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.

   Students who are placed on academic suspension and wish to appeal may submit an appeal in writing to the Director of Admissions for reconsideration of the case. Suspended students may be reinstated at the conclusion of the suspension period and upon formal written petition to the Director of Admissions. 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 satisfactorily complete a study skills course, SDV-104. This course must be completed within the first 12 credits after readmission to the College.

5. **Academic Dismissal.** Students who do not attain at least 2.0 GPA 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 readmitted after being on academic dismissal are required to satisfactorily complete a study skills course, SDV-100. This course must be completed within the first 12 credits after readmission to the College.

Adding a Course

Students may enroll in classes during the first week of class through on-line enrollment procedures. After the first week of class, students must have faculty permission to enroll in a class. This process requires the completion of an add/drop form available in the Admissions Office, Student Success Center or Division Offices. The student is responsible for completing the form, obtaining the approval and signatures of the faculty of record and counselor, and submitting the form to the Admissions Office. Students may not enroll in classes after the second week of class.

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.

Confidentiality of Student Records

Virginia Highlands Community College complies with the requirements of the Family Education Rights and Privacy Act 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 Admissions and Records Office. 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, address, telephone number, electronic mail address, major field of study, dates of attendance, number of credit hours enrolled, and degrees, honors, and awards received. 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.

Grade reports will be made available to parents with the written permission of students. Confidential Release Forms for release or review of any official information from student records are available in the Admissions Office and must be signed.

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 the Center for Business & Industry.

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 examination period, equals one collegiate semester-hour credit.

c. Distance Learning – In the case of distance learning course offerings or hybrid courses that employ a mix of traditional contact hours and learning activities with students and faculty separated by time and place, 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 a Counselor and their advisor. Approval from the Counselor of the instructional division to which the student wishes to transfer is required.

Disclaimer

Virginia Highlands Community College provides its website, catalog, handbooks, and any other printed materials or electronic media for your general guidance. The college does not guarantee that the information contained within them, including, but not limited to, the contents of any page that resides under the DNS registrations of 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 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.

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 last 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 MTE or ENF.

Students making satisfactory progress but not completing all of the instruction objectives in Developmental courses may receive an "R" (Re-enroll) and to complete the instructional objectives. 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 MTE and ENF 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 50% of the course requirements and (2) must request the faculty member to assign the "I" grade and indicate why it is warranted. The faculty member has the discretion to decide whether the "I" grade will be awarded. Since the "incomplete" extends enrollment in the course, requirements for satisfactory completion shall be established through consultation between the faculty member and the student. In assigning the "I" grade, the faculty member must complete documentation that (1) states the reason for assigning the grade; (2) specifies the work to be completed and indicates 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 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. A grade of "F" 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 course 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.

Grades for Developmental Courses

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 five (5) years, or more, may petition for academic renewal. The request must be in writing and submitted to the Admissions and Records Office.

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.

5. **Grade Report Challenge**
Challenges to grade reports should be made in writing directly to the appropriate instructor no later than ten (10) calendar days after the first day of class of the next semester. If the student is unable to contact the instructor directly, the appropriate division dean should be notified in writing.

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, Diplomas and Certificates Awards**
Virginia Highlands Community College offers the following degrees, diplomas, and certificates for students who successfully complete approved programs at the College:

Associate of Arts and Sciences Degree (AA&S) is awarded to students majoring in Liberal Arts, Business Administration, General Studies, Education, and Science who may 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.)

The Diploma is awarded to students who complete a non-degree occupational program that is two years in length.

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

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

2. Graduation Requirements

A. Associate Degree Requirements

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

1. 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;
2. Have been certified for graduation by the appropriate college official;
3. Have earned a grade point average of at least 2.0 in all studies attempted that are applicable toward graduation in his/her curriculum;
4. Have filed an application for graduation in the Office of Admissions and Records which may be waived in the case of the General Education Certificate;
5. Have resolved all financial obligations to the College and returned all library and college materials.

B. **Diploma Requirements**

To be eligible for graduation with a diploma from the College, a student must:

1. Have fulfilled all of the course and credit-hour requirements of the diploma curriculum as specified in the College catalog with a minimum of 25 percent (25%) of the credits acquired at the college awarding the diploma;
2. Have been certified for graduation by the appropriate college official;
3. Have earned a grade point average of at least 2.0 in all studies attempted that are applicable toward graduation in their curricula
4. Have filed an application for graduation in the Office of Admissions and Records;
5. Have resolved all financial obligations to the College and returned all library and other college materials.

C. **Certificate Requirements**

To be eligible for graduation with a certificate from the College, a student must:

1. 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;
2. Have been certified for graduation by the appropriate college official;
3. Have earned a grade point average of at least 2.0 in all studies attempted that are applicable toward graduation in their curricula;
4. Have filed an application for graduation in the Office of Admissions and Records;
5. Have resolved all financial obligations to the College and returned all library and college materials.

If a student pursues a degree program but completes only the credits required for a certificate program, the division dean and the Vice President of Instruction and Student Services may recommend that a certificate be awarded.

3. **Second Degree, Diploma, or Certificate**

VHCC will award students more than one degree, diploma, 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 faculty and academic advisors to plan accordingly.

4. **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. Additionally, the honor recognitions for the graduation ceremony are based upon scholastic achievements at the end of the semester 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)

5. **Graduation Commencement Ceremony**

Virginia Highlands Community College has one formal graduation exercise each year for students completing curricula. Attendance at the commencement ceremony shall be required of graduating students unless special permission to be absent is obtained from the College President or the President's designee.

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. Make sure the mailing address in (SIS)> Student Center is accurate.

B. Students who need up to two (2) courses to meet graduation requirements may petition the Student Affairs Committee for permission to walk in the ceremony. They must submit a plan to complete these courses by the end of summer semester. The written petition must be completed and submitted to the Vice President of Instruction & Student Services by March 30. The Student affairs Committee will evaluate the plan for graduation and make a recommendation to the Vice President of Instruction & Student Services.

C. Students who have applied for graduation and fail a Spring semester class must complete the written petition and appear before an ad hoc committee to request permission to walk in the Spring ceremony.

Repeating a Course

If a student repeats a course, the last grade earned will count. Consequently, failure (F) in the last enrollment would nullify any other grade earned. 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. Students must petition for a third enrollment by following these procedures:

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

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 counselor is required. Students may substitute equivalent or more sophisticated courses in the same field in any approved curriculum with the approval of the Dean of the instructional division 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.

In accordance with Policy 5.6.5.2.e, the physical education requirements for the degree, diploma 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.

In addition, 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, 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.

I. **Advanced Standing**

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 Office in the summer following their senior year of high school. The report is then submitted to the Counselors for evaluation. Upon the Counselor's recommendation and approval from the Division Dean and Vice President of Instruction and Student Services, the Admissions and Records office posts the awarded credit and notifies the student in writing.

ADVANCED PLACEMENT TEST SCORE POLICIES

EXAMINATION	SCORE	COURSE EXAMINATION	CREDITS
Biology	3, 4 or 5	BIO 101 and 102	8
Chemistry	3, 4 or 5	CHM 111 and 112	8
English: Language & Composition (11th grade)	3, 4 or 5	ENG 111	3
English: Literature and Composition (12th grade)	3	ENG 111	3
English: Literature and Composition (12th grade	4 or 5	ENG 111 and 112	6
English: Language & Composition **and** Literature and Composition	3, 4 or 5 on each	ENG 111 and 112	6
History: United States	3, 4 or 5	HIS 121 and 122	6
Mathematics: Calculus AB	3, 4 or 5	MTH 173 and 174	10
Government and Politics: United States	3, 4 or 5	PLS 211 and 212 or PLS 135	6 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 appropriate division 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 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 Division Dean for review. The petition is then forwarded to the Vice President of Instruction and Student Services for review. Recommendations are sent to Admissions and 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 are submitted to the Admissions and Records Office with a student's request to have the transcript evaluated for credit. The request is forwarded to the appropriate Counselor for evaluation. The Counselor's recommended evaluation is reviewed by the Division Dean and submitted to the Vice President of Instruction and Student Services for approval. Recommendations are sent to Admissions and Records to be added to the academic record and for official student notification.

D. Credit for Equated Occupational Experience, including experiential learning, 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 he/she 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 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 review. Recommendations are sent to Admissions and 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 Learning Lab in the Division of Library and Instructional Support Services at VHCC. The CLEP registration guide can be obtained from the Learning Lab or by writing to The College Board, Box 1822, Princeton, New Jersey 08541 or www.collegeboard.com/clep .

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 and Title of CLEP Exams**	**VHCC Courses**	**Equated VHCC Credits**
Biology	Subject (General Biology)	BIO 101 BIO 102	4 4
Chemistry	Subject (General Chemistry)	CHM 111 CHM 112	4 4
Economics	Subject (Prin. of Macro-economics) (Prin. of Micro-economics)	ECO 201 ECO 202	3 3
English	General (English Composition) with essay	ENG 111	3
	Subject (American Literature)	ENG 241 ENG 242	3 3
	Subject (English Literature	ENG 243 ENG 244	3 3
Government	Subject (Amer. Government)	PLS 135 PLS 211 PLS 212	3 3 3
History	Subject (Western Civilization)	HIS 101 HIS 102	3 3
Mathematics	Subject (Pre-Calculus I & II)	MTH 163 MTH 164	3 3
	(Calculus w/Elementary Functions)	MTH 173 MTH 174	3 3

Allow 2-3 weeks to receive your score report.

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 and Records office and forwarded to the appropriate Counselor for evaluation. The Counselor's recommended evaluation is reviewed by the Division Dean and submitted to the Vice-President of Instruction and Student Services for approval. Recommendations are sent to Admissions and 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. Credit may be granted as a means of achieving Advanced Standing for previous Non-collegiate Education and Training. Students may submit portfolios as a means of documenting competency in a given field. The Certified Professional Secretary (CPS) Examination is a professional, non-collegiate examination accepted for Advanced Standing in Business Technology programs.

The table below specifies the courses recommended for credit to students who present documented evidence of successfully passing the CPS exam and receiving the CPS designation. Students must first complete all other courses required in the Business Technology major (Accounting, Administrative Support Technology, Information Systems Technology, and Management) in which they are seeking an associate degree before these credits are posted on the transcript.

CPS	EXAMINATION	RECOMMENDED CREDITS
Part I.	Finance and Business Law	
	Business Law	3
	Macro Economics	3
	Accounting	4
Part II.	Office Systems and Administration	3
	Computer Applications	3
	Keyboarding	1
	Office Communications	3
	Office Procedures	3
Part III.	Management	
	Intro. to Management/Prin. of Management	3
	Human Relations	3
	Human Resource Management (regulation of employment included)	3

Up to 32 Total Credits are available

The above recommendation for the three-part CPS Examination is included in the ACE Guide to Educational Credit by Examination.

H. 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 after May 15, 2012 OR provide documentation of 1 year (2000 hours) of full-time 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 four nursing courses in the summer semester and then move directly into the second year of the program in the fall semester.

I. 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. Not credit will be awarded for

standard-level examinations. To receive credit for IB exams, students must have official results sent to the Admissions Office.

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.

II. **Administration of Advanced Standing**

The following criteria regulate Advanced Standing credit:

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

B. 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.

C. 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.

D. Prior experiential learning may be awarded for no more than 25% of the credit hours applied toward a degree. This policy specifically applies to Sections B, Credit by Examination and Section D, Credit for Equated Occupational Experience By policy, residency requirements dictate that students must complete 25% of their course work at the institution granting an Associate Degree.

E. 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. Students will receive a "W," and will not receive a refund. 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 (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).

STUDENT POLICIES & SERVICES

Alumni Association

The Virginia Highlands Alumni Association actively seeks participation of current students, former students, graduates, and friends of Virginia Highlands Community College. The purpose of the Association is to advance the growth and development of Virginia Highlands Community College; promote the personal, educational and professional relationship between the College and its alumni; and engender a spirit of shared interest and active involvement in community between the College, its alumni and the region served by the College. For more information or to apply for membership in the association, contact the Institutional Advancement Office or go to the VHCC alumni website at www.vhcc.edu.

Assemblies and Demonstrations on Campus

A. Unauthorized or Disorderly Assembly

All assemblies or demonstrations on campus must have prior approval from the office of the President of the College. Any student or college employee found guilty of participating in or inciting a riot or an unauthorized or disorderly assembly is subject to suspension or dismissal.

To prevent misunderstanding, the State Board has issued the following clarification:

1. When an assembly on campus of students and/or college employees not authorized by the College has been requested to disband by the President or other designated officer, those refusing to comply will be subject to immediate suspension and/or dismissal and legal action.
2. In the event that an assembly appears to be a demonstration related to grievances, those present should be advised that orderly procedures for the hearing of grievances are available and must be adhered to. College officials will not negotiate with such groups under conditions of duress, such as unauthorized occupation of college property.
3. Any unauthorized occupation of buildings and/or college property constitutes reason for immediate suspension and/or dismissal from the institution of students or college employees who may be involved. Furthermore, legal action will be brought against any student or college employee involved in acts on community college property that are prohibited by law.
4. Any person currently not a student or college employee is not allowed to participate in demonstrations on the campus.

B. Campus Demonstrations

Each campus organization participating in a demonstration must file three copies of a registration form in the Office of the President of the College at least 96 hours in advance of the demonstration.

The following rules and regulations regarding campus demonstration have been established for the Virginia Community College System:

3. Only organizations recognized by the College may sponsor demonstrations on college properties.
4. Picketing is not permitted inside buildings.
5. Outside picketing must not be carried on so as to interfere with entrance traffic or the normal flow of pedestrian and vehicular traffic.
6. Precise boundaries and number of those picketing will be set by agreement among the College administration, the organizations involved, and those in charge of any building specifically involved.
7. Lack of substantial compliance with these rules and regulations or failure to register will result in reconsideration by the College for non-complying organizations.

Bookstore

Books and general school supplies may be purchased from the Bookstore located in the OTC Building, Room 117. Visit the online VHCC Bookstore for textbook information at www.vhccbookstore.com.

Campus Police

VHCC has its own police officers, who are sworn officers with full police authority, including that of arrest. The main function of the campus police is to insure your rights, safety, and security while on campus. The Campus Police office is located in ISC 100B in the Student Center, 739-2448 and police officers carry cell phones (9-614-8282) to enhance communications.

A. Campus Safety

Students are expected to conduct themselves at all times in a manner conducive to the safety of all. Behavior considerate of the welfare of others will result in the maximum degree of safety on campus. Anyone recognizing a possible hazard, should notify campus police, a member of our buildings and grounds staff, or, if appropriate, File a Safety or Hazard Report online. All visitors must register with the receptionist before going to any part of the campus. For the safety of children, students and visitors should not leave them unattended in the buildings or on the campus for any reason. More information can be found on the Campus Police website.

B. Code Adam

For the safety of children, students and visitors should not leave them unattended in the buildings or on the campus for any reason. The 2003 session of the Virginia General Assembly passed legislation mandating the implementation of a Code Adam policy and procedure in every building owned or leased in the Commonwealth of Virginia. The purpose of Code Adam is to prevent and/or find a lost or missing child or young adult. VHCC participates in project Code Adam.

C. Medical Emergencies

The Office of Campus Police (ISC 100B) is designated as the official emergency first aid station. All serious accidents and/or illnesses should be reported immediately to this office or the office of the Vice President of Financial and Administrative Services (ADM 112).

When emergency medical attention is needed, the Campus Police Officer or person in charge will call 911 to request emergency medical services and/or transportation to Johnston Memorial Hospital.

Any students with a specific health condition or need are encouraged to inform their counselor and instructors as applicable, to the extent such information may be helpful in case of accident or illness on campus.

As a commuting institution, the College does not provide organized health services or infirmary facilities. It is expected that routine health care will continue to be a responsibility of the student and/or the family.

D. Parking

Ample parking space is provided for students attending Virginia Highlands Community College. Designated parking areas are provided for faculty, students, and visitors to the campus.

E. Student Right-To-Know

Institutions are required to provide to their current and any prospective student information on institutional policies regarding security procedures and campus law enforcement, as well as a description of programs designed to inform students about crime prevention. Statistical data concerning occurrence on campus of certain criminal offenses which have been reported to campus security authorities or local police agencies must also be disclosed. This information may be obtained from campus police or the Student Success Center. The VHCC Crime Report and other important information is located on the Campus Police web site. The Campus Police makes available information on Campus Security Statistics, Emergency Response Plan, Emergency Procedures, and the Code of Student Rights, Responsibilities and Conduct.

A. The college normally provides security, custodial services and administrative support when classes are in session. After hours, maintenance and watch personnel are generally available on a round-the-clock basis and available by campus radio or cell phone.

B. The campus police department is responsible for enforcing all college security regulations and cooperating with appropriate local, state, and federal authorities. Uniformed campus police officers are duly sworn police officers and have full authority to act within the scope of their law enforcement responsibilities.

C. The VHCC Crime Awareness and Campus Security policies will be distributed to all current students and employees annually in orientation and in-service programs. These programs will be structured to encourage students

and employees to be responsible for their own security and the security of others and will offer information concerning crime prevention. The programs are offered on a regular basis throughout the year.

D. The campus police office will conduct fire or weather related drills every semester. This will keep you informed where to go and what to do in the event of an emergency

Campus Organization Policies

VHCC and the State Board for Community Colleges recognizes and encourages honorary, scholastic, service organizations, and sports clubs that do not restrict membership based on race, color, gender, age, religion, disability, national origin, sexual orientation or other non-merit factors. The following regulations and procedures apply to all student activity programs:

a. The entire program of student activities shall be under college supervision.

b. There shall be a faculty or staff sponsor for each student organization.

c. All student activity funds shall be deposited with and expended through the college business office, subject to State Board policies, procedures, and regulations pertaining to such funds.

d. Each college, with the approval of its local board, shall adopt its own regulations and procedures to implement the above policy.

e. All student activity programs and recognized organizations must comply with the nondiscrimination policy, except as follows:

Any recognized religious or political student organization shall be authorized to limit certain activities only to members who are committed to furthering the mission of such organization. Such activities include ordering the organization's internal affairs, selecting the organization's leaders and members, defining the organization's doctrines, and resolving the organization's disputes.

Private clubs, private associations, social fraternities, and social sororities shall not be recognized by VHCC. VHCC active clubs on campus include: Choir, Christian Club, College Democrats, Destination Green, Phi Theta Kappa, Enactus, Nursing Club, Rotaract, VHCC Athletics Club, VHCC EARTH, Young Republicans, The Howl, and many others.

A. Guidelines

1. A group shall become an organization only after administrative review and formal recognition by the College President, Vice President of Instruction and Student Services, and the Student Affairs Committee. The process for establishing a club or organization is detailed in the Student Club/Organization Resource Manual, located on the VHCC website under Current Students>Student Life>Clubs and Organizations (please link towww.vhcc.edu/Modules/ShowDocument.aspx?documentid=13)

2. Organizations agree to abide by all policies and regulations of VHCC and the State Board for Community Colleges. When an organization is affiliated with an external body, such as a national society, a copy of that organization's constitution and bylaws shall be filed at the same time with the Student Success Center.

3. Formal recognition of an organization is granted or denied by the College President. Formal recognition of an organization implies neither approval nor disapproval of the stated aims, objectives, and policies of the organization.

4. All changes and amendments to an organization's constitution or bylaws including changes and amendments adopted by an affiliated external body must be submitted to the College President, Vice President of Instruction and Student Services, and the Student Affairs Committee. . All changes and amendments to the constitution or bylaws of an organization's extramural affiliate shall be submitted to the College President, Vice President of Instruction and Student Services, and the Student Affairs Committee within a reasonable time before their effective date. The president will approve or disapprove these changes.

5. A group or organization may use the College name as a whole, or as a part of, or in conjunction with its name only

with the express written permission of the College President.

6. College organizations may distribute or communicate information related to their purpose and aims through print and/or electronic media. All communication must be approved by the Student Success Center.

7. An organization engaging in illegal activities, either on or off campus, may have sanctions imposed, including admonition, probation, restitution, or withdrawal of College recognition.

8. College organizations may use college facilities for regular business meetings, social programs, and programs open to the public unless, in the opinion of the President, the planned program poses a serious threat to the continued well-being and safety of the College. College facilities are scheduled by the Office of the Vice President of Institutional Advancement.

B. Meeting Times
Activity hour is designed primarily for the purpose of: (1) providing time for the faculty, staff, administration, and students to implement the College's plan of governance; (2) enabling the College to develop and implement an effective program of extracurricular activities; and (3) establishing a time for various forms of communication (counseling, advising, etc.) that need to take place between and among faculty, staff, and students. College organizations are encouraged to schedule meetings during this time.

C. Solicitation of Funds and Fundraising
Solicitation of funds for the benefit of recognized charitable or civic organizations on campus without the prior written approval of the president of the college for each specific fund drive is prohibited. Anyone seeking approval for such an activity may receive further information on procedure through the Student Success Center. Other types of solicitation of funds are specifically prohibited.

D. Selling on Campus
The privilege of selling merchandise of any variety on campus is limited to the bookstore, recognized college organizations, and those having valid contracts as concessionaires. The president or his/her designee shall have the authority to specify or limit the place and times of such sales. Student organizations desiring to sell merchandise on campus should make their request to the Student Success Center.

Career Development

The Career Development office (ISC 101) is dedicated to equipping students with the tools, strategies, skills and knowledge to develop life-long career planning and job search skills. The Office of Career Development provides career counseling, presentations on career topics such as resume writing and job searching, career assessment tests, resume and cover letter reviews and an annual career fair in the fall.

The Office of Career Development provides information, resources, contacts, and services that will help students obtain employment and empower students to choose and attain personally rewarding careers. The Career Development office provides a listing of full- and part-time employment opportunities. Job notices are posted on the Virginia Highlands Community College Career Network (found on the Career Development website). Students who seek part-time work are encouraged to do so with a view to their future career plans. The experience gained will assist them in finding permanent and rewarding positions.

In addition to job listings, the Career Development website offers career resources, website links, and an opportunity for students to post their resume for employers to view. The website is located at Career Development.

The services of this office are available to all part-time and full-time students as well as alumni. The office is located off the Snack Bar in the ISC Building, Room 101.

Controlled Substances and Alcohol

This institution will abide by all applicable federal, state, and local laws pertaining to the illegal use and abuse of alcohol and controlled substances. The College has a comprehensive plan to provide educational programs and services to its students and staff to address substance abuse concerns.

A. Alcoholic Beverages at Social Functions

The State Board for Community Colleges has delegated to the VHCC College Board the responsibility for taking action on requests to serve alcohol at College social functions in view of local mores and in accordance with State

regulations (Code of Virginia Sections 4.1-100 and 4.1-200, and Virginia Department of Alcoholic Beverage Control – Special Event Licensure).

Within the framework established by the State Alcoholic Beverage Control Board, VHCC, under special conditions, may be permitted to obtain a one day banquet license to serve alcohol at college sponsored functions provided that no person under 21 years of age is possessing, dispensing or drinking alcoholic beverages.

The VHCC administration and the College Board must approve this type of activity before the Alcoholic Beverage Control Board is contacted.

Students who are 21 years of age or older may be permitted to consume alcoholic beverages at college-sponsored events that have previously been approved to serve alcohol.

B. Illegal Substance Policy

Students of VHCC shall not possess, sell, use, manufacture, give away or otherwise distribute illegal substances while on campus, attending a college sponsored off-campus event, or while serving as a representative of the college at off-campus meetings. Students who violate this policy shall have College charges processed against them in the normal manner of due process provided by VHCC rules. Further, students who violate this policy shall have committed a criminal offense, and VHCC shall notify the appropriate agency of the Commonwealth of Virginia, county or city government for investigation and, if warranted, prosecution.

C. Substance Abuse Program

VHCC has developed the following substance abuse program including drug and alcohol education and substance abuse counseling and referral services for students and employees.

A. **Drug and Alcohol Education**

1. Student Orientation: In orientation, VHCC representatives or other selected groups inform students of the issues related to substance abuse. Students are provided with prevention and treatment information.

2. Substance Abuse Materials: Print and/or electronic materials are available to inform students and employees of substance abuse issues.

3. Substance Abuse Programs: VHCC offers seminars and workshops dealing with substance abuse. These activities are open to the general public.

B. **Substance Abuse Counseling and Referral**

VHCC's Student Success Center maintains referral information on substance abuse treatment and rehabilitation services available in the community. Substance abuse inquiries and referrals are handled in a confidential manner.

Counseling Services

1. Academic Counseling

Counseling services are available to all currently enrolled and prospective students to assist in making important career, educational, and personal/social plans. As part of this assistance, appropriate tests, inventories, occupational and educational information, and information regarding employment are available. The Student Success Center is located in ISC 128, (276) 739-2438. Counselors are available evening hours by appointment. Should a problem require assistance above and beyond that which the counselor feels adequate to handle, the student will be referred to another appropriate professional resource person, either on campus or in the larger community.

2. Professional Counselors

As a service to students, the College maintains a staff of professional counselors and faculty advisors assigned to each instructional division and Project EXCEL. The counseling and advising programs function to assist the student in making intelligent career decisions and in setting educational and personal goals. It is the goal of the College to draw on the counseling staff to facilitate the College experience for students, especially first year students. As a part of this assistance, counselors have available appropriate tests, inventories, occupational and educational information, and information regarding financial assistance or employment.

Should a personal problem require assistance above and beyond that which the counselor feels adequate to handle, the

student will be referred to an appropriate professional resources person, either on campus or in the larger community.

Every full-time, curricular student will begin their education at VHCC by completing an online preview and a Transition Session. The Transition Session is an individual or group meeting with a counselor where placement scores are interpreted, an assessment of the student's goals and intentions are explored, an appropriate faculty advisor is assigned based on the student's plan of study and the first semester classes are scheduled.

3. Faculty Advising

A faculty member or other college representative will be designated as a student's advisor to provide educational guidance in the student's field of specialization. VHCC subscribes to the developmental advising model where faculty advisors assist students in clarifying personal and career goals, developing educational goals, and evaluating the progress toward established goals. The faculty advisor will utilize the resources of the College and refer students to the appropriate academic support services. The advising relationship is a decision making process in which the sharing of information between student and advisor promotes responsible and appropriate choices and facilitates a successful academic experience.

4. Recruitment and High School Articulation

The College cooperates with the high schools in the region to provide pre-college counseling to those students planning to attend the community college. Students in area high schools are kept informed of the offerings of the College. In addition, college officials work closely with individuals and organizations in the community to determine the educational needs and interests of citizens in the region who are not currently attending high school. College representatives are available Monday through Thursday from 8:30 a.m. until 6:00 p.m. and Friday from 8:30 a.m. until 5 p.m. to provide assistance and respond to requests from individuals seeking information about admission to the College.

Cultural Events - Arts Array

The Arts Array cultural program at VHCC is a comprehensive performance and lecture series provided for the students and staff of the College and made available to the general public. The series includes musical and drama performances and lectures on topics of academic and regional interest held at a variety of venues. In addition, weekly foreign and independent American films are shown at the Abingdon Cinemall.

Debt Collection

In the instance that a student does not pay for any expense incurred at VHCC in a timely manner and in accordance with college policy, a letter is sent from the business office to each student stating that they will be given thirty (30) days after the postmark of the letter to appeal.

All delinquent debt owed to Virginia Highlands Community College will be logged into Virginia's Department of Taxation Set-Off Debt Program. The debt then would be collected from tax refunds, motor vehicle refunds, and other payments made to the debtor by the Commonwealth of Virginia.

Email Accounts

Electronic mail or "email" is an official method of communicating at the Virginia Community College System (VCCS). All official email communication is distributed to VCCS email accounts only. Students are encouraged to regularly check their campus email accounts. For assistance contact the Help Desk at (276) 739-2500 or helpdesk@vhcc.edu.

Evening Administrative Services

The administrative functions of the College shift to the Evening Services Office, ISC Bldg. Room 207, at 4:30 p.m. and remain available until 6:00 p.m., Monday - Thursday, during the fall and spring semesters.

The primary role of Evening Services is to provide students, faculty and patrons on the VHCC campus during the evening hours with assistance that is parallel to that available during the daytime hours. Some of the services available include registration, add/drops, preregistration, counseling, tuition payment, parking permits and campus mail.

Food Service

Food and beverages are available through over-the counter sales and vending machines located in the Wolve's Den. This area is also for relaxation and enjoyment between classes, etc., and your cooperation is solicited in keeping this area neat and clean.

A television is provided for viewing pleasure. The college reserves the right to lower the volume of the television or to halt its use during scheduled activities which may be adversely affected by volume.

The Snack Bar concessions are provided by an independent vendor under contract with the College. The Vice President of Financial and Administrative Services is responsible for administering the contract.

Intramurals and Club Sports

VHCC supports the development of intramural programs or sports clubs on campus and/or off campus in community facilities. These programs will be designed to promote the physical well being of the individual student and the development of recreational skills. Competition of intramural teams, including "all star" teams, in civic leagues and competition between intramural or sports club teams of other institutions is authorized with the approval of the VHCC College Board providing that all direct expenses, including transportation, are paid from non-state funds.

Looking for a little friendly competition? Intramural sports encourages participation in a competitive, yet fun, sports program. You need not be a star athlete to participate! Intramural Sports can include Flag Football, Pool, Ultimate Frisbee, Softball, Basketball, Volleyball, etc. Play for the fun of it and experience for yourself why intramural sports is where the action is.

VHCC also has a competitive traveling Men's Basketball Team…the VHCC Wolves! Did you play high school sports? Have that competitive edge? Club Sports might be the place for you! The VHCC Wolves' Club Sports teams bridge the gap between intramurals and varsity athletics, allowing you to enjoy extramural competition without the pressures of highly-structured varsity sports. The Club Sports teams will compete against other VCCS and local college teams. Student Success Center office contacts: Michael McBride or Tony Fuller.

Intellectual Property Materials

Intellectual property includes but is not limited to any material defined within one or more of the following categories: a potentially patentable machine, article of manufacture, composition of matter, process, or improvement of any of these; an issued patent; a legal right that inheres in a patent; or anything that is copyrightable. The VCCS claims an ownership interest in any intellectual property produced by a VCCS student who is a college employee. If students are paid as student assistants, they are employees. Materials produced by a student as part of course requirements making only incidental use of college resources belong to the student, absent any agreement to the contrary. Further information is available in the VHCC Faculty and Staff Manual, Section 4.7.

Library and Instructional Services

The Division of Library and Instructional Services is made up of the Library, the Learning Laboratory, the Audio Visual Department, Academic Computing and Distance Education. The purpose of the division is to facilitate learning by supporting and enriching the curricula of the College; to teach electronic and traditional research skills while providing technological access to resources both remote and on-site; to assist with individualized testing and assessment services; to provide a study center for students; to provide audio visual materials and services; and to provide computer resources in support of instruction, administration, and public service.

The Library and Learning Laboratory are open day and evening hours throughout the week to provide services to faculty and students. Additional weekend hours are provided when classes are in session. Specific schedules of the hours are available on the Library/Learning Lab's home page (www.vhcc.edu/library), on bookmarks provided at the circulation desk, and on the sign outside the Library entrance. When classes are not in session the hours for both the Library and Learning Lab are generally 8:00 a.m. until 5:00 p.m. Monday through Friday; exceptions to this schedule are noted on the sign and Library's web page.

1. The Library

The purpose of the Library is to provide reference services and an organized, accessible, comprehensive collection of materials that support and enrich the curricula of the College in addition to providing basic reference sources for students, faculty, and community patrons.

The Virginia Highlands Community College Library houses over 33,857 volumes in the Library and Learning Laboratory. Over

200 current periodicals as well as microfilm holdings of back periodicals are available for student use. The Library also has a wide variety of newspapers available for circulation. Electronic access for students and faculty to research materials is available through the Virtual Library of Virginia (VIVA) and the VHCC Library's homepage. These resources provide bibliographic and full-text resources on a wide variety of topics.

In addition to the reference, circulation, and study areas, a lounge area is provided.

The staff of the Library is available to assist students. The Library is open free of charge to any community member. Community use is encouraged and can be obtained by registering at the circulation desk.

A Library user identification card is available to students as they register and to community patrons at the circulation desk of the Library. All users are required to have this card and have it revalidated regularly. There is a replacement fee for lost or stolen cards.

2. Fines

The VHCC library does not charge fines for overdue items. The library sends two notices of the overdue status for items checked out on a library account prior to sending a *Lost Item Bill*. The *Lost Item Bill* states the replacement cost of the overdue item(s). This amount is billed to the students account, and the official records and transcripts of the student are blocked until the items are returned to the library or the student's account is paid in full.

The library posts a common due date for all library materials at the end of each term. All items circulated during the last two weeks of the term will be due by the posted date. Any items not returned by the posted due date will be processed with a *Lost Item Bill* and official records and transcripts will be blocked until the items are returned to the library or the student's account is paid in full.

Fines for instructor materials placed on Reserve in the library will be set by the instructor. The library will send two overdue notices with any attached fines to the student prior to the *Lost Item Bill* stating the replacement cost of the overdue Reserve item(s) and the official records and transcripts of the student will be blocked until the Reserve material is returned and fines are paid or the student's account is paid in full.

3. The Learning Center

The Learning Center is made up of the Learning Lab and the Tutoring Center. The purpose of the Learning Center is to provide a computer equipped study center, a college-wide helpdesk and a tutoring center to help meet the educational needs of faculty, students, and the community at large.

The Learning Lab services include individualized enrichment studies, computer assisted instruction, study services for persons with disabilities and an open lab for general and specific course study. Audio visual equipment is also available in the Learning Lab. Other services are addressed on an individual basis.

The Tutoring Center provides tutorial services to VHCC students in a variety of courses. The goal of the tutoring center is to accommodate requests for tutoring in the general education core curriculum. Tutoring is also regularly available for developmental courses. Tutoring provides remedial and supplemental instruction to students who are earning a C or below in a specific class. Tutoring is provided by appointment only and based on the student's flexibility in his or her schedule and the tutoring staff's availability.

Information on using the Learning Center can be obtained from Learning Center personnel. The operating hours of the Learning Center follow the same schedule as the VHCC Library.

4. Audio-Visual Services

The purpose of Audio Visual Services is to provide for the production of up-to-date instructional material for faculty and students and to assist them in producing their own materials.

The staff provides expertise in photography, video and audio production, graphics, and equipment operation in support of the educational program. In addition, Audio Visual supports appropriate curriculum-related student projects and the public information function of the administration for college activities, recruitment, and publicity.

5. Academic Computing, Instructional Technology, and Distance Education (e-Learning)

The purpose of academic computing and instructional technology is to provide instructional hardware, software, training, and classroom assistance.

The academic computing and instructional technology system is comprised of nine instructional labs, one faculty lab, one general learning lab, faculty and staff offices, and two video conferencing classrooms. In addition several regular classrooms are equipped with computers and LCD projector that instructors use for delivering content. These computers, as well as all other computers on campus, are connected through a Local Area Network (LAN). The LAN also supports the automated library system providing remote access to local, state, and national comprehensive collections of materials.

Distance education or e-Learning describes an instructional situation where the student and instructor are separated by either time, place or both time and place and technology provides a channel of communication. VHCC offers high quality distance education courses to provide equal access and flexibility to both traditional and nontraditional students and to expand the number and type of course offerings. Students study and learn at times and places convenient to their schedules and use e-mail, computer conferencing, chat sessions, electronic bulletin boards, telephone, U. S. mail and two-way interactive classrooms to maintain vital links between other students and their instructors. An ever-increasing array of distance education courses is available to students.

VHCC uses cutting edge technologies in providing distance education offerings to our students and community. When students desire maximum scheduling flexibility, VHCC offers anywhere, anytime courses online using the Bb course management system. For synchronous, two-way, interactive courses and conferencing, VHCC participates in the Southwest Virginia Education and Training Network (SVETN) and the Virginia Distance Education Network (VDEN). These networks enable VHCC to exchange classes with public schools and colleges within our service region as well as with any of the twenty-three colleges that comprise the Virginia Community College System.

VHCC provides educational support services such as library and reserve materials, computer software and support, tutoring and other student services to help insure that distance education students get all the assistance that they may need.

For more information concerning distance education courses, visit our website at http://www/vhcc.edu/distance/ or contact Charles Boling at 276-739-2514.

6. Computer Ethics Guidelines

The VHCC community abides by the policy set forth in the VCCS Computer Ethics Guidelines which are posted in all computer labs and public access terminals. Therefore, ethical behavior must be exhibited when using VHCC computing resources.

Lost and Found

VHCC maintains a Lost and Found station at the campus switchboard/reception area. Students should take any items found on campus to the receptionist and check there for any items that have been lost on campus. The receptionist is located in the lobby of the Administration Building (ADM), (276) 739-2523.

Items remaining unclaimed for more than 90 days are subject to surplus or being sold at public auction, after mail notice of the sale is made to the last known address of any person the college determines reasonably to be the owner.

Open Computer Laboratories

Computer labs are located in rooms 222, 223, 224, 233, and 234 of the Learning Resource Center and are available for general use when classes are not in session. Computers also are available for student use in the Library and Tutoring Center. Students must abide by the policy set forth in the VCCS Computer Ethics Guidelines which are posted in all computer labs and public access terminals. Therefore, ethical behavior must be exhibited when using VHCC computing resources.

Service Learning

Service Learning is an instructional process that integrates community service with academic learning. It permits students to perform service in the community (through various local agencies) in areas related to their course objectives.

Service-Learning is related to but does not include cooperative education, practicum or internship programs. If you are interested in a service-learning activity as part of a course you are enrolled in, please contact the Career Development office.

Sexual Misconduct Policy

Virginia Highlands Community College and the Virginia Community College System (VCCS) will not tolerate sexual misconduct in any form. Sexual misconduct is a flagrant violation of the values and behavioral expectations of a college community. All reported violations within the jurisdiction of the College, including sexual assault, sexual harassment, and sexual violence, will be investigated and, as warranted, will be resolved through appropriate college disciplinary processes. Civil and criminal proceedings may also be used as appropriate in accordance with applicable state and federal laws. The

VCCS Policy on Sexual Misconduct shall apply to all employees and students of Virginia Highlands Community College. It shall be administered in agreement with the state laws relating to sexual misconduct.

An educational institution is a community of trust whose very existence depends on the recognition of each individual's importance and value. This trust creates the freedom for each individual to live, think, act, and speak without fear of physical harm. Sexual misconduct shatters the bond of trust within a college community. If you believe that a member of the College community has violated the VCCS Policy on Sexual Misconduct, we encourage you to follow the reporting procedures outlined below.

The purpose of this policy is to provide all Virginia Highlands Community College faculty, staff and students with a method for addressing complaints of sexual misconduct. A further purpose is to communicate the intent of the College to create a campus free of such behavior.

Sexual Assault

Sexual assault is defined as sexual intercourse without consent, including rape (whether by acquaintance or stranger), sodomy, or other forms of sexual penetration. To constitute lack of consent, the acts must be committed either by force, threat of force, intimidation, or through use of victim's mental helplessness of which the accused should have been aware. Mental helplessness includes incapacitation by alcohol or other drugs. Sexual assault also includes intentionally touching, either directly or through clothing, of the victim's genitals, breasts, thighs, or buttocks without the victim's consent, as well as touching or fondling of the accused by the victim when the victim is forced to do so against his or her will.

Verbal misconduct, without accompanying physical contact as described above, is not defined as sexual assault. Verbal misconduct may constitute sexual harassment, which is also prohibited under VCCS Policy and is specifically addressed in the following section.

Sexual Harassment

a. Sexual harassment is defined as unwelcome sexual advances, requests for sexual favors, or other verbal or physical conduct or written communication of a sexual nature which is intimidating, hostile, or offensive. Sexual harassment shall be considered to have occurred when:
   1. Accepting or tolerating such conduct is made a term or condition of a student's status or an individual's employment either explicitly or implicitly;
   2. Accepting or rejecting such conduct is used as the basis for academic or employment decisions affecting the student or employee; or
   3. Such conduct creates an intimidating, hostile, or objectively offensive working or learning environment that substantially interferes with an employee's work performance or a student's academic performance.

b. Sexual harassment is contrary to the values of Virginia Highlands Community College. It shall not be tolerated in any form, as outlined in Part 1604.11, Discrimination Because of Sexual Harassment of Title VII, Section 703, or the Civil Rights Act of 1964, as amended. All reported instances of sexual harassment shall be investigated.

Sexual Violence

Sexual violence is defined as physical sexual acts perpetrated against a person's will or where a person is incapable of giving consent due to the victim's use of drugs or alcohol. An individual also may be unable to give consent due to intellectual or other disability. A number of different acts fall into the category of sexual violence including rape, sexual assault, sexual battery, and sexual coercion. All such acts of sexual violence are forms of sexual harassment covered under Title IX.

Rights of the Complainant and the Accused

The College will ensure that the rights of both the complainant and accused are protected throughout the processes of investigating and mitigating charges of sexual misconduct. Specifically, all persons involved in investigations shall safeguard the identity of the complainant and the accused outside of the confidential proceedings of the process. At no time will the past sexual history of the complainant become a part of campus proceedings. These stated rights of the accused and the complainant shall be reviewed at the beginning of each meeting, discussion, or hearing of a sexual misconduct charge.

Reporting Procedures

Step 1

Students who believe that they have been subjected to sexual assault, sexual harassment, or sexual violence should report their complaint as soon as possible after the event occurs. Reports of sexual misconduct may be made to Karen Cheers, Title IX Coordinator and Director of Admissions, Records and Financial Aid located on the campus of VHCC in ISC 128-B, 276-739-2490 / kcheers@vhcc.edu or to Hara Charlier, Vice President of Instruction and Student Services in Administration Building 109-B, 276-739-2429 / hcharlier@vhcc.edu

College employees may make report to their immediate supervisor, Laura McClellan, Human Resources Director at 276-735-2425 / lmcclellan@vhcc.edu, or Karen Cheers, Title IX Coordinator and Director of Admissions, Records and Financial Aid located on the campus of VHCC in ISC 128-B, 276-739-2490 / kcheers@vhcc.edu or Beth Page, VHCC Affirmative Action/Equal Employment Opportunity Officer (AA/EEO) and Coordinator of Project Excel located in ISC 120, 276-739-2561 / bpage@vhcc.edu

Complainants have three options. They may pursue the College informal or formal procedure, or they may initiate a legal proceeding. Collegial and legal proceedings are not mutually exclusive, and may be used simultaneously. The complainant will be advised of all options available to her or him and of the statute of limitations for each option.

Once a complaint is received, an informal investigation of the reported incident will be made. If the investigator determines that further College action is necessary, a written statement summarizing the facts and circumstances surrounding the allegation will be prepared by both the complainant and the informal investigator. If the complainant is unwilling to make a written

statement, no further action will ordinarily be taken. However, it is the responsibility of the investigator to inform the Vice President of Instruction and Student Services of the situation. The Vice President of Instruction and Student Services may decide to take other appropriate action. Also, the investigator should make every effort to provide needed counseling and referral for the complainant.

After the Vice President of Instruction and Student Services has received the report from the informal investigator, he/she will determine whether the appointment of a formal Investigative Committee is necessary, and step 2 will proceed. In cases in which the complainant or the accused is an employee of the College, the Vice President of Instruction and Student Services will notify the Director of Human Resources. In cases which result in an arrest by local police authorities, and/or if there is potential danger to any student or employee, the accused, even if released on bond, may temporarily be barred from campus, all classes, and/or employment suspended until the formal investigation is completed by an appointed committee.

Step 2

An Investigative Committee will be appointed by the Vice President of Instruction and Student Services. The committee shall conduct a formal investigation and make a written recommendation of the incident to the Vice President of Instruction and Student Services within one week. The committee shall consist of two faculty, two administrative, two classified staff, and one additional appointee to serve as chairperson. The committee shall have the authority to interview the complainant, witnesses and the accused (if willing to testify) to make a determination of facts surrounding the allegation. Additionally, the committee may view items of physical evidence and give both evidence and testimony weight according to the relevance and credibility each may possess. This committee, before acting, shall review the rights of the complainant and the accused. After hearing all testimony and receiving all evidence, the committee shall make one of the following determinations about the allegation(s) against the accused:

1. The committee finds insufficient evidence to support a violation of school/ system policies, rules and regulations by any person involved.

2. The committee finds sufficient evidence that the allegations are true and that violations of school/system policies, rules and regulations occurred.

3. The committee finds that the allegations are false or baseless.

The findings of the committee will be submitted in writing to the Vice President of Instruction and Student Services office. Each specific allegation will be addressed along with a statement of “findings of fact” and a recommendation for disposition of the allegation. All committee members will review and sign the official recommendation sent to the Vice President of Instruction and Student Services’ office. After receiving the written recommendations of the committee, the Vice President of Instruction and Student Services shall make a decision as to disciplinary actions, notifying the student in writing of the decision. If a student is suspended or dismissed from the College by the Vice President of Instruction and Student Services, the reason for dismissal will be noted in the student file. If the complainant of the accused is an employee of the College, The Vice President of Instruction and Student Services will notify the Director of Human Resources of the committee’s findings.

Appeal Process

If the complainant does not agree with the decision of the Investigative Committee and the Vice President of Instruction and Student Services, she or he may appeal that decision using the Appeal Process. In order to proceed to the Appeal Process, the complainant must file a written appeal with the President of the College within ten working days after receipt of the decision of the College official. A copy of this appeal shall be sent to the other party by the President. The President of the College shall, within ten working days of receipt of this appeal, appoint an Appeals Committee. The committee shall convene within 20 working days to hear evidence and facts related to the charges of sexual misconduct. The Appeal Process Committee shall be appointed by the President with sensitivity to gender and racial composition. The committee will be chaired by the College’s Affirmative Action and Equal Employment Opportunity Officer or designee. It is the responsibility of the chairperson to guide the committee to a position of general agreement. The members of the committee shall report through different chains of command than the accused.

The chair of the committee shall notify the complainant and the respondent in writing of the time and place for the hearing. The committee may receive evidence and facts from both the complainant and the respondent. It is the responsibility of the chairperson to review the rights of the complainant and the accused. Within ten working days from the conclusion of the hearing, the chairperson shall notify the College’s President, in writing, of the committee’s findings and recommendation(s). The President will consider the findings of both the Investigative Committee and the Appeals Committee and the supervisor. The President shall render a decision in writing within ten working days of receipt of the committee’s findings and recommendations. The President’s decision will be communicated to the accused and the complainant, with copies to the accused’s supervisor and the Vice President of Instruction and Student Services, if a student is the accused. After the President’s decision, the record and related documentation will be maintained by the College’s EEO officer and the personnel office.

The Director of Human Resources and the Title IX Coordinator will provide periodic training programs for institutional personnel to ensure that the legal concepts associated with sexual misconduct are understood, that sexual misconduct are

prevented, that instances of sexual misconduct are promptly investigated and remediated, and that support services are available for complainants.

Smoking Policy

Virginia Highlands Community College is subject to and enforces provisions of the "Virginia Indoor Clean Air Act."

Smoking is defined as any product or apparatus (including an electronic or e-cigarette) that emits smoke/vapor or is designed to simulate smoking cigarettes or any other tobacco product. Smoking is allowed 25 feet from the closest building entrance. The use of tobacco products is not permitted inside any Virginia Highlands Community College building or classrooms. The college will continue to offer prevention programs for all drugs to promote healthy living.

Snow Schedule and Emergency College Closings

In the event of inclement weather or another emergency, it may be necessary to operate on a delayed schedule or to close. The following schedule has been adopted for operating the College's daytime programs on a delayed schedule. Information about College delays/closings will be available through the local media, on the College's web site (www.vhcc.edu), and on the College's main telephone line at (276) 739-2400. Each student ultimately must decide if it is possible and/or safe to travel to campus. The College will make every attempt to accommodate students who experience legitimate difficulties getting to campus or meeting the altered course schedule due to conflicts.

Monday & Wednesday	
Regular Schedule	Snow Schedule
8:00 - 9:15 am	10:00 – 11:00 am
9:30 - 10:45 am	11:05-12:05 pm
11:00 - 12:15 pm	12:10 - 1:10 pm
12:30 - 1:45 pm	1:15 - 2:15 pm
2:00 - 3:15 pm	2:20 - 3:20 pm
3:30 - 4:45 pm	3:40 - 4:45 pm
Tuesday & Thursday	
Regular Schedule	Snow Schedule
8:00 - 9:15 am	10:00 – 11:00 am
9:30 - 10:45 am	11:05-12:05 pm
11:00 - 12:15 pm	12:10 - 1:10 pm
12:30 - 1:45 pm	1:15 - 2:15 pm
Activity Period	2:15 - 3:00 pm
3:00 – 4:15 pm	3:00 - 4:15 pm
Friday	
Regular Schedule	Snow Schedule
8:00 -10:45 am	10:00 - 12:05 pm
11:00 - 1:45 pm	12:10 - 2:15 pm
2:00 - 4:45 pm	2:20 - 4:25 pm

Evening classes meet at regularly schedule times.

The following media outlets are notified when the VHCC operating schedule is altered because of inclement weather or an emergency situation.

STATION	CITY
WXBQ (980 AM/96.9 FM)	BRISTOL
WZAP (690 AM)	BRISTOL
WMEV (94 FM)	MARION
WOLD ((102.5 FM)	MARION
WJCW (910 AM)	JOHNSON CITY
WCYB-TV (Channel 5)	BRISTOL
WJHL-TV (Channel 11)	JOHNSON CITY
WKPT-TV(Channel 19)	KINGSPORT

Student Activities

Student activities are designed to supplement the instructional program by providing a variety of meaningful, educational, cultural, social and civic experiences for all members of the campus community. The student activities program may include the following activities: professional entertainment, musical programs, cookouts, dances, stage plays, movies, intramural athletics, Student Government Association (SGA), clubs and organizations and special interest groups as approved by the College. The Student Success Center has a monthly activities calendar to keep students informed of current activities. The College encourages student participation in extracurricular activities on campus.

A student activity fee is required of all students registered for credit courses. The fee subsidizes student programs, intramurals, and cultural events, including the Arts Array Series. VHCC students are admitted free to these events with a valid Student ID.

VHCC and the State Board for Community Colleges recognizes and encourages honorary, scholastic, service organizations, and sports clubs that do not restrict membership based on race, color, gender, age, religion, disability, national origin, sexual orientation or other non-merit factors, with the following exception:

> Any recognized religious or political student organization shall be authorized to limit certain activities only to members who are committed to furthering the mission of such organization. Such activities include ordering the organization's internal affairs, selecting the organization's leaders and members, defining the organization's doctrines, and resolving the organization's disputes.

The following regulations and procedures apply to all student activity programs:

1. All student activities are under college supervision.

2. A full-time faculty or staff sponsor is designated for each student organization.

3. All student activity funds are deposited with and expended through the College Business Office, subject to State Board policies, procedures, and regulations pertaining to such funds.

4. VHCC, with the approval of its local board, has developed its own regulations and procedures regarding the student activity program.

Student Communications

A student, group, or organization of the college shall not distribute material on campus without prior approval of the Vice President of Instruction and Student Services. The Vice President will make a determination within one week of receipt of all such material. If approval is denied on the basis of the content of the material, direct appeal may be made to the president of the college. The President will render a decision within one week of receipt of the material. Editorial freedom of student communication entails a corollary obligation under the canons of responsible journalism and applicable regulations of the Federal Communications Commission. All student communications shall explicitly state an editorial policy to the effect that the opinions expressed are not necessarily those of the college or its student body.

Student Conduct

Each individual is considered a responsible adult, and it is assumed that students will maintain standards of conduct appropriate to membership in the college community, including all college related functions, both on and off campus. Emphasis is placed on standards of student conduct rather than on limits or restrictions. Guidelines and regulations governing student conduct are developed by representatives of the students, faculty, staff, and administration.

VHCC refrains from imposing a rigid code of discipline but reserves the right to take disciplinary action compatible with its own best interests when it is clearly necessary.

VHCC guarantees students the privilege of exercising his/her rights of citizenship under the Constitution of the United States without fear of prejudice. Special care is taken to assure due process and to spell out defined routes of appeal when students feel their rights have been violated.

VHCC is part of the Virginia Community College System and adheres to the standards set forth for the System. Student rights and responsibilities are designed to clarify what rights students may expect as a member of the student body and the responsibilities and obligations placed upon them.

VHCC provides an environment conducive to learning. VHCC establishes standards of conduct expected of all students. Any student who has allegedly violated the code of conduct is afforded due process. Should the student's conduct be judged to represent a danger to others, the College will immediately take appropriate action.

The President is responsible for the entire administration of the College, subject to the control of the Chancellor of the Virginia Community College System and the State Board for Community Colleges. It is his/her duty to administer the laws of the Commonwealth of Virginia which may be applicable on the campus, as well as the policies, rules, and regulations of the State Board for Community Colleges. Any authority or responsibility or duty granted to or imposed upon the President may be delegated to others on the College faculty or staff. The President or his/her designee may take whatever legal or institutional action is necessary under this authority.

1. Forms of Student Misconduct Subject to Disciplinary Action

A. All forms of dishonesty, including cheating, plagiarism, knowingly furnishing false information to the College, and the forgery, alteration, or use of College documents or instruments of identification with the intent to defraud.
    1. Plagiarism is the appropriation of passages, either word for word or in substance, from the writings of another and the incorporation of those passages as one's own in written work offered for credit. VHCC assumes that the written work offered for credit is the student's own unless proper credit is given the original author by the use of quotation marks and footnotes or other explanatory inserts.
    2. Collaboration with another person in the preparation or editing of notes, themes, reports, or other written work offered for credit is prohibited unless such collaboration has been specifically approved in advance by the instructor. Examples of collaboration include extensive use of another's ideas for preparing a creative assignment and receiving undue assistance in the preparation or editing of written materials.
    3. Giving or receiving, offering or soliciting information on any quiz, test, or examination is prohibited; this includes the following:

        a) Copying from another student's document/work and/or submitting a purchased document/work.
        b) Use of prepared materials during the examination
        c) Collaboration with another student during the examination
        d) Buying, selling, stealing, soliciting, or transmitting the contents of an examination
        e) Substituting for another person during an examination or allowing such a substitution for one's self.
        f) Bribery of any person to obtain examination information.

B. Disruption or obstruction of teaching, research, administration, disciplinary proceedings, or other College activities.
C. Physical and/or psychological abuse, or the threat of such abuse, of any person on College premises or at College activities.
D. Participating in or inciting a riot or an unauthorized disorderly assembly.
E. Seizing, holding, commandeering, or damaging any property or facilities of the College, or threatening to do so, or refusing to depart from any property or facilities of the College upon direction by College officials or other person authorized by the President.
F. Use of alcoholic beverages on campus, or at any college function, including the purchase, consumption, possession, or sale of such items except where specifically authorized within the regulations of the College.
G. Possessing, using, selling, or distributing any type of illegal drugs on campus or at any college function.
H. Gambling or holding an unauthorized raffle or lottery on campus or at any College function.
I. Violating any College policy, including, but not limited to the Violence Prevention Policy and the Weapons Regulation.
J. Physically detaining or restraining any other person or removing a person, against their will, from any place where he/she is authorized to remain, or in any way obstructing the free movement of persons or vehicles on College premises or at College activities.
K. Littering, defacing, destroying, or damaging property of the College or property under its jurisdiction or removing or using such property without proper authorization.
L. Violating any local, state, or federal laws.
M. Violating any rule or regulation not contained within the official College publications but announced as administrative policy by the President or his/her designee.
N. Willfully encouraging others to commit any of the acts which have been herein prohibited.

2. Sanctions

The following sanctions may be imposed:

A. Admonition: An oral or written statement to a student that he/she is violating or have violated College rules and may be subject to more severe disciplinary action.
B. Disciplinary Probation: Exclusion from participation in extracurricular activities of the College, including the holding of any student office, for a period of time not exceeding one academic year.
C. Restitution: Required reimbursement for damage to or misappropriation of property. This may take the form of appropriate services or other compensation.
D. Suspension: Exclusion from attending the College as a student for a definite period of time not to exceed one academic year.
E. Dismissal: Termination of student status for an indefinite period. The conditions of readmission, if any, will be stated in the letter of dismissal.
F. Interim Suspension: If, in the opinion of the Vice President of Instruction and Student Services the continued presence of any student on the campus may reasonably pose a threat to, or interfere with, the College's mission and/or the rights of others, a student may be suspended from the College pending the right to a hearing. The Vice President shall first make a reasonable effort to advise the student orally of the reasons for the suspension, and give the student opportunity for explanation or rebuttal.

   The informal opportunity does not give the student the right to present witnesses, to cross examine adverse witnesses, or to require the presence of counsel. As soon as possible after the suspension, the student will have the right to call for a hearing. At such hearing, the affected student shall have all the rights described under section 6.11.5 of the VHCC Faculty/Staff Manual.

3. Disciplinary Procedures

The Vice President of Instruction and Student Services is responsible for the execution of disciplinary procedures within the College.

Any academic or administrative official, faculty member, or student may file a complaint with the Vice President of Instruction and Student Services against any student for alleged violations of any college rule or regulation.

The Vice President of Instruction and Student Services may make a preliminary investigation to determine if the charges can be disposed of informally by mutual consent without the initiation of disciplinary proceedings. Traffic and parking complaints are made to the Vice President of Financial and Administrative Services.

In order to provide an orderly procedure for the handling of disciplinary cases in accordance with due process, VHCC has established procedural rules and regulations governing disciplinary action, including the following:

A. All charges not disposed of informally shall be presented to the accused student in written form, and the student shall respond in writing within seven (7) calendar days. The time for such response may be extended by mutual agreement of the student and the Vice President of Instruction and Student Services.
B. An admonition is an action which may be administered by the Vice President of Instruction and Student Services without any further approval. All cases, in which probation, restitution, suspension, or dismissal from the college is sought, shall be referred by the Vice President of Instruction and Student Services to the Student Affairs Committee for a hearing at the written request of the student. A written request for a hearing must be received with seven (7) calendar days after the student is contacted.
C. A calendar of the hearings in a disciplinary proceeding shall be fixed by the Vice President of Instruction and Student Services after consultation with the parties involved. The College shall have discretion to alter the calendar for good cause. A time shall be set for a hearing which will not be less than seven or more than fifteen calendar days after the student's written response.
D. The student will have the right to have present at the hearing legal counsel at his/her own expense, other advisors, parents, and relatives, any of whom may advise the student.
E. he student shall have the right at the hearing to present and cross-examine witnesses and the right to present and examine documentary evidence.
F. A transcript of the hearing shall be prepared by the College; the student shall have a right to a copy of the transcript of the proceedings furnished at his/her own expense.
G. Written decisions will be given by the Student Affairs Committee no later than ten (l0) calendar days following such hearings. Any such decision which is adverse to the interests of the student will contain notification of the appeal procedures.
H. The student or the Vice President of Instruction and Student Services may appeal any decision by submitting a written appeal to the President within ten (l0) calendar days of receipt of the decision; any such written appeal will include the grounds for the appeal.
I. The President will review the case on the basis of the record of the hearing and any evidence submitted by the student that was not previously available at the time of the hearing. The decision of the President is final.

Student Government Association

The Student Government Association (SGA) serves as a vital link of communication between students, administration, and faculty. It works to provide the leadership necessary for the responsibility of initiating new policies, services, and activities for the benefit of the students.

Student Government elections are held each fall and spring semesters. Executive officers (president, vice president, secretary, historian, and publicity) are elected each spring semester for the following academic year. Four Senators are elected each fall semester for that academic year to support the executive officers.

The Student Government extends a welcome to any student who is interested in running for SGA office, or becoming involved in student government.

Student Grievance Procedures

The purpose of the student grievance procedure is to provide an equitable and orderly process to resolve grievances at Virginia Highlands Community College. This grievance procedure includes, but is not limited to, concerns and disputes involving application of a policy or procedure; grades/academic record; and discrimination on the basis of race, sex, disability or sexual harassment. The Vice President of Instruction and Student Services is ultimately responsible for overseeing the execution of student grievance procedures.

Recognizing that grievances should be raised and settled promptly, a grievance shall be raised within twenty (20) calendar days following either the event giving rise to the grievance or within twenty (20) calendar days of the time when the student reasonably should have gained knowledge of its occurrence.

Step 1: A student who is experiencing dissatisfaction with any academic or administrative official, faculty member, or student concerning application of the provisions of the rules, policies, procedures, and regulations of the College must first attempt to resolve the issue informally by discussing the complaint with the person with whom the problem exists.
Step 2: If the issue cannot be resolved informally, the student may initiate a formal written grievance with the immediate supervisor of the person causing the grievance. The immediate supervisor may make a preliminary investigation to determine if the concerns can be resolved by mutual consent. If the issue cannot be resolved, the immediate supervisor will conduct an investigation and render a written decision within ten (10) calendar days.

Step 3: If the decision of the immediate supervisor is not satisfactory, the student may file a written appeal within ten (10) calendar days with the Vice President of Instruction and Student Services. The Vice President will render a written decision

within ten (10) calendar days.

Step 4: If the decision of the Vice President is not satisfactory, the student may file a written request for appeal to the Student Affairs Committee within ten (10) calendar days.

Step 5: The Vice President of Instruction and Student Services will schedule a hearing of the Student Affairs Committee to occur not less than seven (7) calendar days nor more than fourteen (14) calendar days following the request for appeal.

Both parties shall have the right to have present, at their own expense, legal counsel or others who may advise.

A transcript of the hearing shall be prepared by the College; both parties shall have a right to a copy of the transcript of the proceedings at their own expense.

Written decisions will be given by the Student Affairs Committee no later than ten (10) calendar days following such hearings. Either party may appeal in writing the decision of the Student Affairs Committee to the President within ten (10) calendar days of the decision.

The President of the College will review the case and make the final decision. This procedure will apply to student grievances.

Student Rights and Responsibilities

Application for admission to VHCC is a voluntary decision on the part of a prospective student to participate in the programs offered by the College. Upon admission, students are subject to policies, rules, and regulations of VHCC and the State Board for Community Colleges.

Students are guaranteed the privilege of exercising their rights without fear of prejudice. Such rights include the following:

1. Students are free to pursue their educational goals. VHCC provides appropriate opportunities for learning curricula offered by the College.
2. No disciplinary action is taken against any student without due process.
3. Free inquiry, expressions, and assembly are guaranteed to all students provided their actions do not interfere with rights of others or the effective operation of VHCC.
4. Academic evaluation of student performance is neither arbitrary nor capricious.
5. VHCC provides for personal safety, protection of property, and the continuity of the educational process.

As provided by the Family Educational Rights and Privacy Act (FERPA), colleges may disclose the following directory information without the student's prior consent: student's name; participation in officially recognized activities and sports; address; telephone listing; weight and height of members of athletic teams; electronic mail address; degrees, honors, and awards received; date and place of birth; major field of study; dates of attendance; grade level; the most recent educational agency or institution attended; and number of credit hours enrolled. Students must provide official notification to the office of the college's registrar to prevent the disclosure of directory information.

Testing Services

The College offers a testing service to students on both a group and an individual basis. Available tests include instruments for determining interests, measures of study habits and attitudes, educational and occupational ability tests, and personality assessments. Tests can be accessed through various websites as recommended by counseling division. For example, some entering freshman students will take a standardized, commercially prepared test to establish the level of general education skills and knowledge of the student. Also, some tests may be recommended by a counselor or advisor or be available to students upon request.

The College has a placement testing program in the Learning Lab for all first-time students who have been admitted to programs requiring college level English, math, and/or biology, or those students whose educational objectives may include college level mathematics, English, or biology courses. Students who fail to meet minimum scores on the College's placement tests in math, writing, and reading are required to take developmental courses prior to or in conjunction with the regular sequence of courses.

Students assessed as reading at grade-level 6-9 must take developmental/remedial reading as a prerequisite to enrollment in any college-level courses, except those courses exempted by the College. Students possessing reading competencies at a 10th to 12th grade-level qualify to enroll concurrently in college-level classes along with the required developmental reading

course. Students with 12th grade-level competencies are allowed unrestricted enrollment in college-level English and mathematics courses.

After you have submitted an application to the College you are required to take placement tests in English (reading & writing) and math. The results of these tests will determine which courses you are eligible to enroll in at VHCC. It is recommended that each student review the Placement Testing Guide available at www.vhcc.edu/placementguide before testing. To register for placement testing, call the Testing Center at (276)739-2476.

With appropriate documentation, students who took the ACT or SAT tests and achieved the required scores or have completed college level math or English at other colleges and universities may be exempt from placement testing.

English Composition

A minimum SAT score of 500 on both the critical reading and writing sections, or a minimum ACT combined score of 21 on English and writing exempts a student from the VPT-English test and all development English courses. (Section 6.4.0.2.2 – English Placement)

Mathematics

An SAT math score of 520 or higher or an ACT math score of 22 or higher exempts a student from the VPT-Math test and all developmental math courses, and allows a student to enroll in MTH 158, MTH 163, or MTH 241. Placement testing is required prior to enrolling in all other math courses. (Section 6.4.0.2.1 – Math Placement)

Students must submit official copies of their ACT or SAT scores to the VHCC Learning Lab prior to enrollment. Test scores are valid for two years.

Refer to the **Placement Testing Guide** for more information. If you have questions, contact the Student Success Center at (276)739-2438.

In addition to the general testing program, instructors in each curriculum of the College may have special tests established for their courses and programs.

Trio Programs

Trio programs are funded by the U.S. Department of Education.

1. Project EXCEL

Project EXCEL is a program of support services designed to help students complete their program of study at VHCC.

The mission of Project EXCEL is to increase the retention and graduation rates of eligible students, increase the transfer rate of eligible students to four-year colleges, and to foster an institutional climate supportive of the success of eligible students. The services offered include peer tutoring, career counseling, personal counseling, transfer counseling, cultural enrichment, and accommodations for the disabled.

Project EXCEL is supported by federal funds and is mandated to address the individual needs of students who qualify for the program. To qualify for the program and participate in the services, a student need meet only one of the following criteria: have a documented disability, taxable income meets U.S. Department of Education guidelines for low income, or be from a family in which neither parent has received a bachelor's degree. All students qualifying for Project EXCEL must have an academic need.

Participants with documented disabilities (physical or learning) are eligible for programs such as taped textbooks, notetakers, taped lectures, and alternate testing (untimed, out-of-class, oral, scribed). Accommodations for any student with a disability are arranged on an individual basis.

2. Educational Talent Search

Educational Talent Search is 100% funded by a U.S. Department of Education $308,337 annual grant that provides information, support, and guidance to assist qualified middle and high school students in completing high school and enrolling in post-secondary education.

Services provided include: academic and career counseling, tutoring, SAT preparation workshops, career planning and assessment services, and study skills training. Participating students also receive college information and assistance in

completing financial aid applications. All services are free to qualified students.

The Virginia Highlands Educational Talent Search project is authorized to serve 700 students in the Virginia Highlands Community College region. The Educational Talent Search Office is located in OTC 229, (276) 739-2564.

3. Upward Bound

Upward Bound is 100% funded by a U.S. Department of Education $262,500 annual grant designed to assist students in completing their high school educations and succeeding in college. Participating high school students receive tutoring and counseling services and attend a six-week summer enrichment program on the VHCC campus.

To qualify for the Upward Bound project, students must meet federal low-income guidelines or be from families in which neither parent has earned a bachelor's degree. All services are free to qualified students.

The Virginia Highlands Upward Bound project is authorized to serve 65 students in specific schools in Washington County, Smyth County, and the city of Bristol, VA. The Upward Bound Office is located in OTC 231, (276) 739-2564.

Transcripts

A written or online request is required before an official transcript of coursework completed at VHCC can be sent to another institution or business firm. Forms are available at the Office of Admissions or you may download a Transcript Request Form online. When a form is not available, students may request a transcript by sending a letter to the Office of Admissions, P.O. Box 828, Abingdon, VA 24212-0828, or faxing it to (276) 739-2491. All letters must include a social security number and signature. There is no fee for transcripts.

Tutorial Services

Peer and professional tutors are available without charge to all students. Individual and group tutoring are available in most subject areas and evening tutoring and weekend tutoring sessions are available by appointment. The Tutoring Center is located in the Library in LRC 233, (276) 739-2583.

VHCC Alert

VHCC students, parents, employees, and community members have the option of receiving up-to-the-minute alerts in the event of a campus emergency or a weather event that leads to a delay or cancellation of classes. You must register to receive these alerts via email, cell phone, smart phone, PDA, and other electronic devices and choose the types of alerts you would like to receive.

You may register at http://alert.vhcc.edu or by sending a text message to 411911, keyword VHCC. The service is offered free by VHCC, but wireless carriers may charge a fee for users who receive messages. In order to receive alerts regarding schedule changes/closings due to weather, you must register online. Please note that these alerts are often issued before 6:00 a.m. and on weekends.

VHCC Student Photo ID

The VHCC student photo ID serves as the official, standard source for student identification, as a library card, and as an admission ticket to all free student activities. The initial card is issued at no cost to all students who have registered and paid for one or more credits. Cards are available at the Library immediately after tuition has been paid or financial aid has been awarded. Cards are validated in the Library each semester at no cost to students. Replacement cards may be purchased for $5.00.

VHCC Website

The VHCC Website provides up-to-date information and a variety of student resources, including exam schedules, course schedules, the College catalog, and information about campus activities.

Violence Prevention Policy

It is the policy of the Commonwealth of Virginia and Virginia Highlands Community College to promote a safe environment for its employees, students and visitors. VHCC is committed to working with employees and students to maintain a campus

environment free from violence, threats of violence, harassment, intimidation, and other disruptive behavior; however, no workplace is immune.

Therefore, Virginia Highlands Community College (VHCC) prohibits threats and acts of violence on college property, within VHCC facilities, at any VHCC-sponsored event; while engaged in College office business, educational, or athletic activities; and while traveling in state vehicles. Prohibited conduct includes but is not limited to:

- injuring another person physically;
- engaging in behavior that creates a reasonable fear of injury to self or another person;
- engaging in behavior that would subject a reasonable person to, and does subject another individual to, extreme emotional distress;
- intentionally damaging property;
- threatening to injure an individual (including oneself) or to damage property;
- committing injurious acts motivated by, or related to, domestic violence or sexual harassment; and
- retaliating against any employee or student who, in good faith, reports a violation of this policy.
- oral or written statements, gestures, or expressions that communicate a direct or indirect threat of physical harm.
- violating the Weapons Regulation.

All reports of incidents will be taken seriously and will be dealt with appropriately. Such behavior can include Individuals who commit such acts may be removed from the premises and may be subject to disciplinary actions and/or criminal penalty.

Everyone's cooperation is needed to implement this policy effectively and maintain a safe campus and working environment. Do not ignore violent, threatening, harassing, intimidating or other disruptive behavior. If you observe or experience such behavior by anyone on campus, whether he or she is an employee, student or visitor, report it immediately to a supervisor or to Campus Police. Supervisors who receive such reports should seek advice from the Human Resource Office regarding investigating the incident and initiating appropriate action. PLEASE NOTE: Threats or assaults that require immediate attention by police should be reported immediately to Campus Police at office phone 276-739-2448 or cell phone 276-614-8282 or local police at 9-911.

Weapons Regulations

STATE BOARD FOR COMMUNITY COLLEGES

CHAPTER 10 - REGULATION OF WEAPONS

8VAC95-10-10. Definitions.

The following words and terms when used in this chapter shall have the following meanings unless the context clearly indicates otherwise:

"Police officer" means law-enforcement officials appointed pursuant to Article 3 (§ 15.2-1609 et seq.) of Chapter 16 and Chapter 17 (§ 15.2-1700 et seq.) of Title 15.2, Chapter 17 (§ 23-232 et seq.) of Title 23, Chapter 2 (§ 29.1-200 et seq.) of Title 29.1, or Chapter 1 (§ 52-1 et seq.) of Title 52 of the Code of Virginia or sworn federal law-enforcement officers.

"College property" means any property owned, leased, or controlled by a member college of the Virginia Community College System and the administrative office of the Virginia Community College System.

"Weapon" means (i) any pistol, revolver, or other weapon designed or intended to propel a missile of any kind by action of an explosion of any combustible material; (ii) any dirk, bowie knife, switchblade knife, ballistic knife, machete, razor, slingshot, spring stick, metal knucks, or blackjack; (iii) any flailing instrument consisting of two or more rigid parts connected in such a manner as to allow them to swing freely, which may be known as a nun chahka, nun chuck, nunchaku, shuriken, or fighting chain; (iv) any disc, of whatever configuration, having at least two points or pointed blades which is designed to be thrown or propelled and which may be known as a throwing star or oriental dart; or (v) any weapon of like kind, to include but not limited to, tasers.

"Weapon" does not mean knives or razors used for domestic purposes, pen or folding knives with blades less than three inches in length, or knives of like kind carried for use in accordance with the purpose intended by the original seller.

8VAC95-10-20. Possession of weapons prohibited.

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

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

8VAC95-10-30. Exceptions to prohibition.

A. The prohibition in 8VAC95-10-20 shall not apply to current sworn and certified local, state, and federal law enforcement officers with proper identification, nor shall it apply to possession of a weapon when stored securely inside the vehicle of properly permitted students and employees.
B. The chief of the college police department or head of security department, or his designee, may authorize in writing a person to possess, store, or use a weapon: (i) when used for educational or artistic instruction, display, parade, or ceremony sponsored or approved by the college (unloaded or disabled only and with other specified safeguards, if appropriate); or (ii) for any college-approved training, course, or class.

8VAC95-10-40. Person lawfully in charge.

Campus police officers or security, and other police officers acting pursuant to a mutual aid agreement or by concurrent jurisdiction, are lawfully in charge for the purposes of forbidding entry upon or remaining upon college property while possessing or carrying weapons in violation of this chapter.

Who's Who Among Students in American Universities & Colleges

Faculty and staff members each year submit nominations of second year students to be considered for inclusion in the Who's Who Among Students in American Universities & Colleges award. The award is based on specific criteria and provides a democratic, national basis for recognition of outstanding campus leaders. For more information, contact the Student Success Center, ISC 128, (276) 739-2438.

Work-based Learning Opportunities

VHCC provides opportunities for work-based learning, also known as experiential learning, through cooperative education, internships, and apprenticeship training. The programs are designed to supplement classroom learning with work experience.

Student enrolled in the cooperative education and internship programs must meet certain academic guidelines and typically work between 10 and 25 hours per week. Credits are awarded for time spent in workplace.

Apprenticeship training is an employer-sponsored training strategy for new hires or existing employees that leads to a certificate of completion and official journeyperson status from the Commonwealth of Virginia.

Information about cooperative education and internships is available from the Co-op/Internship Program in LRC 208, (276) 739-2452. Workforce Training & Continuing Education, ADM 101, (276) 739-2430, can provide information about the apprenticeship program.

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 that 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 a 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. Make satisfactory academic progress;
6. 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. 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. Register with the Selective Service if required; and
9. Be enrolled in credit courses. No financial aid is available for noncredit or audited courses.

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 aid, state and 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 satisfactory academic progress policy or successfully following a designated academic progress plan.

B. Financial Aid Warning Status (WS) – Students who fail to meet satisfactory academic progress 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 Satisfactory Academic Progress. 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 satisfactory academic progress requirements are again met.

Students who fail to meet these Satisfactory Academic Progress 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 satisfactory academic progress 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. Credit may also be denied for 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, or CSAP) 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 that the student began the withdrawal process by submitting a completed withdrawal form to the Admissions Office;
2. The date the student officially notified the Admissions Office of intent to withdraw;
4. 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.
5. 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 2 weeks after this date, students may expect to receive any refund check that they are entitled to after tuition, and approved charges are deducted. Checks will be mailed to the address of the student listed in the Student Information System/PeopleSoft.

Aid Programs Available

VHCC does not participate in the Federal Family Education 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 2014-15 award year will be $5,730 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 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.

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 to $1,600 and are for tuition and fees.

Virginia Guaranteed Assistance Program – The VGAP Grant Program is a needs-based program to students at VHCC who are permanent residents of Virginia, graduated from a Virginia high school, have a 2.5 high school grade point average and enroll full time. Awards vary from $400 to $1,700 for tuition and fees. Renewal students must maintain a 2.0 and continuous full-time enrollment.

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.

Aims Higher Scholarship - The Aims Higher Scholarship encourages Virginia-resident students in Washington County, Smyth County, and the City of Bristol to complete a challenging curriculum and to pursue higher education. Students who graduate from a public high school in the VHCC service region and meet the requirements of their high school and the requirements of the scholarship may attend up to two years of college without paying any tuition or fees. This program will fill the financial aid gaps for the graduates who receive financial aid that is less than the cost of their tuition and fees, or who fail to qualify for any financial aid (this is a gap program for tuition only). Renewal students must maintain a 2.75 and continuous full-time enrollment.

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 Student Success Center (276-739-2438) .

Virginia Tobacco Settlement Program - This program assists eligible Virginia resident tobacco growers, quota holders, their immediate dependent family members and tobacco workers with up to the full cost of tuition to attend credit classes at VHCC, after all other financial aid and scholarships have been exhausted. Students receiving tobacco scholarships to attend credit classes must meet the requirement of 'satisfactory academic progress' as defined in the VHCC College catalog. All required documentation must be completed and received in the Financial Aid Office by July 2014. This includes a completed FAFSA on file for the 201-2015 year. **After this deadline, funding will not be guaranteed.** If funds are available after the deadline, they will be awarded based upon the date the documentation is completed and received. More information may be obtained online Virginia Tobacco Commission Program.

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 Federal 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:

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

2. **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.
3. **Technology Fee -** The State Board for Community Colleges approved the technology fee to $5.50 per credit hour. The funds will be used to finance major improvements in information technology at Virginia's community colleges.
4. **Other Fees and Charges -** A Student Activity fee ($1 per credit hour) is required for all students registered for credit classes. The fee subsidizes student activities and cultural events, including the Arts Array/Film Series. VHCC students receive free admission to all of these events.
5. **General -** Certain other fees, such as a fee for parking, may be authorized on an individual basis by special action of the VHCC Board.

   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 may be expected to pay fines for overdue library books, 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.
6. **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 to $250 per semester for a full-time student. Visually impaired and learning disabled students can arrange for textbooks on tape through Project EXCEL.
7. **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.
8. **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.

   The one exception to this policy is students who are required to take a course in Machine Shop Practices as a minor part of their total program and are not pursuing a course for ultimate employment as a machinist. These students are required to furnish the less expensive hand tools. The College tool room has available the other hand tools such as micrometers, combination sets, etc., in sufficient quantity to meet their needs. The fact that these tools are available in the tool room does not in any way relieve the student in the regular machine shop programs from the responsibility of furnishing his/her own hand tools.

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 Admissions Office 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 he/she 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 Nebraska Books, 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

At the local level, scholarships and grants-in-aid are made available and awarded on the basis of the student's scholastic achievement, financial need, character or occupational goal. The VHCC Educational Foundation, Inc. offers a number of scholarships provided by interested citizens and civic organizations. All inquiries concerning financial aid and scholarship programs should be made to the Office of Financial Aid.

The VHCC Educational Foundation, Inc. is a separately incorporated non-profit corporation which secures voluntary support and manages, invests, and expends such funds solely for the benefit of Virginia Highlands Community College and its students. The Foundation Board of Directors volunteer their expertise and service on behalf of the College and community.

The Foundation assists Virginia Highlands Community College in a variety of ways: through the endowment and distribution of scholarship funds, the purchase of equipment and furnishings, and financial support of academic and community enrichment programs. For additional information, call (276) 739-2473.

Tuition

(Includes basic tuition and applicable surcharge)

1. **General**. The 2013-14 tuition rate listed below is effective Fall 2013. Current tuition rates will be published in class schedules. Subject to change by the State Board of Community College

   Tuition Rate Per Credit Hour

   Virginia Resident $133.00
   Out-of-State Resident $327.60

   Upon paying tuition, students are eligible to obtain a student identification card that can be used in the VHCC Library, Bookstore, 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 Admissions Office 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 Division of War Veterans' Claims 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 Admissions Office.

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, and 1982.**

   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 $15,000 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 2013-14

In-State students

Books and Supplies	$ 1,000
Personal/Miscellaneous	$ 1,730
Room and Board	$ 3,200
Transportation	$ 3,270
Tuition and Fees	$ 3,070
Total	**$12,270**

Out of State students

Books and Supplies	$1,000
Personal/Miscellaneous	$1,730
Room and Board	$3,200
Transportation	$3,270

Tuition and Fees	$8,424
Total	**$17,624**

Veterans Benefits

Information concerning veterans' educational programs and benefits may be obtained from the Office of Admissions and Records. Veterans must first apply for Veterans Education Benefits at www.gibill.va.gov then contact Debbie Barrett, VHCC Veterans' Officer, located in the Admissions 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 https://jst.doded.mil and http://www.au.af.mil/au/ccaf.

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

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 Affairs Office will consult with veterans who fail to attend classes regularly.
2. Veterans Affairs Office 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 Administration will de-obligate benefits of veterans placed on suspension or dismissal.
4. Veterans who fail to maintain good academic standing must be counseled by a Counselor at the College prior to Veterans' benefits being reinstated.
5. 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 Director of Admissions 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.
6. 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 >Future Students>Military Students >Veterans' Benefits.

Student Veterans Association

This organization is to serve as a collective voice for all veterans and military enrolled at VHCC, to be a source of open communication that will connect veterans with each other in a way that promotes camaraderie, and to provide support for student veterans and their families as they pursue their post military career through education. Membership is open to all interested students, faculty and staff.

Veterans/Military Parking

VHCC has reserved "Veterans Parking." Contact the Veterans Officer located in the Admissions Office in room ISC 133 for a parking pass.

College Transfer Degrees

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 Sciences 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, visit the online tool located at http://myfuture.vccs.edu/transfer/ or contact the Student Success Center (276-739-2438).

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 & Sciences (AA&S)

Business Administration
Business Administration - Specialization in Business Information Technology
Education
Education – Specialization in Art
Education - Specialization in Teacher Preparation
Education – Specialization in Theatre Arts
General Studies
Liberal Arts
Science
Science - Specialization in Engineering
Science - Specialization in Horticulture

Certificate (C)

General Education

General Education Core Curriculum for Transfer

English Composition
ENG 111-112 College Composition I-II
ENG 210 Advanced Composition

Humanities: Study of human culture
ART 201-202 History of Art I-II
CST 130 Introduction to Theater
CST 151-152 Film Appreciation I-II
ENG 241-242 Survey of American Literature I-II
ENG 243-244 Survey of English Literature I-II
ENG 251-252 Survey of World Literature I-II
MUS 121-122 Music Appreciation 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
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 151-152 Liberal Arts Math I-II
(MTH 151 is NOT a prerequisite for MTH 152)
MTH 158 College Algebra
MTH 163-164PrecalculusI-II
MTH 173-174 CalculusI-II
MTH 241-242 StatisticsI-II
MTH 271-272 Applied CalculusI-II
MTH 275 Multivariable Calculus
MTH 277 Vector Calculus
MTH 279 Ordinary Differential Equations
MTH 285 Linear Algebra
MTH 286 Discrete Mathematics

Natural Science
BIO 101-102 BiologyI-II
BIO 141-142 Human Anatomy & PhysiologyI-II
CHM 101-102 General Chemistry (non-science majors)I-II
CHM 111-112 College ChemistryI-II
CHM 241-242/243-244 Organic ChemistryI-II
GOL 105 Physical Geology
GOL 106 Historical Geology
NAS 131-132 AstronomyI-II
PHY 121-122 Principles of Physics I-II
PHY 201-202 General College Physics I-II
PHY 231-232 General University Physics I-II
PHY 241-242 University Physics I-II

Social Science: Study of relationships within a society
ECO 201-202 Principles of Economic I-II
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 200 or higher (Psychology courses)
SOC 200 Principles of Sociology
SOC 215 Sociology of the Family
SOC 268 Social Problems

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

Transfer Electives:
Any 3-5 credit courses listed above under English Composition, Humanities, Mathematics, Natural Science, Social Science, or Wellness
ART 121 Drawing
ART 125 Introduction to Painting
ART 131 Fundamentals of Design
ART 134Three Dimensional Design
ASL 101-102 Sign Language I-II

BIO 120Zoology
BIO 215 Plant Life of Virginia
BIO 151-152 Human Gross Anatomy I-II
BIO 205 Microbiology
BIO 256 Genetics
BIO 278 Coastal Ecology
CST 131-132 Acting I-II
CST 145 Stagecraft
ENG 211 Creative Writing
ENG 250 Children's Literature
Foreign Language – any foreign language course
GOL 225 Environmental Geology
HRT 115 Plant Propagation
HRT 226 Greenhouse Management
HRT 227 Professional Landscape Management
HRT 247 Indoor Plants
HRT 260Introduction to Floral Design
HRT 275 Landscape Construction and Maintenance
SOC 200 or higher (Sociology courses)
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.

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 (click on SCHEV Transfer Tool).

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

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

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

Degree graduates will demonstrate the ability to
1.1 understand and interpret complex materials;
1.2 assimilate, organize, develop, and present an idea formally and informally;
1.3 use standard English;
1.4 use appropriate verbal and non-verbal responses in interpersonal relations and group discussions;
1.5 use listening skills; and
1.6 recognize the role of culture in communication.

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

Degree graduates will demonstrate the ability to
2.1 discriminate among degrees of credibility, accuracy, and reliability of inferences drawn from given data;
2.2 recognize parallels, assumptions, or presuppositions in any given source of information;
2.3 evaluate the strengths and relevance of arguments on a particular question or issue;
2.4 weigh evidence and decide if generalizations or conclusions based on the given data are warranted;
2.5 determine whether certain conclusions or consequences are supported by the information provided; and
2.6 use problem solving skills.

3. Cultural and Social Understanding
A culturally and socially competent person possesses an awareness, understanding, and appreciation of the interconnectedness of the social and cultural dimensions within and across local, regional, state, national, and global communities.

Degree graduates will demonstrate the ability to
3.1 assess the impact that social institutions have on individuals and culture—past, present, and future;
3.2 describe their own as well as others' personal ethical systems and values within social institutions; and
3.3 recognize the impact that arts and humanities have upon individuals and cultures.
3.4 recognize the role of language in social and cultural contexts.
3.5 recognize the interdependence of distinctive world-wide social, economic, geo-political, and cultural systems

4. Information Literacy
A person who is competent in information literacy recognizes when information is needed and has the ability to locate, evaluate, and use it effectively. (adapted from the American Library Association definition)

Degree graduates will demonstrate the ability to
4.1 determine the nature and extent of the information needed;
4.2 access needed information effectively and efficiently;
4.3 evaluate information and its sources critically and incorporate selected information into his or her knowledge base;
4.4 use information effectively, individually or as a member of a group, to accomplish a specific purpose; and
4.5 understand many of the economic, legal, and social issues surrounding the use of information and access and use information ethically and legally.

5. Personal Development

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

Degree graduates will demonstrate the ability to
5.1 develop and/or refine personal wellness goals; and
5.2 develop and/or enhance the knowledge, skills, and understanding to make informed academic, social, personal, career, and interpersonal decisions.

6. Quantitative Reasoning

A person who is competent in quantitative reasoning possesses the skills and knowledge necessary to apply the use of logic, numbers, and mathematics to deal effectively with common problems and issues. A person who is quantitatively literate can use numerical, geometric, and measurement data and concepts, mathematical skills, and principles of mathematical reasoning to draw logical conclusions and to make well-reasoned decisions.

Degree graduates will demonstrate the ability to
6.1 use logical and mathematical reasoning within the context of various disciplines;
6.2 interpret and use mathematical formulas;
6.3 interpret mathematical models such as graphs, tables and schematics and draw inferences from them;

6.4 use graphical, symbolic, and numerical methods to analyze, organize, and interpret data;
6.5 estimate and consider answers to mathematical problems in order to determine reasonableness; and
6.6 represent mathematical information numerically, symbolically, and visually, using graphs and charts.

7. Scientific Reasoning
A person who is competent in scientific reasoning adheres to a self-correcting system of inquiry (the scientific method) and relies on empirical evidence to describe, understand, predict, and control natural phenomena.

Degree graduates will demonstrate the ability to
7.1 generate an empirically evidenced and logical argument;
7.2 distinguish a scientific argument from a non-scientific argument;
7.3 reason by deduction, induction and analogy;
7.4 distinguish between causal and correlational relationships; and
7.5 recognize methods of inquiry that lead to scientific knowledge.

Table 5-1A VCCS Degree Requirements

Area	Distribution
GENERAL EDUCATION General education is that portion of the collegiate experience that addresses the knowledge, skills, attitudes, and values characteristic of educated persons. It is unbounded by disciplines and honors the connections among bodies of knowledge. The associate degree programs within the VCCS support a collegiate experience that focuses on seven goal areas: communication; critical thinking; cultural and social understanding; information literacy; personal development; quantitative reasoning; scientific reasoning. The general education goal areas outlined below are to be introduced in the foundational courses and enhanced in program and elective courses. (NOTE: Some of the categories include two goal areas when a single course may provide foundations in both goal areas.)	**Minimum 15 credits** **(Students must take at least one course in each of the five areas listed, to total at least 15 credits.)**
I. Foundations In Communication: Courses designed to enable students to interact with others using all forms of communication, resulting in understanding and being understood.	
II. Foundations In Critical Thinking And Information Literacy: Courses designed to enable students to evaluate evidence carefully and apply reasoning to decide what to believe and how to act, and to recognize when information is needed and have the ability to locate, evaluate, and use it effectively.	
III. Foundations In Cultural And Social Understanding: Courses designed to enable students to have an awareness, understanding, and appreciation of the interconnectedness of the social and cultural dimensions within and across local, regional, state, national, and global communities.	
IV. Foundations In Personal Development: Courses designed to enable students to strive for physical well-being and emotional maturity.	
V. Foundations In Quantitative And Scientific Reasoning: Courses designed to enable students to possess the skills and knowledge necessary to apply the use of logic, numbers, and mathematics to deal effectively with common problems and issues, and to adhere to a self-correcting system of inquiry (the scientific method) and rely on empirical evidence to describe, understand, predict, and control natural phenomena.	
PROGRAM REQUIREMENTS Major Field Core Related/Specialization Courses Electives	Minimum 15 credits* Maximum 15 credits 0-15 credits
TOTALS	AA/AS/AA&S: 60-63 credits** AAA/AAS: 65-69 credits***

*Language in Section 5.1.0.0.1 of the VCCS Policy Manual states 25% of the courses in the degree program (15-18 credits) must be common across majors within a degree. The shared courses must be major or related/specialization courses.

**Credit range for engineering programs is 60-72 semester hour credits.

***Credit range for AAA/AAS programs is 65-69, including nursing. For other programs in the Health Technologies, the range is 65-72 semester hour credits.

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

Associate of Arts (AA)
Associate of Science (AS)
Associate of Arts & Sciences (AA&S)
Associate of Applied Science (AAS)

	Minimum number of Semester Hours Credits			
General Education.	(1)	(2)	(3)	(4)
	AA	AS	AA&S	AAA/AAS
Communication[a]	6	6	6	3
Humanities/Fine Arts	6	6	6	3
Foreign Language (Intermediate Level)	6	0	0	0
Social/Behavioral Sciences	9	g[b]	9	3[c]
Natural Sciences/	7	7	7	0
Mathematics	6	6[d]	6[d]	}3(c) 0
Personal Development[e]	2[e]	2[e]	2[e]	2[e]
Other Requirements for Associate Degrees:				
Major field courses and electives (columns 1-3)	18-21	24-27	24-27	49-53[f]
Career/technical courses (column 4)	-	-	-	-
Total for Degree[g]=	60-63	60-63[h]	60-63[h]	65-69[h]

Notes: The *VCCS Policy Manual*, Section 2-IV-C, defines general education within the VCCS. Sections 2.7.3, 3.4.10, and 3.5.1 of the Southern Association of Colleges and Schools (SACS) Principles of Accreditation specify general education requirements. Colleges must address all SACS requirements, the SCHEV Core Competencies, and the general education goal areas listed in this *VCCS Policy Manual*.

(a) Must include at least one course in English composition.

(b) Only 6 semester hours of social/behavioral sciences are required for engineering majors who plan to transfer to a baccalaureate degree engineering program that requires 6 or fewer hours in this category, provided that the college/university publishes such requirements in its transfer guide.

(c) While general education courses other than those designed for transfer may be used to meet portions of these requirements, SACS principles require that general education courses be general in nature and must not "...narrowly focus on those skills, techniques, and procedures peculiar to a particular occupation or profession."

(d) Only 3 semester hours of mathematics are required for the General Studies major.

(e) Personal development includes health, physical education, or recreation courses that promote physical and emotional well being and student development courses. Must include at least one student development course.

(f) AAA/AAS degrees must contain a minimum of 15 semester hours of general education. Students should plan to take at least 30 hours in the major; the remaining hours will be appropriate to the major.

(g) All college-level course prerequisites must be included in the total credits required for each program.

(h) Credit range for engineering programs is 60-72 semester hour credits. Credit range for AAA/AAS programs is 65-69, including nursing. For other programs in the health technologies, the range is 65-72 semester hour credits.

2. Information Literacy Statement
Upon graduation from a degree program, all students will be able to (1) determine the nature and extent of the information needed; (2) access needed information effectively and efficiently; (3) evaluate information and its sources critically and incorporate selected information into his or her knowledge base; (4) use information effectively, individually or as a member of a group, to accomplish a specific purpose; and (5) understand many of the economic, legal, and social issues surrounding the use of information and access and use information ethically and legally.

Computer competency will be demonstrated by successfully completing one or more credit courses (approved by the division or department), a challenge exam, equivalent course(s), or course components for computer competency explicitly required in a given course syllabus. The Registrar, when doing official clearance of graduates, will ensure that students have successfully completed a challenge exam or a course or courses identified as appropriate by the academic divisions.

3. Assessment
Curricular students are required to complete tests, such as COMPASS to determine entry level placement into reading, writing and math classes. Additionally, students may be required to participate in one or more tests, projects, or other academic activities designed to measure general education achievement and/or achievement in selected major areas prior to graduation. These tests are designed to evaluate programs. Program assessment test results will remain confidential and will be used for the sole purpose of college improvement. Students may have access to their own test scores upon request.

4. Student Outcomes Assessment
The College uses a variety of assessment activities to ensure that its educational programs achieve their stated purposes.

Entering freshmen, candidates for graduation, and graduates are assessed through standardized and nationally normed instruments, in-house developed tests, exit interview questionnaires, and employer surveys.

The assessment process focuses on the following four areas: basic skills testing for English and mathematics placement, the student's progress in the major, an assessment of the general education component among the transfer curricula, and follow-up studies on alumni, dual-enrollment students, off campus centers, transfer students and area employers.

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

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 **two-year diploma and one-year 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.

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.

Agricultural and Natural Resources Technology

Associate of Applied Science (AAS)

Horticulture Technology

Career Studies Certificate (CSC)

Horticulture

Horticulture: Floral design and Indoor Plant Care

Organic Food/Plant Production

Business Technology

Associate of Applied Science (AAS)

Accounting

Administrative Support Technology - Executive Administrative Assistant

Administrative Support Technology – Specialization in Legal Assisting

Administrative Support Technology – Specialization in Medical Office Specialist

Information Systems Technology

Information Systems Technology - Specialization in Networking

Management

Certificate (C)

Accounting and Information Systems Technology

Clerical Studies

Health Information Management

Networking A+

Supervision and Management

Web Programming and Design

Career Studies Certificate (CSC)

(AST) Teleservices

(HIM) Electronic Health Records

(IST) CISCO Networking and A+

(IST) Computer Programming

(IST) Database Security and Design

(IST) Software Applications Specialist

(IST) User Support Specialist

(IST) Web Design and Development

(MGT) Hospitality and Tourism

(MGT) Industrial Supervision

(MGT) Small Business Management

Engineering and Industrial Technology

Associate of Applied Science (AAS)

- Air Conditioning, Refrigeration, and Heating
- Computer Numerical Control Machine Operations
- Electrical Technology
- Electrical Technology – Specialization in Electromechanical Technology
- Electrical Technology – Specialization in Energy Technology
- Technical Studies

Diploma (D)

- Air Conditioning, Refrigeration, and Heating
- Machinist

Certificate (C)

- Computer Numerical Control Machining
- Electricity
- Refrigeration
- Solar Energy Technology

Career Studies Certificate (CSC)

- Basic Computer Numerical Control Operation

Health Technology

Associate of Applied Science (AAS)

- Emergency Medical Services Technology
- Nursing
- Nursing - LPN to RN Bridge
- Occupational Therapy Assistant (SWVCC**)
- Radiography
- **Southwest Virginia Community College

Certificate (C)

- Health Sciences

Career Studies Certificate (CSC)

- Computerized Tomography
- Magnetic Resonance Imaging
- Emergency Medical Technology – Intermediate
- Emergency Medical Technology – Paramedic

Public Service Technology

Associate of Applied Science (AAS)

- Administration of Justice
- Human Services
- Human Services - Specialization in Early Childhood Education

Certificate (C)

- Early Childhood Teaching Assistant
- Human Services Advocate

Career Studies Certificate (CSC)

- (HMS) Child Development

Orientation

All students enrolled in an associate degree, diploma or certificate program must complete an orientation (SDV) course during their first 15 hours of enrollment, typically their first semester in college. This program is entitled Orientation to College Success, SDV 101. It 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. At VHCC, curricular students complete the VHCC Online Preview that prepares students for their first college enrollment. This program introduces the student to the local community college philosophy, campus resources, the enrollment process, curricular offerings and program layouts, class schedules, placement testing, transfer and the faculty advising process. Additionally new students enroll in an Orientation class where study skills, career information and academic advising are the focus. New curricular students must meet with their academic counselor for a Transition Session where they will schedule their first semester of classes and be assigned an appropriate faculty advisor depending on their program of study and career interests.

Students are encouraged to complete placement testing prior to their Transition Session.

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 101 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 Academic Dean and Vice President of Instruction and Student Services for all Petitions for Credit of SDV 101.

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 Training & Continuing Education

The mission of the Workforce Training & Continuing Education is to provide assistance, workforce training, and employee development to promote economic growth of business and industry and opportunities for personal development within the VHCC service area.

The services provided via Workforce Training & Continuing Education include: Continuing Education; Workforce Development; Apprenticeship Training; Community Services (noncredit); Small Business Development Center; Manufacturing Technology Center; and Procurement Assistance Center.

Where specific employment opportunities for new or expanding industries are available, special training activities are developed and coordinated through the Workforce Services of the Virginia Department of Business Assistance. The College’s role is to provide facilities, equipment, instructors and/or administrative service as needed.

1. **Continuing Education.** Today’s rapidly changing technology requires that employees’ skills be continually updated to avoid obsolescence. The mission of Continuing Education is to establish and deliver a total program, credit instruction, training and testing to professional groups for certification and licensure review.
2. **Workforce Development.** Pre-employment training and training for employed workers that helps to meet the need for highly trained workers to meet the challenges of today’s competitive world. Conveniently scheduled, custom-designed classes are offered on the College campus or at the worksite during-all hours of the day or night.
3. **Apprenticeship Training.** An employer sponsored training system which provides business and industry with skilled employees. Apprentices learn the “how to” of their occupation on-the-Job (OTJ), under the direction of highly skilled mentors; and they learn the “why” in related technical instruction in the classroom.
4. **Community Services.** Programs and training include noncredit classes, seminars, workshops and teleconferences that will continue and expand individual and community learning experiences.

5. **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.
6. **Manufacturing Technology Center.** The MTC, located at Wytheville Community College, is a catalyst for economic growth and industrial competitiveness through training, applied research, and community-industrial service.
7. **Procurement Assistance Center.** Contracts between government and the private sector are available at all levels. The Center provides assistance with government contracting at the federal, state and local levels.

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.

Career Studies Programs
Career Studies Certificate (CSC)

American Sign Language
Automotive Technology
Culinary Arts
Fire Science Technology

CURRICULUM/PROGRAM REQUIREMENTS

College Transfer – Associate of Arts and Sciences Degree

Business Administration

Associate of Arts and Sciences Degree

Program Coordinator: Patty Tymon, OTC 216, Ext. 2540
Length: Four semesters (two years)

Purpose: 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 Arts and Sciences Degree curriculum with a major 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 of Arts and Sciences Degree curriculum with a major in Business Administration requires 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 who do not meet these requirements will be permitted to correct their deficiencies in developmental studies. Those students who meet the specific requirements for this degree program but are deficient in basic skills and understandings in English and/or mathematics will be required to enroll in appropriate developmental courses.

Program 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. 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 Arts and Sciences Degree with a major in Business Administration.

Business Administration

First Semester (Fall)

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
ENG 111	College Composition I	3	0	3
MTH	1*MTH 163, 271, 241, or 173	3	0	3
ACC 211	Principles of Accounting I	4	0	4
CST 100	Principles of Public Speaking	3	0	3
SDV 101	Orientation to College Success	1	0	1
PED	2*Physical Education	0	2-3	1
	Total	**14**	**2-3**	**15**

Second Semester (Spring)

ENG 112	College Composition II	3	0	3
MTH	1*MTH 164, 271, 272, 241, 242, or 174	3	0	3
ACC 212	Principles of Accounting II	4	0	4
ITE 100, 115, or 119	3*Intro. to Information Systems, Intro. to Computer Applications & Concepts or Information Literacy	3	0	3
PED	2*Physical Education	0	2-3	1
	Total	**13**	**2-3**	**14**

Third Semester (Fall)

HIS	History 101, 111 or 121	3	0	3
ECO 201	Principles of Economics I	3	0	3
ENG	4*Literature 241, 243, 251, or Humanities Elective	3	0	3
SCI	5*Science (BIO, CHM, GOL, or PHY)	3	3	4
EEE	6*Elective	3	0	3
	Total	**15**	**3**	**16**

Fourth Semester (Spring)

HIS	History 102, 112 or 122	3	0	3
ECO 202	Principles of Economics II	3	0	3
ENG	4*Literature 242, 244, 252 or Humanities Elective	3	0	3
SCI	5*Science (BIO, CHM, GOL, or PHY)	3	3	4
EEE	6* Elective	3	0	3
	Total	**15**	**3**	**16**

Total Minimum Credits for AA&S Degree.....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, to consult with their counselors and advisors at Virginia Highlands Community College in planning their program and electives.

The above semester-by-semester sequences of courses may be modified when necessary. Please refer to the Program Choices section of this Catalog for a discussion of factors, which affect planning and sequencing programs of study.

Footnotes*

1. 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.
2. 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.
3. Keyboarding skills are highly recommended.
4. All Students graduating in Business Administration must meet minimum requirements of six (6) semester hours in Humanities/Fine Arts. This requirement can be met at VHCC with the following courses; ART 201, 202; MUS 121, 122; PHI 101; CST 130, 151, 152; REL 200, 210, 230; FRE 101, 102, 201, 202; SPA 101, 102, 201, 202. However, since many four-year colleges and universities still require a year's study in Literature (American, English, or World), students are advised to consider such requirements in making their choices.
5. The Natural Sciences options to meet the Science requirement are BIO 101-102; BIO 141-142; CHM 101-102 or 111-112; GOL 105-106; PHY 121-122 or 201-202 or 231-232 or 241-242. Students are urged to acquaint themselves with the science required in their selected major at the college or university to which transfer is contemplated.
6. Students have a total of six (6) semester hours of electives. Courses must be transfer level courses and can be chosen from offerings in the humanities and social sciences, ART 201, 202; MUS 121, 122; PHI 100; CST 130, 151, 152; REL 200, 210, 230; FRE 101, 102, 201, 202; SPA 101, 102, 201, 202; ENG 241, 242, 243, 244, 251, 252; ECO 201, 202; GEO 210, 220; HIS 101, 102, 111, 112, 121, 122; PLS 135, 211, 212; PSY 200; SOC 200, or business courses relevant to upper division major such as ITE 140, ITP 120, 220, 132; BUS 100, BUS 241, 242. Consultation with Counselor and transfer institution is advised. BUS 297 Co-op Education may be taken as an elective with Faculty Curriculum Advisor and Co-op Advisor approvals.

Business Administration – Specialization in Business Information Technology

Associate of Arts and Sciences Degree

Program Coordinator: Mary Sullivan, LRC 217, Ext.2415
Length: Four semesters (two years)

Purpose: With new economic development in business and IT industries in Virginia's Great Southwest, there is a great demand for qualified personnel in the business information technology field. The Associate of Arts and Sciences Degree curriculum major in Business Administration with Specialization in Information Technology is designed for persons who plan to transfer to a four-year college or university to complete a baccalaureate degree program in a Business or Business IT discipline.

Transfer and Career Objectives:
Business Majors, Business Management Information Systems,
Business Information Technology

Admission Requirements: In addition to the admission requirements established for the College, entry into the Associate of Arts and Sciences Degree curriculum major in Business Administration with Specialization in Information Technology requires 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 who do not meet these requirements will be permitted to correct their deficiencies in developmental studies. Those students who meet the specific requirements for this degree program but are deficient in basic skills in English and/or mathematics will be required to enroll in appropriate developmental courses.

Program Requirements: The modern business world demands that its employees be knowledgeable in disciplines beyond business technology. Thus, this curriculum requires courses in communication, 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 in Business and Business IT programs. 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 identified below, the graduate will be awarded the Associate of Arts and Sciences Degree with a major in Business Administration Specialization in Business Information Technology.

Business Administration—Specialization in Business Information Technology

First Semester (Fall)				
Course Number	**Course Title**	**Lec. Hrs.**	**Lab. Hrs**	**Crs.**
ENG 111	College Composition I	3	0	3
MTH	1*MTH 163, 271, 241, or 173	3	0	3
ACC 211	Principles of Accounting I	4	0	4
SDV 101	Orientation to College Success	1	0	1
ITE 100	2*Intro. to Information Systems	3	0	3
CST 100	Principles of Public Speaking	3	0	3
	Total	**17**	**0**	**17**
Second Semester (Spring)				
ENG 112	College Composition II	3	0	3
MTH	MTH 164, 241, 271, 272, 242, or 174	3	0	3
ACC 212	Principles of Accounting II	4	0	4
ITP 100	3*Software Design	3	0	3
PED	4*Physical Education	0	2-3	1
	Total	**13**	**2-3**	**14**
Third Semester (Fall)				
HIS	History 101, 111 or 121	3	0	3
ECO 201	Principles of Economics I	3	0	3
ENG	5*Literature 241, 243, 251, or Humanities Elective	3	0	3
SCI	6*Science (BIO, CHM, GOL, or PHY)	3	3	4
ITP 120	7*Java Programming I	4	0	4
	Total	**16**	**3**	**17**

Fourth Semester (Spring)				
HIS	History 102, 112 or 122	3	0	3
ECO 202	Principles of Economics II	3	0	3
ENG	5*Literature 242, 244, 252, or Humanities Elective	3	0	3
SCI	6*Science (BIO, CHM, GOL, or PHY)	3	3	4
	Total	**12**	**3**	**13**

Total Minimum Credits for AA&S Degree.....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, to consult with their counselors and advisors at Virginia Highlands Community College in planning their academic program and electives.

The above semester-by-semester sequences of courses may be modified when necessary. Please confer with your academic counselor and faculty advisor for a discussion of factors which affect planning and sequencing academic programs of study.

Footnotes*

1. 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.
2. Keyboarding skills are required. Students who need to upgrade their skills should enroll in AST 114. ITE 115 will substitute for ITE 100.
3. Four year colleges that accept ITP 100 do so as an elective credit only.
4. 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.
5. All Students graduating in Business Administration with Specialization in Information Technology must meet minimum requirements of six (6) semester hours in Humanities/Fine Arts. This requirement can be met at VHCC with the following courses; ART 201, 202; MUS 121, 122; PHI 100; CST 130, 151, 152; REL 200, 210, 230; FRE 101, 102, 201, 202; SPA 101, 102, 201, 202. Since many four-year colleges and universities still require a year's study in Literature (American, English, or World) students are advised to consider such requirements in making their choices.
6. The Natural Sciences options to meet the Science requirement are BIO 101-102; BIO 141-142; CHM 101-102 or 111-112; GOL 105-106; PHY 121-122 or 201-202 or 231-232 or 241-242. Students are urged to acquaint themselves with the science required in their selected major at the college or university to which transfer is contemplated.
7. ITP 132 or ITP 112 will substitute for the Java requirement.

Note: 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 students, the student may appeal the rule by requesting departmental approval from the lead faculty in the IT Department.

Education

Associate of Arts and Sciences Degree

Program Coordinator: Sara Combs, OTC 108C, Ext. 2444
Length: Four semesters (two years)

Purpose: The Associate of Arts and Sciences Degree Program with a major in Education is designed for persons who plan to transfer to a four-year college or university to complete a baccalaureate degree program in the social sciences or high school education. This curriculum is designed to offer sufficient course flexibility to students whose educational goals may not yet be clearly defined and to provide greater opportunity for these students to elect courses which emphasize areas of individual academic strength and interest in the college transfer core.

Transfer Objectives:
Education
Pre-professional Careers
Human Services
Social Work
Psychology
Undecided Majors

Admission Requirements: In addition to the admission requirements established for the college entry into the Associate of Arts and Sciences Degree Program with a major in Education requires 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 science.

Students who do not meet the mathematics requirements may be permitted to correct their deficiencies in developmental studies. Those students who meet the specific requirements for this degree program but are deficient in basic skills and understandings in English and/or mathematics will be required to enroll in appropriate developmental courses.

Program Requirements: The world of modern education demands that students be knowledgeable both in their teaching field and in general education. Thus, this curriculum requires courses in the humanities, natural sciences, mathematics, social sciences, health, and physical education. The Education curriculum is designed to lead the student toward meeting state teacher licensure requirements and teaching endorsements. This curriculum also provides a solid general core education as students prepare for pre-professional degrees.

Students are urged to consult with their counselors and advisors at Virginia Highlands Community College in planning their program and selecting electives. In order to prepare for upper division (junior class) standing at a four-year college or university, the student 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 satisfactory completion of the four-semester program listed, the graduate will be awarded the Associate of Arts and Sciences Degree with a major in Education.

Education

First Semester (Fall)

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
ENG 111	College Composition I	3	0	3
SDV 101	Orientation to College Success	1	0	1
HLT 110	Concepts of Personal and Community Health	3	0	3
MTH	1*Mathematics 151, 158, 163, 241, or 173	3	0	3
EEE	2*Humanities Elective	3	0	3
EEE	3*Social Science Elective	3	0	3
	Total	**16**	**0**	**16**

Second Semester (Spring)

ENG 112	College Composition II	3	0	3
CST 100	Principles of Public Speaking	3	0	3
MTH	1*Mathematics 152, 164, 242, or 174	3	0	3
EEE	2*Humanities Elective	3	0	3
EEE	3*Social Science Elective	3	0	3
	Total	**15**	**0**	**15**

Third Semester (Fall)

ENG	Literature 241, 243, or 251	3	0	3

SCI	4*Science (BIO, CHM, GOL or PHY)	3	3	4
HIS	5*History 121, 111 or 101	3	0	3
EEE	3*Social Science Elective	3	0	3
ITE 100, 115 or 119	6*Intro. to Information Systems, Intro. to Computer Applications & Concepts or Information Literacy	3	0	3
	Total	**15**	**3**	**16**

Fourth Semester (Spring)

ENG	Literature 242, 244, or 252	3	0	3
EEE	3*Social Science or Humanities Elective	3	0	3
SCI	4*Science(BIO, CHM, GOL, or PHY)	3	3	4
HIS	5*History 122, 112 or 102	3	0	3
	Total	**12**	**3**	**13**

Total Minimum Credits for AA&S Degree.....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. The Education semester-by-semester sequences of course may be modified when necessary and with the approval of the academic advisor.

Footnotes*

1. 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. Students planning to enter Secondary Education programs should complete rigorous mathematics courses in preparation for Praxis I and should consult with the Counselor concerning licensure requirements.
2. Recommended humanities courses include ART 201, 202; MUS 121, 122; REL 200, 210, 230; CST 130, 151, 152; foreign language; PHI 100; and literature.
3. Recommended social science courses include PSY 200; ECO 201, 202; PLS 135, 211, 212; SOC 200; GEO 210, 220; HIS 101, 102, 111, 112, 121, 122 (not already taken to fulfill history requirement). See footnote 2 for humanities options.
4. The Natural Sciences options to meet the Science requirement are BIO 101-102; BIO 141-141; CHM 101-102 or 111-112; GOL 105-106; PHY 121-122 or 201-202 or 231-232 or 241-242. Students are urged to acquaint themselves with the science required in their selected major at the college or university to which transfer is contemplated.
5. Students planning to enter Secondary Education programs at four-year institution must take U.S. History (HIS 121).
6. Keyboarding skills are highly recommended.

Note:
Students planning to enter Secondary Education should complete Praxis I before transfer. For more information on licensure requirements, see Counselor - ISC 128 or contact Linda Garnett at lgarnett@vhcc.edu.

Education - Specialization in Art

Associate of Arts and Sciences Degree

Associate of Arts and Sciences Degree

Program Coordinator: Thomas Bryant, OTC 218, Ext. 2451
Length: Four semesters (two years)

Purpose: The Associate of Arts and Sciences Degree Program with a major in Education - Specialization in Art is designed for persons who plan to transfer to a four-year college or university to complete a baccalaureate degree program.

Transfer Objectives and Professional Options:
College or high school teaching Art History
Undecided majors with an interest in Art
Museum studies
Museum Curator

Admission Requirements: In addition to the admission requirements established for the college, entry into the Associate of Arts and Sciences Degree Program with a major in Education requires 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 science.

Students who do not meet the mathematics requirements may be permitted to correct their deficiencies in developmental studies. Those students who meet the specific requirements for this degree program but are deficient in basic skills and understandings in English and/or mathematics will be required to enroll in appropriate developmental courses.

Program Requirements: The world of modern education demands that students be knowledgeable both in their teaching field and in general education. Thus, this curriculum requires courses in the humanities, natural sciences, mathematics, social sciences, health, and physical education. The Education curriculum is designed to lead the student toward meeting state teacher licensure requirements and teaching endorsements. This curriculum also provides a solid general core education as students prepare for pre-professional degrees.

Students are urged to consult with their counselors and advisors at Virginia Highlands Community College in planning their program and selecting electives. In order to prepare for upper division (junior class) standing at a four-year college or university, the student 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 satisfactory completion of the four-semester program listed, the graduate will be awarded the Associate of Arts and Sciences Degree with a major in Education - Specialization in Art.

Education - Specialization in Art

First Semester (Fall)

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
ENG 111	College Composition I	3	0	3
SDV 101	Orientation to College Success	1	0	1
HIS	1*History 101, 111 or 121	3	0	3
MTH	2*Mathematics 151, 158, 163, 241, or 173	3	0	3
ART 121	Drawing I	1	4	3
ART 131	Fundamentals of Design I	1	4	3
	Total	**12**	**8**	**16**

Second Semester (Spring)

ENG 112	College Composition II	3	0	3
HIS	1*History 102, 112 or 122	3	0	3
MTH	2*Mathematics 152, 164, 242, or 174	3	0	3
ITE100, 115 or 119	3*Intro. to Information Systems, Intro. to Computer Applications & Concepts or Information Literacy	3	0	3
ART 201 or 202	Art History I or II	3	0	3
	Total	**15**	**0**	**15**

Third Semester (Fall)

ENG	4*Literature 241, 243, 251, or Humanities Elective	3	0	3

SCI	5*Science (BIO, CHM, GOL, or PHY)	3	3	4
EEE	6*Social Science Elective	3	0	3
ART 125	Introduction to Painting	2	3	3
CST 100	Principles of Public Speaking	3	0	3
	Total	**14**	**6**	**16**

Fourth Semester (Spring)

ENG	4*Literature 242, 244,252, or Humanities Elective	3	0	3
SCI	5*Science (BIO, CHM, GOL, or PHY)	3	3	4
ART 134	Three Dimensional Design	1	4	3
EEE	6*Social Science Elective	3	0	3
PED	7*Physical Education	0	2-3	1
	Total	**10**	**9-10**	**14**

Total Minimum Credits for AA&S Degree.....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. The Art Specialization semester-by-semester sequences of courses may be modified when necessary and with the approval of the academic advisor.

Footnotes*

1. Students planning to enter Secondary Education programs at four-year institutions must take U.S. History I (HIS 121).
2. 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. Students planning to enter Secondary Education programs should complete rigorous mathematics courses in preparation for Praxis I and should consult with the Counselor for licensure requirements.
3. Keyboarding skills are highly recommended.
4. Recommended humanities courses include ART 201, 202; MUS 121, 122; REL 200, 210, 230; CST 130, 151, 152; PHI 100; Foreign Language and Literature.
5. The Natural Sciences options to meet the Science requirement are BIO 101-102; BIO 141-142; CHM 101-102 or 111-112; GOL 105-106; PHY 121-122 or 201-202 or 231-232 or 241-242. Students are urged to acquaint themselves with the science required in their selected major at the college or university to which transfer is contemplated.
6. Recommended social science courses include PSY 200; ECO 201, 202; PLS 135, or 211, 212; SOC 200; GEO 210, 220; HIS 101, 102, 111, 112, 121, 122 (not already taken to fulfill history requirement).
7. Students may substitute any HLT (Health) course that contains a personal wellness component for physical education requirements. Transfer students should note that four-year institutions may require a PED activity course in the general education core.

Education - Specialization in Teacher Preparation

Associate of Arts and Sciences Degree

For Early Childhood PK-3, Elementary PK-6, Middle Education 6-8 and Special Education

Associate of Arts and Sciences Degree

Program Coordinator: Barbara Manuel, OTC 206, Ext. 2539
Length: Four semesters (two years)

Purpose: The VCCS Teacher Education Teacher Preparation Education degree 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 one of the following endorsement areas:
Early Childhood PK-3, Elementary PK-6 , Middle Education 6-8, Special Education Licensure, Secondary Education

Students who enter this program should be aware of the requirements for professional employment in the education field including academic and licensing requirements. Consultation with the Counselor or faculty advisor is highly recommended.

Admission Requirements: In addition to the admission requirements established for the college, entry into the Associate of Arts and Sciences Degree Program with a major in Education requires 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 science.

Students who do not meet the mathematics requirements may be permitted to correct their deficiencies in developmental studies. Those students who meet the specific requirements for this degree program but are deficient in basic skills and understandings in English and/or mathematics will be required to enroll in appropriate developmental courses.

Program Requirements: The world of modern education demands that students be knowledgeable both in their teaching field and in general education. Thus, this curriculum requires courses in the humanities, natural sciences, mathematics, social sciences, health, and physical education. The Education curriculum is designed to lead the student toward meeting state teacher licensure requirements and teaching endorsements. This curriculum also provides a solid general core education as students prepare for pre-professional degrees.

Students are urged to consult with their counselors and advisors at Virginia Highlands Community College in planning their program and selecting electives. In order to prepare for upper division (junior class) standing at a four-year college or university, the student 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 satisfactory completion of the four-semester program listed, the graduate will be awarded the Associate of Arts and Sciences Degree with a major in Education - Specialization in Teacher Preparation.

Education - Specialization in Teacher Preparation

First Semester (Fall)

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
ENG 111	College Composition I	3	0	3
SDV 101	Orientation to Education	1	0	1
MTH	1*Mathematics 151, 163	3	0	3
HIS 121	United States History I	3	0	3
ITE 100, 115 or 119	Intro. to Information Systems, Intro. to Computer Applications & Concepts or Information Literacy	3	0	3
HLT/PED	2*Health/Wellness	0	2-3	1
	Total	**13**	**2-3**	**14**

Second Semester (Spring)

ENG 112	College Composition II	3	0	3
MTH	1*Mathematics 152, 241	3	0	3
HIS 122	United States History II	3	0	3
PLS 135	American National Politics	3	0	3
EEE	3*Humanities Elective	3	0	3
	Total	**15**	**0**	**15**

Third Semester (Fall)

CST 100	Principles of Public Speaking	3	0	3
HIS	History of Western Civilization 101 or 102	3	0	3
EDU 200	Intro. to Teaching	3	0	3
ECO	Principles of Economics 201 or 202	3	0	3
BIO 101	Biology I	3	3	4
	Total	**15**	**3**	**16**

Fourth Semester (Spring)

GEO 210	People and the Land: Intro. to Cultural Geography	3	0	3
BIO 102	Biology II	3	3	4
EEE	3*Humanities Elective	3	0	3
EEE	4*Elective	3	0	3
ENG	Literature 241, 242, 243, 244, 251, 252	3	0	3
	Total	**15**	**3**	**16**

Total Minimum Credits for AA&S Degree.....61

Notes

Students are urged to acquaint themselves with the requirements of the teacher preparation program in the college or university to which transfer is contemplated; and further, to consult with their counselor (ISC 128) to prepare for Praxis I licensure exams after completing mathematics and English requirements. Community college graduates are encouraged to take Praxis prior to graduation.

Footnotes*

1. 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. Consult with Linda Garnett upon completion of mathematics requirements for Praxis I information at lgarnett@vhcc.edu.
2. Health 110 or HLT 106 are strongly recommended.
3. Humanities electives for teacher preparation programs are restricted to ART 201, 202 or MUS 121, 122.
4. Students preparing for licensure in early childhood education **must** take either an additional science course such as CHM 101 or 111, PHY 121, 201, 231, GOL 105 or choose a literature option from among the following courses: ENG 241, 242, 243, 244, 250, 251, 252 (not already completed in the curriculum).

Education - Specialization in Theatre Arts

Associate of Arts and Sciences Degree

Program Coordinator: Dona Lee, OTC 205, Ext. 2585
Length: Four semesters (two years)

Purpose: The Education - Specialization in Theatre Arts is designed for students who plan to transfer to a four-year institution. This program is designed to develop skills in and appreciation of those subjects related to performance and production in theatre. This program provides basic preparation leading to theatre-related careers, as well as to the teaching of theatre.

Transfer Objectives and Professional Options:
Communications, Theatre, Dramatic Literature, Radio and Television Broadcasting, Undecided Majors with an interest In Theatre, Film, Drama

Admission Requirements: In addition to the admission requirements established for the college, entry into the Associate of Arts and Sciences Degree Program with a major in Education requires 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 science.

Students who do not meet the requirements may be permitted to correct their deficiencies in developmental studies. Those students who meet the specific requirements for this degree program but are deficient in basic skills and understandings in English and/or mathematics will be required to enroll in appropriate developmental courses.

Program Requirements: The world of modern education demands that students be knowledgeable both in their teaching field and in general education. Thus, this curriculum requires courses in the humanities, natural sciences, mathematics, social sciences, health, and physical education. The Education curriculum is designed to lead the student toward meeting state teacher licensure requirements and teaching endorsements. This curriculum also provides a solid general core education as students prepare for pre-professional degrees.

Students are urged to consult with their counselors and advisors at Virginia Highlands Community College in planning their program and selecting electives. In order to prepare for upper division (junior class) standing at a four-year college or university, the student 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 satisfactory completion of the four-semester program listed, the graduate will be awarded the Associate of Arts and Sciences Degree with a major in Education - Specialization in Theatre Arts.

Education – Specialization in Theatre Arts

First Semester (Fall)

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
ENG 111	College Composition I	3	0	3
SDV 101	Orientation to College Success	1	0	1
MTH	1*Mathematics	3	0	3
CST 130	Intro. to the Theatre	3	0	3
CST 136	Theatre Workshop	0	3	1
ITE 100, 115 or 119	2*Intro. to Information Systems, Intro. to Computer Applications &Concepts or Information Literacy	3	0	3
	Total	**13**	**3**	**14**

Second Semester (Spring)

ENG 112	College Composition II	3	0	3
MTH	1*Mathematics	3	0	3
CST 100	Principles of Public Speaking	3	0	3
CST 136	Theatre Workshop	0	3	1
EEE	1*Social Science Elective	3	0	3
CST 145	Stagecraft (Taught in odd years)	2	2	3
	Total	**14**	**5**	**16**

Third Semester (Fall)

EEE	1*Humanities Elective	3	0	3
SCI	1*Science	3	3	4
PED	PED Elective	0	2-4	2

CST 136	Theatre Workshop	0	3	1
CST 131	Acting I (Taught in even years)	3	0	3
HIS	3*History 101, 111, or 121	3	0	3
	Total	**12**	**8-10**	**16**

Fourth Semester (Spring)

EEE	1*Humanities Elective	3	0	3
SCI	1*Science (BIO, CHM, GOL, or PHY)	3	3	4
CST 132	Acting II (Taught in even years)	3	0	3
CST 136	Theatre Workshop	0	3	1
EEE	3*Social Science Elective	3	0	3
	Total	**12**	**6**	**14**

Total Minimum Credits for AA&S Degree.....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. The Theatre Arts Specialization semester-by-semester sequences of courses may be modified when necessary and with the approval of the academic advisor.

Footnotes*

1. Students may choose from a broad spectrum of college transfer courses listed in the Transfer Reference General Education Core Curriculum. Students are urged to acquaint themselves with the courses required in their selected major at the college or university to which transfer is contemplated. Students planning to enter Secondary Education programs should complete rigorous mathematics courses in preparation for Praxis I and should consult with the Counselor for licensure requirements.
2. Keyboarding skills are highly recommended.
3. Students planning to enter Secondary Education programs at four-year institutions must take U.S. History I (HIS 121).

General Studies

Associate of Arts and Sciences Degree

Program Coordinator: Mary Munsey, MEC 114, Ext. 2454
Length: Four semesters (two years)

Purpose: The Associate of Arts and Sciences Degree Program with a major in General Studies is a degree program designed for transfer to four-year colleges for those students whose area of interest is other than those covered by VHCC's Business Administration, Science, Education, or Liberal Arts curricula. In general, these students would not be taking a foreign language and would not be planning to major in the fields of education, business, science, medicine, mathematics, agriculture, or computer science. Some possible goals of a General Studies student might be Communications, Social Work, or Journalism. General Studies is also appropriate for the undecided transfer student or those in transition between colleges.

Admission Requirements: In addition to the admission requirements established for the college, entry into the General Studies program requires 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 science. 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 in the community college. Students who do not meet these requirements may be permitted to correct their deficiencies in the Developmental Program. Those students who meet the specific requirements for this degree program but are deficient in basic skills and understandings in English and/or mathematics will be required to enroll in appropriate developmental courses.

Program Requirements: Four-year colleges and universities usually require a broad general education during the first two years of their baccalaureate programs. Therefore, this curriculum offers a distribution of general education courses usually required in the first two years of many baccalaureate programs. Students are urged to select a four-year college or university early in the planning with their counselor and to prepare their community college program carefully in accord with the requirements for entry into the junior year at the college to which they will transfer. When admitted into the program the student will, in consultation with the Counselor, develop a curriculum based upon the freshman and sophomore year requirements of the transfer institution, which the student has selected. The student should then consult with the transfer institution to be certain that the planned program will provide the student with the courses the student must have in order to be admitted as a junior upon graduation from VHCC. The Counselor and/or Faculty Advisor will assist the student in selecting courses, which are normally transferable. Upon satisfactory completion of the four-semester program, the graduate will be awarded the Associate of Arts and Sciences Degree with a major in General Studies.

General Studies

First Semester (Fall)

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
ENG 111	College Composition I	3	0	3
HIS	History 101, 111 or 121	3	0	3
MTH	Transfer Mathematics	3	0	3
PED	1*Physical Education	0	2-3	1
SCI	2* Lab Science	3	3	4
SDV 101	Orientation to College Success	1	0	1
	Total	**13**	**5-6**	**15**

Second Semester (Spring)

ENG 112	College Composition II	3	0	3
HIS	History 102, 112 or 122	3	0	3
MTH	Transfer Mathematics	3	0	3
SCI	2*Lab Science	3	3	4
EEE	2*Transferrable Elective	3	0	3
	Total	**15**	**3**	**16**

Third Semester (Fall)

ENG	2*Literature or Humanities Elective	3	0	3
CST 100	Principles of Public Speaking	3	0	3
EEE	2*Social Sciences Elective	3	0	3
EEE	2*Transferrable Elective	3	0	3
MUS 121	Music Appreciation I or 2*Humanities Elective	3	0	3

	Total	**15**	**0**	**15**
Fourth Semester (Spring)				
ENG	2*Literature or Humanities Elective	3	0	3
MUS 122	Music Appreciation II or 2*Transferable Elective	3	0	3
ITE 100, 115 or 119	3*Intro. to Information Systems, Intro. to Computer Applications & Concepts or Information Literacy	3	0	3
EEE	2*Social Sciences Elective	3	0	3
EEE	2*Transferrable Elective	3	0	3
	Total	**15**	**0**	**15**

Total Minimum Credits for the AA&S Degree.....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, to consult with their counselors or advisors at Virginia Highlands Community College in planning their program and selecting electives.

The above semester-by-semester sequence of courses may be modified when necessary. Please refer to the Program Choices section of this catalog for a discussion of factors which affect planning and sequencing programs of study.

Footnotes*

1. Students may substitute any HLT (Health) course that has 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.
2. Students may choose from a broad spectrum of college transfer courses listed in the Transfer Reference General Education Core Curriculum. Students are urged to acquaint themselves with the courses required in their selected major at the college or university to which transfer is contemplated. MTH 146 may be used to satisfy the math requirements for this degree.
3. Keyboarding skills highly recommended.

Liberal Arts

Associate of Arts and Sciences Degree

Program Coordinator: Carmen Verges, ISC 101B, Ext. 2480
Length: Four semesters (two years)

Purpose: The Associate of Arts and Sciences Degree with a major in Liberal Arts is a degree for persons who plan to transfer to a four-year college or university to complete a baccalaureate degree program, usually the Bachelor of Arts Degree. This curriculum is designed for students who wish to complete their foreign language requirement while at VHCC. Liberal Arts is a major especially appropriate for those who are planning careers in law, college teaching, in the humanities, and social sciences. This program provides a solid general core for transfer to those students who are undecided regarding their majors at four-year institutions, or who must meet a foreign language requirement at their four-year college.

Transfer Objectives:
Pre-Law, Music, Journalism, Religion, Communications, Foreign Language Careers, Psychology, Undecided Majors,Teaching in the Humanities and Social Sciences

Admission Requirements: In addition to the admission requirements established for the college entry into the Associate of Arts and Sciences Degree program with a major in Liberal Arts requires 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 history. The remaining units are elective courses, but at least two units of a foreign language are recommended. Students are urged to check the mathematics requirements of the four-year institution to which they plan to transfer to determine the proper mathematics courses to be taken in the community college. Students who do not meet these requirements may be permitted to correct their deficiencies in the Developmental Program. Those students who meet the specific requirements for this degree program but are deficient in basic skills and understandings in English and/or mathematics will be required to enroll in appropriate developmental courses.

Program Requirements: This curriculum consists of courses in the humanities including a foreign language, natural sciences, and social sciences usually required in the first two years of a baccalaureate liberal arts curriculum. 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 or advisors at Virginia Highlands Community College in planning their program and selecting electives. 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 and Sciences Degree with a major in Liberal Arts.

Liberal Arts

First Semester (Fall)

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
SDV 101	Orientation to College Success	1	0	1
ENG 111	College Composition I	3	0	3
HIS	History 101, 111 or 121	3	0	3
MTH	1*Mathematics	3	0	3
F/Lang	2*Foreign Language (SPA 101 or FRE 101)	4	0	4
EEE	1*Social Science Elective	3	0	3
	Total	**17**	**0**	**17**
Second Semester (Spring)				
ENG 112	College Composition II	3	0	3
HIS	History 102, 112 or 122	3	0	3
MTH	1*Mathematics	3	0	3
F/Lang	2*Foreign Language (SPA 102 or FRE 102)	4	0	4
EEE	1*Social Science Elective	3	0	3
	Total	**16**	**0**	**16**
Third Semester (Fall)				
ENG	1*Literature or 1*Humanities Elective	3	0	3
F/Lang	Foreign Language (SPA 201 or FRE 201)	3	0	3
PED	3*Physical Education	0	2-3	1
SCI	1*Science (BIO, CHM, GOL, or PHY)	3	3	4
ITE 100, 115 or 119	4*Intro. to Information Systems, Intro. to Computer Applications & Concepts or Information Literacy	3	0	3
	Total	**12**	**6**	**14**
Fourth Semester (Spring)				
ENG	1*Literature or 1*Humanities Elective	4	0	3
F/Lang	Foreign Language (SPA 202 or FRE 202)	3	0	3
CST 100	Principles of Public Speaking	3	0	3

PED	3*Physical Education	0	2-3	1
SCI	1*Science (BIO, CHM, GOL, or PHY)	3	3	4
	Total	**12**	**5-6**	**14**

Total Minimum Credits for AA&S Degree.....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, to consult with their counselors or advisor at Virginia Highlands Community College in planning their program and selecting electives.

The above semester-by semester sequencing of courses may be modified when necessary. Please refer to the Program Choices section of this Catalog for a discussion of factors, which affect planning and sequencing programs of study.

Footnotes*

1. Students may choose from a broad spectrum of college transfer courses listed in the Transfer Reference General Education Core Curriculum. Students are urged to acquaint themselves with the courses required in their selected major at the college or university to which transfer is contemplated. MTH 146 may be used to satisfy the math requirement for this degree.
2. Students who have successfully completed two years of foreign language or more in high school may enroll in intermediate foreign language (200 level courses) at Virginia Highlands Community College. Students receiving advanced placement as stated above and who successfully complete both 201-202 foreign language courses with a C or better, will be awarded first-year foreign language credit (101-102) provided they are Liberal Arts majors and need the credits for graduation.
3. 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.
4. Keyboarding skills highly recommended.

Science

Associate of Arts and Sciences Degree

Program Coordinator: Doug Carmichael, OTC 204, Ext. 2435
Length: Four semesters (two years)

Purpose: With the emphasis on scientific discoveries and technological development in today's society, there is a strong demand for scientists and scientifically oriented persons in business, government, industry and the professions. The Associate of Arts and Sciences Degree Program with a major in Science 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 or major in such fields as:

Agriculture	Nursing	Forestry
Mathematics	Pre-Chiropractic	Physics
Biology	Pharmacy	Geology
Pre-Medicine	Pre-Dentistry	Science Education
Chemistry	Physical Therapy	Home Economics

Admission Requirements: In addition to the admission requirements established for the college entry into the Associate of Arts and Sciences Degree program with a major in Science requires 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, 1 unit of social studies. Students who do not meet these requirements may be permitted to correct their deficiencies in the Developmental Program. Those students who meet the specific requirements for this degree program but are deficient in basic skills and understandings in English and/or mathematics will be required to enroll in appropriate developmental courses (pre-entrance summer semester recommended).

Program Requirements: 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 his pre-professional or scientific program as required in the first two years of the four-year college or university. 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 or advisors at Virginia Highlands Community College in planning their program and selecting electives. 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 and Sciences Degree with a major in Science.

Science

First Semester (Fall)

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
ENG 111	College Composition I	3	0	3
HIS	History 101, 111 or 121	3	0	3
MTH	Mathematics (163 or 173)	3-5	0	3-5
SCI	Science (BIO, CHM, GOL, PHY)	3	3	4
SDV 101	Orientation to College Success	1	0	1
	Total	**13-15**	**3**	**14-16**
Second Semester (Spring)				
ENG 112	College Composition II	3	0	3
HIS	History 102, 112 or 122	3	0	3
MTH	Mathematics (164 or 174)	3-5	0	3-5
PED	1*Physical Education	0	2-3	1
SCI	Science (BIO, CHM, GOL, PHY)	3	3	4
	Total	**12-14**	**5-6**	**14-16**
Third Semester (Fall)				
ENG	2*Literature or Humanities Elective	3	0	3
EEE	2*Social Science Elective	3	0	3
MTH	3*Mathematics	3	0	3
SCI	2*Science, Mathematics, or Engineering Transferable Elective (BIO, CHM, EGR, GOL, MTH, PHY)	3	3	4
CST 100	Principles of Public Speaking	3	0	3
	Total	**15**	**3**	**16**
Fourth Semester (Spring)				
ENG	2*Literature or Humanities Elective	3	0	3
EEE	2*Transferable Elective	3	0	3
ITE or ITP	4*Information Technology Course	3	0-3	3-4

EEE	2*Transferable Elective	3	0	3
SCI	2*Science, Mathematics, or Engineering Transferable Elective (BIO, CHM, EGR, GOL, MTH, PHY)	3	3	4
	Total	**15**	**3-6**	**16-17**

Total Minimum Credits for the AA&S Degree.....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, to consult with their counselors or advisors at Virginia Highlands Community College in planning their program and selecting electives.

The above semester-by-semester sequence of courses may be modified when necessary. Please refer to the Program Choices section of this catalog for a discussion of factors which affect planning and sequencing programs of study.

Footnotes*

1. 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.
2. Students may choose from a broad spectrum of college transfer courses listed in the Transfer Reference General Education Core Curriculum. Students are urged to acquaint themselves with the courses required in their selected major at the college or university to which transfer is contemplated.
3. Math Requirements: A minimum of nine (9) semester hours of mathematics is required for the Science major. The third course in the sequence should be selected based on requirements of transfer major and transfer institution.
4. Students should select from ITE 100, ITE 115, ITE 119, ITP 120, ITP 132 or from another programming course approved by the division.

Science - Specialization in Engineering

Associate of Arts and Sciences Degree

Program Coordinator: Tom Tidwell, LRC 216, Ext. 2409
Length: Four semesters (two years)

Purpose: This program is designed to provide the first two years of a degree in engineering science with particular emphasis on the University of Virginia School of Engineering and Applied Science PRODUCED in Virginia initiative. Students who are planning to transfer into other engineering programs at the University of Virginia or other four-year institutions are urged to acquaint themselves with the requirements of the major department in the college or university to which transfer is contemplated and to consult with their counselor or advisor at Virginia Highlands Community College in planning their program.

First Semester (Fall)

Course Number	Course Title	Lec.Hrs.	Lab.Hrs.	Crs.
ENG 111	College Composition I	3	0	3
HIS	History 101, 111 or 121	3	0	3
MTH 173	Calculus with Analytic Geometry I	5	0	5
MTH 177	Introductory Linear Algebra	2	0	2
CHM 111	College Chemistry I	3	3	4
SDV 101	Orientation to College Success	1	0	1
	Total	**17**	**3**	**18**
Second Semester (Spring)				
ENG 112	College Composition II	3	0	3
HIS	History 102, 112 or 122	3	0	3
MTH 174	Calculus with Analytic Geometry II	5	0	5
EGR 120	Introduction to Engineering	1	0	1
EGR 140	Engineering Mechanics – Statics	3	0	3
CST 100	Principles of Public Speaking	3	0	3
	Total	**18**	**0**	**18**
Third Semester (Fall)				
EEE	1*Social Science Elective	3	0	3
ITP	2*Computer Programming Course	4	0	4
MTH 277	Vector Calculus	4	0	4
SCI	PHY 241 University Physics I	3	3	4
EGR 245	Engineering Mechanics – Dynamics	3	0	3
	Total	**17**	**3**	**18**
Fourth Semester (Spring)				
ENG	3*Literature or Humanities Elective	3	0	3
HUM	3*Literature or Humanities Elective	3	0	3
MTH 279	Ordinary Differential Equations	4	0	4
SCI	PHY 242 University Physics II	3	3	4
EGR 246	Mechanics of Materials	3	0	3
PED	4*Physical Education	0	2-3	1
	Total	**16**	**5-6**	**18**

Total Minimum Credits for the AA&S Degree…….……72

1. Recommended social sciences: ECO 201, 202; GEO 210, 220; PLS 135, 211, 212; PSY 200; SOC 200; HIS 101, 102, 111, 112, 121, 122 (not already taken to fulfill history requirement).
2. Students should enroll in ITP 120, ITP 132, or a computer programming course as approved by the division.
3. Must be chosen from ENG 241, 242, 243, 244, 251, 252, or the following humanities courses: ART 201, 202; foreign languages; MUS 121, 122; PHI 101; REL 200, 210, 230; CST 130, 151, 152. Transfer students are advised to consider four-year college and university requirements in making their choices.
4. 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.

Science - Specialization in Horticulture

Associate of Arts and Sciences Degree

Program Coordinator: Kevin Hamed, OTC 220, Ext. 2431
Length: Four semesters (two years)

Students who are planning to transfer are urged to acquaint themselves with the requirements of the major department in the college or university to which transfer is contemplated and to consult with their counselor or advisor at Virginia Highlands Community College (VHCC) in planning their program and selecting electives.

Science – Specialization in Horticulture

First Semester (Fall)

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
ENG 111	College Composition I	3	0	3
BIO 101	General Biology I	3	3	4
MTH 163	Pre-Calculus	3	0	3
HIS 101	Western Civilization I	3	0	3
EEE	1*Transfer Horticulture Elective	2	2	3
SDV 101	Orientation to College Success	1	1	1
	Total	**15**	**6**	**17**

Second Semester (Spring)

ENG 112	College Composition II	3	0	3
BIO 102	General Biology II	3	3	4
MTH 271	Calculus	3	0	3
EEE	1*Transfer Horticulture Elective	2	2	3
PED	2*Physical Education	0	2-3	1
	Total	**11**	**7-8**	**14**

Third Semester (Fall)

ECO 201	Principles of Economics I	3	0	3
EEE	3*Literature or Humanities Elec.	3	0	3
CHM 111	College Chemistry I	3	3	4
EEE	1*Transfer Horticulture Elective	2	2	3
IST	4*Fundamental IST Skills ITE 100, 115 or 119	3	0	3
	Total	**14**	**5**	**16**

Fourth Semester (Spring)

ECO 202	Economics II	3	0	3
EEE	3*Literature or Humanities Elec.	3	0	3
CHM 112	College Chemistry II	3	3	4
EEE	1*Transfer Horticulture Elective	2	2	3
	Total	**11**	**5**	**13**

Total Minimum Credits for AA&S.....60

Footnotes*

1. Students should consult with their Academic Advisor and select classes that are on an approved transfer list from the senior institution. Virginia Tech (VT) currently accepts the following classes: HRT 100, HRT 115, HRT 226, HRT 227, HRT 225, HRT 247, HRT 260 and HRT 275. VT will accept up to 16 hours of Horticulture classes as transfer credit.
2. 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 might require a PED activity course in the general education core.

3. Students may choose from a broad spectrum of college transfer courses listed in the Transfer Reference General Education Core Curriculum. Students are urged to acquaint themselves with the courses required in their selected major at the college or university to which transfer is contemplated.
4. Keyboarding skills highly recommended.

College Transfer - Certificate

General Education

Certificate

Program Coordinator: Mary Munsey, MEC 114, Ext 2454
Length: Two Semesters (1 year)

First Semester (Fall)

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
SDV 101	Orientation to College Success	1	0	1
ENG 111	College Composition I	3	0	3
MTH	1*Transfer Mathematics Course	3	0	3
EEE	2*Social Science elective	3	0	3
EEE	3*Humanities Elective	3	0	3
SCI	4*Laboratory Science	3	3	4
	Total	**16**	**3**	**17**

Second Semester (Spring)

EEE	Communications (ENG 112 or CST 100)	3	0	3
EEE	2*Social Science Elective	3	0	3
EEE	2*Social Science Elective	3	0	3
EEE	3*Humanities Elective	3	0	3
SCI	4*Laboratory Science	3	3	4
	Total	**15**	**3**	**16**

Total Minimum Credits for Certificate.....33

Notes

Students are urged to acquaint themselves with the requirements of the college or university to which transfer is planned and to seek counsel from the Student Success Center and faculty advisors in transfer programs.

Footnotes

1. 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. While only three credits are listed in the certificate requirements, students should be aware that four-year colleges often require a minimum of six credits. Transfer mathematic sequences include: MTH 151-152, 163-164, 241-242, 271-272 and 173-174.
2. Recommended Social Science courses include: ECO 201, 202, GEO 210, 220; PLS 135, 211, 212, PSY 200; and SOC 200.
3. Recommended humanities courses include: ART 201, 202; MUS 121, 122; REL 200, 210; 230; CST130, 151, 152; PHI 101; literature and second year foreign language.
4. Must be chosen from the following laboratory sciences: BIO 101-102; BIO 141-142; CHM 101-102 or 111-112; GOL 105-106; PHY 121-122; PHY 201-202; PHY 241-242.

Agricultural and Natural Resources Technology –
Associate of Applied Science Degree

Horticulture Technology

Associate of Applied Science

Program Coordinator: Kevin Hamed, OTC 220, Ext. 2431
Length: Four semesters (two years)

Purpose: The Horticulture Industry is one of the fastest growing industries in the VHCC service region. The Horticulture program is designed to prepare students for employment in the horticulture industry or a related 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 plant production, but also interpersonal and business management skills.

Occupational Objectives: Graduates of the program are prepared for managerial/supervisory level positions in areas that include landscape design and installation, grounds maintenance, turfgrass maintenance, floral designer, greenhouse and nursery management, garden center operation, and sales and marketing and related industries.

Program 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. Courses within this curriculum may be applied to a four-year program at the discretion of the admitting institution. 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.

Horticulture Technology

First Semester (Fall)

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
BIO 215	Plant Life of Virginia	2	3	3
HRT 100	Into. to Horticulture	2	2	3
HRT 246	Herbaceous Plants	2	2	3
ENG 111	College Composition	3	0	3
EEE	2*Social Science Elective	3	0	3
SDV 101	Orientation to College Success	1	1	1
	Total	**13**	**8**	**16**
Second Semester (Spring)				
HRT 205	Soils	2	2	3
HRT 226	Greenhouse Management	2	2	3
HRT 275	Landscape Construction	2	2	3
BIO 101	Gen Biology I	3	3	4
EEE	3*Humanities Elective	3	0	3
	Total	**12**	**9**	**16**
Summer Semester				
HRT 197 or 297	**Cooperative Education**	0	45	3
	Total	**0**	**45**	**3**
Third Semester (Fall)				
HRT 115	Plant Propagation	2	2	3
HRT 233	Landscape Drawing Applications	2	2	3
HRT 260	Floral Design	2	2	3
SPA 101	Spanish (or HRT 297)	3-4	0	3-4
CST 100	Principles of Public Speaking	3	0	3
	Total	**12-13**	**6**	**15-16**
Fourth Semester (Spring)				
HRT 134	Four Season Food Production	3	0	3
HRT 245	Woody Plants (opt. HRT 247/269)	2	2	3
HRT 259	Arboriculture	2	2	3

EEE	2*Social Science Elective	3	0	3
MTH 141	Business Math	3	0	3
PED	4*Physical Education	0	2-3	1
	Total	**13**	**6-7**	**16**

Total Minimum Credits for AAS Degree.....66-67

Footnotes*

1. HRT classes do not have prerequisites.
2. Students must take 6 credits of social sciences. Recommended social science courses include ECO 201-202; GEO 210; HIS 101-102; HIS 121-122; PLS 135, 211-212; PSY 200; SOC 200.
3. Students must take 3 credits of Humanities/Fine Arts. Recommended humanities courses include ART 201, 202; MUS 121, 122; REL 200, 210, 230; CST 130, 151, 152; PHI 101; foreign language and literature.
4. 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 might require a PED activity course in the general education core.

Agricultural and Natural Resources Technology – Career Studies Certificates

Horticulture

Career Studies Certificate

Purpose: To provide the knowledge and skills needed for entry-level positions in horticulture. Also appropriate for personal growth and development.

Fall

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
HRT 100	Intro. to Horticulture	2	2	3
BIO 215	Plant Life of Virginia	2	3	3
HRT 246	Herbaceous Plants	2	2	3
Spring				
HRT 205	Soils	2	2	3
HRT 245	Woody Plants	2	2	3
EEE	Horticulture Elective	2	2	3
	Total	**12**	**13**	**18**

Horticulture: Floral Design and Indoor Plant Care

Career Studies Certificate

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
HRT 100	Intro. to Horticulture	2	2	3
HRT 226	Greenhouse Management	2	2	3
HRT 202	Landscape Plants	2	2	3
HRT 207	Plant Pest Management	2	2	3
HRT 260	Floral Design	2	2	3
HRT 247	Indoor Plants	2	2	3
	Total	**12**	**12**	**18**

Organic Food/Plant Production

Career Studies Certificate

Purpose: To provide the knowledge and skills needed for growing organic food and plant crops. Also appropriate for personal growth and development.

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
Fall				
HRT 100	Intro. to Horticulture	2	2	3
HRT 115	Plant Propagation	2	2	3
BIO 215	Plant Life of Virginia	2	3	3
Spring				
HRT 134	Four Season Food Production	3	0	3
HRT 205	Soils	2	2	3
HRT 226	Greenhouse Management	2	2	3
	Total	**13**	**11**	**18**

Business Technology – Associate of Applied Science Degree

Accounting

Associate of Applied Science

Program Coordinator: Richard Hutton, LRC 206, Ext. 2452
Length: Four semesters (two years)

Purpose: 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. Proficiency in keyboarding is required. Students may enroll in AST 114 to upgrade keyboarding skills.

Program Requirements: The first two semesters (first year) of the Associate of Applied Science Degree curriculum in Accounting are similar to the AAS degree in Business Technology with a major 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. Courses within this curriculum may be applied to a four-year program at the discretion of the admitting institution. Upon successful completion of the four-semester curriculum listed, the graduate will be awarded the Associate of Applied Science Degree in Business Technology with a major in Accounting.

Notes on Transfer: Associate of Applied Science Degree programs are designed primarily to provide occupational competence for employment. Upon the student's request, courses may be modified to provide possible transfer acceptability by four-year colleges and universities. Transfer options are listed in the footnotes.

Accounting

First Semester (Fall)

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
SDV 101	Orientation to College Success	1	0	1
ENG 111	College Composition I	3	0	3
ACC 211	Principles of Accounting I	4	0	4
MTH 141	1*Business Math I	3	0	3
BUS 100	Introduction to Business	3	0	3
ITE 115	Introduction to Computer Applications and Concepts	3	0	3
	Total	**17**	**0**	**17**

Second Semester (Spring)

ACC 212	Principles of Accounting II	4	0	4
BUS 200	Principles of Management	3	0	3
ITE 140	Spreadsheet Software	3	0	3
ACC 215	Computerized Accounting	4	0	4
EEE	2*Humanities Elective	3	0	3
	Total	**17**	**0**	**17**

Third Semester (Fall)

ACC 221	Intermediate Accounting I	4	0	4
ACC 261	Principles of Federal Taxation I	3	0	3
CST 100	Principles of Public Speaking	3	0	3
PSY 200	3*Principles of Psychology	3	0	3
EEE	4*Degree Related Elective/Co-op	3	0	3
	Total	**16**	**0**	**16**

Fourth Semester (Spring)

ACC 222	Intermediate Accounting II	4	0	4
ACC 231	Cost Accounting I	3	0	3
BUS 241	Business Law I	3	0	3
FIN 215	Financial Management	3	0	3
BUS 225	5*Applied Business Statistics	3	0	3
PED Or	Physical Education Or	0	2-3	1
SDV 106	6*Preparation for Employment	1	0	1
	Total	**16-17**	**2-3**	**17**

Total Minimum Credits for AAS Degree.....67

Notes
The above semester-by semester sequencing of courses may be modified when necessary. Please meet with your faculty advisor for a discussion of factors, which affect planning and sequencing in this program of study.

Footnotes*

1. Transfer students should check the Math requirements at respective four-year schools of interest.
2. Humanities electives include: ART 201-202; foreign languages; MUS 121-122; PHI 101; REL 200, 210, 230; CST 130, 151, 152. .
3. PSY 120 may be taken in place of this course. Students planning to transfer should take PSY 200.
4. Students may take any three credit hour course with the following prefixes ACC, BUS, ECO, ITE, MKT, or AST.
5. Prerequisite: Math 141. Placement is required for all mathematics courses.
6. Students may substitute any HLT (Health) course which contains a 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.

Cooperative Education- ACC 297 may be taken after satisfactory completion of ACC 212 with Faculty Curriculum Advisor and Faculty Co-op Advisor approvals. The non-paid Co-op Education option with nonprofit entities is available in this program of study.

Administrative Support Technology - Executive Administrative Assistant

Associate of Applied Science

Program Coordinator: Nan Jones, LRC 212, Ext. 2465
Length: Four semesters (two years)

Purpose: With the rapid development of business and industry in Virginia, there is a great demand for qualified personnel in office occupations. The Associate of Applied Science Degree curriculum in Administrative Support Technology is designed to prepare persons for full-time employment immediately upon completion of the community college program. Persons who are seeking their first employment in an office position as well as those who are seeking a promotion may benefit from this curriculum.

Occupational Objectives:

Office Specialist
Executive Secretary
Executive Administrative Assistant
Office Manager
Related Office Occupations
Executive Office Assistant

Admissions Requirements: In addition to the admission requirements established for the college entry into the Associate of Applied Science Degree curriculum in Administrative Support Technology 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.

Advanced Placement: Students who have completed training in Office Technology courses at the high school level or who have had appropriate occupational experience may apply for advance placement with credit. Credit by examination will be the basis upon which such advance placement will be granted. Through a special examination program, it will be possible for a student to exempt a portion of the typewriting requirement. Students currently holding either the CPS or PLS certification may also be granted up to 25 semester hours of credit. The student may then elect to enroll in an accelerated program to complete the AAS degree requirements in less than two years or take appropriate advanced courses for further occupational preparation.

Program Requirements: The two-year curriculum in Administrative Support Technology combines instruction in the many areas required for competence as a secretary in business, government, industry, law offices, and other organizations. The curriculum will include courses in Administrative Support Technology, related areas, general education and electives. Students are advised to consult with their faculty advisor and counselor in planning their programs. Upon satisfactory completion of the four semester curriculum listed below, the graduate will be awarded the Associate of Applied Science Degree in Business Technology with a major in Administrative Support Technology, Executive Administrative Assistant.

Notes on Transfer: Associate of Applied Science Degree programs are designed primarily to provide occupational competence for employment entry. Upon the student's request, courses may be modified to provide possible transfer acceptability by four-year colleges and universities. Transfer options are listed in the footnotes.

Administrative Support Technology -Executive Administrative Assistant

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
First Semester (Fall)				
ENG 111	College Composition I	3	0	3
SDV 101	Orientation to College Success	1	0	1
AST 101	1*Keyboarding I	4	0	4
AST 107	Proofreading and Editing	3	0	3
EEE	2*Social Science Elective	3	0	3
MTH 141	3*Business Math	3	0	3
	Total	**17**	**0**	**17**
Second Semester (Spring)				
AST 102	Keyboarding II	4	0	4
AST 171	Intro. To Call Center Services	3	0	3
AST 141	Word Processing I	3	0	3
AST 137	Records Management	3	0	3
PED	4*Physical Education	0	2-3	1
EEE	2*Social Science Elective	3	0	3
	Total	**16**	**2-3**	**17**
Third Semester (Fall)				
EEE	5*Humanities	3	0	3
AST 205	Business Communications	3	0	3
AST 238	Word Processing Advanced Operations	3	0	3

AST 232	Microcomputer Office Applications	3	0	3
AST 230	Intro. To Office Technology	3	0	3
AST 154	Voice Recognition Applications	2	0	2
	Total	**17**	**0**	**17**
Fourth Semester (Spring)				
BUS 241	Business Law I	3	0	3
AST 236	Specialized Software Applications	3	0	3
AST 240	Machine Transcription	3	0	3
AST 206	Professional Development	3	0	3
AST 136	6*Office Record Keeping	3	0	3
	Total	**15**	**0**	**15**

Total Minimum Credits for AAS Degree.....66

Notes

The above semester-by semester sequence of courses may be modified when necessary. Please meet with your faculty advisor for a discussion of factors which affect planning and sequencing in this program of study.

Footnotes*

1. Students who pass the Keyboarding Exemption Test will be granted credit for this course. Testing date is published in the class schedule.
2. Social Science electives include any course in economics, geography, history, political science/government, sociology and psychology.
3. Transfer students should consult the math requirements at respective 4 year schools of interest.
4. 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 core.
5. Humanities electives include: ART 201, 202; foreign languages; HUM 201, 202; MUS 121, 122; PHI 101; REL 200, 210, 230; CST 130, 151, 152.
6. Transfer students should take ACC 211 in place of AST 136.

Note: Cooperative Education – AST 297 may be taken after satisfactory completion of the second semester with faculty and Co-op advisor approvals. The non-paid Co-op education option with nonprofit entities is available in this program of study.

Administrative Support Technology - Specialization in Legal Assisting

Associate of Applied Science Degree

Program Coordinator: Nan Jones, LRC 212, Ext. 2465
Length: Four Semesters (two years)

Purpose: The curriculum is designed to provide an individual with a sufficient level of knowledge, understanding, and proficiency to perform specific tasks in a legal environment. A legal assistant will have a basic understanding of the general processes of American law, and will have the knowledge and proficiency to perform specific tasks under the supervision of a lawyer.

Occupational Objectives: The Administrative Support Technology with a Specialization in Legal Assisting will help prepare you for a wide range of entry level positions in the legal fields with opportunities in:

Law Firms
Private Corporations
Mortgage Companies
Government
Banks
Administrative Agencies
Title Insurance Companies

Admissions Requirements: In addition to the admission requirements established for the college, entry into the Associate of Applied Science Degree curriculum in Administrative Support Technology 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.

Advanced Placement: Students who have completed training in Office Technology courses at the high school level or who have had appropriate occupational experience may apply for advance placement with credit. Credit by examination will be the basis upon which such advance placement will be granted. Through a special examination program, it will be possible for a student to exempt a portion of the typewriting requirement. Students currently holding either the CPS or PLS certification may also be granted up to 25 semester hours of credit. The student may then elect to enroll in an accelerated program to complete the AAS degree requirements in less than two years or take appropriate advanced courses for further occupational preparation.

Program Requirements: The two-year curriculum in Administrative Support Technology combines instruction in the many areas required for competence as a legal assistant in business, government, industry, law offices, and other organizations. The curriculum will include courses in Administrative Support Technology, specialized courses in legal assisting, general education and electives. Students are advised to consult with their faculty advisor and counselor in planning their programs. Upon satisfactory completion of the four semester curriculum listed below, the graduate will be awarded the Associate of Applied Science Degree in Business Technology with a major in Administrative Support Technology - Specialization in Legal Assisting.

Notes on Transfer: Associate of Applied Science Degree programs are designed primarily to provide occupational competence for employment entry. Upon the student's request, courses may be modified to provide possible transfer acceptability by four-year colleges and universities. LGL 110, 127 and 215 are not designed to transfer to a baccalaureate program. Transfer options are listed in the footnotes.

Administrative Support Technology – Specialization in Legal Assisting

First Semester (Fall)

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
ENG 111	College Composition I	3	0	3
SDV 101	Orientation to College Success	1	0	1
AST 101	1*Keyboarding I	4	0	4
MTH 141	2*Business Math	3	0	3
LGL 110	Intro. to Law and Legal Assistance	3	0	3
AST 107	Proofreading and Editing	3	0	3
	Total	**17**	**0**	**17**

Second Semester (Spring)

AST 102	Keyboarding II	4	0	4
AST 137	Records Management	3	0	3
LGL 127	Legal Research and Writing	3	0	3
AST 141	Word Processing I	3	0	3
EEE	3*Social Science Elective	3	0	3
PED	4*Physical Education	0	2-3	1
	Total	**16**	**2-3**	**17**

Third Semester (Fall)

AST 154	Voice Recognition Applications	2	0	2
AST 232	Microcomputer Office Applications	3	0	3
AST 230	Intro. To Office Technology	3	0	3
LGL 215	Torts	3	0	3

AST 205	Business Communications	3	0	3
AST 238	Word Processing Advanced Operations	3	0	3
	Total	**17**	**0**	**17**

Fourth Semester (Spring)

AST 236	Specialized Software Applications	3	0	3
PED	4*Physical Education	0	2-3	1
AST 240	Machine Transcription	3	0	3
AST 206	Professional Development	3	0	3
EEE	5*Humanities Elective	3	0	3
AST 136	6*Office Record Keeping	3	0	3
	Total	**15**	**2-3**	**16**

Total Minimum Credits for AAS Degree.....67

Notes

The above semester-by semester sequence of courses may be modified when necessary. Please meet with your faculty advisor for a discussion of factors which affect planning and sequencing in this program of study.

Footnotes*

1. Students who pass the Keyboarding Exemption Test will be granted credit for this course. Testing date is published in the class schedule.
2. Transfer students should check the math requirements at respective four year schools of interest.
3. Social Science electives include any course in economics, geography, history, political science/government, sociology, and /or psychology.
4. 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 core.
5. Humanities elective include: ART 201, 202; foreign languages; HUM 201, 202; MUS 121, 122; PHI 101; REL 200, 210, 230; CST 130, 151, 152.
6. ACC 211 should be taken in place of AST 136 if you intend to transfer.

Administrative Support Technology - Specialization in Medical Office Specialist

Associate of Applied Science Degree

Program Coordinator: Nan Jones, LRC 212. Ext. 2465
Length: Four semesters (two years)

Purpose: This curriculum is designed to provide specialized administrative support technology education in the medical field. It is recommended for students interested in a professional career as a medical office assistant in a private medical practice, in a hospital setting, and in other health care organizations. In addition, the Administrative Support Technology curriculum offers basic skills training and advanced training complementary to the information systems demands of the electronic office. Included are skills in word processing, microcomputer usage, and human relations.

Occupational Objectives:

Medical Office Assistant
Medical Secretary/Administrative Assistant
Medical Transcriptionist
Medical Receptionist and Information Clerk
Medical Records and Health Information Technician
Hospital Ward or Office Clerk

Admissions Requirements: In addition to the admission requirements established for the college, entry into the Associate of Applied Science Degree curriculum in Administrative Support Technology - Medical Office Specialist 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.

Advanced Placement: Students who have completed training in Office Technology courses at the high school level or who have had appropriate occupational experience may apply for advance placement with credit. Credit by examination will be the basis upon which such advance placement will be granted. Through a special examination program, it will be possible for a student to exempt a portion of the typewriting requirement. Students currently holding either the CPS or PLS certification may also be granted up to 25 semester hours of credit. The student may then elect to enroll in an accelerated program to complete the AAS degree requirements in less than two years or take appropriate advanced courses for further occupational preparation.

Program Requirements: The two-year curriculum in Administrative Support Technology combines instruction in the many areas required for competence as a secretary in business, government, industry, law offices, and other organizations. The curriculum will include courses in Administrative Support Technology, medical transcription, medical terminology, general education and electives. Students are advised to consult with their faculty advisor and counselor in planning their programs. Upon satisfactory completion of the four semester curriculum listed below, the graduate will be awarded the Associate of Applied Science Degree in Business Technology with a major in Administrative Support Technology - Medical Office Specialist.

Notes on Transfer: Associate of Applied Science Degree programs are designed primarily to provide occupational competence for employment entry. Upon the student's request, courses may be modified to provide possible transfer acceptability by four-year colleges and universities. Transfer options are listed in the footnotes.

Administrative Support Technology – Specialization in Medical Office Specialist

First Semester (Fall)

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
ENG 111	College Composition I	3	0	3
SDV 101	Orientation to College Success	1	0	1
AST 101	1*Keyboarding I	4	0	4
HIM 113	Medical Terminology and Disease Processes I	3	0	3
AST 107	Proofreading and Editing	3	0	3
EEE	2*Humanities Elective	3	0	3
	Total	**17**	**0**	**17**

Second Semester (Spring)

AST 102	Keyboarding II	4	0	4
AST 137	Records Management	3	0	3
MTH 141	3*Business Math	3	0	3
AST 141	Word Processing I	3	0	3
AST 176	Medical Office/Unit Management	3	0	3
PED	4*Physical Education	0	2-3	1
	Total	**16**	**2-3**	**17**

Third Semester (Fall)

AST 232	Microcomputer Office Applications	3	0	3
AST 154	Voice Recognition Applications	2	0	2
AST 230	Intro. To Office Technology	3	0	3
AST 271	Medical Office Procedures I	3	0	3

AST 205	Business Communications	3	0	3
AST 238	Word Processing Advanced Operations	3	0	3
	Total	**17**	**0**	**17**
Fourth Semester (Spring)				
PED	4*Physical Education	0	2-3	1
AST 236	Specialized Software Applications	3	0	3
EEE	5*Social Science Elective	3	0	3
AST 245	6*Medical Machine Transcription	3	0	3
AST 206	Professional Development	3	0	3
AST 136	7*Office Record Keeping	3	0	3
	Total	**15**	**2-3**	**16**

Total Minimum Credits for AAS Degree ……..67

Notes

The above semester-by semester sequence of courses may be modified when necessary. Please refer to the Program Choices section of this Catalog for a discussion of factors which affect planning and sequencing programs of study.

Footnotes*

1. Students who pass the Keyboarding Exemption Test will be granted credit for this course. Testing date is published in the class schedule.
2. Humanities electives include: ART 201, 202; foreign languages; HUM 201, 202; MUS 121, 122; PHI 101; REL 200, 210, 230; CST 130, 151, 152.
3. Transfer students should check the math requirements at respective four year schools of interest.
4. 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 core.
5. Social Science electives include any course in economics, geography, history, political science/government, sociology, and /or psychology.
6. AST 240 may be taken in place of AST 245.
7. If you plan to transfer, ACC 211 should be taken in place of AST 136.

Information Systems Technology

Associate of Applied Science Degree

Program Coordinators: Mary Sullivan, LRC 217, Ext. 2415 and Tamara Lasley, LRC 206, Ext. 2503
Length: Four semesters (two years)

Purpose: 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
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. Students who are not proficient in English and mathematics will be required to correct their deficiencies in developmental courses. Keyboarding skills are highly recommended. Students may enroll in AST 114 or 101 to upgrade keyboarding skills.

Program Requirements: The curriculum includes courses in information systems, programming, web page design, help desk topics, productivity software, database management, accounting, 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 the counselor and a faculty advisor. Some courses within this curriculum may be applied to a four-year college program at the discretion of the admitting institution. 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. Upon the student's request, courses may be modified to provide possible transfer acceptability by four-year colleges and universities. Transfer options are listed in the footnotes.

Information Systems Technology

First Semester (Fall)

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
ACC 211	Principles of Accounting I	4	0	4
ENG 111	College Composition I	3	0	3
ITE 100	Introduction to Information Systems	3	0	3
ITE 182	User Support/Help Desk Principles	3	0	3
MTH 141	1*Business Math I	3	0	3
SDV 101	Orientation to College Success	1	0	1
	Total	**17**	**0**	**17**

Second Semester (Spring)

ENG 112 or CST 100	2*College Composition II or Principles of Public Speaking	3	0	3
BUS 225	3*Applied Business Statistics	3	0	3
EEE	4*Humanities Elective	3	0	3
ITP 100	Software Design	3	0	3
ITE 140	Spreadsheet Software	3	0	3
	Total	**15**	**0**	**15**

Third Semester (Fall)

ITE 150	Desktop Database Software	4	0	4
ITD 110	Web Page Design I	3	0	3
ITP 120	Java Programming I	4	0	4
ECO 201 or ECO 202	5*Principles of Economics I or II	3	0	3
EEE	6*Social Science Elective	3	0	3
	Total	**17**	**0**	**17**

Fourth Semester (Spring)

ITD 132	Structured Query Language	4	0	4
ITP 140	Client Side Scripting	3	0	3
ITP 240	Server Side Scripting	3	0	3
EEE	7*Approved IT Elective or 8* Co-op Education	3	0	3
ITP 220	Java Programming II	4	0	4

PED or	9*Physical Education or	0	2-3	1
SDV 106	Preparation for Employment	1	0	1
	Total	**17-18**	**0-2-3**	**18**

Total Minimum Credits for AAS Degree.....67

Footnotes *

The above semester-by semester sequencing of courses may be modified when necessary. Please meet with your faculty advisor for a discussion of factors, which affect planning and sequencing in this program of study.

1. Transfer mathematics can be substituted. For example, MTH 163+271 is recommended for information systems majors at Radford University. 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.
2. Transfer students are required to complete six (6) credit hours of English Composition, ENG 111-112.
3. Prerequisite: MTH 141. Placement is required for all mathematics courses. Students contemplating transfer should select MTH 241, Statistics I.
4. Humanities electives include: ART 201,202; foreign languages; HUM 201, 202: literature; MUS 121, 122; PHI 101; REL 200, 210, 230; CST 130, 151, 152.
5. ECO 201 or 202 may be taken to complete the economics requirement. Note that Economics 201 is Macroeconomics and 202 is Microeconomics.
6. Social Science electives include any course in economics, geography, history, political science/government, sociology, and /or psychology.
7. Approved electives for the parent program are: ITN 106 Micro Operating Systems, ITN 107 PC Hardware & Troubleshooting, ITN 113 Active Directory (Windows Server 2008), ITP 112 Visual Basic .NET I, ITP 132 C++ Programming, ITN 260 Network Security or Co-op Education. The faculty reserve the right to add courses to this list as new technology becomes available. Students are strongly encouraged to seek faculty advising in the selection of the IT elective.
8. Cooperative Education – ITD 297, ITP 297 or ITN 297 may be taken after satisfactory completion of the second semester with Faculty Curriculum Advisor and Faculty Co-op Advisor approvals. The non-paid Co-op Education option with nonprofit entities is available in this program of study.
9. 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.

Note: 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 students, the student may appeal the rule by requesting departmental approval from the lead faculty in the IT Department.

Information Systems Technology - Specialization in Networking

Associate of Applied Science Degree

Program Coordinators: Mary Sullivan, LRC 217, Ext. 2415 and Tamara Lasley, LRC 206, Ext. 2503
Length: Four semesters (two years)

Purpose: The Associate of Applied Science program is designed to provide a broad base of information systems and computer software 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. Students who are not proficient in English and mathematics will be required to correct their deficiencies in developmental courses. Keyboarding skills are highly recommended. Students may enroll in AST 114 or 101 to upgrade keyboarding skills.

Program Requirements: The curriculum includes courses in information systems, programming, operating systems, hardware, troubleshooting, server administration, help desk topics, productivity software, database management, accounting, 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 the counselor and a faculty advisor. Some courses within this curriculum may be applied to a four-year college program at the discretion of the admitting institution. 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.

Notes on Transfer: Associate of Applied Science Degree programs are designed primarily to provide occupational competence for employment entry. Upon the student's request, courses may be modified to provide possible transfer acceptability by four-year colleges and universities. Transfer options are listed in the footnotes.

Information Systems Technology - Specialization in Networking

First Semester (Fall)

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
ACC 211	Principles of Accounting I	4	0	4
ENG 111	College Composition I	3	0	3
ITE 100	Introduction to Information Systems	3	0	3
ITE 182	User Support/Help Desk Principles	3	0	3
MTH 141	1*Business Math I	3	0	3
SDV 101	Orientation to College Success	1	0	1
	Total	**17**	**0**	**17**

Second Semester (Spring)

ENG 112 or CST 1002	*College Composition II or Principles of Public Speakings	3	0	3
BUS 225	3*Applied Business Statistics	3	0	3
ITP 100	Software Design	3	0	3
EEE	4*Humanities Elective	3	0	3
ITE 140	Spreadsheet Software	3	0	3
	Total	**15**	**0**	**15**

Third Semester (Fall)

ITE 150	Desktop Database Software	4	0	4
ITN 106	Micro. Operating Systems	3	0	3
ITN 107	PC Hardware & Troubleshooting	3	0	3
ITP 120	Java Programming I	4	0	4
ECO 201 or ECO 202	5*Principles of Economics I or II	3	0	3
	Total	**17**	**0**	**17**

Fourth Semester (Spring)

ITD 132	Structured Query Language	4	0	4
ITN 113	Active Directory (Windows Server 2008)	3	0	3
EEE	6*Approved IT Elective or 7*Co-op Education	3	0	3
ITP 220	Java Programming II	4	0	4
EEE	8*Social Science Elective	3	0	3
PED or SDV 106	9*Physical Education or Preparation for Employment	0 1	2-3 0	1 1
	Total	**17-18**	**0 or 2-3**	**18**

Total Minimum Credits for AAS Degree.....67

The above semester-by semester sequencing of courses may be modified when necessary. Please meet with your faculty advisor for a discussion of factors, which affect planning and sequencing in this program of study.

Footnotes

1. Transfer mathematics can be substituted. For example, MTH 163 and 271 is recommended for information systems majors at Radford University. 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.
2. Transfer students are required to complete six (6) credit hours of English Composition, ENG 111-112.
3. Prerequisite: MTH 141. Placement is required for all mathematics courses.
4. Humanities electives include: ART 201, 202; foreign languages; literature; MUS 121, 122; PHI 101; REL 200, 210, 230; CST 130, 151, 152.
5. ECO 201 or 202 may be taken to complete the economics requirement. Note that Economics 201 is Macroeconomics and 202 is Microeconomics.
6. Approved IST electives for Networking Specialists are: ITD 110 Web Page Design I, ITP 112 Visual Basic .NET I, ITP 132 C++ Programming, ITN 157/TEL 251 CISCO IV, ITN 260 Network Security, ITP 140 Client Side Scripting, ITP 240 Server Side Scripting or Co-op. The faculty reserve the right to add courses to this list as new technology becomes available. Students are strongly encouraged to seek faculty advising in the selection of the IT elective.
7. Cooperative Education – ITD 297, ITP 297 or ITN 297 may be taken after satisfactory completion of the second semester with Faculty Curriculum Advisor and Faculty Co-op Advisor approvals. Co-op experiences in web design, graphics, database, networking and/or programming are accepted work experiences. The non-paid Co-op Education option with nonprofit entities is available in this program of study.
8. Social Science electives include any course in economics, geography, history, political science/government, sociology, and/or psychology.
9. 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.

Note: 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.

Management

Associate of Applied Science Degree

Program Coordinator: Richard Hutton, LRC 206, Ext. 2452
Length: Four semesters (two years)

Purpose: 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. Proficiency in keyboarding is highly recommended. Students may enroll in AST 114 to upgrade keyboarding skills.

Program Requirements: The first two semesters (first year) of the Associate of Applied Science Degree curriculum in Management are similar to the AAS degree in Business Technology with a major 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 industrial 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 Business Technology with a major in Management.

Notes on Transfer: Associate of Applied Science Degree programs are designed primarily to provide occupational competence for employment entry. Upon the student's request, courses may be modified to provide possible transfer acceptability by four-year colleges and universities. Transfer options are listed in the footnotes.

Management

First Semester (Fall)

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
ACC 211	Principles of Accounting	4	0	4
ENG 111	College Composition I	3	0	3
BUS 100	Introduction to Business	3	0	3
MTH 141	1*Business Mathematics I	3	0	3
ITE 115	Introduction to Computer Applications and Concepts	3	0	3
SDV 101	Orientation to College Success	1	0	1
	Total	**17**	**0**	**17**
	Second Semester (Spring)			
ACC 212	Principles of Accounting II	4	0	4
BUS 200	Principles of Management	3	0	3
CST 100	Principles of Public Speaking	3	0	3
ITE 140	Spreadsheet Software	3	0	3
ECO 201	2*Principles of Economics I	3	0	3
	Total	**16**	**0**	**16**
Third Semester (Fall)				
BUS 241	Business Law I	3	0	3
BUS 205	Human Resource Management	3	0	3
MKT 100	Principles of Marketing	3	0	3
ECO 202	2*Principles of Economics II	3	0	3
EEE	3*Degree Related Elective	3	0	3
EEE	4*Humanities Elective	3	0	3
	Total	**18**	**0**	**18**
Fourth Semester (Spring)				
BUS 242	Business Law II	3	0	3
FIN 215	Financial Management	3	0	3
PSY 120	5*Human Relations	3	0	3
BUS 225	6*Applied Business Statistics	3	0	3
PED or	7*Physical Education or	0	2-3	1

SDV	Preparation for Employment	1	0	1
BUS 197 or 297	Co-op Education	3	0	3
	Total	**15-16**	**0 or 2-3**	**16**

Total Minimum Credits for AAS Degree.....67

The above semester-by semester sequencing of courses may be modified when necessary. Please meet with your faculty advisor for a discussion of factors, which affect planning and sequencing in this program of study.

Footnotes*

1. Placement is required for all mathematics courses.
2. Economics 201 is Macroeconomics and 202 is Microeconomics.
3. Students may take any three credit hour ACC, BUS, ECO, ITE, MKT, or AST course.
4. Humanities electives include: ART 201, 202; foreign languages; MUS 121, 122; PHI 101; REL 200, 210, 230; CST 130, 151, 152.
5. Students may substitute PSY 200 for PSY 120.
6. Prerequisite: MTH 141.
7. 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.

Cooperative Education – BUS 197 or BUS 297 may be taken after the satisfactory completion of one semester with Faculty Curriculum Advisor and Faculty Co-op Advisor approvals. The non-paid Co-op Education option with nonprofit entities is available in this program of study.

Business Technology - Certificate

Accounting and Information Systems Technology

Certificate

Program Coordinator: Richard Hutton, LRC 206, Ext. 2452
Length: Two semesters (one year)

Purpose: 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: A student eligible for admission to the College may normally be considered for admission to the Accounting-Information Systems Technology Curriculum.

Program Requirements: Proficiency in keyboarding skills, high school English and high school mathematics is required. Students who are not proficient in English and mathematics will be required to correct their deficiencies in developmental courses. Upon successful completion of the curriculum, the student will be awarded a Certificate in Accounting and Information Systems Technology.

Accounting and Information Systems Technology

First Semester (Fall)

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
ACC 211	Principles of Accounting I	4	0	4
ITE 115	1*Intro. to Computer Applications and Concepts	3	0	3
MTH 141	2*Business Math	3	0	3
ENG 111	College Composition I	3	0	3
BUS 100	Introduction to Business	3	0	3
SDV 101	Orientation to College Success	1	0	1
	Total	**17**	**0**	**17**

Second Semester (Spring)

ACC 212	Principles of Accounting II	4	0	4
ACC 215	Computerized Accounting	4	0	4
BUS 241	Business Law	3	0	3
ITE 140	Spreadsheet Software	3	0	3
CST 100	Principles of Public Speaking	3	0	3
	Total	**17**	**0**	**17**

Total Minimum Credits required for Certificate 34

Footnotes

1. Keyboarding skills are strongly recommended, students may enroll in AST 114 or AST 101.
2. Placement is required for all English and mathematics courses.

Clerical Studies

Certificate

Program Coordinator: Nan Jones, LRC 212, Ext. 2465
Length: Two semesters (one year)

Purpose: With the increased development of business, industry, and government in Virginia, there is a great need for qualified personnel in the clerical area of office occupations. The clerical program is designed to train personnel for full-time employment upon completion of the course requirements. In addition, the curriculum furnishes the student the opportunity to elect to transfer into the AAS degree program if she/he so wishes.

Occupational Objectives:

Receptionist
Records Clerk
Typist
Office Clerk
Office Assistant

Admission Requirements: A student eligible for admission to the College can normally be considered for admission to Clerical Studies curriculum.

Program Requirements: The two-semester curriculum provides training in keyboarding, filing, word processing, and office record keeping or business electives. Proficiency in high school English and mathematics is required. Students who are not proficient in English and mathematics will be required to correct their deficiencies in developmental courses. In addition to this, the curriculum includes supportive courses as a preparation for entrance into the job market. Upon successful completion of the curriculum, the student will be awarded a Certificate in Clerical Studies.

Clerical Studies

First Semester (Fall)

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
ENG 111	College Composition I	3	0	3
SDV 101	Orientation to College Success	1	0	1
AST 101	1*Keyboarding I	4	0	4
AST 107	Proofreading and Editing	3	0	3
MTH 141	2*Business Math I	3	0	3
AST 154	Voice Recognition Applications	2	0	2
	Total	**16**	**0**	**16**

Second Semester (Spring)

AST 102	Keyboarding II	4	0	4
AST 171	Intro. To Call Center Services	3	0	3
AST 137	Records Management	3	0	3
AST 141	Word Processing I	3	0	3
AST 136	3*Office Record Keeping	3	0	3
	Total	**16**	**0**	**16**

Total Minimum Credits required for Certificate.....32

Footnotes*

1. Students who pass the Keyboarding Exemption Test will be granted credit for this course. Testing date is published in the class schedule.
2. Transfer student should check the math requirements at respective four year schools of interest.
3. ACC 211 should be taken in place of AST136 if you intend to transfer.

Health Information Management

Certificate

Program Coordinator: Nan Jones, LRC 212, Ext., 2465
Length: Two semesters (one year)

Purpose: With the increased requirements of insurance and medical agencies there is a need for qualified personnel in medical offices. This program is designed to train personnel for full-time employment upon completion of the course requirements. In addition, the curriculum furnishes the student the opportunity to take courses that prepare them for certification exams.

Occupational Objectives:
Medical Records Worker
Medical Coder
Medical Office Clerk

Admissions Requirements: A student eligible for admission to the College can normally be considered for admission to Health Information Management.

Program Requirements: The two-semester curriculum provides training in medical terminology, health records management, coding for health records, and health record applications. Proficiency in high school English and mathematics is required. Students who are not proficient in English and mathematics will be required to correct their deficiencies in developmental courses. It is highly recommended that students who are not proficient in Keyboarding take AST 114, Keyboarding for Information Processing.

Health Information Management

First Semester (Summer)

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
ENG 111	College Composition I	3	0	3
SDV 101	Orientation to College Success	1	0	1
ITE 115	1*Introduction to Computer applications and Concepts	3	0	3
	Total	**7**	**0**	**7**
Second Semester (Fall)				
HIM 130	Healthcare Information Systems	3	0	3
HIM 253	Health Records Coding I	4	0	4
HIM 113	Medical Terminology & Disease Processes I	3	0	3
HIM 150	Health Records Management	3	0	3
HIM 151	Reimbursement Issues	2	0	2
	Total	**15**	**0**	**15**
Third Semester (Spring)				
HIM 114	Medical Terminology & Disease Processes II	3	0	3
HIM 254	Advanced Coding and Reimbursement	4	0	4
HIM163	Anatomy and Physiology for Adm. Health. Prof.	3	0	3
HIM 198	2*Seminar and Project	1	0	1
MTH 141	Business Math	3	0	3
	Total	**13**	**0**	**14**

Total Minimum Credits Required for Certificate.....36

Footnotes

1. It is highly recommended that students who are not proficient in keyboarding take AST 114, Keyboarding for Information Processing.
2. Seminar and Project is designed to facilitate successful completion of licensure assessment.

Networking A+

Certificate

Program Coordinators: Mary Sullivan, LRC 217, Ext. 2415 and Tamara Lasley, LRC 206, Ext. 2503

Length: Three semesters (1 year beginning in summer term)

Purpose: With the increased development of business, industry, and government in Virginia, there is a need for qualified personnel in information systems technology and networking. This certificate program is designed to train personnel for full-time employment upon completion of the course requirements. In addition, the curriculum furnishes the student the option to transfer into the AAS degree programs.

Occupational Objectives:

Network Technician
Help Desk Technician
Computer Support Technician

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

Program Requirements: The three-semester curriculum provides training in information systems, A+, help desk and Windows server. Proficiency in high school English and mathematics is required. Students who are not proficient in English and mathematics will be required to correct their deficiencies in developmental courses. In addition, the curriculum includes supportive courses as a preparation for entrance into the job market. Upon successful completion of the curriculum, the student will be awarded a Certificate in Networking.

Networking A+

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
Summer Session				
ENG 111	College Composition I	3	0	3
ITE 100	Intro. to Information Systems	3	0	3
	Total	**6**	**0**	**6**
First Semester (Fall)				
SDV 101	Orientation to College Success	1	0	1
MTH 141	Business Math	3	0	3
ITN 106	Micro. Operating Systems	3	0	3
ITN 107	PC Hardware & Troubleshooting	3	0	3
ITE 182	User Support/Help Desk Principles	3	0	3
	Total	**13**	**0**	**13**
Second Semester (Spring)				
ENG 112 or CST 100	College Composition II or Principles of Public Speaking	3	0	3
ITE 140	Spreadsheet Software or 1*Approved IST elective	3	0	3
ITP 100	Software Design	3	0	3
ITN 113	Active Directory (Windows Server 2008)	3	0	3
EEE	2*Social Science Elective	3	0	3
	Total	**15**	**0**	**15**

Total Minimum Credits Required for Certificate.....34

Footnotes*

1. Approved IST electives for the Networking Certificate are: ITE 150 Desktop Database Software, ITD 110 Web Page Design 1, ITP 120 Java Programming I, ITP 112 Visual Basic .NET I, ITP 132 C++ Programming, ITP 140 Client Side Scripting, ITP 240 Server Side Scripting, ITN 260 Network Security or Co-op Education. The faculty reserve the right to add courses to this list as new technology becomes available. Students are strongly encouraged to seek faculty advising in the selection of the IT elective.
2. Social Science electives include any course in economics, geography, history, political science/government, sociology, and/or psychology.

Note: 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 students, the student may appeal the rule by requesting departmental approval from the lead faculty in the IT Department.

Supervision and Management

Certificate

Program Coordinator: Richard Hutton, LRC 206, Ext. 2452
Length: Two semesters (one year)

Purpose: With increased development of business, industry, and government in Virginia, there is a great need for qualified management personnel. The supervision and management program is designed to train personnel for full-time employment upon completion of the course requirements. In addition, the curriculum furnishes the student the option to transfer into the AAS degree Management program.

Occupational Objectives:

Entry Level Management
Industrial Supervision
Small Business Management

Admission Requirements: A student eligible for admission to the College can normally be considered for admission to Supervision and Management certificate curriculum.

Program Requirements: The one year curriculum provides training in general business, accounting, management, and information systems. Proficiency in keyboarding, high school English, and high school mathematics is required. Students who are not proficient in English and mathematics will be required to correct their deficiencies in developmental courses. In addition to this, the curriculum includes supportive courses as a preparation for entrance into the job market. Upon successful completion of the curriculum, the student will be awarded a Certificate in Supervision and Management.

Supervision and Management

First Semester (Fall)

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
ACC 211	Principles of Accounting I	4	0	4
BUS 100	Introduction to Business	3	0	3
BUS 205	Human Resource Management	3	0	3
ENG 111	1*College Composition I	3	0	3
MTH 141	1*Business Math I	3	0	3
SDV 101	Orientation to College Success	1	0	1
	Total	**17**	**0**	**17**

Second Semester (Spring)

BUS 200	Principles of Management	3	0	3
BUS 241	Business Law	3	0	3
BUS 225	Applied Business Statistics	3	0	3
CST 100	Principles of Public Speaking	3	0	3
ITE 115	Intro. to Computer Applications and Concepts	3	0	3
PSY 120	2*Human Relations	3	0	3
	Total	**18**	**0**	**18**

Total Minimum Credits Required for Certificate.....35

1. Placement test is required for all English and mathematics courses.
2. Psychology 200 will substitute for PSY 120.

Web Programming and Design

Certificate

Program Coordinators: Mary Sullivan, LRC 217, Ext. 2415 and Tamara Lasley, LRC 206, Ext. 2503
Length: Three semesters (one year beginning in summer term)

Purpose: With the increased development of business, industry, and government in Virginia, there is a need for qualified personnel in information systems technology and web design. This certificate program is designed to train personnel for full-time employment upon completion of the course requirements. In addition, the curriculum furnishes the student the option to transfer into the AAS degree programs.

Occupational Objectives:

Program Tester
Web Designer
Web Developer

Admission Requirements: A student eligible for admission to the College can normally be considered for admission to Web Design Certificate.

Program Requirements: The two-semester curriculum provides training in information systems, web design, and graphics. Proficiency in high school English and mathematics is required. Students who are not proficient in English and mathematics will be required to correct their deficiencies in developmental courses. In addition, the curriculum includes supportive courses as a preparation for entrance into the job market. Upon successful completion of the curriculum, the student will be awarded a Certificate in Web Design.

Web Programming and Design

Summer Session

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
ENG 111	College Composition I	3	0	3
ITE 100	Intro. to Information Systems	3	0	3
	Total	**6**	**0**	**6**
First Semester (Fall)				
SDV 101	Orientation to College Success	1	0	1
MTH 141	Business Math	3	0	3
ITD 110	Web Page Design I	3	0	3
EEE	1*Social Science elective	3	0	3
ITE 150	Desktop Database Software	4	0	4
	Total	**14**	**0**	**14**
Second Semester (Spring)				
ENG 112 or CST 100	College Composition II or Principles of Public Speaking	3	0	3
ITD 132	Structured Query Language	4	0	4
ITP 100	2*Software Design or approved IT elective	3	0	3
ITP 140	Client Side Scripting	3	0	3
ITP 240	Server Side Scripting	3	0	3
	Total	**16**	**0**	**16**

Total Minimum Credits Required for Certificate.....36

Footnotes

1. Social Sciences electives include any course in economics, history, political science, government, sociology, and/or psychology.
2. Approved IT electives are: ITE 140 Structured Query Language, ITE 182 User Support/Help Desk Principles, ITN 106 Micro-Operating Systems, ITN 107 PC Hardware & Troubleshooting, ITN 113 Active Directory (Windows Server 2008), ITP 120 Java Programming I, ITP 112 Visual Basic .NET I, ITP 132 C++ Programming, ITN 260 Network Security or Co-op Education. The faculty reserve the right to add courses to this list as new technology becomes available. Students are strongly encouraged to seek faculty advising in the selection of the IT elective.

Note: 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 students, the student may appeal the rule by requesting departmental approval from the lead faculty in the IT Department.

Business Technology – Career Studies Certificate

(AST) TELESERVICES

Career Studies Certificate

Program Advisors: Melba Bolling, LRC 218 mbolling@vhcc.edu 276-739-2457 and Nan Jones, LRC 212, njones@vhcc.edu 276-739-2465

Occupational Objective:

Client Support
Customer Service
Marketing and Sales

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
AST 114	Keyboarding for Information Processing	2	0	2
AST 171	Introduction to Call Center Services	3	0	3
AST 206	Professional Development	3	0	3
AST 232	Microcomputer Office Applications	3	0	3
MKT 100	Principles of Marketing	3	0	3
AST 137	Records Management	3	0	3
	Total	**17**	**0**	**17**

(HIM) Electronic Health Records

Career Studies Certificate

Program Coordinator and Advisor: Nan Jones, LRC 212, njones@vhcc.edu 276-739-2465

Length: Two semesters (one year)

Electronic Health Records Technology is a growing field that allows patient records to be more easily accessed by medical professionals. This program will prepare students to create and maintain electronic medical records that will track immunizations, prescription medications, test results and other medical information. This career studies certificate could work in tandem with the Health Information Management certificate or the Administrative Support Technology – Medical Office Specialist (AAS).

Occupational Objectives:

Medical Office Clerk	Records Technician	Health Data Entry
Medical Records Worker	Patient Information Clerk	Physician's Administrative Assistant

Electronic Health Records

First Semester

Course Number	Course Title	Lec. Hrs.	Lab. Hrs.	Crs.
HIM 113	Medical Terminology and Disease Process I	3	0	3
HIM 101	Health Information Technology	3	3	4
HIM 130	Health Information Systems	3	0	3
HIM 150	Health Records Management	3	0	3
	Totals	**12**	**3**	**13**
Second Semester				
HIM 114	Medical Terminology and Diseases II	3	0	3
HIM 163	Anatomy and Physiology	3	0	3
HIM 226	Legal Aspects of Health Records	2	0	2
HIM 233	Electronic Health Records Management	3	0	3
AST 137	Records Management	3	0	3
	Totals	**14**	**0**	**14**
	Total Credits			**27**

Prerequisite: Keyboarding Skills required. Enroll in AST 114 (2 credits) if proficiency requirement has not been meet.

(IST) CISCO Networking and A+

Career Studies Certificate

Dual Enrollment Certificate

Program Advisors: Mary Sullivan, LRC 217, Ext. 2415 and Tamara Lasley, LRC 206, Ext. 2503

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
ITN 106	Microcomputer Operating Systems	3	0	3
ITN 107	Pers. Computer Hardware and Troubleshooting	3	0	3
ITN 154	Networking Fundamentals	4	0	4
ITN 155	Introductory Routing	4	0	4
ITN 156	Basic Switching and Routing	4	0	4
ITN 157	WAN Technologies	4	0	4
	Total	**22**	**0**	**22**

ITN 106 and ITN 107 prepares student for the A+ certification. ITN 154, ITN 155, ITN 156, and ITN 157 prepares student for CCNA CISCO Certified Network Associate.

(IST) Computer Programming

Career Studies Certificate

Program Advisors: Mary Sullivan, LRC 217, Ext. 2415 and Tamara Lasley, LRC 206, Ext. 2503

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
ITE 100	Introduction to Information Systems	3	0	3
ITP 100	1*Software Design	3	0	3
ITP 120	2*Java Programming I	4	0	4
ITP 220	2*Java Programming II	4	0	4
EEE	3*Approved IT Elective	3	0	3
	Total	**17**	**0**	**17**

1. Prerequisite for Java Programming I.
2. Other object-oriented or event-driven programming language may be substituted with faculty or division approval.

Contact an IST Advisor for more information about Approved IT Electives.

(IST) Database Security and Design

Career Studies Certificate

Program Advisors: Mary Sullivan, LRC 217, Ext. 2415 and Tamara Lasley, LRC 206, Ext. 2503

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
ITE 100	Introduction to Information Systems	3	0	3
ITE 150	Desktop Database Software	4	0	4
ITD 132	Structured Query Language	4	0	4
ITN 113	Active Directory (Windows Server 2008)	3	0	3
ITP 240	Server Side Scripting or *Approved IT Elective	3	0	3
	Total	**17**	**0**	**17**

* Contact an IST Advisor for more information about Approved IT Electives.

(IST) Software Applications Specialist

Career Studies Certificate

Program Advisors: Mary Sullivan, LRC 217, Ext. 2415 and Tamara Lasley, LRC 206, Ext. 2503

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
ITE 100	Introduction to Information Systems	3	0	3
AST 141	Word Processing I	3	0	3
ITE 140	Spreadsheet Software	3	0	3
ITE 150	Desktop Database Software	4	0	4
ITE 182	User Support/Help Desk Principles	3	0	3
	Total	**16**	**0**	**16**

Program prepares student for Microsoft certification in Word, Excel, and Access. Contact an IST advisor for more information.

(IST) User Support Specialist

Career Studies Certificate

Program Advisors: Mary Sullivan, LRC 217, Ext. 2415 and Tamara Lasley, LRC 206, Ext. 2503

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
ITN 106	Micro. Operating Systems	3	0	3
ITN 107	PC Hardware & Troubleshooting	3	0	3
ITE 182	User Support/Help Desk Principles	3	0	3
ITN 113	Active Directory (Windows Server 2008)	3	0	3
EEE	*Approved IT Elective	3	0	3
	Total	**15**	**0**	**15**

*Contact an IST Advisor for more information about Approved IT Electives. ITN 106/107 prepares student for the A+ certification. Combining the Software Applications and User Support certificates is recommended for both software and hardware support specialists.

(IST) Web Design and Development

Career Studies Certificate

Program Advisors: Mary Sullivan, LRC 217, Ext. 2415 and Tamara Lasley, LRC 206, Ext. 2503

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
ITE 100	Introduction to Information Systems	3	0	3
ITD 110	Web Page Design I	3	0	3
ITP 140	Client Side Scripting	3	0	3
ITP 240	Server Side Scripting	3	0	3
EEE	*Approved IT Elective	3	0	3
	Total	**15**	**0**	**15**

* Contact an IST Advisor for more information about approved IT Electives.

(MGT) Hospitality and Tourism

Career Studies Certificate

Program Advisor: Richard Hutton, LRC 208, 276-739-2452, rhutton@vhcc.edu

Length: One Semester

Course Number	Course Title	Lec. Hrs.	Lab. Hrs.	Crs.
HRI 195	Topics in Local H&T Landscape	3	0	3
HRI 140	Fundamentals of Quality for the Hospitality Industry	3	0	3
HRI 154	Principles of Hospitality Management	3	0	3
HRI 197	Co-op Education (Internship)	2	0	2
CST 100	Principles of Public Speaking	3	0	3
	Total	**14**	**0**	**14**

(MGT) Industrial Supervision

Career Studies Certificate

Program Advisors: Richard Hutton, LRC 208 rhutton@vhcc.edu 276-739-2452

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
BUS 117	Human Relations and Leadership Development	3	0	3
BUS 200	Principles of Management	3	0	3
BUS 241	Business Law I	3	0	3
CST 100	Principles of Public Speaking	3	0	3
MKT 100	Principles of Marketing	3	0	3
SAF 127	Industrial Safety	2	0	2
	Total	**17**	0	**17**

(MGT) Small Business Management

Career Studies Certificate

Program Advisors: Richard Hutton, LRC 208 rhutton@vhcc.edu 276-739-2452

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
MKT 100	Introduction to Marketing	3	0	3
BUS 100	Introduction to Business	3	0	3
BUS 200	Principles of Management	3	0	3
BUS 241	Business Law I	3	0	3
BUS 295	NX Level for Entrepreneurs	3	0	3
	Total	**15**	0	**15**

Engineering and Industrial Technology –

Associate of Applied Science Degree

Air Conditioning, Refrigeration, and Heating

Associate of Applied Science Degree

Program Coordinator: Mike Belcher, OTC 222, Ext. 2486
Length: Four semesters**

**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.

Purpose: 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. VHCC's program content and entry-level skills of students are verified through the nationally recognized Air Conditioning, Heating and Refrigeration Institute's Industry Competency Exam. For the 5 year period ending in 2004 VHCC students have a 92% pass rate on the residential heating and cooling exam, compared to a 60 percentile national average.

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

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 may submit transcripts or other documentation for evaluation and advanced placement.

Program Requirements: The major proportion 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.

Air Conditioning, Refrigeration, and Heating (AAS)

First Semester (Fall)

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
SDV 101	Orientation to College Success	1	0	1
ENG 111 or ENG 115	College Composition I or Technical Writing	3	0	3
AIR 111	Air Cond. & Ref. Controls I	2	2	3
AIR 171	Refrigeration I	6	6	9
	Total	**12**	**8**	**16**
Second Semester (Spring)				
AIR 112	Air Cond. & Ref. Controls II	2	2	3
AIR 159	Heating and Cooling Safety	1	0	1
AIR 172	Refrigeration II	6	6	9
MTH 103	Applied Technical Mathematics I	3	0	3
	Total	**12**	**8**	**15**
Third Semester (Fall)				
PED	1*Physical Education	0	2-3	1
EEE	2*Humanities Elective	3	0	3
AIR 134	Circuits and Controls I	2	2	3
AIR 176	Air Conditioning	4	4	6
AIR 235	Heat Pumps	2	2	3
	Total	**11**	**10-11**	**16**

Fourth Semester (Spring)

EEE	3*Social Science Elective	3	0	3
AIR 154	Heating Systems I	2	2	3
AIR 165	Air Conditioning Systems I	2	3	3
AIR 205	Hydronics and Zoning	2	2	3
AIR 231	Circuits and Controls IV	3	3	4
	Total	**12**	**10**	**16**

Total Minimum Credits required for the AAS Degree.....64

Footnotes*

1. Students may substitute any HLT course for physical education requirements.
2. Students must take 3 credits of humanities. Recommended humanities courses include ART 201, 202; MUS 121, 122; REL 200, 210, 230; CST 130, 151, 152; PHI 101; foreign language or literature.
3. Students may take 3 credits of social science. Recommended social science courses include ECO 201-202; GEO 210; GEO 220; HIS 101-102; HIS 121-122; PLS 135; PLS 211-212; PSY 200; SOC 200.

Computer Numerical Control Machine Operations

Associate of Applied Science Degree

Program Coordinator: Melinda Leland, ADM 101, Ext. 2430
Length: Four semesters (two years)

Purpose: 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 three-semester Computer Numerical Control Machining Program that is 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

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.

Program 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 four-semester program listed on this page, the graduate will be awarded an Associate of Applied Science Degree.

Computer Numerical Control Machine Operations

First Semester (Fall)

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
DRF 161	Blueprint Reading I	1	3	2
MAC 151	Machine Tool Maintenance	1	3	2
MAC 161	Machine Shop Practices I	2	3	3
MAC 162	Machine Shop Practices II	2	3	3
MAC 111	Machine Trade Theory and Computation I	3	0	3
SDV 101	Orientation to College Success	1	0	1
ENG 111 or ENG115	College Composition I or Technical Writing	3	0	3
	Total	**13**	**12**	**17**

Second Semester (Spring)

MTH 103	Applied Technical Mathematics I	3	0	3
MAC 146	Metals/Heat Treatment	1	3	2
MAC 163	Machine Shop Practices	2	3	3
MAC 164	Machine Shop Practices	2	3	3
MAC 121	Numerical Control I	1	2	2
EEE	1*Social Science Elective	3	0	3
	Total	**12**	**11**	**16**

Third Semester (Fall)

MAC 116	Machinist Handbook	2	0	2
MAC 209	Standards, Measurements and Calculations	3	0	3
MAC 122	Numerical Control II	2	3	3
MAC 206	Production Machining Techniques	4	6	6
EEE	2*Humanities Elective	3	0	3
	Total	**14**	**9**	**17**

Fourth Semester (Spring)

MAC 123	Numerical Control III	2	3	3
MAC 250	Advanced Computer Aided Manufacturing	2	3	3
MAC 297	Co-op Education or Technical Elective	0	15	3
MAC 241	Advanced Machinery Procedures I	2	3	3
PED	3*Physical Education	0	2-3	1
EEE	1*Social Science Elective	3	0	3
	Total	**9**	**26-27**	**16**

Total Minimum Credits required for the AAS Degree.....66

Footnotes*

1. Students may take 6 credits of social science. Recommended social science courses include ECO 201-202; GEO 210; HIS 101-102; HIS 121-122; PLS 135; PLS 211-212; PSY 200; SOC 200.
2. Students must take 3 credits of humanities. Recommended humanities courses include ART 201, 202; MUS 121, 122; REL 200, 210, 230; CST 130, 151, 152; PHI 101; foreign language or literature.
3. Students may substitute any HLT course for physical education requirements.

Cooperative Education - Students are encouraged to take MAC 297 after satisfactory completion of the third semester with Faculty Curriculum Advisor and Faculty Co-op Advisor approvals.

Electrical Technology

Associate of Applied Science Degree

Program Coordinator: Joe Mitchell, ISC 136A, Ext. 2557
Length: Four semesters (two years)

Purpose: 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: See appropriate section of college catalog. A student eligible for admission to the college can normally be considered for admission to this program.

Program 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.

Electrical Technology

First Semester (Fall)

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
DRF 161	Blueprint Reading	1	2	2
ELE 133	Practical Electricity I	2	2	3
ELE 111	Home Electric Power I	2	3	3
ENG 111 or	College Composition I or	3	0	3
ENG 115	Technical Writing			
SDV 101	Orientation to College Success	1	0	1
ITE 100	Introduction to Information Systems	3	0	3
SAF130	Industrial Safety – OSHA 10	1	0	1
	Total	**13**	**7**	**16**

Second Semester (Spring)

MTH 103	Applied Technical Mathematics I	3	0	3
ELE 134	Practical Electricity II	2	2	3
ELE 141	DC & AC Machines	4	4	5
ELE 112	Home Electric Power II	2	3	3
ELE 131	National Electrical Code I	3	0	3
	Total	**14**	**9**	**17**

Third Semester (Fall)

EEE	1*Social Science Elective	3	0	3
ELE 233	Programmable Logic Controllers I	2	3	3
ELE 175	Industrial Solid State Devices & Circuits	2	3	3
ELE 245	Industrial Wiring	2	3	3
MEC 161	Hydraulics & Pneumatics	2	2	3
PED	2*Physical Education	0	2	1
	Total	**11**	**13**	**16**

Fourth Semester (Spring)

ELE 234	Programmable Logic Controllers II	2	3	3
ELE 225	Electrical Control Systems	3	3	4
WEL 110	Welding Processes	2	3	3
ELE 132	National Electrical Code II	3	0	3
SAF 127	Industrial Safety	2	0	2
EEE	3*Humanities Elective	3	0	3
	Total	**15**	**9**	**18**

Total Minimum Credits for the AAS Degree…….....67

The above semester-by semester sequencing of courses may be modified when necessary. Please refer to the Program Choices section of this Catalog for a discussion of factors which affect planning and sequencing programs of study. Courses may be substituted or adjustments made by the College to meet program objectives and requirements.

Footnotes*

1. Students must take 3 credits of social science. Recommended social science courses include ECO 201-202; GEO 210; HIS 101-102; HIS 121-122; PLS 135; PLS 211-212; PSY 200; SOC 200.
2. Students may substitute any HLT course for physical education requirements.
3. Students must take 3 credits of humanities. Recommended humanities courses include ART 201, 202: MUS 121, 122; REL 200, 210, 230; CST 130, 151, 152; PHI 101; foreign language or literature.

Cooperative Education - Students are encouraged to take ELE 297 during the summer semester, or in the second year after satisfactory completion of the first year with faculty advisor and faculty Co-Op advisor approvals.

Electrical Technology – Specialization in Electromechanical Technology

Associate of Applied Science Degree

Program Coordinator: Joe Mitchell, ISC 136A, Ext. 2557
Length: Four semesters (two years)

Purpose: The Associate of Applied Science Degree in Electrical Technology – Specialization in Electromechanical 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
Electro-Mechanical Installer/Representative
Industrial Maintenance Technician
Industrial Technical Sales
Industrial Field Service
Maintenance Supervisor

Admission Requirements: See appropriate section of college catalog. A student eligible for admission to the college can normally be considered for admission to this program.

Program 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.

Electrical Technology – Specialization in Electromechanical

First Semester (Fall)

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
DRF 160	Machine Blueprint Reading	3	0	3
ELE 133	Practical Electricity I	2	2	3
MEC 161	Hydraulics/Pneumatics	2	2	3
ENG 111 or	College Composition I or	3	0	3
ENG 115	Technical Writing			
SDV 101	Orientation to College Success	1	0	1
ITE 100	Introduction to Information Systems	3	0	3
SAF130	Industrial Safety – OSHA 10	1	0	1
	Total	**15**	**4**	**17**

Second Semester (Spring)

MTH 103	Applied Technical Mathematics I	3	0	3
ELE 134	Practical Electricity II	2	2	3
ELE 141	DC & AC Machines	3	3	4
ETR 237	Industrial Electronics	2	2	3
IND 137	Team Concepts & Problem Solving	3	0	3
	Total	**13**	**7**	**16**

Third Semester (Fall)

EEE	1*Social Science Elective	3	0	3
ELE 233	Programmable Logic Controllers I	2	3	3
ELE 156	Electrical Control Systems	2	2	3
ELE 245	Industrial Wiring	2	2	3
MEC 205	Piping and auxiliary Systems	2	2	3
PED	2*Physical Education	0	2	1
	Total	**11**	**11**	**16**

Fourth Semester (Spring)

ELE 234	Programmable Logic Controllers II	2	3	3
ELE 225	Electrical Control Systems	3	3	4
WEL 110	Welding Processes	2	3	3
ELE 132	National Electrical Code II	3	0	3

SAF 127	Industrial Safety	2	0	2
EEE	3*Humanities Elective	3	0	3
	Total	**15**	**9**	**18**

Total Minimum Credits for the AAS Degree…….....67

The above semester-by semester sequencing of courses may be modified when necessary. Please refer to the Program Choices section of this Catalog for a discussion of factors which affect planning and sequencing programs of study. Courses may be substituted or adjustments made by the College to meet program objectives and requirements.

Footnotes*

1. Students must take 3 credits of social science. Recommended social science courses include ECO 201-202; GEO 210; HIS 101-102; HIS 121-122; PLS 135; PLS 211-212; PSY 200; SOC 200.
2. Students may substitute any HLT course for physical education requirements.
3. Students must take 3 credits of humanities. Recommended humanities courses include ART 201, 202: MUS 121, 122; REL 200, 210, 230; CST 130, 151, 152; PHI 101; foreign language or literature.

Cooperative Education - Students are encouraged to take ELE 297 during the summer semester, or in the second year after satisfactory completion of the first year with faculty advisor and faculty Co-Op advisor approvals.

Electrical Technology – Specialization in Energy Technology

Associate of Applied Science Degree

Program Coordinator: Joe Mitchell, ISC 136A, Ext. 2557
Length: Four semesters (two years)

Purpose: 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: See appropriate section of college catalog. A student eligible for admission to the college can normally be considered for admission to this program.

Program 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.

Electrical Technology – Specialization in Energy Technology

First Semester (Fall)

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
DRF 161	Blueprint Reading	1	2	2
ELE 133	Practical Electricity I	2	2	3
ELE 111	Home Electric Power I	2	3	3
ENG 111 or	College Composition I or	3	0	3
ENG 115	Technical Writing			
SDV 101	Orientation to College Success	1	0	1
ITE 100	Introduction to Information Systems	3	0	3
SAF130	Industrial Safety – OSHA 10	1	0	1
	Total	**13**	**7**	**16**
Second Semester (Spring)				
MTH 103	Applied Technical Mathematics I	3	0	3
ELE 134	Practical Electricity II	2	2	3
ELE 141	DC & AC Machines	4	4	5
ELE 112	Home Electric Power II	2	3	3
ELE 131	National Electrical Code I	3	0	3
	Total	**14**	**9**	**17**
Third Semester (Fall)				
EEE	1*Social Science Elective	3	0	3
ENE 100	Conventional and Alternate Energy Applications	3	3	4
ELE 175	Industrial Solid State Devices & Circuits	2	3	3
ELE 245	Industrial Wiring	2	2	3
ELE 176	Introduction to Alternative Energy Including Hybrid Systems	2	3	3
PED	2*Physical Education	0	2	1
	Total	**12**	**13**	**17**
Fourth Semester (Spring)				
ELE 177	Photovoltaic Energy Systems	3	3	4
ENE 200	Power Monitoring	3	3	4
ELE 132	National Electrical Code II	3	0	3
SAF 127	Industrial Safety	2	0	2
EEE	3*Humanities Elective	3	0	3
	Total	**14**	**6**	**16**

Total Minimum Credits for the AAS Degree…….....66

The above semester-by semester sequencing of courses may be modified when necessary. Please refer to the Program Choices section of this Catalog for a discussion of factors which affect planning and sequencing programs of study. Courses may be substituted or adjustments made by the College to meet program objectives and requirements.

Footnotes*

1. Students must take 3 credits of social science. Recommended social science courses include ECO 201-202; GEO 210; HIS 101-102; HIS 121-122; PLS 135; PLS 211-212; PSY 200; SOC 200.
2. Students may substitute any HLT course for physical education requirements.
3. Students must take 3 credits of humanities. Recommended humanities courses include ART 201, 202: MUS 121, 122; REL 200, 210, 230; CST 130, 151, 152; PHI 101; foreign language or literature.

Cooperative Education - Students are encouraged to take ELE 297 during the summer semester, or in the second year after satisfactory completion of the first year with faculty advisor and faculty Co-Op advisor approvals.

Technical Studies

Associate of Applied Science Degree

Program Coordinator: Science & Engineering Technologies Division Dean or assigned faculty
Major: As needed (short start-up time)1
Length: 65-69 credit hours

Purpose: The Associate of Applied Science Degree is designed to provide a broad foundation of general education and technological knowledge, along with a concentration in a technical field as identified by local industry needs that will prepare the graduate to enter or advance in technical fields upon graduation.

Occupation Objective: Numerous recent studies point to an emerging need for workforce education and training programs and opportunities in several evolving fields. Chief among these are information technologies and high-performance manufacturing. A Technical Studies degree will permit VHCC to respond rapidly to the demand for workers trained in emerging career areas.

Admission Requirements: Students must meet the general admission requirements of the college. All students who are not proficient in communications and computation skills will be required to correct deficiencies through developmental courses.

Program 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, and work-based learning requirement.

Technical Studies

		Credits
General Education Required Core		**18**
	English Composition	3
	Humanities	3
	Social/Behavioral Sciences	6
	Mathematics/Natural Science	3
	Wellness	2
	Student Development	1
Technical Foundations		**18-24**
	Principles of Technology	3
	Microcomputers/Programming/Software	6-9
	Technical Writing	3
	Quality Control	3
	Team Concepts/Problem Solving	3-6
Content Skills & Knowledge2		**15-27**
Option 1:	Courses selected from a single existing certificate or diploma + electives to define content area1	
OR		
Option 2:	Two or more content areas3 of 6-12 credits each (course selected to meet student goals and employer needs) plus related courses and electives	
Work-Based Learning		6-15
	Total credits required for the AAS Degree.....65-69	

1. Curricular exhibits are provided for informational purposes only. See the Counselor for details on majors and their content.
2. The course content is developed between the employer(s), college and students to meet the needs of the employer(s). A minimum of fifteen (15) students must agree to enroll in any given major.
3. A minimum of six (6) credits per each content area.

Engineering and Industrial Technology – Diploma

Air Conditioning, Refrigeration, and Heating (D)

Diploma

Program Coordinator: Jim Kroll, OTC 201, Ext. 2560
Length: **Four semesters (two years)

**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.

Purpose: 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. VHCC's program content and entry-level skills of students are verified through the nationally recognized Air Conditioning, Heating and Refrigeration Institute's Industry Competency Exam. For the 5 year period ending in 2004 VHCC students have a 92% pass rate on the residential heating and cooling exam, compared to a 60 percentile national average.

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

Admission Requirements: Students are required to meet the general requirements of the college as contained in this catalog. Graduates of the Refrigeration Certificate program at Virginia Highlands Community College may enter the third semester of the program directly and continue for the two subsequent semesters to fulfill the diploma requirements. Students from other schools or colleges or with appropriate industrial experience may submit transcripts or other documentation for evaluation and advanced placement.

Program Requirements: The major proportion 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 a Diploma.

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

Air Conditioning, Refrigeration, and Heating (D)

First Semester (Fall)

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
SDV 101	Orientation to College Success	1	0	1
AIR 111	Air Cond. & Ref. Controls I	2	2	3
AIR 171	Refrigeration I	6	6	9
ENG 111 or ENG 115	College Composition I or Technical Writing	3	0	3
	Total	**12**	**8**	**16**

Second Semester (Spring)

AIR 112	Air Cond. & Ref. Controls II	2	2	3
AIR 159	Heating and Cooling Safety	1	0	1
AIR 172	Refrigeration II	6	6	9
MTH 103	Applied Technical Mathematics I	3	0	3
	Total	**12**	**8**	**16**

Third Semester (Fall)

EEE	1*General Elective or 2*Co-op Education	3	0	3
AIR 134	Circuits and Controls I	2	2	3

AIR 176	Air Conditioning	4	4	6
AIR 235	Heat Pumps	2	2	3
	Total	**11**	**8**	**15**
Fourth Semester (Spring)				
EEE	1*General Elective or 2*Co-op Education	3	0	3
AIR 154	Heating Systems I	2	2	3
AIR 165	Air Conditioning Systems I	2	3	3
AIR 205	Hydronics and Zoning	2	2	3
AIR 231	Circuits and Controls IV	3	3	4
	Total	**12**	**10**	**16**

Total Minimum Credits required for the Diploma.....63

Footnotes*

1. General Education Electives may be selected from courses in English, psychology, political science/government, economics, geography, sociology, or humanities.
2. **Cooperative Education** - Students are encouraged to take AIR 197 after satisfactory completion of the second semester with faculty curriculum advisor and faculty co-op advisor approvals to help meet the work experience requirement for certification.

Machinist

Diploma

Program Coordinator: Melinda Leland, ADM 101, Ext. 2430
Length: Four semesters (two years)

Purpose: 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 three-semester Computer Numerical Control Machining Program that is 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

Admission Requirements: Students are required to meet the general requirements of the college as contained in this catalog. Graduates of the Machine Too Operation Certificate program at Virginia Highlands Community College may enter the fourth semester of the program directly. Students from other schools or colleges or with appropriate industrial experience should submit transcripts or other documentation for evaluation and advanced placement.

Program Requirements: The Machinist 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 four-semester program listed on the following page, the graduate will be awarded a Diploma.

Machinist

First Semester (Fall)

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
DRF 161	Blueprint Reading I	1	3	2
MAC 151	Machine Tool Maintenance	1	3	2
MAC 161	Machine Shop Practices I	2	3	3
MAC 162	Machine Shop Practices II	2	3	3
MAC 111	Machine Trade Theory and Computation I	3	0	3
SDV 101	Orientation to College Success	1	0	1
MTH 103	Applied Technical Mathematics I	3	0	3
	Total	**13**	**12**	**17**

Second Semester (Spring)

MAC 146	Metals/Heat Treatment	1	3	2
MAC 163	Machine Shop Practices III	2	3	3
MAC 164	Machine Shop Practices IV	2	3	3
MAC 121	Numerical Control I	1	2	2
ENG 111 or ENG 115	College Composition I or Technical Writing	3	0	3
EEE	1*General Education Elective	3	0	3
	Total	**12**	**11**	**16**

Third Semester (Fall)

MAC 116	Machinist Handbook	3	0	2
MAC 209	Standards, Measurements and Calculations	3	0	3
MAC 122	Numerical Control II	2	3	3
MAC 206	Production Machining Techniques	4	6	6
	Total	**11**	**9**	**14**

Fourth Semester (Spring)

MAC 123	Numerical Control III	2	3	3
MAC 250	Advanced Computer Aided Manufacturing	2	3	3
MAC 297	Co-op Education or Technical Elective	0	15	3

MAC 241	Advanced Machinery Procedures I	2	3	3
EEE	1*General Education Elective	3	0	3
	Total	**9**	**24**	**15**

Total Minimum Credits required for the Diploma.....62

The above semester-by-semester sequence of courses may be modified when necessary. Please refer to the Program Choices section of this Catalog for a discussion of factors which affect planning and sequencing programs of study. Courses may be substituted or adjustments made by the College to meet program objectives and requirements.

Footnotes*

1. General education electives may be selected from courses in English, psychology, political science, economics, sociology, or humanities.

Cooperative Education - Students are encouraged to take MAC 297 after satisfactory completion of the third semester with Faculty Curriculum Advisor and Faculty Co-op Advisor approvals.

Engineering and Industrial Technology – Certificate

Computer Numerical Control Machine Operations

Certificate

Coordinator: Melinda Leland, ADM 101, Ext. 2430
Length: Three semesters (one year)

Purpose: The rapid growth of industries in the area and state creates a steady demand for skilled machine tool operators. It is the machinist who is responsible for forming out of various metals the idea that the engineer sends to him in the form of a blueprint. To be able to machine very complex parts using lathes, milling machines, and grinders requires a great deal of skill. Most companies prefer to hire those who already have the basic skills. Also previous instruction reduces training time and should result in more rapid advancement. This program is designed to prepare persons for full time employment as machine tool operators. Furthermore, this certificate will prepare students to be CNC programmers and/or operators.

Occupational Objectives: Machine Tool Operator and CNC Programmer or Operator

Admission Requirements: A student eligible for admission to the College can normally be considered for admission to the Computer Numerical Control Machining curriculum.

Program Requirements: The Computer Numerical Control Machining Program is designed to prepare students to work as machine tool operators and CNC programmers or operators. The student will be given training in the operation of metal lathes, milling machines, various types of grinders, drilling machine and measuring instruments. Also the student will develop skills in blueprint reading, mathematics, and drafting.

Students successfully completing the three-semester sequence in this program receive a Certificate in Computer Numerical Control Machining.

Computer Numerical Control Machining

First Semester (Fall)

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
DRF 161	Blueprint Reading I	1	3	2
MAC 151	Machine Tool Maintenance	1	3	2
MAC 161	Machine Shop Practices I	2	3	3
MAC 162	Machine Shop Practices II	2	3	3
MAC 111	Machine Trade Theory and Computation I	3	0	3
SDV 101	Orientation to College Success	1	0	1
	Total	**10**	**12**	**14**
Second Semester (Spring)				
ENG 111 or ENG 115	College Composition I or Technical Writing	3	0	3
MAC 146	Metals/Heat Treatment	1	3	2
MAC 163	Machine Shop Practices III	2	3	3
MAC 164	Machine Shop Practices IV	2	3	3
MAC 121	Numerical Control I	1	2	2
	Total	**9**	**11**	**13**
Third Semester (Fall)				
MAC 116	Machinist Handbook	2	0	2
MAC 209	Standards, Measurements and Calculations	2	0	2
MAC 122	Numerical Control II	2	3	3
MAC 206	Production Machining Techniques	4	6	6
EEE	1*General Education Elective	3	0	3
	Total	**14**	**9**	**16**

Total Minimum Credits Required for Certificate 43

The above semester-by-semester sequence of courses may be modified when necessary. Please refer to the Program Choices section of this Catalog for a discussion of factors which affect planning and sequencing programs of study. Courses may be substituted or adjustments made by the College to meet program objectives and requirements.

Footnotes*
General education electives may be selected from courses in English, psychology, political science, economics, sociology, or humanities.

Electricity

Certificate

Program Coordinator: Joe Mitchell, ISC 136A, Ext. 2557
Length: Two semesters (one year)

Purpose: 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: 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 electricity certificate curriculum.

Program 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.

Electricity

First Semester (Fall)

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
ELE 133	Practical Electricity I	2	2	3
ELE 111	Home Electric Power I	2	3	3
ENG 111 or 115	College Composition I or Technical Writing	3	0	3
SDV 101	Orientation to College Success	1	0	1
EEE	1*General Education Elective or Co-op Education	3	0	3
SAF 130	Industrial Safety OSHA-10	1	0	1
	Total	**12**	**5**	**14**

Second Semester (Spring)

ELE 134	Practical Electricity II	2	2	3
ELE 141	DC & AC Machines	3	3	4
ELE 112	Home Electric Power II	2	3	3
ELE 131	National Electric Code I	3	0	3
MTH 103	Applied Technical Mathematics I	3	0	3
	Total	**13**	**8**	**16**

Total Minimum Credits Required for Certificate.....30

The above semester-by-semester sequence of courses may be modified when necessary. Please refer to the Program Choices section of this Catalog for a discussion of factors which affect planning and sequencing programs of study. Courses may be substituted or adjustments made by the College to meet program objectives and requirements.

Footnotes*

1. Students must take 3 credits of General education. Recommended courses include ECO 201-202; GEO 210; HIS 101-102; HIS 121-122; PLS 135; PLS 211-212; PSY 200; SOC 200; ITE 100, Co-Op ELE 197. With the approvals of the Faculty Curriculum Advisor and the Faculty Co-op Advisor, Co-Op ELE 197 may be taken for 3 credits after satisfactory completion of the first semester to help meet the practical work requirement for certification.

Refrigeration

Certificate

Program Coordinator: Jim Kroll, OTC 201, Ext. 2560
Length: **Two semesters (one year)

***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.*

Purpose: The Certificate program in Refrigeration is designed to provide the student with HVACR skills in the vapor compression refrigeration cycle; commercial and residential refrigeration systems, basic electricity and HVACR electrical controls such as; temperature, pressure, and time operated controls. Students will receive training in the proper handling of refrigerants according to EPA guidelines. A student who completes the certificate program is capable of performing job skills normally expected of a beginning refrigeration technician. Students should note that the certificate program is the same as the first two semesters in both the HVACR diploma and AAS degree programs. Completion of either the diploma or AAS degree program is recommended, providing more employment opportunities in the additional areas of indoor climate control.

Occupational Objectives:
Refrigeration Technician
HVACR Technician
HVACR Technical Sales

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 Refrigeration certificate curriculum.

Program Requirements: Approximately two-thirds of the curriculum will include courses in Air Conditioning and Refrigeration, with the remaining courses in related subjects, general education, and electives. Instruction will include both the theoretical concepts and practical applications needed for future success in Air Conditioning and Refrigeration Servicing. Each student is advised to consult with his/her faculty advisor and counselor in planning a program and selecting electives. Upon completion of the two-semester curriculum listed on this page, the student will be awarded a Certificate in Refrigeration.

Refrigeration

First Semester (Fall)

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
AIR 111	Air Cond. & Ref. Controls I	2	2	3
AIR 171	Refrigeration I (Basic)	6	6	9
ENG 111 or ENG 115	College Composition I or Technical Writing	3	0	3
SDV 101	Orientation to College Success	1	0	1
	Total	**12**	**8**	**16**

Second Semester (Spring)

AIR 112	Air Cond. & Ref. Controls II	2	2	3
AIR 159	Heating and Cooling Safety	1	0	1
AIR 172	Refrigeration II	6	6	9
MTH 103	Applied Technical Mathematics I	3	0	3
	Total	**12**	**8**	**16**

Total Minimum Credits for Certificate.....32

The semester-by-semester sequence of courses may be modified when necessary. Please refer to the Program Choices section of this Catalog for a discussion of factors which affect planning and sequencing programs of study. Courses may be substituted or adjustments made by the College to meet program objectives and requirements.

SOLAR ENERGY TECHNOLOGY

Certificate

Program Coordinator: Joe Mitchell, ISC 136A, Ext. 2557

Length: Two semesters (one year)

Purpose: The Certificate in Energy Technology is designed to prepare students for employment upon graduation as technicians to install solar power generation systems.

Admission Requirements: See appropriate section of college catalog. A student eligible for admission to the college can normally be considered for admission to this program.

Program Requirements: The program contains twenty-five credits in electrical technology and energy technology courses. The remaining credits are in mathematics, English, and orientation.

SOLAR ENERGY TECHNOLOGY (C)

First Semester (Fall)

Course Number	Course Description	Lec. Hrs.	Lab. Hrs.	Crs.
ELE 133	Practical Electricity I	2	2	3
ELE 176	Introduction to Alternative Energy Including Hybrid Systems	2	3	3
SAF 130	OSHA 10	1	0	1
SDV 101	Orientation to College Success	1	0	1
ENG 111 or 115	College Composition I or Technical Writing	3	0	3
ELE 245	Industrial Wiring	2	2	3
ELE 131	National Electric Code I	3	0	3
	Total	**14**	**7**	**17**

Second Semester (Spring)

ELE 177	Photovoltaic Energy Systems	3	3	4
ELE 134	Practical Electricity II	2	2	3
ELE 141	DC/AC Machines	3	3	4
MTH 103	Applied Technical Mathematics I	3	0	3
ELE 132	National Electric Code II	3	0	3
	Total	**14**	**8**	**17**

Total Minimum Credits for Certificate ……34

Engineering and Industrial Technology – Career Studies Certificate

Basic Computer Numerical Control Operations

Career Studies Certificate

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
DRF 161	Blueprint Reading I	1	3	2
MAC 121	Numerical Control I	1	2	2
MAC 122	Numerical Control II	2	3	3
MAC 123	Numerical Control III	2	3	3
MAC 111	Machine Trade Theory	3	0	3
MAC 161	Machine Shop Practices I	2	3	3
MAC 162	Machine Shop Practices II	2	3	3
MAC 209	Standards, Measurements, and Calculations	3	0	3
MAC 250	Computer Aided Manufacturing	2	3	3
	Total	**18**	**20**	**25**

Health Technology – Associate of Applied Science Degree

Emergency Medical Services Technology

Associate of Applied Science Degree

Program Coordinator: Bill Akers, Jr., MS, NRP, Program Director, 276-964-7729, bill akers@sw.edu
Length: Five semesters

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

Purpose: The purpose of this curriculum is to produce competent entry-level Emergency Medical Technician-Paramedics (EMT-P) who can service the community with advance life support care via the Emergency Medical Services (EMS) infrastructure. Upon completion of the program, students will be eligible for National Registry testing and certification in the Commonwealth of Virginia. Employment opportunities for Paramedics are available with ambulance; fire and rescue services; hospitals; local, state and federal government agencies; and humanitarian relief organizations.

Program Goals: At the completion of the program the graduate will be able to demonstrate:

1. The Ability to comprehend, apply, and evaluate the clinical information relative to his role as an entry-level paramedic;
2. Technical proficiency in all skills necessary to fulfill the role of an entry-level paramedic; and
3. Personal behaviors consistent with professional and employer expectations for the entry-level paramedic.

Accreditation: This program is accredited nationally by the Committee on Accreditation of Allied Health Educational Programs, (CAAHEP).

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

1. Meet eligibility requirements as stipulated by the Virginia Office of EMS; and
2. Meet the college's general admission requirements.

Selection Process: To be eligible for selection to the program, interested person should complete the following process by May 10:

1. Submit a college admission application.
2. Submit an application to the program (separate document) with required attachments.
3. Take the VPT English Test (or submit satisfactory SAT or ACT scores).
4. Have transcripts of previous college courses sent to the college.

At this time the first round of students will be selected. Selection will be based on previous college coursework, interview, entrance exam, and college placement reading scores. Students should place into ENF 3 or higher to be eligible for consideration in the first round of selection. Should openings still be available, persons who apply or meet requirements after May 10, or score lower than cut sore on the reading exam will be considered.

Program Requirements:

Physical Requirements: An EMS provider is faced with many physical and psychological challenges. Please refer to the Office of Emergency Medical Services we site for a more detailed functional job description. http://www.vdh.virginia.gov/OEMS/Training/TPAM/Forms/Training%20Programs%20Summary.pdf, pages 14-16.

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. See http://www.vdh.virginia.gov/OEMS/Training/TPAM/Forms/Training%20Programs%20Summary.pdf, pages 7-8.

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.

EMERGENCY MEDICAL SERVICES TECHNOLOGY

First Semester (Summer)		**Lec.**	**Lab**	
Course		**Hrs.**	**Hrs.**	**Crs.**
EMS 111	Emergency Medical Technician - Basic	5	4	7
EMS 120	EMT-Basic Clinical	0	2	1
SCI	1*Anatomy & Physiology	3	3	4
SDV 101	Orientation to College Success	1	0	1
	Total	**9**	**9**	**13**
Second Semester (Fall)				
EMS 151	Intro to Advanced Life Support	3	2	4
EMS 170	ALS Internship I	0	3	1
EMS 153	Basic ECG Recognition	2	0	2
EMS 157	ALS - Trauma Care	2	2	3
ENG 111	English Composition I	3	0	3
	Total	**10**	**7**	**13**
Third Semester (Spring)				
EMS 155	ALS - Medical Care	3	2	4
EMS 159	EMS Special Populations	2	2	3
EMS 172	ALS Clinical Internship II	0	3	1
EMS 173	ALS Field Internship II	0	3	1
ITE 115 or 100	2*Intro. to Computer Applications & Concepts or Intro. to Information Systems	3	0	3
EMS/FIR/HLT	Electives	3	0	3
	Total	**11**	**10**	**15**
Fourth Semester (Fall)				
EMS 205	Advanced Pathophysiology	4	0	4
EMS 209	Advanced Pharmacology	3	2	4
EMS 242	ALS Clinical Internship III	0	3	1
EMS 243	ALS Field Internship III	0	3	1
EEE	4*Social Science Elective	3	0	3
	Total	**10**	**8**	**13**
Fifth Semester (Spring)				
EMS 201	EMS Professional Development	3	0	3
EMS 207	Advanced Patient Assessment	2	2	3
EMS 211	Operations	1	2	2
EMS 244	ALS Clinical Internship IV	0	3	1
EMS 245	ALS Field Internship IV	0	3	1
HUM	3*Humanities Elective	3	0	3
	Total	**9**	**10**	**13**

Total Minimum Credits for EMS Technology Major……67

1. Students should take BIO 141 and 142 or BIO 145. It is recommended that students who are planning to transfer to another medically related program complete BIO 141-142.
2. Keyboarding skills highly recommended.
3. Recommended humanities course include ART 201, 202; MUS 121, 122; REL 200, 210, 230; CST 130, 151, 152; PHI 101 and literature.

4. Recommended social science; PSY 231, 232.

Nursing

Associate of Applied Science Degree

Program Dean: Kathy Mitchell, PhD, MSN, RN, NEB 148, Ext. 2439
Length: Six semesters (2 years)

About the Program: The Virginia Appalachian Tricollege Nursing Program (VATNP) is a three college consortium serving Virginia Highlands Community College, Southwest Virginia Community College, and Mountain Empire Community College.

Purpose: The two year Associate of Applied Science degree curriculum in Nursing is designed to prepare selected students to qualify as contributing members of the health team, rendering direct patient care as beginning practitioners of nursing in a variety of health service facilities. Upon successful completion of the curriculum, students will be eligible to take the National Council Licensure Examination leading to licensure as a registered nurse (RN).

State Approval and Accreditation Status: The Nursing Program is approved by the Virginia State Board of Nursing and is accredited by the Accreditation Commission for Education in Nursing (ACEN), 3343 Peachtree Road NE, Suite 850, Atlanta, Georgia 30326, Phone: (404) 975-5000, www.acenursing.org, 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.

Occupational Objectives: Employment opportunities for the Registered Nurse include, but are not limited to, staff positions in hospitals, nursing homes, health departments, physician's offices, clinics, home health agencies, public schools, day care centers, and civil service.

Admission Requirements: Admission to the Virginia Appalachian Tricollege 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. The completion of one unit each general high school biology with laboratory and high school chemistry with no grade below a "C" before application to the program (deficiencies can be made up through developmental studies or college courses).
3. Completion of Virginia Placement Tests (VPT) within 2 years prior to application with demonstrated proficiency in MTE 1-4, or SAT math score of 520/ACT math score of 22, or completion of college-level math class equivalent to MTH 151 or higher with a grade of "C" or higher. Those who do not meet this requirement must complete MTE 1-4 prior to application to the program. Students must have satisfactory VPT scores in reading and writing. All prescribed developmental work must be completed prior to application deadline.
4. A 2.5 grade point average (GPA) for high school courses** or a 2.5 curricular GPA for college coursework.
5. College students must be in good standing with the most recently attended institution with a minimum GPA of 2.0.
6. Completion of Nursing Application for each academic year interested in being considered for the Nursing Program.
7. Satisfactory performance (national percentile score of 45 or higher) on a nursing pre-admission test. An interview with a faculty member may be requested by the student.

**If the student has completed a minimum of 12 college credits that are included in calculating the curricular GPA (non-development courses), the 2.5 high school GPA requirement will be waived.

Nursing program application packets will be accepted in the Admissions Office between August 15, 2014 and January 15, 2015. Packets must include official high school and all college transcripts; GED test scores (if applicable).Currently licensed LPN applicants must also include a copy of current LPN license and documentation of graduation from an approved LPN program. LPNs who graduated before May 15, 2012 must provide documentation of 1 year (2000 hours) of full-time LPN work experience in direct patient care during the past three years with written verification from employer.

The Admissions Office will suspend processing applications if all transcripts are not attached. Once a packet is submitted, additional documentation will not be accepted. 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.

All prerequisites (general biology, chemistry, English and math proficiency) must be met and all documents submitted by the January 15th deadline. Further details of the application process can be found at www.vhcc.edu (click Future Students > Enrollment Checklist > Apply for Admissions > Medical Program Application).

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.

LPN to RN Transition: Currently licensed LPNs who have been accepted to the nursing program may be offered the option of entering a summer LPN to RN Bridge Program providing they have completed all the general education courses required as outlined in the Nursing Track 3: LPN to RN Curriculum or Track4: Part-time Evening/Weekend LPN to RN. Applicants must have graduated from an LPN program after May 15, 2012 or provide documentation of 1 year (2000 hours) of full-time LPN work experience in direct patient care during the past three years with written verification from employer at the time of application.

Transfer of Nursing Credit: Students seeking to transfer credit from nursing programs at other institutions will be considered on an individual basis. Students must meet the admission requirements identified by the college and the VATNP. 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 of eligibility to return to that nursing program. Nursing courses which are being transferred must have been completed within three (3) years prior to admission to the nursing program.

Program Requirements: Prior to enrollment in any NUR course, the student must provide the following documentation: (For more information, see the VATNP website at www.vhcc.edu/vatnp

1. Required Student Forms.
2. Annual Student Statement of Health Form
3. Student Information, Physical, Immunization Forms. The VATNP physical examination form must be completed by a medical practitioner, MD, PA, or CNP.
   a. Immunizations including tetanus, Mumps-Measles-Rubella (MMR), Varicella, and Hepatitis B.
   b. Current testing for tuberculosis, either Mantoux Tuberculin Skin Test (TB Tine Test is not accepted) or chest X-ray.
   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.
6. Proof of CPR certification, American Heart Association, Basic Life Support (BLS) for Healthcare Providers completed during the summer (May 15 – August 15) prior to admission to NUR courses and maintained throughout the program.
7. Proof of HIPAA Certification

The cost of these requirements is the responsibility of the student.

Special Notes:
1. 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 BARRIER CRIMES, Code of Virginia 63.2-1726 @ http://hope-tfc.org/FP/Barrier%20Crimes.pdf). Students with convictions or positive drug tests may be prohibited from clinical practice and may not be able to complete the program requirements.

2. Additional annual immunization requirements: Flu immunizations are required by most healthcare agencies and are usually available in fall semester.

Physical demands: Program activities 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. Duties also require constant use of acute sense of sight, hearing, touch, and speech. Environmental conditions include procedures that involve handling blood and body fluids using universal precautions.

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, nursing homes, clinics, physicians' offices and comparable facilities. The nursing faculty will observe and evaluate the student's suitability for nursing and direct patient care.

Most previous general education college credits will be accepted regardless of completion date; however, anatomy and physiology and the computer technology requirements will not be accepted if completed more than 10 years prior to admission to the nursing program. MTH 126 must be completed within five (5) years of admission to the nursing program. CPR certification must be maintained throughout the program.

Students must complete all courses listed in the first year of the curriculum before being allowed to enter the second year. Exceptions due to unusual circumstances must be approved by the program Dean.

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. In addition, during the NUR 105 or NUR 115 course, a Comprehensive Drug Calculation Exam (CDCE) will be administered to verify skills. Students must achieve at least 90 percent of maximum 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.

A student must obtain permission from the Dean of VATNP 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.

Reapplication/Readmission Requirements: Students who are not successful in the first semester nursing course NUR 108 or NUR 115 must reapply to the nursing program. A new nursing program application packet must be submitted prior to the application deadline.

A student who wishes to reenter the nursing curriculum at any other level (e.g., NUR 105, 109, 136, 137,195,201, 205, 226, 236, 208, 245, 237, or 254) must write a letter to the program dean requesting readmission in the semester prior to the semester of enrollment. Re-enrollment must occur no later than three years from successful completion of NUR 108 or NUR 115 or the student will have to repeat all nursing courses. The student may be required to enroll in and satisfactorily complete specific courses before readmission. Additional data may be required. Each student’s application for readmission will be considered by the nursing faculty and the decision to readmit will be based on additional data, prior performance in the 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. Such a student may not be readmitted if the cumulative grade point average is less than 2.0, including all courses attempted other than nursing.

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.

Financial Requirements: In addition to the usual college tuition and fees, the nursing program requires uniforms with accessories, textbooks, progressive testing and remediation program, physical exam, immunizations, Mantoux Tuberculin Skin Test or chest x-ray, a background check, drug screen, and medical document package, CPR Certification, and HIPAA Certification.

Students are also responsible for transportation to and from the College and health agencies used for clinical experiences.

Clinical Contracts: The VATNP 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 Certification must be provided.

7. Clinical facilities require a criminal background check and drug screen clearance as a condition for student placement.
8. Proper uniform must be worn when participating in clinical activities.

Nursing Track 1: 2 Year Curriculum Plan

Nursing Track 1: 2 Year Curriculum Plan

The VATNP 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 2 summer sessions). This is a rigorous and academically challenging program.

Students have the option to complete all general education courses required by the nursing curriculum and receive a Health Sciences certificate before beginning nursing classes. This option takes three years or longer depending on the amount of time taken to complete the general education classes. Many students, who have families, work or other responsibilities often choose this option.

Nursing Track 1: 2 Year Curriculum Plan

Summer Session- Year 1

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
SDV 108	College Survival Skills	1	0	1
MTH 126	Mathematics for Allied Health	2	0	2
ENG 111	English Composition I	3	0	3
ITE 115 or 100	Intro. to Comp Apps & Concepts or Intro. to Information Systems	3	0	3
	TOTAL	**9**	**0**	**9**
Fall Semester- Year 1				
BIO 141	Human Anatomy & Physiology I	3	3	4
NUR 105	Nursing Skills	1	3	2
NUR 108	Nursing Principles and Concepts I	4	3	5
NUR 136	Principles of Pharmacology I	1	0	1
NUR 226	Health Assessment	1	3	2
	TOTAL	10	**12**	**14**
Spring Semester- Year 1				
BIO 142	Human Anatomy & Physiology II	3	3	4
NUR 109	Nursing Principles and Concepts II	3	9	6
NUR 137	Principles of Pharmacology II	1	0	1
NUR 195	Topics in Geriatric Nursing	2	0	2
	TOTAL	**9**	**12**	**13**
Summer Session- Year 2				
PSY 231	Life Span Human Development I	3	0	3
ENG 112	English Composition II	3	0	3
EEE	1*Humanities	3	0	3
	TOTAL	**9**	**0**	**9**
Fall Semester- Year 2				
PSY 232	Life Span Human Development II	3	0	*3*
NUR 201	Psychiatric Nursing	2	3	3
NUR 205	Introduction to Second Level Nursing	2	9	5
NUR 236	Principles of Pharmacology III	1	0	1
	TOTAL	**8**	**12**	**12**
Spring Semester- Year 2				
NUR 245	Maternal/Newborn Nursing	2	3	3
NUR 208	Acute Medical-Surgical Nursing	3	9	6
NUR 237	Principles of Pharmacology IV	1	0	1
NUR 254	Dimensions of Professional Nursing	2	0	2
	TOTAL	**8**	**12**	**12**

Total Minimum Credits for the AAS Degree…….69

Footnote: 1. Humanities electives include: ART 201, 202; literature; MUS 121, 122; PHI 101; REL 200, 210, 230; CST 130, 151, 152.

Nursing Track 2: Part-time Evening/Weekend

The VATNP part-time evening/weekend program is specifically designed for working adults or other adults who are interested in becoming RN's but have other responsibilities that interfere with their abilities to attend the rigorous scheduling of the previously described program of study. Classes will be provided in a combination of evening, weekend, and distance learning. The program is designed at a slower pace to be completed in 4 years. General education courses listed in year 1 must be completed before the student will be able to begin year 2.

Admission Requirements: Admissions requirements for the part-time evening/weekend nursing program are the same as the regular program with the following exception: Students must complete 20 credits of support (general education) courses: BIO 141, BIO 142, ENG 111, ENG 112, MTH 126, ITE 100 or 115 and SDV 108. Additional required general education courses can be completed after acceptance to the program.

Nursing Track 2:Part-time Evening/Weekend

Summer Session - Year 1

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
ENG 111	College Comp I	3	0	3
ITE 115 or 100	Intro. to Comp Apps & Concepts or Intro to Information Systems	3	0	3
SDV 108	College Survival Skills	1	0	1
	Total	**7**	**0**	**7**
Fall Semester - Year 1				
BIO 141	Human Anatomy and Physiology I	3	3	4
ENG 112	College Composition II	3	0	3
	Total	**6**	**3**	**7**
Spring Semester - Year 1				
BIO 142	Human Anatomy and Physiology II	3	3	4
MTH 126	Mathematics for Allied Health	2	0	2
	Total	**5**	**3**	**6**
Summer Session - Year 2				
NUR 136	Principles of Pharmacology I	1	0	1
PSY 231	Life Span Human Development I	3	0	3
	Total	4	**0**	**4**
Fall Semester - Year 2				
NUR105	Nursing Skills	1	3	2
NUR108	Nursing Principles and Concepts I	4	3	5
	Total	5	**6**	**7**
Spring Semester - Year 2				
NUR109	Nursing Principles & Concept II	3	9	6
NUR 137	Principles of Pharmacology II	1	0	1
	Total	4	**9**	7
Summer Session - Year 3				
PSY 232	Life Span Human Development II	3	0	3
NUR 226	Health Assessment	1	3	2
	Total	**4**	**3**	**5**
Fall Semester - Year 3				
NUR 205	Introduction to Second Level Nursing	2	9	5
NUR 236	Principles of Pharmacology III	1	0	1
	Total	**3**	**9**	**6**
Spring Semester - Year 3				
NUR 195	Topics in Geriatric Nursing	2	0	2
NUR 201	Psychiatric Nursing	2	3	3
	Total	**4**	3	**5**
Summer Session - Year 4				

EEE	1*Humanities	3	0	3
	Total	**3**	**0**	**3**
Fall Semester - Year 4				
NUR 245	Maternal/Newborn Nursing	2	3	3
NUR 254	Dimensions of Professional Nursing	2	0	2
	Total	4	**3**	**5**
Spring Semester - Year 4				
NUR 208	Acute Medical/Surgical Nursing	3	9	6
NUR 237	Principles of Pharmacology IV	1	0	1
	Total	4	**9**	**7**
Total Minimum Credits for the AAS Degree.....69				

Footnote*

1. Humanities electives include: ART 201, 202; literature; MUS 121, 122; PHI 101; REL 200, 210, 230; CST 130, 151, 152.

Nursing Track 3: LPN to RN Bridge Curriculum

Students who are LPNs are required to complete at least 17 hours of the general education courses before beginning the LPN to RN nursing classes. The length of this tract depends on the amount of time needed to complete the general education classes. The nursing classes can be completed in one year. Some LPNs may opt for the part-time/evening weekend program which requires 2 years of nursing classes after completion of general education requirements.

The Virginia Appalachian Tricollege Nursing Program's advance placement or "Bridge Program," is designed to grant advanced placement to LPNs who have been admitted to the Virginia Appalachian Tricollege Nursing Program (VATNP) Associate Degree program and meet pre-requisite requirements.

If there is sufficient enrollment in the VATNP, Virginia Appalachian Tricollege Nursing Program, students who meet the eligibility requirements for the advanced placement will take "Bridge Courses" in the summer term and then be eligible to take the sophomore level courses and graduate within one (1) academic year with an AAS Degree in Nursing.

This program is designed to recognize the common abilities of nurses and to bridge the difference between LPN and RN knowledge base and to allow these students to finish the AAS program within a two and one-half semester period.

Admission Requirements: Admissions requirements for the LPN to RN nursing program are the same as the regular program with the following exceptions:

1. Current LPN license.
2. Applicants must have graduated from an LPN program after May 15, 2012 OR provide documentation of one (1) year (2000 hours) of full-time LPN work experience in direct patient care during the past three years with written verification form employer at the time of application.
3. Be an accepted student in the regular VATNP program
4. Completion of 17 credits of support (general education) courses required for graduation from the Nursing program: BIO 141, BIO 142, ENG 111, ITE 100 or 115, MTH 126, and SDV 108. Additional required general education courses can be completed after acceptance to the program.

Nursing Track 3: LPN to RN Bridge Curriculum

Course Number	Pre-Clinical Studies Course Title	Lec. Hrs.	Lab. Hrs.	Crs.
SDV 108	College Survival Skills	1	0	1
BIO 141	Human Anatomy & Physiology I	3	3	4
BIO 142	Human Anatomy & Physiology II	3	3	4
ENG 111	College Composition I	3	0	3
ITE 115 or 100	Intro. to Comp Apps & Concepts or Intro to Information Systems	3	0	3
MTH 126	Mathematics for Allied Health	2	0	2
	TOTAL	**15**	**6**	**17**
Summer Semester - Year 1				
NUR115*	LPN Transition	5	3	6
NUR 136	Principles of Pharmacology I	1	0	1
NUR 137	Principles of Pharmacology II	1	0	1
NUR 226	Health Assessment	1	3	2
	TOTAL	**8**	**6**	**10**
Fall Semester				
ENG 112	College Composition II	3	0	3
NUR 201	Psychiatric Nursing	2	3	3
NUR 205	Introduction to Second Level Nursing	2	9	5
NUR 236	Principles of Pharmacology III	1	0	1
PSY 231	Life Span Human Development I	3	0	3
	TOTAL	**11**	**12**	**15**
Spring Semester				
NUR 245	Maternal/Newborn Nursing	2	3	3

NUR 208	Acute Medical-Surgical Nursing	3	9	6
NUR 237	Principles of Pharmacology IV	1	0	1
NUR 254	Dimensions of Professional Nursing	2	0	2
PSY232	Life Span Human Development II	3	0	3
EEE	1*Humanities	3	0	3
	TOTAL	**14**	**12**	**18**

Total Minimum Credits for the AAS Degree 60*

Footnote:

Upon completion of NUR 115, credit will be awarded for NUR 105, 108, 109, 195 (15 credits). These credits will appear on the student's official transcript.

1. Humanities electives include: ART 201, 202; literature; MUS 121, 122; PHI 101; REL 200, 210, 230; CST 130, 151, 152.

Nursing Track 4: Part-time Evening/Weekend LPN to RN

A part-time evening/weekend LPN to RN option is available for LPNs who work and or wish to attend part time. General education courses can be completed as night classes or by distance education options such as web based learning. Nursing classes and clinicals are taught on evenings and weekends on an extended plan. General education courses listed in Year 1 must be completed before the student will be able to begin Year 2.

Admission Requirements: Admissions requirements for the part-time evening/weekend LPN to RN nursing program are the same as the regular program with the following exceptions:

1. Current LPN license.
2. Applicants must have graduated from an LPN program after May 15, 2012 OR provide documentation of one (1) year (2000 hours) of full-time LPN work experience in direct patient care during the past three years with written verification form employer at the time of application.
3. Be an accepted student in the regular VATNP program
4. Completion of 26 credits of support (general education) courses required for graduation from the Nursing program: BIO 141, BIO 142, ENG 111, ENG 112, MTH 126, ITE 100 or 115, PSY 231, PSY 232, and SDV 108.

Nursing Track 4: Part-time Evening/Weekend LPN to RN

Course Number	Course Title	Lec. Hrs.	Lab. Hrs.	Crs.
Summer Session - Year 1				
ENG 111	College Composition I	3	0	3
ITE 115 or 100	Intro. to Information Systems or Intro. to Comp Apps & Concepts	3	0	3
SDV 108	College Survival Skills	1	0	1
PSY 231	Life Span Human Development I	3	0	3
	TOTAL	**10**	**0**	**10**
Fall Semester - Year 1				
BIO 141	Human Anatomy and Physiology I	3	3	4
ENG 112	College Composition II	3	0	3
	TOTAL	**6**	**3**	**7**
Spring Semester - Year 1				
BIO 142	Human Anatomy and Physiology II	3	3	4
MTH 126	Mathematics for Allied Health	2	0	2
PSY 232	Life Span Human Development II	3	0	3
	TOTAL	**8**	**3**	**9**
Summer Session - Year 2				
NUR 115	LPN to RN Transition	5	3	6
NUR 226	Health Assessment	1	3	2
NUR 136	Principles of Pharmacology I	1	0	1
NUR 137	Principles of Pharmacology II	1	0	1
	TOTAL	**8**	**6**	**10**
Fall Semester - Year 2				
NUR 205	Introduction to Second Level Nursing	2	9	5
NUR 236	Principles of Pharmacology III	1	0	1
	TOTAL	**3**	**9**	**6**
Spring Semester - Year 2				
NUR 201	Psychiatric Nursing	2	3	3
	TOTAL	**2**	**3**	**3**
Summer Session - Year 3				
EEE	1*Humanities	3	0	3
	TOTAL	**3**	**0**	**3**
Fall Semester - Year 3				

NUR 245	Maternal/Newborn Nursing	2	3	3
NUR 254	Dimensions of Professional Nursing	2	0	2
	TOTAL	**4**	**3**	**5**
Spring Semester - Year 3				
NUR 208	Acute Medical/Surgical Nursing	3	9	6
NUR 237	Principles of Pharmacology IV	1	0	1
	TOTAL	4	**9**	**7**

Total Minimum Credits for the AAS Degree 60*

Footnotes*

Upon completion of NUR 115, credit will be awarded for NUR 105, 108, 109, 195 (15 credits). These credits will appear on the student's official transcript.

1. Humanities electives include: ART 201, 202; literature; MUS 121, 122; PHI 101; REL 200, 210, 230; CST 130, 151, 152.

Occupational Therapy Assistant

Associate of Applied Science

Program Coordinator: Annette Looney, Southwest Virginia Community College, 276-964-7643, Annette.Looney@sw.edu

Length: Twenty-two months, (five semesters)

Offered in cooperation with Southwest Virginia Community College. Students admitted into the program will enroll with Southwest Virginia Community College. The degree awarded by Southwest Virginia Community College. Southwest Virginia Community College will have the final authority on program requirements.

Purpose: To prepare selected students to qualify as contributing members of the health care team who will care for patients under the supervision of a Registered Occupational Therapist. The goals of the occupational therapy team are to develop, restore, or maintain adaptive skills in individuals whose abilities to cope with daily living are threatened or impaired by disease, injury, developmental disability, or social disadvantage.

Accreditation: The Occupational Therapy Assistant Program at Southwest Virginia Community College with additional accredited site at Virginia Highlands Community College is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 4720 Montgomery Lane, Suite 200. Bethesda, MD 20814-3449. ACOTE's telephone number c/o AOTA is (301) 652-AOTA and its web address is www.acoteonline.org.

Graduates of the program will be able to sit for the national certification examination for the occupational therapy assistant administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of this exam, the individual will be a Certified Occupational Therapy Assistant (COTA). Most states require licensure in order to practice; however, state license is usually based on the results of the NBCOT Certification Examination.

Occupational Objectives: Employment opportunities include positions in hospitals, rehabilitation centers, clinics, day care centers, long-term care facilities, schools, sheltered workshops, homebound programs and community agencies.

Program Format: The OTA program educational experiences consists of on-site lecture, distance lecture to remote campus sites via the compressed video network, hands-on laboratory, computer web-based instruction through BlackBoard, and a variety of clinical experiences. Students are required to complete a computer course and need to have skills necessary to navigate the internet for researching projects and assignments and utilizing the BlackBoard components for classes (i.e., online testing, online resources, grades, and discussions).

Admission Requirements: In addition to the general requirements for admission to the College, consideration for a position in this program requires the following:

1. Graduation from high school or satisfactory completion of the GED.
2. The completion of one unit each of biology (with laboratory) and chemistry (with laboratory) with no grade below a "C" prior to January 15 application deadline (deficiencies can be made up through developmental studies or college courses).
3. Completion of two units of mathematics (Algebra I plus Algebra II and/or Geometry. Note: MTH 126 may substitute for the second math unit).
4. High school seniors who have not completed the full sequence of the prerequisite courses must be enrolled in the second semester of these courses and have earned a grade of "C" or above for the first semester to be considered for program admission. Grades in these courses must reflect a minimum of "C."
5. All high school courses and/or college work must reflect an overall grade average of "C" (2.0 GPA) or higher.
6. The completion of the Virginia Placement Tests (VPT) with demonstrated readiness for ENG 111 and proficiency in MTE 1-6.
7. Any prescribed developmental studies courses, must be successfully completed before the January 15 application deadline.
8. Eight (8) hours of observation in an occupational therapy setting should be documented by the OT personnel denoting and date (s') and time (s).

Students planning to transfer to senior institutions should inform their advisors and should consider coursework that can be used for transfer.

When enrollments must be limited for any curriculum, priority shall be given to all qualified applicants who are residents of the political subdivisions (Buchanan, Dickenson [partial], Russell, or Tazewell counties), 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 the College have 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 12 months prior to January 15. Applicants moving out-of-state between

January 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 April 1 and out-of-state applicants for openings available May 1.
Students accepted into the program are required to submit a certificate reflecting a successful physical examination, signed by a licensed physician. The physical examination must be completed after receiving notification of acceptance to the program and prior to beginning classes. Immunizations must be current and include Hepatitis B and MMR. Proof of Tuberculin skin test (PPD) and CPR certification must be shown on admission to the program and kept current throughout the program.

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 Requirements:

Academic Requirements: The student is required to complete a sequence of courses and learning experiences. Students must achieve a grade of "C" or better in all program courses. Any student receiving a grade of "D" in any of the program courses will be placed on Program Probation. That course shall be remediated once, with a written contract containing the requirements of the remediation. Please note: Students may be required to wait at least one academic year before they will have an opportunity to remediate the course. Students on program probation status will only be allowed to remediate the course if there is an open position in the class. Dismissal from the program shall result if: 1) the student does not meet the requirements of the probationary contract; 2) the student receives a final grade of less than "C" in any program courses either during or after the period of the Program Probation; or 3) earning more than one "D" in a semester on program courses or a final grade of "F" in any coursework after admittance to the program will result in dismissal from the program. Remediated courses must be completed with a final grade of "C" or better.

Clinical and Behavioral Requirements:

Selected and supervised learning experiences are required by this program and will be accomplished at selected health care facilities. Because there are limited clinical sites within the area, students may be required to travel to other areas to complete clinical training. Students are responsible for providing their own transportation, uniforms, and living expenses during fieldwork experiences. In the fifth semester, there will be 40 hours per week of clinical time (Level II fieldwork) in two eight week segments, so students must plan their schedules accordingly. Program faculty will observe and evaluate the student. If in the judgment of the program faculty the student does not exhibit those behaviors required of the occupational therapy assistant, the student may be asked to withdraw from the program.

NOTE: All OTA students must complete Level II Fieldwork within 18 months following completion of academic preparation.
NOTE: A felony conviction may affect a graduate's ability to sit for the NBCOT certification examination or attain state licensure.

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
	First Semester			
BIO 141	Human Anatomy & Physiology I	3	3	4
ENG 111*	College Composition I	3	0	3
HLT 143	Medical Terminology	3	0	3
OCT 100	Intro. to Occupational Therapy	3	0	3
PSY 230	Development Psychology	3	0	3
SDV 104 or SDV 108	Study Skills **OR** College Survival Skills	1	0	1
	TOTAL	**16**	**3**	**17**
	Second Semester			
BIO 142	Human Anatomy & Physiology II	3	3	4
OCT 201	Occupational Therapy with Psychosocial Dysfunction	3	0	3
OCT 195	Topics in OT for Physical Dysfunction	2	0	2
OCT 205	Therapeutic Media	1	3	2
NAS 195	Topics in Upper Extremity Anatomy & Kinesiology	1	0	1
Elective****	Humanities/Fine Arts	3	0	3

ITE 115**	Computers and Information Systems	3	0	3
	TOTAL	**16**	**6**	**18**
	Summer Semester			
OCT 190	Coord. Practice in OT I (Level I)	0	5	1
OCT 207	Therapeutic Skills	2	3	3
OCT 220	Occupational Therapy for the Adult	2	0	2
	TOTAL	**4**	**8**	**6**
	Third Semester			
OCT 210	Assistive Tech. in OT	2	0	2
OCT 202	Occupational Therapy with Physical Disabilities	3	3	4
OCT 203	Occupational Therapy with Developmental Disabilities	3	3	4
OCT 208	OT Service Mgmt. & Delivery	3	0	3
OCT 190	Coord. Pract. in OT II-Level I Fieldwork	0	5	1
	TOTAL	**11**	**11**	**14**
	Fourth Semester			
OCT 290	Coord. Pract. In OT III-Level II Fieldwork	0	40	6
OCT 290	Coord. Pract. In OT Iv-Level II Fieldwork	0	40	6
OCT 298	Seminar and Project in OTA	1	0	1
	TOTAL	**1**	**80**	**13**

Total Credits for the Occupational Therapy Assistant Program 68

* Students who wish to pursue a Baccalaureate degree are advised to take both ENG 111-112, ENG 101 may be substituted for ENG 111, but is not a transferable course.
** AST 232 or ITE 100 may substitute for ITE 102.
***A list of suggested classes may be obtained from advisor or program director.

Radiography

Associate of Applied Science Degree

Program Coordinator: Don Lowe, NEB 150, Ext. 2488 SVCC 276-964-7313
Length: Two Years (six semesters)**

***Program offered in cooperation with Southwest Virginia Community College and Wytheville Community College. Degree awarded by Virginia Highlands Community College.**

**Program with practical experience in a radiology department to complete requirements for ARRT certification. The educational experience will be comprised of both classroom instruction and clinical rotations for completing required competency objectives. Classroom instruction incorporates interactive video-teleconferencing between classroom locations.

Program Mission: To prepare and graduate selected students to qualify as contributing members of the allied health team, who will care for patients under the supervision of qualified physicians. The Program combines adequate didactic instruction with clinical experience to create a sound foundation for a professional career.

Program Effectiveness Measures:

Goal 1: The Cooperative Radiography Program will monitor program effectiveness.

1.1 Students who enter program will graduate

1.2 Graduates will pass the ARRT registry examination

1.3 Graduate will gain employment as a radiographer

1.4 Graduates will indicate preparedness as an entry-level radiographer.

1.5 Employer satisfaction with graduate's preparedness for entry-level radiographer.

Goal 2: Students will demonstrate clinical competence and entry-level radiographer skills.

2.1 Students will practice positioning competency

2.2 Students will practice the appropriate use of ionizing radiation and protection skills

2.3 Students will practice the appropriate use of technical factors for exposure

Goal 3: Student will demonstrate problem solving and critical thinking skills.

3.1 Students will practice critical thinking / problem solving skills for image quality and acceptability for diagnosis

3.2 Students will practice critical thinking and problem solving skills on non-routine patient examinations

Goal 4: Students will demonstrate effective communication skills and personal accountability.

4.1 Students will practice age appropriate patient communication skills

4.2 Students will practice good writing skills through preparation of a Case Study

4.3 Students will practice good oral skills through presentation of a Case Study

4.4 Students will practice personal accountability for punctuality and appearance

Goal 5: Students will develop professionally and demonstrate an understanding of the benefits of life-long learning.

5.1 Students will understand the role of professional organizations in their career development

5.2 Students will practice an understanding of professional / legal ethics

5.3 Students will practice networking with colleagues / peers within the profession Accreditation:

Annual Program Statistics most recent five years

Year	Program Completion Rate	AART Certification Examination Pass %	ARRT Comparison SWCC to National Stats
2008	26 of 36	93%	93/91
2009	26 of36	100%	100/91.4
2010	31 of 41	92%	93.3/92.4
2011	36 of 43	86%	86/93
2012	26 of 32	78%	78/93

Accreditation: This program is fully accredited by the Joint Review Committee on Education for Radiologic Technology (JRCERT) 20 N. Wacker Drive, Suite 2850, Suite 2850, Chicago, IL 60606-3182, phone (312) 704-5300.

Occupational Objectives: Employment opportunities for the well trained registered radiographer are available in hospitals, clinics, education, industry, government agencies, and private offices.

Admission Requirements: In addition to the general admission requirements to the College, applicants must be high school graduates or the equivalent and must reflect "C" average. A cumulative grade point average of 2.0 must be achieved on all college work. To meet the Radiography Program admission requirements the applicant must have completed:

1. One unit of biology with lab, and one unit of chemistry with lab with a "C" or better.
2. Biology 101 and Chemistry 05 at VHCC will be considered equivalent to high school biology and chemistry.
3. Completion of Virginia Placement Test (VPT) within two years prior to application which includes sections in reading, writing and mathematics. Satisfactory scores in English and proficiency in MTE 1-6 are required. If a college-level math class equivalent to MTH 151 or higher with a grade of "C" or higher has been completed within the past 5 years this will meet the math proficiency requirement. All prescribed development work must be completed prior to admission to program.
4. Submit a Radiography application (including all high school and college transcripts or copy of GED) by the January 15 deadline.
5. Observation in a Radiology Department for a minimum of twelve (12) hours. This observation is to be documented by radiology personnel denoting date(s) and time(s).

The Radiography Program admission requirements listed above must be completed and on file at the college(s) by January 15.

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 are required to submit a health certificate signed by a physician prior to final admissions to the program. Since the physical examination is somewhat expensive, applicants should have the physical examination completed after receiving notification of acceptance to the program. This certificate is furnished by the college and must be on file with the program before the student may begin Radiography classes.

When enrollments must be limited for Radiography, priority shall be given to all qualified applicants who meet one or more of the following criteria:

1. Residents of the political subdivisions supporting the College (City of Bristol, Washington County, and the western portion of Smyth County).
2. Virginia residents not having access to a Radiography 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.
3. Out-of-state residents associated with agencies of which the College has clinical-site or other agreements may receive consideration for admission.

To be considered in-region, an applicant must be domiciled within the service region for 12 months prior to the program application deadline.

To be considered as a Virginia resident, an applicant must be domiciled within Virginia for 12 months prior to January 15.

Applicants moving out-of-state between January 15 and the first day of classes will lose their preferred status and any offer of admission to the program will be withdrawn.

Criminal Background Check/Drug Screening: Background checks for criminal history and sex offender crimes against minors are required for entrance into some clinical agencies (see BARRIER Crimes, Code of Virginia 63.2-1726, July 1, hope-tfc.org/FP/Barrier%20Crimes.pdf.. 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 of criminal background checks and drug testing will be the responsibility of the student.

Technical Standards: Physical Demands:

1. Duties frequently require squatting, bending, kneeling, reaching, and stair climbing. Also includes occasional crawling and climbing.
2. 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.
3. 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 and/or healthcare facilities 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.

Radiography classes begin in the summer session each year

The purchase of items such as student's uniforms, accessories and liability insurance is the financial responsibility of the individual students.

Radiography

Summer Session

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
RAD 105	Introduction to Radiology Protection & Patient Care	3	0	3
SDV 108	College Survival Skills	1	0	1
MTH 126	Mathematics for Allied Health	2	0	2
RAD 195	Ethics, Teamwork & Professional Development	3	0	3
HLT 143	Medical Terminology	3	0	3
	Total	**12**	**0**	**12**
First Semester (Fall)				
ENG 111	1*College Composition I	3	0	3
BIO 141	Human Anatomy & Physiology I	3	3	4
RAD 110	Imaging Equipment and Protection	3	0	3
RAD 121	Radiographic Procedures I	3	3	4
PSY 230	2*Developmental Psychology	3	0	3
	Total	**15**	**6**	**17**
Second Semester (Spring)				
EEE	3*Humanities/Fine Arts Elective	3	0	3
BIO 142	Human Anatomy and Physiology II	3	3	4
RAD 112	Radiologic Science II	3	3	4
RAD 221	Radiographic Procedures II	3	3	4
	Total	**12**	**9**	**15**
Summer Session				
RAD 190	Coordinated Internship (Term II)	0	40	3
RAD 205	Radiation Protection & Radiobiology (Term I)	3	0	3
	Total	**3**	**40**	**6**
Third Semester (Fall)				
RAD 290	Coordinated Internship	0	32	6
RAD 255	Radiographic Equipment	3	0	3
	Total	**3**	**32**	**9**
Fourth Semester (Spring)				
RAD 290	Coordinated Internship	0	32	6
RAD 240	Radiographic Pathology	3	0	3
	Total	**3**	**32**	**9**
Summer Session				
RAD 290	Coordinated Internship (Term I)	0	32	2
RAD 215	Correlated Radiographic Theory	2	0	2
	Total	**2**	**32**	**4**

Total Minimum Credits for the AAS Degree.....72

Special Note: Graduates of an approved radiography program may wish to review the Magnetic Resonance Imaging Career Studies Certificate. This cooperative program is designed to train radiographers as magnetic imaging technologists. See your advisor for details.

Footnotes*

1. Students who wish to pursue a Baccalaureate Degree are advised to take both ENG 111 and 112.
2. Students may substitute PSY 231-232 (both required) for PSY 230.
3. Humanities electives include: ART 201, 202; foreign language, MUS 121, 122; PHI 101; REL 200, 210, 230; CST 130, 151, 152.

Radiography Handbook [pdf]

Health Technology – Certificate

Health Sciences

Certificate

Program Coordinator: Kathy Mitchell, PhD, MSN, RN, NEB 148, Ext. 2439
Length: Two semesters (one year)

Purpose: 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 Objective: Preparation for entry into the health professions.

Admission Requirements: The applicant must meet the general requirements for admission to the College including any developmental coursework.

Health Sciences

First Semester (Fall)

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
ENG 111	College Composition I	3	0	3
BIO 141	Human Anatomy & Physiology I	3	3	4
HLT 143	Medical Terminology I	3	0	3
SDV 108	College Survival Skills	1	0	1
PSY 231	Life Span Human Development I	3	0	3
	Total	**13**	**3**	**14**

Second Semester (Spring)

ENG 112	College Composition II	3	0	3
BIO 142	Human Anatomy & Physiology II	3	3	4
ITE 100 or 115	Intro. to Information Systems or Intro. to Computer Applications & Concepts	3	0	3
PSY 232	Life Span Human Development II	3	0	3
EEE	1*Humanities Elective	3	0	3
	Total	**15**	**3**	**16**

Total Minimum Credits for Certificate.....30

1. Humanities electives include: ART 201, 202; foreign languages; MUS 121, 122; PHI 101; REL 200, 210, 230; CST 130, 151, 152; and English literature.

Health Technology – Career Studies Certificate

Computerized Tomography

Award: Career Studies Certificate

Length: Two Semesters

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). The student must be registered or registry eligible by the appropriate certification agency. 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 SWCC
- Official transcripts of all other colleges attended
- CT Program Application
- Minimum of 2 letters of reference
  - Preferably one from a previous/current instructor and one from a previous/current employer. If student has no employment experience, the second reference letter can be a personal reference (from a non-family member).

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.

Computerized Tomography

Fall Semester

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
RAD 247	Cross Sectional Anatomy for CT/MR	3	0	3
RAD 242	CT Procedures and Instrumentation	2	0	2
RAD 196	On Site Training Clinical Internship in CT	0	5	1*
	Total	**5**	**5**	**6**

Spring Semester

RAD 295	Topics in CT Registry Preparation	3	0	3
RAD 196	On Site Training Clinical Internship in CT	0	10	2*
RAD 195	Topics in Pharmacology for Technologies	1	0	1
HLT 145	Ethics for Healthcare Personnel	2	0	2
	Total	**6**	**10**	**8**

Total Minimum Credits for Career Studies Certificate.....14

Footnotes*

* *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.*

Emergency Medical Technology - Intermediate

Careers Studies Certificate

Program Coordinator: Bill Akers, Jr., MS, NRP, Program director, 276-964-7729, bill.akers@sw.edu
Length: Three Semesters

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

Purpose: The purpose of this curriculum is to produce competent entry-level Emergency Medical Technician-Intermediates (EMT-I/99) who can service the community with advanced life support care via the Emergency Medical Services (EMS) infrastructure. Upon completion of the program, students will be eligible for National Registry testing and certification in the Commonwealth of Virginia. Employment opportunities for EMT-Intermediates are available with ambulance; fire and rescue services; hospitals; local, state and federal government agencies; and humanitarian relief organizations.

Program Goals:

At the completion of the program the graduate will be able to demonstrate:

1. The ability to comprehend, apply, and evaluate the clinical information relative to his role as an entry- level EMT-Intermediate;
2. Technical proficiency in all skills necessary to fulfill the role of an entry-level EMT-Intermediate; and
3. Personal behaviors consistent with professional and employer expectations for the entry-level EMT-Intermediate.

Admission Requirements:

Prior to the starting program courses, the applicant must:

1. Meet eligibility requirements as stipulated by the Virginia Office of EMS; and
2. Meet the college's general admission requirements.

Accreditation:

This program is accredited nationally by the Committee on Accreditation of Allied Health Educational Programs (CAAHEP).

Selection Process:

To be eligible for selection to the program, **interested persons should complete the following process by May 10:**

1. Submit a college admission application.
2. Submit an application to the program (separate document) with required attachments.
3. Take the VPT English test or submit satisfactory SAT or ACT scores.
4. Have transcripts of previous college courses sent to the college.

At this time the first round of students will be selected. Selection will be based on previous college coursework, interview, entrance exam, and college placement reading scores. Students should place into ENF 3 or higher to be eligible for consideration in the first round of selection. Should openings still be available, persons who apply or meet requirements after May 10, or score lower than cut score on the reading exam will be considered.

Program Requirements:

Physical Requirements*:* An EMS provider is faced with many physical and psychological challenges. Please refer to the Office of Emergency Medical Services web site for a more detailed functional job description. http://www.vdh.virginia.gov/OEMS/Training/TPAM/Forms/Training%20Programs%20Summary.pdf , Pages 14-16.

Academic Requirements: Students must make a "C" or better in all program core courses. Any student receiving a grade less than "C" will be placed on programmatic academic probation. That course shall be remediated. Remediated courses 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. See http://www.vdh.virginia.gov/OEMS/Training/TPAM/Forms/Training%20Programs%20Summary.pdf , Pages 7-8.

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.

Emergency Medical Technology - Intermediate

First Semester (Summer)

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
EMS 111	Emergency Medical Technician - Basic	5	4	7
EMS 120	EMT-Basic Clinical	0	2	1
	Total	**5**	**6**	**8**

Second Semester (Fall)

EMS 151	Intro to Advanced Life Support	3	2	4
EMS 152	AEMT Completion	1	2	2
EMS 153	Basic ECG Recognition	2	0	2
EMS 170	ALS Internship I	0	3	1
	Total	**6**	**7**	**9**

Third Semester (Spring)

EMS 154	ALS - Cardiac Care	1	2	2
EMS 157	ALS - Trauma Care	2	2	3
EMS 159	EMS Special Populations	2	2	3
EMS 172	ALS Clinical Internship II	0	3	1
EMS 173	ALS Field Internship II	0	3	1
	Total	**5**	**12**	**10**

Total Minimum Credits for EMT-Intermediate CSC……..27

Emergency Medical Technology - Paramedic

Career Studies Certificate

Program Coordinator: Bill Akers Jr., MS, NRP, Program Director, 276-964-7729, Bill.Akers@sw.edu

Length: Three semesters

Purpose: The purpose of this curriculum is to produce competent entry-level Emergency Medical Technician-Paramedics (EMT-P) who can service the community with advanced life support care via the Emergency Medical Services (EMS) infrastructure. Upon completion of the program, students will be eligible for National Registry testing and certification in the Commonwealth of Virginia. Employment opportunities for Paramedics are available with ambulance; fire and rescue services; hospitals; local, state and federal government agencies; and humanitarian relief organizations.

Program Goals:

At the completion of the program the graduate will be able to demonstrate:

- The ability to comprehend, apply, and evaluate the clinical information relative to his role as an entry- level paramedic;
- Technical proficiency in all skills necessary to fulfill the role of an entry-level paramedic; and
- Personal behaviors consistent with professional and employer expectations for the entry-level paramedic.

Admission Requirements:

Prior to the starting program courses, the applicant must:

1. Meet eligibility requirements as stipulated by the Virginia Office of EMS; and
2. Be certified as an EMT-Intermediate and have three years experience at or above that level; and
3. Meet the college's general admission requirements.

Accreditation:

This program is accredited nationally by the Committee on Accreditation of Allied Health Educational Programs (CAAHEP).

Selection Process:

To be eligible for selection to the program, **interested persons should complete the following process by May 10:**

1. Submit a college admission application.
2. Submit an application to the program (separate document) with required attachments.
3. Take the VPT English test or submit satisfactory SAT or ACT scores.
4. Have transcripts of previous college courses sent to the college.

At this time the first round of students will be selected. Selection will be based on previous college coursework, interview, entrance exam, and college placement reading scores. Students should place into ENF 3 or higher to be eligible for consideration in first round of selection. Should openings still be available, persons who apply or meet requirements after May 10, or score lower than cut score on the reading exam will be considered.

Program Requirements:

Physical Requirements:

An EMS provider is faced with many physical and psychological challenges. Please refer to the Office of Emergency Medical Services web site for a more detailed functional job description.
http://www.vdh.virginia.gov/OEMS/Training/TPAM/Forms/Training%20Programs%20Summary.pdf , Pages 14-16.

Academic Requirements:

Students must make a "C" or better in all program core courses. Any student receiving a grade less than "C" will be placed on programmatic academic probation. That course shall be remediated. Remediated courses 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. See http://www.vdh.virginia.gov/OEMS/Training/TPAM/Forms/Training%20Programs%20Summary.pdf , Pages 7-8.

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.

Emergency Medical Technology - Paramedic

First Semester (Summer)

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
EMS 213	ALS Skills Development	0	4	2
SCI	1*Human Anatomy & Physiology	3	1	4
	Total	**3**	**5**	**6**

Second Semester (Fall)

EMS 205	Advanced Pathophysiology	4	0	4
EMS 209	Advanced Pharmacology	3	2	4
EMS 242	ALS Clinical Internship III	0	3	1
EMS 243	ALS Field Internship III	0	3	1
	Total	**7**	**6**	**10**

Third Semester (Spring)

EMS 201	EMS Professional Development	3	0	3
EMS 207	Advanced Patient Assessment	2	2	3
EMS 211	Operations	1	2	2
EMS 244	ALS Clinical Internship IV	0	3	1
EMS 245	ALS Field Internship IV	0	3	1
	Total	**6**	**10**	**10**

Total Minimum Credits for CSC EMT-Paramedic ……..26

1. Students should take BIO 141 and 142 or BIO 145. It is recommended that students who are planning to transfer to another medically related program complete BIO 141-142.

Magnetic Resonance Imaging

Award: Career Studies Certificate

Length: A one semester Program designed to prepare radiographers for employment in Magnetic Resonance Imaging.

Purpose: The rapid growth of the health care industry has created a need for trained, high skilled magnetic resonance imaging technologists. The curriculum is designed to train and prepare radiographers for employment as magnetic resonance imaging technologists upon completion of the certificate program.

Admission Requirements: The student in Magnetic Resonance Imaging must have completed an approved program in radiography, ultrasound, or nuclear medicine technology. The student must be registered or registry eligible by the appropriate certification agency. 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 of certification.

Applicants must have an interview with a member of the Radiography program faculty prior to admission.

The student in Magnetic Resonance Imaging 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 the program, 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 may be asked to withdraw from the program.

Students who receive a final grade lower than "C" in any course will not receive a certificate until a grade of "C" or better is obtained.

Magnetic Resonance Imaging

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
RAD 115	Principles of Magnetic Resonance Imaging	2	0	2
RAD 126	1*Advanced Imaging Procedures	2	2	3
RAD 136	Clinical Procedures in MRI	0	15	3
RAD 298	2*Seminar & Project	2	2	3
RAD 175	Case Studies in MRI	2	2	3
	Total	**8**	**21**	**14**

Total Minimum Credits for Career Studies Certificate.....14

Footnotes*

1. This course is required for MRI and CT. Students enrolling in the joint program of MRI/CT need to take the course once.
2. This course is required for MRI or CT. Students enrolling in the joint program of MRI/CT do not have to complete the course in the CT portion of the curriculum.

Public Service Technology – Associate of Applied Science Degree

Administration of Justice

Associate of Applied Science Degree

Program Coordinator: Robin Widener, OTC 110, Ext. 2408

Length: Four semesters (two years)

Purpose: The curriculum in Administration of 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.

Occupational Objectives:

Police Officer
Investigator
Probation and Parole Worker
Security Officer
Juvenile Worker
Corrections Officer
Local, State, or Federal Enforcement Officer

Admission Requirements: In addition to meeting the admission requirements established for the college (as listed in Part II of this Catalog), the applicant should consult with the program head 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 Success Counselor or the Department Program Head for instructions on applying to the Program.

Program Requirements: Approximately one-half of the curriculum will include courses in administration of 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 Administration of 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 Administration of Justice courses listed in the first year of the curriculum before being allowed to enter the second year Administration of Justice courses. Exceptions may be approved by the Division Chairman upon faculty recommendation.

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

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.

Subject to the approval of the college, the Associate of Applied Science program in Protective Services may be modified to some extent to satisfy transfer requirements at other institutions.

Program Progression: Any student who earns a final grade lower than “C” in any Administration of 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 Administration of Justice faculty to continue in the Administration of Justice program under the following conditions:

1. repeating a course with a grade below “C,”
2. withdrawal from an Administration of Justice course,
3. cumulative GPA below 2.0.

Administration of Justice

First Semester (Fall)

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
SDV 101	Orientation to College Success	1	0	1
ADJ 100	Survey of Criminal Justice	3	0	3
ITE 100 or 115	1*Intro. to Information Systems or Intro. to Computer Applications & Concepts	3	0	3
ENG 111	College Composition I	3	0	3
PSY 120	Human Relations	3	0	3

EEE	2*Social Science Elective	3	0	3
	Total	**16**	**0**	**16**
Second Semester (Spring)				
ADJ 140	Introduction to Corrections	3	0	3
ADJ 130	Criminal Law	3	0	3
ADJ 236	Principles of Investigation	3	0	3
ENG 112	College Composition II	3	0	3
MTH	3*Mathematics	3	0	3
EEE	2*Social Science Elective	3	0	3
	Total	**18**	**0**	**18**
Third Semester (Fall)				
ADJ 111	Law Enforcement Organization & Administration I	3	0	3
ADJ 171	Forensic Science I	3	3	4
ADJ 237	Advanced Criminal Investigation	3	0	3
SOC 235	Juvenile Delinquency	3	0	3
EEE	Related Elective	3	0	3
	Total	**15**	**3**	**16**
Fourth Semester (Spring)				
ADJ 172	Forensic Science II	3	3	4
ADJ 227	Constitutional Law for Justice Personnel	3	0	3
HLT 121	Introduction to Drug Use & Abuse	3	0	3
SOC 236	Criminology	3	0	3
EEE	4*Humanities Elective	3	0	3
HLT 105	Cardiopulmonary Resuscitation	1	0	1
	Total	**16**	**3**	**17**

Total Minimum Credits for the AAS Degree.....67

Footnotes*

1. Keyboarding skills highly recommended.
2. Social science course include ECO 201, 202; GEO 210, 220; PLS 135, 211, 212; PSY 200; SOC 200; HIS 101, 102; HIS 121, 122.
3. For students planning to transfer to a four-year institution, MTH 163 Precalculus mathematics is required. All others MTH 141, Business Mathematics I.
4. Humanities: ART 201-202; ENG 241-242; ENG 251-252; FRE 101-102; FRE 201-202; MUS 121-122; PHI 101; REL 200, 210; SPA 101-102; SPA 201-202; CST 130, 151 - 152.

Notes on Electives:
Unless otherwise indicated, electives must be chosen from disciplines outside the student's area of specialization.

Related Electives

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
ADJ 116	Special Enforcement Topics	3	0	3
ADJ 160	Police Response to Critical Incidents	3	0	3
ADJ 162	Introduction to Sex Crimes	3	0	3
ADJ 164	Case Studies in Murder/Violent Crimes	3	0	3
*ADJ 297	Co-op	3	0	3
EMS 111	Emergency Technician Basic	5	4	7
HLT 105	Cardiopulmonary Resuscitation	1	0	1
HLT 110	Concepts of Personal & Community Health & Safety	3	0	3
HMS 100	Introduction to Human Services	3	0	3

OTHER ELECTIVES ARE AVAILABLE UPON ADVISOR'S APPROVAL

***Cooperative Education** -ADJ 297 may be taken as an elective after satisfactory completion of the second semester with the Faculty Curriculum Advisor and Faculty Co-op Advisory approvals.

Human Services

Associate of Applied Science Degree

Program Coordinator: Charles Justice, LRC 214, Ext. 2566
Length: Four semesters (two years)

Purpose: The curriculum is designed to provide students with a broad foundation in preparation for work in a variety of social service fields. With the increasing demands upon human services agencies for the delivery of specialized services, there is a growing need for trained workers and paraprofessionals with essential skills. Persons seeking their first employment in human services and those presently in such occupations seeking to upgrade their skills may benefit from this curriculum.

Occupational Objectives:
- Child Care Worker
- Rehabilitation Technician
- Social Services Aide
- Corrections Assistant
- Teacher's Aide
- Counseling Aide
- Adult/Nursing Home Worker

Admission Requirements: A student eligible for admission to the college can normally be considered for admission to the Human Services Associate Degree curriculum. Proficiency in high school English and mathematics is required. Students who are not proficient in English and mathematics will be required to correct their deficiencies in developmental courses.

Program Requirements: The Human Services curriculum consists of courses in psychology, sociology, public services and human services. In addition to these core courses, other courses in general education and related areas are included. Instruction will include both a specialized as well as a general education approach. Upon completion of the four-semester program, the student is awarded the Associate of Applied Science in Human Services.

Notes on Transfer: Associate of Applied Science Degree programs are designed primarily to provide occupational competence for employment. Upon the student's request, courses may be modified to provide possible transfer acceptability by four-year colleges and universities. Transfer options are listed in the footnotes.

Human Services

First Semester (Fall)

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
ENG 111	College Composition I	3	0	3
SDV 101	Orientation to College Success	1	0	1
EEE	1*Degree Related Elective	3	0	3
HMS 100	Introduction to Human Services	3	0	3
PSY 120	Human Relations	3	0	3
PSY 200	Principles of Psychology	3	0	3
PED	2*Physical Education	0	2-3	1
	Total	**16**	**2-3**	**17**
Second Semester (Spring)				
ENG 112	College Composition II	3	0	3
PBS 265	Interviewing	3	0	3
PLS 212	3*United States Government II	3	0	3
PSY 235	Child Psychology	3	0	3
SOC 200	Principles of Sociology	3	0	3
MTH 146	4*Introduction to Elem. Statistics	3	0	3
	Total	**18**	**0**	**18**
Third Semester (Fall)				
PSY 236	Adolescent Psychology	3	0	3
SOC 215	Sociology of the Family	3	0	3
ECO 201	5*Principles of Economics I or ECO 202	3	3	3
PBS 266	Group Leadership	3	0	3
ITE 100 or 115	6*Intro. to Information Systems or Intro. to Computer Applications & Concepts	3	0	3
PED	2*Physical Education	0	2-3	1
	Total	**15**	**2-3**	**16**
Fourth Semester (Spring)				
PSY 237	Adult Psychology	3	0	3
HMS 227	Change Agent	3	0	3

SOC 268	Social Problems	3	0	3
EEE	7*Humanities Elective	3	0	3
CST 100	Principles of Public Speaking	3	0	3
	Total	**15**	**0**	**15**

Total Minimum Credits for the AAS Degree..... 66

Notes

The above semester-by semester sequence of courses may be modified when necessary. Please meet with your faculty advisor for a discussion of factors which affect planning and sequencing in this program of study.

Footnotes*

1. Recommended degree electives include HMS 197, 297; HLT 110, 121; AST 141; SOC 235, 236.
2. 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.
3. PLS 211 will substitute for PLS 212.
4. Transfer students are advised to substitute MTH 151, 163 or 241 for this course.
5. ECO 201 or 202 may be taken to complete the economics requirement. Note that Economics 201 is Macroeconomics and 202 is Microeconomics.
6. Keyboarding skills highly recommended.
7. Humanities electives include: ART 201, 202; foreign languages, literature, MUS 121, 122; PHI 101; REL 200, 210, 230; CST 130, 151, 152.

Cooperative Education - HMS 197 or HMS 297 may be taken after satisfactory completion of the first semester with Faculty Curriculum Advisor and Faculty Co-op Advisor approvals. The non-paid Co-op Education option is available in this program of study.

Human Services - Specialization in Early Childhood Education

Associate of Applied Science Degree

Program Coordinator: Charles Justice, LRC 214, Ext. 2566
Length: Four semesters (two years)

Purpose: The program in Early Childhood Development is designed to provide students with practical skills and theoretical knowledge related to the care, development and guidance of young children. The curriculum addresses the intellectual, social, physical, emotional, and creative growth of young children.

Occupational Objectives:
Day Care Center Worker
Nursery Schools Teacher's Aide
Family Day Care Specialist
Child Development Specialist
Teaching Assistant
After School Programs

Admission Requirements: A student eligible for admission to the college can normally be considered for admission to the Human Services Specialization in Early Childhood Education Associate Degree curriculum. Proficiency in high school English and mathematics is required. Students who are not proficient in English and mathematics will be required to correct their deficiencies in developmental courses.

Program Requirements: The Human Services Specialization in Early Childhood Education curriculum consists of courses in psychology, sociology, public services, and human services. In addition to these core courses, other courses in general education and related areas are included. Instruction will include both a specialized as well as a general education approach. Upon completion of the four-semester program, the student is awarded the Associate of Applied Science in Human Services - Specialization in Early Childhood Education.

Notes on Transfer: Associate of Applied Science Degree programs are designed primarily to provide occupational competence for employment. Upon the student's request, courses may be modified to provide possible transfer acceptability by four-year colleges and universities. Transfer options are listed in the footnotes.

Human Services - Specialization in Early Childhood Education

First Semester (Fall)

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
ENG 111	College Composition I	3	0	3
HMS 100	Introduction to Human Services	3	0	3
PSY 120	Human Relations	3	0	3
CHD 120	Introduction to Early Childhood Education	3	0	3
PSY 200	Principles of Psychology	3	0	3
SDV 101	Orientation to College Success	1	0	1
PED	1*Physical Education	0	2-3	1
	Total	**16**	**2-3**	**17**

Second Semester (Spring)

ENG 112	College Composition II	3	0	3
PSY 235	Child Psychology	3	0	3
MTH 146	2*Introduction to Elem. Statistics	3	0	3
SOC 200	Principles of Sociology	3	0	3
CHD 145	Teaching Art, Music, and Movement to Children	2	2	3
PED	1*Physical Education	0	2-3	1
	Total	**14**	**4-5**	**16**

Third Semester (Fall)

ITE 100 or 115	3*Intro. to Information Systems or Intro. to Computer Applications & Concepts	3	0	3
SOC 215	Sociology of the Family	3	0	3
EEE	4*Humanities elective	3	0	3
CHD 205	Guiding the Behavior of Children	3	0	3
EDU 235	Health, Safety, and Nutrition Education	3	0	3
EEE	5*Social Science Sequence Part I	3	0	3
	Total	**18**	**0**	**18**

Fourth Semester (Spring)

CST 100	Principles of Public Speaking	3	0	3

EEE	5*Social Science Sequence Part II	3	0	3
CHD 118	Language Arts for Children	2	2	3
HMS 227	Change Agent	3	0	3
SOC 268	Social Problems	3	0	3
	Total	**14**	**2**	**15**

Total Minimum Credits for the AAS Degree.....66

Notes

The above semester-by semester sequence of courses may be modified when necessary. Please meet with your faculty advisor for a discussion of factors which affect planning and sequencing in this program of study.

Footnotes*

1. 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.
2. Transfer students are advised to substitute MTH 151, 163 or 241 for this course.
3. Keyboarding skills highly recommended.
4. Humanities elective include ART 201, 202; foreign languages; literature, MUS 121, 122; PHI 101; REL 200, 210, 230; CST 130, 151, 152.
5. Select one sequence and complete both courses. PLS 211 and 212 or ECO 201 and 202 or GEO 210 and 220 or HIS 101 and 102 or HIS 121 and 122.

Public Service Technology – Certificate

Early Childhood Teaching Assistant

Certificate

Program Coordinator: Charles Justice, LRC 214, Ext. 2566
Length: Three semesters (one year beginning in summer term)

Purpose: The increased need for childcare in Southwest Virginia is an indicator of the need for more teachers and caregivers at the pre-school level. The Early Childhood Teaching Assistant program is designed to train personnel for employment in the field upon completion of the course requirements. In addition, the curriculum furnishes the student the opportunity to elect to transfer into the AAS Early Childhood Education degree program if she/he so wishes.

Occupational Objectives:

Teachers Aide
Child Care Assistant
Day Care worker

Admission Requirements: A student eligible for admission to the College can normally be considered for admission to the Human Services - Early Childhood Teaching Assistant curriculum.

Program Requirements: The one year curriculum provides training in child psychology, child care and child education in addition to general education classes. Students who are not proficient in English and mathematics will be required to correct their deficiencies in developmental courses. Upon successful completion of the curriculum, the student will be awarded a Certificate in Early Childhood Teaching Assistant.

Early Childhood Teaching Assistant

Summer Session

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
ENG 111	College Composition I	3	0	3
ENG 112 or CST 100	College Composition II or Principles of Public Speaking	3	0	3
	Total	**6**	**0**	**6**
First Semester (Fall)				
CHD 120	Intro. to Early Childhood Education	3	0	3
CHD 205	Guiding the Behavior of Children	3	0	3
MTH 146	1*Introduction to Elementary Statistics	3	0	3
PSY 235	Child Psychology	3	0	3
SDV 101	Orientation to College Success	1	0	1
SOC 200	Principles of Sociology	3	0	3
	Total	**16**	**0**	**16**
Second Semester (Spring)				
CHD 118	Language Arts for Children	3	0	3
CHD 145	Teaching Art, Music, and Movement to Children	2	2	3
PBS	Interviewing PBS 266 or Leadership PBS 265	3	0	3
PSY 200	Principles of Psychology	3	0	3
SOC 215	Sociology of the Family	3	0	3
	Total	**14**	**2**	**15**

Total Minimum Credits Required for Certificate 37

Footnotes*

1. Introduction to Elementary Statistics requires placement testing. Students must be proficient in Algebra I.

Human Services Advocate

Certificate

Program Coordinator: Charles Justice, LRC 214, Ext. 2566
Length: Two semesters (one year)

Purpose: The certificate program in Human Services Advocate is designed to prepare persons for entry into careers which emphasize human relations skills, typically performed in a person-to-person relationship.

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

- Therapeutic Assistant
- Social Services Liaison
- Case Management Aide
- Client Advocate
- Social Services Para-professional
- Child Care Assistant

Admission Requirements: A student eligible for admission to the college can normally be considered for admission to the Human Services Advocate curriculum. Proficiency in high school English and mathematics is required. Students who are not proficient in English or mathematics will be required to correct their deficiencies in developmental courses.

Program Requirements: Approximately three-fourths of the courses will be a core curriculum which is basic for all human services, i.e., general education, occupational-technical, and human relations skills. The remaining courses, along with the coordinated internship, are designed to give the student specialized training for the particular career area which he/she has chosen. Upon completion of the two-semester program, the student will be awarded a Certificate in Human Services Advocate.

Human Services Advocate

First Semester (Fall)

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
ENG 111	College Composition I	3	0	3
SDV 101	Orientation to College Success	1	0	1
SOC 200	1*Principles of Sociology	3	0	3
AST 114	2 *Keyboarding for Information Processing	0	2	2
HMS 100	Intro. to Human Services	3	0	3
PSY 120	Human Relations	3	0	3
	Total	**13**	**2**	**15**

Second Semester (Spring)

ENG 112	College Composition II	3	0	3
MTH 146	Intro. to Elem. Statistics	3	0	3
PBS 265	3*Interviewing	3	0	3
HLT 110	Concepts of Personal and Community Health	3	0	3
ITE 115	4*Intro. to Computer Applications and Concepts	3	0	3
EEE or	5*Degree Related Elective or	3	0	3
HMS 197	Co-op Education	0	15	3
	Total	**15-18**	**0-15**	**18**

Total Minimum Credits Required for Certificate 33

Notes

The semester-by-semester sequence of courses may be modified when necessary. Please meet with your faculty advisor for a discussion of factors which affect planning and sequencing programs of study. Mathematics courses require placement testing.

Footnotes*

1. Students may substitute PSY 200.
2. Students who pass the Keyboarding Exemption Test will be granted credit for this course. Testing date is published in the class schedule.
3. Students may substitute PBS 266 Group Leadership for this course.
4. Keyboarding skills highly recommended.
5. Students may take any ACC, AST, BUS, ECO, IST, or MKT course to meet this requirement or participate in Co-op Education. HMS 197 may be taken after satisfactory completion of the first semester with Faculty Curriculum Advisor and Faculty Co-op Advisor approvals. The non-paid Co-op Education option is available in this program of study.

Sample Related Electives for Human Services Advocate

HMS 197 Coordinated Internship or Cooperative Education in Human Services
ITE 100 Intro. to Information Systems
PBS 265 Group Leadership
PSY 235 Child Psychology
PSY 236 Adolescent Psychology
PSY 237 Adult Psychology
SOC 215 Sociology of the Family
SOC 235 Juvenile Delinquency

Public Service Technology – Career Studies Certificate

(HMS) Child Development

Career Studies Certificate

Program Advisors: Winona Fleenor LRC 215, wfleenor@vhcc.edu 276-739-2494,
Charles Justice LRC 214, cjustice@vhcc.edu 276-739-2566 or
Gary Aday LRC 206, gaday@vhcc.edu 276-739-2521

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
CHD 120	Introduction to Early Childhood Education	3	0	3
CHD 145	Creative Activities for Children	2	2	3
CHD 205	Guiding the Behavior of Children	3	0	3
EDU 235	Health Safety and Nutritional Education	2	2	3
PSY 235	Child Psychology	3	0	3
	Total	**13**	**4**	**15**

All courses are approved by the Virginia Child Care Provider Scholarship Program and applicable to the Child Development Associate (CDA) credential of the National Association for the Education of Young Children.

Workforce Development & Continuing Education - Continuing Education Courses

Listed below are classes offered by Workforce Training & Continuing Education that are not part of a Career Studies Certificate. Some classes may be offered only when requested by a specific employer or for an identified community need.

Business Management, Leadership and Supervision

BUS 111	Principles of Supervision I	3 credits
BUS 112	Principles of Supervision II	3 credits
BUS 117	Human Relations & Leadership Development	3 credits
BUS 195	Topics in Psychology of Work & Communications	1-5 credits

Health

HLT 105	CPR (American Heart Association)	1 credit
HLT 106	First Aid and Safety (American Red Cross)	2 credits
HLT 195	Standard First Aid (American Red Cross)	1 credit

Nurse Aide

HCT 101	1* Health Care Technician	3 credits
HCT 102	2* Health Care Technician II	3 credits

1. Approved by the Virginia Board of Nursing and prepares you to pass the Nurse Aid licensure.
2. Criminal background may prevent you from enrolling in these courses and participating in required clinical work.

Pharmacy Technician

HIT 195-71 Pharmacy Technician Certification 3 credits

This course is designed to introduce students to the basics of pharmacy technology and help prepare them to successfully pass the pharmacy technician certification board national exam. Students will review the basic concepts required to work as a pharmacy technician. The course material will include math concepts, drug classifications, and applicable laws needed to work as a pharmacy technician in Virginia.

Approved by the Board of Pharmacy and meets the requirements set forth by the Virginia Board of Pharmacy Regulation. You will prepare to successfully pass the Pharmacy Technician Certification Exam.

Real Estate

REA 100 1* Principles of Real Estate 4 credits

*You must take and successfully pass REA 100 in order to be eligible to sit for the Real Estate licensure.

Safety

SAF 127 Industrial Safety 2 credits

Workforce Development & Continuing Education - Career Studies Certificates

Award: Certificate in Career Studies

Length: Variable for part-time Continuing Education students.

Normally equivalent to one semester of full-time community college work as an evening program. All of the courses in a Career Studies Certificate program will not be offered in a single semester.

Purpose: These certificate programs are designed as a response to needs identified by employers to upgrade skills of employees. The programs provide an opportunity for adults to investigate career possibilities or specialized interests. Some programs may be offered only when requested by a specific employer or for an identified community need.

Career Studies Program Options:

- American Sign Language
- Automotive Technology (NVS)
- Culinary Arts (NVS)
- Fire Science Technology

Admission Requirements: Student must meet general admission requirement established by the College.

Program Requirements: The Career Studies Certificate curricula includes selected specialized courses that are designed as distinct "mini-curricula" to meet minimum occupational and adult interest requirements. Upon satisfactory completion of a particular program option with a C average, the graduate will contact Workforce Training & Continuing Education and apply to receive a Certificate in Career Studies with the appropriate specialization. Not eligible for graduation honors. Twenty-five percent of courses must be taken at home institution.

Program Conditions: Career Studies Program Options will be developed and implemented as community needs are identified and institutional resources permit. Normally courses in the various programs may be offered when all the following conditions are met: (1) justifiable student enrollment, (2) adequate facilities, (3) qualified instructors, and (4) adequate financial resources. The flexibility of the program option approach provides for the activation or the deactivation of program options depending upon the above factors.

American Sign Language

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
ASL 101	American Sign Language I	3	0	3
ASL 102	American Sign Language II	3	0	3
ASL 201	American Sign Language III	3	0	3
ASL 202	American Sign Language IV	3	0	3
INT 130	Interpreting: An Introduction to the Profession	3	0	3
	Total	**15**	**0**	**15**

Fire Science Technology

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
FST 100	Principles of Emergency Service	3	0	3
FST 110	Fire Behavior and Combustion	3	0	3
FST 210	Legal Aspect of Fire Service	3	0	3
FST 115	Fire Prevention	3	0	3
FST 120	Occupational Health and Safety	3	0	3
FST 205	Fire Protection Hydraulics and Water Supply	3	0	3
FST 220	Building Construction for Fire Protection	3	0	3
FST 235	Strategy and Tactics	3	0	3
	Total	**24**	**0**	**24**

Washington County Adult Skill Center (WCASC) – Cooperative Career Studies Certificates

Students must meet enrollment and eligibility requirements for the Washington County Adult Skill Center. Contact WCASC to enroll, http://wcsc.wcs.k12.va.us// or 276-676-1948.

- Dental Assisting – WCASC
- Diesel Mechanics – WCASC
- Machine Operator – WCASC
- Medical Assistant – WCASC
- Welding - WCASC

*Dental Assisting

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
DNA 100	Intro. to Oral Health Professions	1	0	1
DNA 108	Dental Science	2	3	3
DNA 110	Dental Materials	2	3	3
DNA 113	Chairside Assisting I	2	3	3
DNA 114	Chairside Assisting II	2	6	4
DNA 120	Community Health	1	0	1
DNA 130	Dental Office Management	2	0	2
DNA 134	Dental Radiology and Practicum	2	3	3
DNA 135	Dental Radiation Safety	1	3	2
	Total	**15**	**21**	**22**

*Dental Assisting is a cooperative program with the Washington County Adult Skill Center (WCASC). Students must meet enrollment and eligibility requirements for the WCASC.

*Diesel Mechanic

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
DSL 111	Introduction to Diesel Engines	1	2	2
DSL 121	Diesel Engines I	3	6	5
DSL 122	Diesel Engines II	3	6	5
DSL 143	Diesel Truck Electrical Systems	2	4	4
DSL 152	Diesel Power Trains, Chassis, and Transmissions	2	4	4
DSL 160	Air Brakes	2	2	3
DSL 176	Transportation Air Conditioning	1	2	2
	Total	**14**	**26**	**25**

*Diesel Mechanic is a cooperative program with the Washington County Adult Skill Center (WCASC). Students must meet enrollment and eligibility requirements for the WCASC.

*Machine Operator

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
*DRF 161	Blueprint Reading I	1	3	2
*MAC 106	Machine Shop Operations	3	10	8
*MAC 107	Machine Shop Practices	3	10	8
*MAC 121	Numerical Control I	1	2	2
*MAC 122	Numerical Control II	2	3	3
	Total	**10**	**28**	**23**

*DRF 161, MAC 106, and MAC 122 must be taken during the Fall Semester; MAC 107 and MAC 121 must be taken during the Spring Semester.

*Medical Assistant

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
MDA 100	Intro. to Medical Assisting	2	0	2
MDA 101	Medical Assistant Science I	5	2	5
MDA 102	Medical Assistant Science II	1	3	2
MDA 107	Pharmacology for Medical Assistants	2	0	2
MDA 196	On-Site Training	0	0	5
MDA 203	Medical Office Procedures	2	3	3
MDA 209	Medical Office Insurance	1	3	2
	Total	**13**	**11**	**21**

*Medical Assisting is a cooperative program with the Washington County Adult Skill Center (WCASC). Students must meet enrollment and eligibility requirements for the WCASC.

*Welding

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
WEL 117	Oxyfuel Welding & Cutting	2	6	4
WEL 123	Shielded Metal Arc Welding	2	6	4
WEL 124	Shielded Metal Arc Welding (Advanced)	2	3	3
WEL 130	Inert Gas Welding	2	6	4
WEL 136	Welding III (Inert Gas)	1	3	2
WEL 150	Welding Drawing & Interpretation	3	0	3
WEL 160	Gas Metal Arc Welding	2	6	4
	Total	**14**	**30**	**24**

*Welding is a cooperative program with the Washington County Adult Skill Center (WCASC). Students must meet enrollment and eligibility requirements for the WCASC.

Dual Enrollment with Neff Vocational School Only (NVS) – Cooperative Career Studies Certificates

Students must meet enrollment and eligibility requirements for the Neff Vocational School. Contact NVS to enroll, http://neff.wcs.k12.va.us// or 276-739-3100.

Automotive Technology

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
AUT 166	Automotive Diagnostics I	4	2	5
AUT 265	Automotive Braking System	3	3	4
AUT 266	Auto Alignment, Steering, & Suspension	2	6	4
AUT 241	Automotive Electricity I	3	3	4
	Total	**12**	**14**	**17**

Culinary Arts

Course Number	Course Title	Lec. Hrs.	Lab Hrs.	Crs.
HRI 106	Principles of Culinary Arts I	3	0	3
HRI 107	Principles of Culinary Arts II	3	0	3
HRI 128	Principles of Baking	2	3	3
HRI 158	Sanitation and Safety	3	0	3
	Total	**11**	**3**	**12**

Other Career Studies Certificates

Agricultural and Natural Resources Technology (Contact Science & Engineering Technologies Division 276-739-2433)

Career Studies Certificate (CSC)

Horticulture
Horticulture: Floral design and Indoor Plant Care
Organic Food/Plant Production

Business Technology (Contact Business, Humanities, & Social Sciences Division 276-739-2437)

Career Studies Certificate (CSC)

(AST) Teleservices
(HIM) Electronic Health Records
(IST) CISCO Networking and A+
(IST) Computer Programming
(IST) Database Security and Design
(IST) Software Applications Specialist
(IST) User Support Specialist
(IST) Web Design and Development
(MGT) Hospitality and Tourism
(MGT) Industrial Supervision
(MGT) Small Business Management

Engineering and Industrial Technology (Contact Science & Engineering Technologies Division 276-739-2433)

Career Studies Certificate (CSC)

- Basic Computer Numerical Control Operation
- Electrical Wiring
- Machine Operator

Health Technology (Contact Nursing & Allied Health Division 276-739-2439)

Career Studies Certificate (CSC)

- Computerized Tomography
- Emergency Medical Technology – Intermediate
- Emergency Medical Technology – Paramedic
- Magnetic Resonance Imaging

Public Service Technology (Contact Business, Humanities, & Social Sciences Division 276-739-2437)

Career Studies Certificate (CSC)

- Child Development (HMS)

COURSE DESCRIPTIONS

Description of Courses

All courses in degree programs are offered on a regular basis. Some courses listed in this section are not required in degree programs and are not offered on a regular basis. Students should check with the Counselors concerning all courses in their degree programs.

Course Numbers

Courses numbered 01-09 are generally courses for developmental studies. The credits earned in these courses are not applicable toward associate degree programs; however, upon approval of the Vice-President of Instruction and Student Services, some developmental courses may provide credit applicable to basic occupational certificate programs. Students may reregister for these courses in subsequent semesters as necessary until the course objectives are completed.

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

Courses numbered 100-199 are generally freshmen courses applicable toward associate degree and/or certificate programs.
Courses numbered 200-299 are generally sophomore courses applicable toward associate degree and/or certificate programs.

Course Credits

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

Course Hours

Each semester hour of credit given for a course is based on approximately one academic hour (50 minutes) of formalized, structured instructional time in a particular course for fifteen weeks. This may consist of lectures, out-of-class study, laboratory and shop study, or combinations thereof as follows:

1. One hour of lecture (including lecture, seminar, discussion or other similar experiences) per week for 15 weeks plus an examination period = 1 collegiate semester-hour credit.
2. Two or three hours, depending on the academic discipline, of laboratory (including laboratory, shop, clinical training, supervised work experience, coordinated internship, or other similar experiences) per week for 15 weeks plus an examination period (1 hour) = 1 collegiate semester-hour credit.
3. One to five credits with variable hours for the general usage courses: Coordinated Internship, Cooperative Education, Seminar and Project, and Supervised Study (see SDV section).

The number of lecture hours in class each week (including lecture, seminar and discussion hours) and/or the number of laboratory hours in class each week (including laboratory, shop, supervised practice, and cooperative work experiences) are indicated for each course in the course description. The number of lecture and laboratory hours in class each week are also called “contact” hours because they represent time spent under direct supervision of a faculty member. In addition to the lecture and laboratory hours in class each week, as listed in the course description, each student also must spend some time on out-of-class assignments under his/her own direction. Usually each credit per course requires an average of three hours of in-class and out-of-class study each week.

Course Prerequisites

If any prerequisites are required before enrolling in a course, these prerequisites will be identified in the course description. Courses in special sequences (usually identified by the numerals I-II-III) require that prior courses or their equivalent be completed before enrolling in the advanced courses in the sequence. When corequisites are required for a course, usually the corequisites must be taken at the same time. The prerequisites or their equivalent must be completed satisfactorily before enrolling in a course unless special permission is obtained from the chairperson of the appropriate instructional division and the instructor.

General Usage Courses

Note: The following “General Usage Courses” apply to multiple curricula and all prefix sections. The titles and descriptions are generally applicable for such use. However, colleges may elect to substitute different, but essentially equivalent, titles (e.g. Field Experiences in lieu of Coordinated Internship) to satisfy the preferences of respective professional fields or disciplines. Similarly, the course description may be reconstructed for adaptation to appropriate context or to a more specialized applicability (e.g. health agencies/facilities or hospitals in lieu of business, industrial and service firms).

General usage courses may be repeated for credit and may include lecture, laboratory, out-of-class study, or a combination thereof.

A “Topics in” course is intended to cover topics of an evolving nature or of short-term importance in the discipline. The course shall be approved by the academic vice-president or designee for a period up to two years. The vice-president may approve an extension of another two-year period, after which the course must be approved under the appropriate discipline according to VCCS processes for adding new courses to the Master Course File.

A “Studies in” course is intended as an experimental course to test its viability as a permanent offering. Each offering of the course must be approved by the academic vice-president or designee. An experimental course may be offered twice, after which the course must be approved under the appropriate discipline according to VCCS processes for adding new courses to the Master Course File.

Coordinated Practice In: (Course Prefix) 90, 190, 290 (1-5 credits.)
Includes supervised practice in selected health agencies coordinated by the College. Credit/Practice ratio maximum 1:5 hours. May be repeated for credit. Variable hours per week.

Studies In: (Course Prefix) 93, 193, 293 (1-5 credits.)
Covers new content not covered in existing courses in the discipline. Allows instructor to explore content and instructional methods to assess the course's viability as a permanent offering. Variable hours per week.

Topics In: (Course Prefix) 95, 195, 295 (1-5 credits.)
Provides an opportunity to explore topic areas of an evolving nature or of short-term importance in the discipline. May be used also for special honors courses. May be repeated for credit. Variable hours per week.

On Site Training In: (Course Prefix) 96, 196, 296 (1-5 credits)
Offers opportunities for career orientation and training without pay in selected businesses and industry. Supervised and coordinated by the College. Credit/work ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours per week.

Cooperative Education In: (Course Prefix) 97, 197, 297 (1-5 credits.)
Provides on-the-job training for pay in approved business, industrial and service firms. Applies 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 per week.

Seminar and Project In: (Course Prefix) 98, 198, 298 (1-5 credits)
Requires completion of a project or research report related to the student's occupational objective and a study of approaches to the selection and pursuit of career opportunities in the field. May be repeated for credit. Variable hours per week.

Supervised Study In: (Course Prefix) 99, 199, 299 (1-5 credits)
Assigns problems for independent study incorporating previous instruction and supervised by the instructor. May be repeated for credit. Variable hours per week.

Accounting

ACC 197 Co-op (2-5 credits)
Requires curriculum advisor and co-op 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

ACC 211 Principles of Accounting I (4 credits)

A laboratory corequisite (ACC 213) may be required
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 4 hours per week. 4 credits

ACC 212 Principles of Accounting II (4 credits)
Prerequisite: ACC 211

A laboratory corequisite (ACC 214) may be required
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 4 hours per week. 4 credits

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

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 3-4 hours per week. 3-4 credits.

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 3-4 hours per week. 3-4 credits.

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 3-4 hours per week. 3-4 credits.

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. 3 credits.

ACC 297 Co-op (2-5 credits)
Requires curriculum advisor and co-op 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. 1-6 credits

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

ADJ 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 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 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 160 - Police Response to Critical Incidents (3 credits)
Provides a basic introduction to incident command and emerging trends. Addresses bomb threats; hostage/barricade situations; attacks on institutions such as schools and hospitals; criminal hazmat; terrorist, militia/paramilitary, and extended crime scene evidence collection scenarios; and other long term or large scale events. Lecture 3 hours per week.

ADJ 162 - Introduction to Sex Crimes (3 credits)
Provides a basic introduction to sex crimes. Covers relevant law, investigative techniques, cybersex crimes and criminals, application of criminal investigative analysis, and future trends. Lecture 3 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
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 100, 111, 115, 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 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 297 Co-op (2-5 credits)
Requires curriculum advisor and co-op advisor approvals.
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.

Administrative Support Technology

AST 101 Keyboarding I (2-4 credits)
A laboratory corequisite (AST 103) may be required.
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 co-requisite (AST 103) may be required. Lecture 2-4 hours per week. 2-4 credits.

AST 102 Keyboarding II (3-4 credits)
Prerequisite: AST 101
A laboratory corequisite (AST 104) may be required.
Develops keyboarding and document production skills with emphasis on preparation of specialized business documents. Continues skill-building for speed and accuracy. A laboratory co-requisite (AST 104) may be required. Lecture 2-4 hours per week. 2-4 credits.

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. 3 credits.

AST 114 Keyboarding for Information Processing (1-2 credits)
A laboratory corequisite (AST 115) may be required.
Teaches the alphabetic and numeric keys: develops correct techniques and competency in the use of computer keyboards. May include basic correspondence and report formats. A laboratory co-requisite (AST 115) may be required. Lecture 1-2 hours per week. 1-2 credits.

AST 136 - Office Record Keeping (3 credits)
Introduces types of record keeping duties performed in the office, such as financial, tax, payroll, and inventory. Utilizes specialized software where applicable. Lecture 3 hours per week. 3 credits.

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. 3 credits.

AST 141 Word Processing (Specify Software) (2-4 credits)
Prerequisite: AST 101 or equivalent
A laboratory co-requisite (AST 144) may be required
Teaches creating and editing documents, including line and page layouts, columns, fonts, search/replace, cut/past, spell/thesaurus, and advanced editing and formatting features of word processing software. Lecture 2-4 hours per week.

AST 154 Voice Recognition Applications (1-2 credits)
Teaches the computer user to use the voice as an input device to compose documents and to give commands directly to the computer. Lecture 1-2 hours per week. 1-2 credits.

AST 171 Introduction to Call Center Services (3 credits)
Introduces concepts and skills needed to be an effective customer service representative for a telephone service operation. Covers call center theory and technology, interpersonal communication skills, customer relations attitudes, telecommunications techniques, and professional procedures to handle a variety of customer service sales requests. Lecture 3 hours per week. 3 credits.

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. 3 credits.

AST 197 Co-op (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. 1-5 credits.

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. 3 credits.

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. 3 credits.

AST 230 Introduction to Office Technology (3 credits)
A laboratory corequisite (AST 231) may be required
Introduces principles, methods, and techniques involved in office technology. Emphasizes the use of microcomputer equipment and software. Lecture 3 hours per week.

AST 232 Microcomputer Office Applications (2-4 credits)
Prerequisite: AST 101 or equivalent
A laboratory Corequisite (AST 233) may be required.
Teaches production of business documents using word processing, databases, and spreadsheets. Emphasizes document production to meet business and industry standard. A laboratory co-requisite (AST 233) may be required. Lecture 2-4 hours per week. 2-4 credits.

AST 236 Specialized Software Applications (Specify Software) (2-4 credits)
Prerequisite: AST 101 or equivalent
A laboratory corequisite (AST 237) may be required.
Teaches specialized integrated software application on the microcomputer. Emphasizes document production to meet business and industry standards. A laboratory co-requisite (AST 237) may be required. Lecture 2-4 hours per week. 2-4 credits.

AST 238 - Word Processing Advanced Operations (2-4 credits)
A laboratory co-requisite (AST 239) may be required.
Teaches advanced word processing features including working with merge files, macros, and graphics; develops competence in the production of complex documents. A laboratory co-requisite (AST 239) may be required. Lecture 2-4 hours per week. 2-4 credits.

AST 240 Machine Transcription (2-4 credits)
Prerequisite: AST 101
A laboratory corequisite (AST 241) may be required.
Corequisite AST 102 or equivalent.
Develops proficiency in the use of transcribing equipment to produce business documents. Emphasizes listening techniques, business English, and proper formatting. Includes production rates and mailable copy requirements. A laboratory co-requisite (AST 241) may be required. Lecture 2-4 hours per week. 2-4 credits.

AST 245 Medical Machine Transcription (2-4 credits)
Prerequisite: AST 102 or equivalent
A laboratory co-requisite (AST 246) may be required.
Develops machine transcription skills, integrating operation of transcribing equipment with understanding of medical terminology. Emphasizes dictation techniques and accurate transcription of medical documents in prescribed formats. A laboratory co-requisite (AST 246) may be required. Lecture 2-4 hours per week. 2-4 credits.

AST 271 Medical Office Procedures I (3 credits)
Prerequisite: AST 101
Corequisite: AST 102 or equivalent.
Covers medical office procedures, records management, preparation of medical reports, and other medical documents. Lecture 3 hours per week. 3 credits.

AST 297 Co-op (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. 1-5 credits.

Air Conditioning and Refrigeration

AIR 111 - 112 Air Conditioning and Refrigeration Controls I - II (2-3 credits/2-3 credits)
Corequisite for AIR 111: AIR 171
Corequisite for AIR 112: AIR 172
Presents electron theory, magnetism, Ohm's law, resistance, current flow, instruments for electrical measurement, A.C. motors, power distribution controls and their application. Lecture 1-2 hours, Laboratory 2-3 hours, Total 3-5 hours per week.

AIR 134 Circuits and Controls I (3-4 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 2-3 hours, Laboratory 2-6 hours, Total 4-9 hours per week.

AIR 154 Heating Systems I (3-4 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 2-3 hours. Laboratory 2-6 hours. Total 4-8 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 per week.

AIR 165 Air Conditioning Systems I (3-4 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 2-3 hours, Laboratory 3-6 hours, Total 5-8 hours per week.

AIR 165 Air Conditioning Systems I (3-4 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 2-3 hours, Laboratory 3-6 hours, Total 5-8 hours per week.

AIR 171-172 Refrigeration I - II (6-9 credits/6-9credits)
Corequisite for AIR 171: AIR 111
Corequisite for AIR 172: AIR 112
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, charging, 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. Lectures 4-6 hours. Laboratory 6-9 hours. Total 10-15 hours per week.

AIR 176 Air Conditioning (6-7 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 4-5 hours. Laboratory 4-8 hours, Total 8-13 hours per week.

AIR 197 Co-op (2-5 credits)
Requires curriculum advisor and co-op advisor approvals.
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 (3-4 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 2-3 hours. Laboratory 2-3 hours. Total 4-6 hours per week.

AIR 231 Circuits and Controls IV (4-5 credits)
Corequisites: AIR 154
Applies controls and control circuits to air conditioning and refrigeration, including components, pilot devices and controls, and circuit diagrams. Lecture 3-4 hours. Laboratory 3 hours. Total 6-7 hours per week.

AIR 235 Heat Pumps (3-4 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 2-3 hours, Laboratory 2-3 hours, Total 4-6 hours per week.

AIR 297 Co-op (2-5 credits)
Requires curriculum advisor and co-op advisor approvals.
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 - 102 American Sign Language I - II (3- 4 credits/3- 4 credits)
Prerequisite for ASL 102: ASL 101 or division approval
Introduces the fundamentals of American Sign Language (ASL) used by the Deaf Community, including basic vocabulary, syntax, fingerspelling, and grammatical non-manual signals. Focuses on communicative competence. Develops gestural skills as a foundation for ASL enhancement. Introduces cultural knowledge and increases understanding of the Deaf Community. Lecture 3-4 hours. Laboratory 0-2 hours. Total 3-5 hours per week.

ASL 115 - Fingerspelling and Number Use in ASL (2 credits)
Provides intensive practice in comprehension and production of fingerspelled words and numbers with emphasis on clarity and accuracy. Focuses on lexicalized fingerspelling and numerical incorporation as used by native users of American Sign Language. Prerequisite ASL 101 or permission of instructor. Lecture 2 hours per week.

ASL 201 - 202 American Sign Language III - IV (3- 4 credits/3- 4 credits)
Prerequisite for ASL 201: ASL 102 or division approval
Prerequisite for ASL 202: ASL 201 or division approval
Develops vocabulary, conversational competence, and grammatical knowledge with a total immersion approach. Introduces increasingly complex grammatical aspects including those unique to ASL. Discusses culture and literature. Contact with the Deaf Community is encouraged to enhance linguistic and cultural knowledge. Lecture 3-4 hours. Laboratory 0-2 hours. Total 3-5 hours per week.

ASL 220 - Comparative Linguistics: ASL & English (3 credits)
Describes spoken English and ASL (American Sign Language) on five levels: phonological, morphological, lexical, syntactic, and discourse. Compares and contrasts the two languages on all five levels using real-world examples. Documents similarities between signed languages and spoken languages in general. Describes the major linguistic components and processes of English and ASL. Introduces basic theories regarding ASL structure. Emphasizes ASL's status as a natural language by comparing and contrasting similarities and unique differences between the two languages. Prerequisite: ASL 201. Lecture 3 hours per week.

Architecture

ARC 121 Architectural Drafting I (3 credits)
Introduces techniques of architectural drafting, including lettering, dimensioning, and symbols. Requires production of plans, sections, and elevations of a simple building. Studies use of common reference material and the organization of architectural working drawing. Lecture 2 hours, Laboratory 3 hours, Total 5 hours per week.

ARC 122 - Architectural Drafting II (3 credits)
Introduces techniques of architectural drafting, including lettering, dimensioning, and symbols. Requires production of plans, sections, and elevations of a simple building. Studies use of common reference material and the organizatiohn of architectural working drawings. Requires development of a limited set of working drawings, including a site plan, related details, and pictorial drawings. Part II of II. Credit will not be awarded for both ARC 122 and ARC 124. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

ARC 210 Introduction to Computer Aided Drafting (2 credits)
Gives overview of use of computers as applied to architectural drawing. Covers software capability of the system by generating, moving, editing, or deleting the basic elements. Use CRT keyboard, table/menu, and other items that make up the system. Lecture 1 hour, Laboratory 3 hours, Total 4 hours per week.

ARC 211 Computer Aided Drafting Applications (2 - 3 credits)
Utilizes computer's hardware and software to create orthographic and pictorial drawings. Requires creation of working drawings by adding the necessary sections, dimensions, and notes to the computer generated views. Prerequisite ARC 210 or equivalent. Lecture 1-2 hours, Laboratory 2-3 hours. Total 3-5 hours per week.

ARC 255 Construction Estimating (2 credits)
Requires preparation of detailed material quantity surveys from plans and specifications for commercial construction. Discusses cost, bid, and contract procedures. Lecture 2 hours per week.

Arts

ART 121 - Drawing I (3-4 Credits)
Develops basic drawing skills and understanding of visual language through studio instruction/lecture. Introduces concepts such as proportion, space, perspective, tone and composition as applied to still life, landscape and the figure. Uses drawing media such as pencil, charcoal, ink wash and color media. Includes field trips and gallery assignments as appropriate. Part I of II. Lecture 1-2 hours. Studio instruction 4 hours. Total 5-6 hours per week. 3-4 credits.

ART 122 - Drawing II (3-4 Credits)
Develops basic drawing skills and understanding of visual language through studio instruction/lecture. Introduces concepts such as proportion, space, perspective, tone and composition as applied to still life, landscape and the figure. Uses drawing media such as pencil, charcoal, ink wash and color media. Includes field trips and gallery assignments as appropriate. Part II of II. Lecture 1-2 hours. Studio instruction 4 hours. Total 5-6 hours per week. 3-4 credits.

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. 3 credits

ART 131 - Fundamentals of Design I (3-4 Credits)
Explores the concepts of two- and three-dimensional design and color. May include field trips as required. Part I of II. Lecture 1-2 hours. Studio instruction 4 hours. Total 5-6 hours per week. 3-4 credits.

ART 132 - Fundamentals of Design II (3-4 Credits)
Explores the concepts of two- and three-dimensional design and color. May include field trips as required. Part II of II. Lecture 1-2 hours. Studio instruction 4 hours. Total 5-6 hours per week. 3-4 credits.

ART 134 Three Dimensional Design (3 credits)
Explores the concepts of three dimensional design applicable to all fields of Visual Art. Covers tools and techniques. Uses computers as appropriate for research. Lecture 1 hour. Laboratory 4 hours. Total 5 hours per week.3 credits.

ART 195 - Topics In (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.

ART 201 - History of Art I
Studies the historical context of art of the ancient, medieval, Renaissance and modern worlds. Includes research project. Part I of II. Lecture 3 hours per week. 3 credits.

ART 202 - History of Art II
Studies the historical context of art of the ancient, medieval, Renaissance and modern worlds. Includes research project. Part II of II. Lecture 3 hours per week. 3 credits.

ART 231 - Sculpture I
Prerequisite: ART 131
Introduces sculptural concepts and methods of production in traditional and contemporary media. Includes clay, plaster, wood, stone, metal, plastics and terra cotta. May include field trips. Part I of II. Lecture 1-2 hours. Studio instruction 4 hours. Total 5-6 hours per week. 3-4 credits.

ART 232 - Sculpture II
Prerequisite: ART 131
Introduces sculptural concepts and methods of production in traditional and contemporary media. Includes clay, plaster, wood, stone, metal, plastics and terra cotta. May include field trips. Part II of II. Lecture 1-2 hours. Studio instruction 4 hours. Total 5-6 hours per week.3-4 credits.

ART 295 - Topics In (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.

Automotive

AUT 166 Automotive Diagnostics I (5 credits)
Presents the application of operating theory and diagnostic procedures on general engine mechanical and electrical systems. Emphasizes diagnostic procedures using the latest diagnostic procedures and equipment. Lecture 4 hours. Laboratory 2 hours. Total 6 hours per week.

AUT 241 Automotive Electricity I (3-4 credits)
Introduces electricity and magnetism, symbols and circuitry as applied to the alternators, regulators, starters, lighting systems, instruments and gauges and accessories. Lecture 2-3 hours. Laboratory 2-3 hours. Total 4-6 hours per week.

AUT 265 Automotive Braking Systems (4 credits)
Presents operation, design, construction, repair, and servicing of braking system, including Anti-Lock Brake systems (ABS). Explains uses of tools and test equipment, evaluation of test results, estimation of repair cost for power, standard and disc brakes. Lecture 1-3 hours. Laboratory 3 hours. Total 5-6 hours per week.

AUT 266 Auto Alignment, Suspension and Steering (4 credits)
Introduces use of alignment equipment in diagnosing, adjusting, and repairing front and rear suspensions. Deals with repair and servicing of power and standard steering systems. Lecture 1-2 hours. Laboratory 6 hours. Total 7-8 hours per week.

Biology

BIO 101 - 102 General Biology I - II (4 credits/4 credits)
Prerequisite for BIO 102: BIO 101; Placement into ENG 111
Explores fundamental characteristics of living matter from the molecular level to the ecological community with emphasis on general biological principles. Introduces the diversity of living organisms, their structure, function and evolution. Lecture 3 hours. Recitation and Laboratory 3 hours, Total 6 hours per week.

BIO 120 General Zoology (4 credits)
Prerequisite: Placement into ENG 111
Presents basic biological principles, and emphasizes structure, physiology and evolutionary relationships of invertebrates and vertebrates. Lecture 3 hours. Recitation and laboratory 3 hours. Total 6 hours per week.

BIO 141 - 142 Human Anatomy and Physiology I - II (4 credits/4 credits)
Prerequisite for BIO 142: BIO 141; Placement into ENF 3 or higher
Integrates anatomy and physiology of cells, tissues, organs, and systems of the human body. Integrates concepts of chemistry, physics, and pathology. Lecture 3 hours, Laboratory 2-3 hours, Total 5-6 hours per week.

BIO 145 Human Anatomy and Physiology for the Health Sciences (4-5 credits)
Introduces human anatomy and physiology primarily to those planning to pursue an AAS degree in nursing. Covers basic chemical concepts,

cellular physiology, as well as the anatomy and physiology of human organ systems. Lecture 3-4 hours, laboratory 3 hours, Total 6-7 hours per week.

BIO 151 152 Human Gross Anatomy I – II (1 credit/1credit)
Prerequisite: BIO 141; Placement into ENF 3 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 205 General Microbiology (4 credits)
Prerequisites: one year of college biology and one year of college chemistry or division approval.
Examines morphology, genetics, physiology, ecology and control of microorganisms. Emphasizes application of microbiological techniques to selected fields. Lecture 3 hours, Recitation and Laboratory 3 hours, Total 6 hours per week.

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 256 General Genetics (4 credits)
Prerequisite: BIO 101-102 or equivalent
Explore the principles of genetics ranging from classical Mendelian inheritance to the most recent advances in the biochemical nature and function of the gene. Includes experimental design and statistical analysis. Lecture 3 hours. Recitation and laboratory 3 hours. Total 6 hours per week.

BIO 270 General Ecology (4 credits)
Prerequisite: BIO 101-102 or division approval
Studies interrelationships between organisms and their natural and cultural environments with emphasis on populations, communities, and ecosystems. Lecture 3 hours, Recitation and Laboratory 3 hours, Total 6 hours per week.

BIO 278 Coastal Ecology (3 credits)
Prerequisite: Placement into ENG 111
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.

Building

BLD 140 Principles of Plumbing Trade I (3 credits)
Studies the plumbing trade, the structure of the plumbing trade, apprenticeship standards, job safety, tools of the trade, the approved installation of the plumbing materials, types of sanitary drainage pipe and piping layout of sanitary piping. Lecture 3 hours per week.

BLD 144 Plumbing Code and Certification Preparation (3 credits)
Teaches the use of the plumbing code standard book (BOCA), references standards, the reading and use of charts and tables, and preparation for the journeyman's certification and the cross-connection control certification test. Lecture 3 hours per week.

BLD 195/295 Topics in (discipline) (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.

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. 3 credits.

BUS 111 Principles of Supervision I (3-4 credits)
Teaches the fundamentals of supervision, including the primary responsibilities of the supervisor. Introduces factors relating to the work of supervisor and subordinates. Covers aspects of leadership, job management, work improvement, training and orientation, performance evaluation, and effective employee/ supervisor relationships. Lecture 3-4 hours per week. 3-4 credits.

BUS 112 Principles of Supervision II (3-4 credits)
Prerequisite: BUS 111
Develops skills in carrying out the responsibilities of a supervisor including interviewing, evaluating and disciplining, and problem-solving techniques. Lecture 3-4 hours per week. 3-4 credits.

BUS 116 – Entrepreneurship (3 credits)
Presents the various steps considered necessary when going into business. Includes areas such as product-service analysis, market research evaluation, setting up books, ways to finance startup, operations of the business, development of business plans, buyouts versus starting from scratch, and franchising. Uses problems and cases to demonstrate implementation of these techniques. Lecture 3 hours per week.

BUS 117 Human Relations and Leadership Development (3 credits)
Covers interpersonal relations in hierarchical structures. Examines the dynamics of teamwork, motivation, handling change and conflict and how to achieve positive results through others. Lecture 3 hours per week. 3 credits.

BUS 165 Small Business Management (3 credits)
Identifies management concerns unique to small businesses. Introduces the requirements necessary to initiate a small business, and identifies the elements comprising a business plan. Presents information establishing financial and administrative controls, developing a marketing strategy, managing business operations, and the legal and government relationships specific to small businesses. Lecture 3 hours per week.3 credits.

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. 1-5 credits.

BUS 197 Co-op (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. 1-5 credits.

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. 3 credits.

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. 3 credits.

BUS 225 Applied Business Statistics (3 credits)
Prerequisite: MTH 141 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. 3 credits.

BUS 241 Business Law I (3 credits)
Develops a basic understanding of the US business legal environment. Introduces property and contract law, agency and partnership liability, and government regulatory law. Students will be able to apply these legal principles to landlord/tenant disputes, consumer rights issues, employment relationships, and other business transactions. Lecture 3 hours per week. 3 credits.

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. 3 credits.

BUS 295 NX Level for Entrepreneurs (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.

BUS 297 Co-op (1-6 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. 1-6 credits.

Chemistry

CHM 05 Developmental Chemistry for Health Sciences (1-5 credits)
Introduces basic principles of inorganic, organic, and biological chemistry. Emphasizes applications to the health sciences.

CHM 101 – 102 General Chemistry I & II (4 credits/4 credits)
Prerequisite for CHM 101: Placement recommendation for MTE 6 and Placement recommendation for ENG 111
Prerequisite for CHM 102: CHM 101
Emphasizes experimental and theoretical aspects of inorganic, organic, and biological chemistry. Discusses general chemistry concepts as they apply to issues within our society and environment. Designed for the non-science major. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

CHM 110 Survey of Chemistry (3 credits)
Introduces the basic concepts of general, organic and biochemistry with emphasis on their applications to other disciplines. No previous chemistry background required. Lecture 3 hours per week.

CHM 111 - 112 College Chemistry I - II (4 credits/4 credits)
Prerequisite for CHM 111: Completion of developmental mathematics or placement recommendation for MTH 163, and placement recommendation for ENG 111

Prerequisite for CHM 112: CHM 111
Explores the fundamental laws, theories, and mathematical concepts of chemistry. Designed primarily for science and engineering majors. Requires a strong background in mathematics. Lecture 3 hours, Laboratory 3 hours, Total 6 hours per week.

CHM 241 - 242 Organic Chemistry I - II (3 credits/3 credits)
Prerequisite: CHM 111, CHM 112
Corequisite: CHM 243, CHM 244
Introduces fundamental chemistry of carbon compounds, including structures, physical properties, syntheses, and typical reactions. Emphasizes reaction mechanisms. Lecture 3 hours per week.

CHM 243 - 244 Organic Chemistry Laboratory I - II (*1 credit/1 credit)*
Prerequisite: CHM 111, CHM 112
Should be taken concurrently with CHM 241-242. Laboratory 3 hours per week.

CHM 245 - 246 Special Organic Chemistry Laboratory I - II (2 credits/2 credits)
Prerequisite: CHM 112
Is taken by chemistry and chemical engineering majors. Includes qualitative organic analysis. May be taken concurrently with or following CHM 241-242. Laboratory 6 hours per week.

CHM 260 Introductory Biochemistry (3 credits)
Prerequisite: CHM 112 or division approval
Explores fundamentals of biological chemistry. Includes study of macromolecules, metabolic pathways, and biochemical genetics. Lecture 3 hours per week.

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 story telling 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 145 - Teaching Art, Music, and Movement to Children (3 credits)
Provides experiences in developing the content, methods, and materials for directing children in art, music, and movement activities. Lecture 2 hours. Laboratory 2 hours. Total 4 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.

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.3 credits.

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. 3 credits.

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. 3 credits.

CST 132 - Acting II (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 II of II. Lecture 2 hours. Laboratory 3 hour. Total 5 hours per week. 3 credits.

CST 136 Theatre Workshop (1-6 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. May be repeated for credit. Variable hours per week. 1-6 credits.

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. 3 credits.

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.3 credits.

CST 152 - Film Appreciation II (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 II of II. Lecture 3 hours per week.3 credits.

CST 197 Cooperative Education (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. 1-5 credits.

CST 297 (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. 1-5 credits.

Dance

DAN 167 - Dance Improvisation (1-2 credits)
Explores the creation of spontaneous movement experiences with emphasis on self-expression and creature awareness. Includes improvisational techniques utilizing body awareness, use of the environment, and group dynamics. Lecture 0-1 hours. Laboratory 2-4 hours. Total 2-4 hours per week.

Dental Assisting

DNA 100 Introduction to Oral Health Professions (1 credit)
Provides an introduction to the oral health profession and covers basic terminology, historical perspective, the credentialing process, accreditation, professional organizations, and legal and ethical considerations. Lecture 1 hour per week.

DNA 108 Dental Science (3 credits)
Studies head and neck anatomy, tooth morphology, pathological conditions of the oral cavity, disease processes, and microbiology. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

DNA 110 - Dental Materials (3 credits)
Studies the materials utilized in the laboratory aspect of dentistry as support in treatment. Emphasis is placed on the characteristics, manipulation, economical control, storage, and delivery of materials.
Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

DNA 113 Chairside Assisting I (3 credits)
Provides instruction on the principles of clinical chair side dental assisting, dental equipment use and maintenance, safety, instrument identification, tray set-ups by procedures, and patient data collection. Emphasis on patient management during restorative procedures. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

DNA 114 Chairside Assisting II (4 credits)
Introduces the student to the various dental specialties including oral surgery, orthodontics, periodontic, prosthodontics, endodontics, and pediatric dentistry. Integrates and applies previous course content to operative dental procedures. Lecture 2 hours. Laboratory 6 hours. Total 8 hours per week.

DNA 120 Community Health (1 credit)
Studies topics related to community health issues including identification of specific diseases, symptoms, causes, and effects. An emphasis is placed on the promotion of oral health in the community through patient education in oral home care techniques, dietary counseling, plaque control procedures and application of medicinal agents. Lecture 1 hour per week.

DNA 130 - Dental Office Management (2 credits)
Exposes students to and provides practical experience in the legal aspects of dental office management with regard to ethics, jurisprudence, appointment control, recall systems, reception techniques, telephone techniques, accounts receivable and payable, payroll, insurance claims, inventory control, and professional conduct in a dental office.
Lecture 1-2 hours. Laboratory 0-3 hours. Total 2-5 hours per week.

DNA 134 Dental Radiology and Practicum (3 credits)
Teaches the physics of dental radiation and safety, equipment operation, cone placement for the parallel and bisection techniques, panoramic exposures, mounting and film processing. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

DNA 135 - Dental Radiation Safety (2 credits)
Studies techniques and devices used for protection from ionizing radiation. Teaches biological effects, cell sensitivity and genetic effects of ionizing radiation. Includes practice of bisection and parallel techniques on manikins. Prepares employed dental staff to meet the Virginia Board of Dentistry's regulations for certification in dental radiation safety hygiene. Lecture 1 hour. Laboratory 3 hours. Total 4 hours per week.

Diesel Mechanic

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 121-122 Diesel Engines I-II (5- 6 credits) (5- 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. Lecture 2-3 hours. Laboratory 6 hours. Total 8-9 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 111-112 Technical Drafting I-II (3 credits) (3 credits)
Introduces technical drafting from the fundamentals through advanced drafting practices. Teaches lettering, metric construction, technical sketching, orthographic projection, sections, intersections, development, fasteners, theory and applications of dimensioning and tolerances. Includes pictorial drawing, and preparation of working and detailed drawings. Lecture 1 hour. Laboratory 6 hours. Total 7 hours per week.

DRF 114-115 Drafting I-II (3 credits) (3 credits)
Teaches geometric construction, orthographic projection, sections and conventions, pictorial drawings, isometric principles, oblique drawing, and dimensioning. Lecture 1 hour. Laboratory 6 hours. Total 7 hours per week.

DRF 119 Mechanical Drafting (5 credits)
Teaches principles of machine drafting and design, drafting instruments and materials, engineering lettering, orthographic projection, freehand detail drafting. Explains geometric construction, sectioning, primary and secondary auxiliaries, dimensioning, tolerances and allowances, pictorial drawing, threads and common fasteners, detail assembly drawing. Lecture 3 hours, Laboratory 6 hours, Total 9 hours per week.

DRF 121 - 122 Mechanical Drafting I - II (7 credits/7 credits)
Prerequisite for DRF 122: DRF 121
Teaches basic principles of machine drafting and design, drafting instruments and materials, engineering lettering, orthographic projection, freehand detail drafting. Explains geometric construction, sectioning, primary and secondary auxiliaries, dimensioning, tolerances and allowances, pictorial drawing, threads and common fasteners, detail and assembly drawing. Lecture 3 hours, Laboratory 12 hours, Total 15 hours per week.

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 162 Blueprint Reading II (2 credits)
Prerequisite: DRF 161
Emphasizes industrial prints, auxiliary views, pictorial drawings, simplified drafting procedures, production drawing, operation sheets, tool drawing, assembly drawings, and detailed points. Lecture 1 hour, Laboratory 3 hours, Total 4 hours per week.

DRF 200 - Survey of Computer Aided Drafting (3-4 credits)
Surveys computer-aided drafting equipment and concepts. Develops general understanding of components, operations and use of a typical CAD system. Lecture 2-3 hours. Laboratory 2-3 hours. Total 4-6 hours per week.

DRF 201 Computer Aided Drafting and Design (2-4 credits)
Prerequisite division approval.
Teaches computer aided drafting concepts and equipment design to develop a general understanding of components of a typical CAD system and its operation. Lecture 1-3 hours, Laboratory 2-3 hours, Total 3-6 hours per week.

DRF 202 Computer Aided Drafting and Design II (2-4 credits)
Teaches working drawings and advanced operations in computer aided drafting. Lecture 1-3 hours, Laboratory 2-3 hours, Total –6 hours per week.

DRF 203 - Computer Aided Drafting and Design III (3-4 credits)
Teaches advanced CAD applications. Includes customization and/or use of advanced software. Lecture 2-3 hours. Laboratory 2-3 hours. Total 4-6 hours per week. Prerequisites are required. DRF 201/202 are required for this course.

DRF 211 Advanced Technical Drafting I (3 credits)
Prerequisites: DRF 121, 122
Teaches use of drafting equipment, with possible CAD applications, emphasizing knowledge and skill required for industrial drawing. May include piping, gearing, geometric and positional tolerances, drawing layout and lettering of all types. Lecture 2 hours, Laboratory 3 hours, Total 5 hours per week.

DRF 212 Advanced Technical Drafting II (3 credits)
Prerequisite: DRF 211
Teaches concepts of sheet metal fabrication including radii, fillets and tolerances, electrical and electronics symbols and drawing, and advanced design drafting techniques. Lecture 2 hours, Laboratory 3 hours, Total 5 hours per week.

DRF 231 Computer Aided Drafting I (2-3 credits)
Prerequisite: DRF 121-122 and DRF 211 or division approval
Teaches computer aided drafting concepts and equipment designed to develop a general understanding of components and operate a typical CAD system. Lecture 1-2 hours, Laboratory 2-3 hours, Total 3-5 hours per week.

DRF 232 Computer Aided Drafting II (2-3 credits)
Prerequisite: DRF 231
Teaches advanced operation in computer aided drafting. Lecture 1-2 hours, Laboratory 2-3 hours, Total 3-5 hours per week.

DRF 233 Computer Aided Drafting III (2-3 credits)
Prerequisite: DRF 231
Exposes student to 3-D and modeling. Focuses on proficiency in Production drawing using CAD system. Lecture 1-2 hours. Laboratory 2-3 hours. Total 3-5 hours per week.

DRF 245 Electronic Drafting (2 credits)
Presents fundamental principles, practices and methods of electro-mechanical information through the graphic, language principle of projection fastening, materials, and finishes, electronic symbology, schematic diagrams, printed circuit drawings and checking of electronic drawings. Explains CAD applications. Lecture 1 hour, Laboratory 2 hours, Total 3 hours per week.

DRF 297 Co-op (2-5 credits)
Requires curriculum advisor and co-op advisor approvals.
Cooperative education in drafting and design. Designed to provide practical work experience for the drafting and design student. Minimum on-the-job training is 10 hours per week.

Economics

ECO 201 Principles of Macroeconomics (3 credits)
Introduces macroeconomics including the study of Keynesian, classical, monetarist principles and theories, the study of national economic growth, inflation, recession, unemployment, financial markets, money and banking, the role of the government spending and taxation, along with international trade and investments. Lecture 3 hours per week.

ECO 202 Principles of Microeconomics (3 credits)
Introduces the basic concepts of microeconomics. Explores the free market concepts with coverage of economic models and graphs, scarcity and choices, supply and demand, elasticities, marginal benefits and costs, profits, and production and distribution. Lecture 3 hours per week.

Education

EDU 200 Introduction to Teaching as a Profession (3 credits)
Prerequisite: Successful completion of 24 credits of transfer courses or division approval
Provides an orientation to the teaching profession in Virginia, including historical perspectives, current issues, and future trends in education

on the national and state levels. Emphasizes information about teacher licensure examinations, steps to certification, teacher preparation and induction programs, and attention to critical shortage areas in Virginia. Includes supervised field placement (recommended: 40 clock hours) in a K-12 school. Prerequisite: Successful completion of 24 credits of transfer courses. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week. 3 credits.

EDU 235 Health, Safety and Nutrition Education (3 credits)
Focuses on the physical needs of children and explores strategies to meet these needs. Emphasizes positive health routines, hygiene, nutrition, feeding and clothing habits, childhood diseases, and safety. Places emphasis on the development of food habits and concerns in food and nutrition. Describes symptoms and reporting procedures for child abuse. Lecture 3 hours per week. 3 credits.

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 115 Basic Electricity (3 credits)
Covers basic circuits and theory of fundamental concepts of electricity. Presents a practical approach to discussion of components and devices. Lecture 3 hours per week.

ELE 131 - National Electrical Code I (3-4 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 3-4 hours per week.

ELE 132 - National Electrical Code II (3-4 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 3-4 hours per week.

ELE 133 - Practical Electricity I (3credits)
Teaches the fundamentals of electricity, terminology, symbols, and diagrams. Includes the principles essential to the understanding of general practices, safety and the practical aspects of residential and non-residential wiring and electrical installation, including fundamentals of motors and controls. Pre/Corequisite MTH 02 or equivalent. Part I of II. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

ELE 134 - Practical Electricity II (3 credits)
Teaches the fundamentals of electricity, terminology, symbols, and diagrams. Includes the principles essential to the understanding of general practices, safety and the practical aspects of residential and non-residential wiring and electrical installation, including fundamentals of motors and controls. Pre/Corequisite MTH 02 or equivalent. Part II of II. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

ELE 135 National Electrical Code–Residential (3-4 credits)
Studies purposes and interpretations of the national electrical code that deals with single and multifamily dwellings, including state and local regulations. Lecture 2 hours, Laboratory 3-4 hours, Total 5-6 hours per week.

ELE 137 National Electrical Code-Industrial (3 credits)
Provides comprehensive study of the purposes and interpretations of the national electrical code that deals primarily with industrial wiring methods, including state and local regulations. May include preparation of a report as an out-of-class activity. Lecture 2 hours, Laboratory 2 hours, Total 4 hours per week.

ELE 138 National Electrical Code (2 credits)
Teaches purpose and interpretation of the National Electrical Code as well as familiarization with various charts, code rulings, and wiring methods. Lecture 2 hours.

ELE 141 DC and AC Machines I (4-6 credits)
Prerequisite: ELE 157
Teaches construction, theory of operation, connections, and applications of direct current motors, generators; single and polyphase alternating current alternators, synchronous and induction motors. May require preparation of a report as an out-of-class activity. Lecture 3 hours, Laboratory 4-8 hours, Total 7-11 hours per week.

ELE 145 Transformer Connections and Circuits (2 credits)
Prerequisite: ELE 157
Studies transformer theory, symbols, diagrams, connections, terminology and troubleshooting techniques. Lecture 1 hour, Laboratory 3 hours, Total 4 hours per week.

ELE 149 Wiring Methods in Industry I (3-4 credits)
The fundamentals of industrial power distribution, circuits, switches, enclosures, panels, fuses, circuit breakers, transformers, and wiring methods, using various charts and tables of the National Electrical Code. Lecture 2-3 hours, Laboratory 3 hours, Total 5-6 hours per week.

ELE 156 - Electrical Control Systems (3 credits)
Includes troubleshooting and servicing electrical controls, electric motors, motor controls, motor starters, relays, overloads, instruments and control circuits. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

ELE 157 Electricity Fundamentals (6-7 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 6-8 hours, Total 9-11 hours per week.

ELE 169 DC and AC Controls (4-6 credits)
Study of symbols, terminology, connections, applications and troubleshooting of direct and alternating current electrical/electronic circuits and controls used in industry. Lecture 2-3 hours, Laboratory 6-7 hours. Total 8-10 hours per week.

ELE 175 Industrial Solid State Devices and Circuits (2-3 credits)
The theory, symbols, properties, and applications of solid state devices in industry. Lecture 1-2 hours, Laboratory 3 hours, Total 4-5 hours per week.

ELE 176 - Introduction to Alternative Energy Including Hybrid Systems (2-3 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 2-3 hours. Laboratory 2-3 hours. Total 4-6 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 and co-op advisor approvals.
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)
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. Prerequisite: ELE 217 or equivalent. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

ELE 233 - Programmable Logic Controller Systems I (3-4 credits)
Teaches operating and programming of programmable logic controllers. Covers analog and digital interfacing and communication schemes as they apply to system. Prerequisite: ETR 156 and ETR 211 or equivalent. Part I of II. Lecture 2-3 hours. Laboratory 3 hours. Total 5-6 hours per week.

ELE 234 - Programmable Logic Controller Systems II (3-4 credits)
Teaches operating and programming of programmable logic controllers. Covers analog and digital interfacing and communication schemes as they apply to system. Prerequisite: ETR 156 and ETR 211 or equivalent. Part II of II. Lecture 2-3 hours. Laboratory 3 hours. Total 5-6 hours per week.

ELE 239 Programmable Controllers (2-3 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 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 297 Co-op (2-5 credits)
Requires curriculum advisor and co-op advisory 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 111 Electronics Mathematics (2 credits)
Studies electronic logic or computer technology. Includes a basic numbering system and Boolean algebra with applications to logic diagrams and circuits. Lecture 2 hours per week.

ETR 113 - 114 DC and AC Fundamentals I - II (3-4 credits/3-4 credits)
Corequisite: MTH 115
Studies D.C. and A.C. circuits, basic electrical components, instruments, network theorems, and techniques used to predict, analyze and measure electrical quantities. Lecture 2-3 hours, Laboratory 2-3 hours, Total 4-6 hours per week.

ETR 166 Fundamentals of Computer Technology (3 - 4 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 - 3 hours. Laboratory 0 - 3 hours. Total 3 - 6 hours per week.

ETR 203 Electronic Devices (4 credits)
Prerequisite: ETR 113
Studies active devices and circuits such as diodes, power supplies, transistors (BJT's), amplifiers, thermionic devices, and other devices. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

ETR 218 Industrial Electronics Circuits (4 credits)
Introduces the principles of industrial measurements and control; electrical, electronic, mechanical, thermal, and optical measuring and records, and actuators, electronic instrumentation control devices and circuits. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

ETR 226 Principles of Computer Systems (4 credits)
Prerequisite: ETR 225
Introduces computer technology students to devices related to input, processing, storage, communication, and output of data from microcomputer to mainframe. Teaches application, concepts and interfacing of hardware. Lecture 3 hours, Laboratory 3 hours, Total 6 hours per week.

ETR 237 - Industrial Electronics I (3-4 credits)

Studies linear integrated circuits for industrial applications, motors, industrial control devices, power control circuits, transducers, industrial process control, and sequential process control. Part I of II. Lecture 2-3 hours. Laboratory 2-4 hours. Total 4-5 hours per week.

ETR 260 Electronic Circuits and Instrumentation (4-5 credits)
Prerequisite: MTH 116 or equivalent
(For non-electric/electronic majors) covers electronic circuits, devices and instrumentation. A.C. and D.C. circuit theory, electronic circuits involving amplifiers, oscillators and their applications. Includes troubleshooting practices. Lecture 3-4 hours, Laboratory 3 hours, Total 6-7 hours per week.

ETR 261 Microprocessor Application (3-4 credits)
Prerequisite: ETR 279
Teaches the fundamentals of microprocessors including architecture, internal operations, memory, I/O devices machine level programming and interfacing. Lecture 2-3 hours, Laboratory 3 hours, Total 5-6 hours per week.

ETR 278 Computer Interfacing and Circuitry (4 credits)
Deals with typical circuitry used to interface computers with the outside world. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

ETR 279 Digital Principles, Terminology and Applications (4 credits)
Prerequisite: ETR 111
Studies digital principles, terminology and applications covering number systems, arithmetic, Boolean algebra, Karnaugh maps and advanced logic circuits such as A/D, D/A displays and others. Lecture 3 hours, Laboratory 3 hours, Total 6 hours per week.

ETR 297 Co-op (2-5 credits)
Requires curriculum advisor and co-op advisory approval.
Cooperative education in electronics Designed to provide practical work experience for the electronics student. Minimum on-the-job training is 10 hours per week.

Emergency Medical Technology

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 101 - EMS First Responder (3 credits)
Provides education in the provision of emergency medical care for persons such as Police, non-EMS Fire personnel, industrial personnel and the general public who are likely to be the first medically trained personnel on the scene of an injury or illness. Meets current Virginia Office of Emergency Medical Services curriculum for First Responder. Equivalent to HLT 119. Lecture 3 hour per week.

EMS 102 - EMS First Responder Refresher (1 credit)
Provides 18 clock hours of instruction to meet Virginia Office of EMS requirements for recertification at the First Responder Level. Lecture 1 hour per week.

EMS 111 - Emergency Medical Technician (7credits)
Prerequisite: EMS 100/equivalent Co-requisite: 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 112 - Emergency Medical Technician-Basic I (3 credits)
Prepares student for certification as a Virginia and/or National Registry EMT-Basic. Focuses on all aspects of pre-hospital basic life support as defined by the Virginia office of Emergency Medical Services curriculum for Emergency Medicine Technician Basic. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

EMS 113 - Emergency Medical Technician-Basic II (3credits)
Continues preparation of student for certification as a Virginia and/or National Registry EMT-Basic. Includes all aspects of pre-hospital basic life support as defined by the Virginia Office of Emergency Medical Services curriculum for Emergency Medicine Technician Basic. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

EMS 115 - Emergency Medical Technician - Basic Refresher (2 credits)
Provides 36 clock hours of instruction to meet Virginia Office of EMS requirements for recertification at the EMT-Basic level.
Lecture 2 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, dependant upon the program in which the student is participating and is a co-requisite to both EMS 111 and EMS 113. Lab 2 hours; 2 hours per week

EMS 151 - Introduction to Advanced Life Support (4 credits)
Prerequisites: Current State or National Registry EMT-B and CPR
Corequisite: EMS 170 Clinical and Field Internship
Prepares the student for Virginia Enhanced certification eligibility and begins the sequence for National Registry Imtermediate and/or Paramedic certification. Includes the theory and application of the following: foundations, human systems, pharmacology, overview of shock, venous access, airway management, patient assessment, respiratory emergencies, allergic reaction, and assessment based management. Conforms at a minimum to the Virginia Office of Emergency Medical Services curriculum. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

EMS 153 - Basic ECG Recognition (2 credits)
Focuses on the interpretation of basic electrocardiograms (ECG) and their significance. Includes an overview of anatomy and physiology of the cardiovascular system including structure, function and electrical conduction in the heart. Covers advanced concepts that build on the knowledge and skills of basic dyshythmia determination and introduction to 12 lead ECG. Lecture 2 hours per week.

EMS 155 - ALS - Medical Care (4credits)
Prerequisites: EMS 151, 153
Continues the Virginia Office of Emergency Medical Services Intermediate and/or Paramedic curricula. Includes ALS pharmacology, drug and fluid administration with emphasis on patient assessment, differential diagnosis and management of multiple medical complaints. Includes, but are not limited to conditions relating to cardiac, diabetic, neurological, non-traumatic abdominal pain, environmental, behavioral, gynecology, and toxicological disease conditions. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

EMS 157 - ALS - Trauma Care (3 credits)
Prerequisites: Current EMT-B certification, EMS 151 and EMS 153
Continues the Virginia Office of Emergency Medical Services Intermediate and/or Paramedic curricula. Utilizes techniques which will allow the student to utilize the assessment findings to formulate a field impression and implement the treatment plan for the trauma patient. Laboratory 2 hours. Total 4 hours per week.

EMS 159 - ALS - Special Populations (3credits)
Prerequisites: EMS 151 and EMS 153; Pre or Co-requisites: EMS 155
Continues the Virginia office of Emergency Medical Services Intermediate and/or Paramedic curricula. Focuses on the assessment and management of specialty patients including obstetrical, pediatric, and neonates. 2 lecture hours; 2 lab hours; 4 Hours per week.

EMS 163 – Pre-hospital Trauma Life Support (PHTLS) (1 credit)
Prerequisites: Current certification/licensure as an EMS provider or other allied healthcare provider: EMS 111 or equivalent
Prepares for certification as a Pre-hospital Trauma Life Support provider as defined by the American College of Surgeons. Lecture 1 hour per week.

EMS 165 - Advanced Cardiac Life Support (ACLS) (1 credit)
Prerequisites: EMS 100, 153 or equivalent
Prepares for certification as an Advanced Cardiac Life provider. Follows course as defined by the American Heart Association. Lecture 1 hour per week.

EMS 167 - Neonatal Resuscitation Program (NRP) (1 credit)
Prerequisite: Current certification/licensure as an advanced EMS provider or other allied healthcare provider.
Provides the student information in current topics in the care of newborn patients to current AAP/American Heart Association- Neonatal Resuscitation Program guidelines. Lecture 1 hour per week.

EMS 168 - Emergency Pediatric Care (PEPP) (1 credit)
Prerequisite: EMS 100 or equivalent
Prepares the student for certification as a pre-hospital pediatric care provider as defined by the American Academy of Pediatrics. Covers primary assessment and emergency care of infants and children. Lecture 1 hour per week.

EMS 169 - Pediatric Advanced Life Support (PALS) (1 credit)
Prerequisites: EMS 100, 153, or equivalent
Prepares the student for certification as a pediatric advanced life support provider as defined by the American Heart Association. Covers primary assessment and emergency care of infants and children. Lecture 1 hour per week.

EMS 170 - ALS Internship I (1-2 credits)
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 3-6 hours per week.

EMS 172 - ALS Clinical Internship II (1-2credits)
Co-requisite: EMS 151
Continues with the second in a series of clinical experiences providing supervised direct patient contact in appropriate patient care facilities in and out of hospitals. Includes but not limited to patient care units such as the Emergency Department, Critical Care units, Pediatric, Labor and Delivery, Operating Room and Trauma Centers. Laboratory 3-6 hours per week.

EMS 173 - ALS Field Internship II (1 credit)
Co-requisite: EMS 151
Continues with the second in a series of field experiences providing supervised direct patient care in out-of-hospital advanced life support units. Laboratory 3 hours per week.

EMS 193 - Studies In RN to Paramedic (4 credits)
Prerequisite: RN Licensure, EMT Basic Certification
Begins preparation for Virginia and National Registry Paramedic certification for registered nurses. InCovers new content not covered in existing courses in the discipline. Allows instructor to explore content and instructional methods to assess the course's viability as a permanent offering. Variable hours per week.

EMS 201 - EMS Professional Development (3 credits)
Prerequisite: EMT/B Certification
The purpose of this course is to prepare the EMS student to use community resources to facilitate personal and community wellness and fulfills the wellness and resource objectives of the Virginia Office of Emergency Medical Services Intermediate curriculum. Lecture 3 hours. Total 3 hours per week.

EMS 205 - Advanced Pathophysiology (4 credits)
Prerequisite: EMT/B Certification
Focuses on the pathological processes of disease with emphasis on the anatomical and physiological alterations of the human body by systems. Includes diagnosis and management appropriate to the advanced health care provider in and out of the hospital environment. Lecture 4 hours. Total 4 hours per week.

EMS 207 - Advanced Patient Assessment (3 credits)
Focuses on the principles of normal and abnormal physical exam. Emphasizes the anlysis and interpretation of physiological data to assist in patient assessment and management. Applies principles during the assessment and management of trauma, medical, and specialty patients in laboratory environment. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

EMS 209 - Advanced Pharmacology (4 credits)
Focuses on the principles of pharmacokinetics, pharmacodynamics and drug administration. Includes drug legislation, techniques of medication administration, and principles of math calculations. Emphasizes drugs used to manage respiratory, cardiac, neurological, gastrointestinal, fluid and electrolyte and endocrine disorders and includes classification, mechanism of action, indications, contraindications, precautions, and patient education. Incorporates principles related to substance abuse and hazardous materials. Applies principles during the assessment and management of trauma, medical, and specialty patients in a laboratory environment. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

EMS 211 - Operations (2 credits)
Prepares the student in the theory and application of the following: medical incident command, rescue awareness and operations, hazardous materials incidents, and crime scene awareness. (Conforms to the current Virginia Office of Emergency Medical Services curriculum for EMT-Paramedics.) Lecture 1 hour. Laboratory 2 hours. Total 3 hours per week.

EMS 213 - ALS Skills Development (1-2 credits)
Utilizes reinforcement and remediation of additional advanced life support skills, as needed. Laboratory 2-4 hours per week.

EMS 215 - Registry Review (1 credit)
Reviews material covered in the intermediate/paramedic program. Prepares the student for National Registry testing. Lecture 1 hour per week.

EMS 240 - ALS Internship II (1 credit)
Continues clinical and/or field 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.

EMS 242 - ALS Clinical Internship III (1-2 credits)

Continues with the third in a series of clinical experiences providing supervised direct patient contact in appropriate patient care facilities in-and-out of hospitals. Includes, but not limited to patient care units such as the Emergency Department, Critical Care units, Pediatric, Labor and Delivery, Operating Room, Trauma Centers and various advanced life support units. Laboratory 3-6 hours per week.

EMS 243 - ALS Field Internship III (1-2 credits)
Continues with the third in a series of field experiences providing supervised direct patient care in out-of-hospital advanced life support units. Laboratory 3-6 hours per week.

EMS 244 - ALS Clinical Internship IV (1-2 credits)
The fourth in a series of clinical experiences providing direct patient contact in appropriate patient care facilities in-and-out of hospitals. Includes, but not limited to patient care units such as the Emergency Department, Critical Care units, Pediatric, Labor and Delivery, Operating Room and Trauma Centers. May be repeated as necessary. Laboratory 3-6 hours per week.

EMS 245 - ALS Field Internship IV (1-2 credits)
Continues with the fourth in a series of field experiences providing supervised direct patient care in out-of-hospital advanced life support units. May be repeated as necessary. Laboratory 3-6 hours per week.

EMS 251 - ALS Required Topics (3 credits)
Reviews material covered in the ALS programs. Covers all category 1 content required for Advanced Life Support recertification. Lecture 3 hours per week.

EMS 253 - ALS Refresher (4 credits)
Reviews material covered in the ALS programs. Meets all required criteria for recertification eligibility. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

EMS 255 - Concepts in Critical Care (5 credits)
Prepares the paramedic or RN to become a critical care specialist, capable of managing the care of a critical care patient both in a hospital setting or during a high risk inter - facility transfer. Includes advanced concepts that build on the knowledge and skills of the paramedic and/or nursing curricula, as well as topics needed to trouble shoot complex monitoring devices and equipment. Includes anatomy and physiology based clinical assessment, advanced airway management to include mechanical ventilators, diagnostics data interpretation, bedside hemodynamic monitoring, 12 lead EKG interpretation and hemodialysis care. Lecture 4 hours. Laboratory 2 hours. Total 6 hours per week.

EMS 290 - Coordinated Internship in RN to P Clinical I (2 credits)
Prerequisite: EMT Basic Certification
Provides supervised direct patient contact in appropriate hospital care facilities and EMS agencies. Includes patient care units such as the Emergency Department, Critical Care units, Pediatric, Labor and Delivery, Operating Room, Trauma Centers and advanced life support units. Laboratory 3 hours.

EMS 293 - Studies In RN to Paramedic II (3 credits)
Prerequisite: RN Licensure, EMT Basic Certification
Continues student preparation for Virginia and National Registry Paramedic certification for registered nurses. Includes the theory and application of the National Paramedic Curriculum. Lecture 2 hours, Laboratory 2 hours, Total 4 hours per week.

EMS 295 - Topics In RN to Paramedic II (2 credits)
Prerequisite: EMT Basic Certification
Provides supervised direct patient contact in appropriate hospital care facilities and EMS agencies. Includes patient care units such as the Emergency Department, Critical Care units, Pediatric, Labor and Delivery, Operating Room, Trauma Centers and advanced life support units. Clinical 3 hours.

Energy Technology

ENE 100 - Conventional and Alternate Energy Applications (4 credits)
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. Prerequisite: ELE 176 or instructor approval.

ENE 110 - Solar Power Installations (4 credits)
Covers wiring, control, conversion, and ties to established power systems. Studies use of invertors, batteries, and charging systems. Prerequisite: ELE 157 or equivalent. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

ENE 120 - Solar Power - Photovoltaic and Thermal (4 credits)
Studies the production and conversion of electrical energy from modular to grid power systems. Covers the storage of energy, thermal solar capture, and storage for residential and commercial applications. Covers energy conversion and storage equipment based on size and efficiency. Prerequisite: ELE 157 or equivalent. Lecture 3 hours. Laboratory 3 hours. 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)
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. Prerequisites: ELE 157 and MTH 115 or equivalents. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

ENE 210 - Fuel Cell Fundamentals (4 credits)
Studies the production of hydrogen and its uses to power fuel cells for the production of electrical power for use in mobile equipment, buildings, and utility systems. Prerequisites: ELE 157 and MTH 115 or equivalents.
Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

ENE 220 - Wind Power Generation (4 credits)
Studies wind turbines, their location, efficiency, and cost. Covers power generation with wind turbines, storage, conversion to established values, use of batteries, invertors, grid tie systems, and all necessary wiring installations. Prerequisite: ELE 157.
Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

ENE 230 - Geothermal Applications (4 credits)
Studies the use of geothermal energy for large and small scale production. Covers the feasibility of heat pump applications for local use on an individual basis. Prerequisite: ELE 157. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

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 120 - Introduction to Engineering (1-2 credits)
Prerequisites: MTH 173, MTH 177
Corequisites: MTH 174
Introduces the engineering profession, professional concepts, ethics, and responsibility. Reviews hand calculators, number systems, and unit conversions. Introduces the personal computer and operating systems. Includes engineering problem solving techniques using computer software. Lecture 0-2 hours. Laboratory 0-3 hours. Total 1-4 hours per week.

EGR 140 Engineering Mechanics—Statics (3 credits)
Prerequisites: MTH 173, MTH 177
Corequisites: MTH 174
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 245 Engineering Mechanics - Dynamics (3 credits)
Prerequisites: EGR 140
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 140
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.

English

ENF 1: Preparing for College English I (8 credits)
Provides integrated reading and writing instruction for students who require extensive preparation to succeed in college-level English courses. Students will place into this course based upon VPT-English test score. Upon successful completion and faculty recommendation, students will move into ENF 3: Preparing for College English (if they require additional preparation) or into college-level English (if they require no additional preparation). Credit is not applicable toward graduation. Lecture 8 hours per week. Contact hours 8. Qualifying placement test score.

ENF 2: Preparing for College English II (4 credits)
Provides integrated reading and writing instruction for students who require intermediate preparation to succeed in college-level English courses. Students will place into this course based upon VPT-English test score. Upon successful completion and faculty recommendation, students will move into ENF 3: Preparing for College English (if they require additional preparation) or into college-level English (if they

require no additional preparation). Credit is not applicable toward graduation. Lecture 4 hours per week. Contact hours 4. Qualifying placement test score.

ENF 3: Preparing for College English III (2 credits)
Provides integrated reading and writing instruction for students who require minimal preparation for college-level English but still need some preparation to succeed. Students in this course will be co-enrolled in college-level English (ENG 111). Students will place into this course based on VPT-English test and faculty recommendation. Credit is not applicable toward graduation. Lecture 2 hours per week. Contact hours 2. Qualifying placement test score. Co-Enrollment in a college-level English course.

ENG 111 - College Composition I (3 Credits)
Prerequisite: VPT English Placement
Introduces students to critical thinking and the fundamentals of academic writing. Through the writing process, students refine topics: develop and support ideas; investigate, evaluate, and incorporate appropriate resources; edit for effective style and usage; and determine appropriate approaches for a variety of contexts, audiences, and purposes. Writing activities will include exposition and argumentation with at least one researched essay. Lecture 3 hours per week. 3 credits.

ENG 112 - College Composition II (3 Credits)
Prerequisite: ENG 111 or its equivalent
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. 3 credits.

ENG 115 Technical Writing (3 credits)
Students must pass VHCC college placement tests in reading and writing before entry into ENG 115.
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.3 credits.

ENG 215 Creative Writing – Fiction I (3 credits)
Introduces the fundamentals and techniques of writing short and long fiction. Part I of II. Lecture 3 hours per week.

ENG 241 - Survey of American Literature I (3 Credits)
Prerequisite: ENG 112 or divisional approval
Examines American literary works from colonial times to the present, emphasizing the ideas and characteristics of our national literature. Involves critical reading and writing. Part I of II. Lecture 3 hours per week. 3 credits.

ENG 242 - Survey of American Literature II (3 Credits)
Prerequisite: ENG 112 or divisional approval
Examines American literary works from colonial times to the present, emphasizing the ideas and characteristics of our national literature. Involves critical reading and writing. Part II of II. Lecture 3 hours per week. 3 credits.

ENG 243 - Survey of English Literature I (3 Credits)
Prerequisite: ENG 112 or divisional approval
Studies major English works from the Anglo-Saxon period to the present, emphasizing ideas and characteristics of the British literary tradition. Involves critical reading and writing. Part I of II. Lecture 3 hours per week. 3 credits.

ENG 244 - Survey of English Literature II (3 Credits)
Prerequisite: ENG 112 or divisional approval
Studies major English works from the Anglo-Saxon period to the present, emphasizing ideas and characteristics of the British literary tradition. Involves critical reading and writing. Part II of II. Lecture 3 hours per week. 3 credits.

ENG 250 Children's Literature (3 credits)
Prerequisite : ENG 112 or 125 (or divisional approval)
Surveys the history, development and genres of children's literature, focusing on analysis of texts for literary qualities and in terms of audience. Lecture hours 3, lab hours 0, total contact hours 3.

ENG 251 - Survey of World Literature I (3 Credits)
Prerequisite ENG 112 or divisional approval
Examines major works of world literature. Involves critical reading and writing. Part I of II. Lecture 3 hours per week. 3 credits.

ENG 252 - Survey of World Literature II (3 Credits)
Prerequisite ENG 112 or divisional approval
Examines major works of world literature. Involves critical reading and writing. Part II of II. Lecture 3 hours per week. 3 credits.

Environmental Science

ENV 148 Water and Wastewater Treatment Computational Operations (1-3 credits)
Studies the application of mathematical operations to the solution of treatment plant problems. Lecture 0-3 hours, Laboratory 0-9 hours, Total 1-9 hours per week.

Financial Services

FIN 110 Principles of Banking (3 credits)
Presents nearly every aspect of banking, providing a comprehensive introduction to the diversified services and operations of the banking industry. Focuses on new trends gaining attention in banking circles. Recommended for all banking students. (AIB Approved). Lecture 3 hours per week.

FIN 125 Law and Banking: Principles (3 credits)
Presents a banker's guide to law and legal issues with special emphasis on the Uniform Commercial Code. Includes summaries of law pertaining to contracts, real estate, and bankruptcy. Highlights legal implications of consumer lending, sources and applications of banking law, torts, and crimes, real and personal property, and a complete glossary of legal terminology related to banking. (AIB Approved). Lecture 3 hours per week.

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.

FIN 256 Marketing for Bankers (3 credits)
Focuses on understanding the basic concepts necessary to successfully market bank products and services. Develops an understanding of the functions of public relations, advertising, sales promotion, selling, and distribution. Highlights customer motivation and buying behavior, the marketing management process and marketing and the wholesale side of banking. (AIB Approved). Lecture 3 hours per week.

Fire Science Technology

FST 100 Principles of Emergency Services (3 credits)
Provides an overview to fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection/service; fire loss analysis; organization and function to public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics. Lecture 3 hours per week.

FST 110 Fire Behavior and Combustion (3 credits)
Explores the theories and fundamentals of how and why fires start, spread, and how they are controlled. Lecture 3 hours per week.

FST 115 Fire Prevention (3 credits)
Provides fundamental information regarding the history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use of fire codes, identification and correction of fire hazards, and the relationships of fire prevention with built-in fire protection systems, fire investigation, and fire and life-safety education. Lecture 3 hours per week.

FST 120 Occupational Safety and Health for the Fire Service (3 credits)
Introduces the basic concepts of occupational health and safety as it relates to emergency service organizations. Includes risk evaluation and control procedures for fire stations, training sites, emergency vehicles, and emergency situations involving fire, EMS, hazardous materials, and technical rescue. (Upon completion of this course, students should be able to establish and manage a safety program in an emergency service organization. Lecture 3 hours per week.

FST 205 Fire Protection Hydraulics and Water Supply (3 credits)
Provides a foundation of theoretical knowledge in order to understand the principles of the use of water in fire protection and to apply hydraulic principles to analyze and to solve water supply problems. Lecture 3 hours per week.

FST 210 Legal Aspects of Fire service (3 credits)
Introduces the Federal, State, and local laws that regulate emergency services, national standards influencing emergency services, standard of care, tort, liability, and a review of relevant court cases. Lecture 3 hours per week.

FST 220 Building Construction for Fire Protection (3 credits)
Provides the components of building construction that relate to fire and life safety. Focuses on firefighter safety. Covers the elements of construction and design of structures and how they are key factors when inspecting buildings, preplanning fire operations, and operating at emergencies. Lecture 3 hours per week.

FST 235 Strategy and Tactics (3 credits)
Provides an in-depth analysis of the principles of fire control through utilization of personnel, equipment, and extinguishing agents on the fire ground. Lecture 3 hours per week.

French

FRE 101 - 102 Beginning French I - II (4 credits/4 credits)
Prerequisite for FRE 102: FRE 101 or division approval
Introduces understanding, speaking, reading, and writing skills and emphasizes basic French sentence structure. Lecture 4-5 hours per week. Includes one additional hour of oral practice per week.

FRE 201 - 202 Intermediate French I - II (3 credits/3 credits)
Prerequisite for FRE 201: FRE 102 or division approval

Prerequisite for FRE 202: FRE 201 or division approval
Continues to develop understanding speaking, reading, and writing skills. French is used in the classroom. Lecture 3-4 hours per week. Includes one additional hour of oral practice per week.

Geography

GEO 210 People and the Land: Intro to Cultural Geography (3 credits)
Focuses on the relationship between culture and geography. Presents a survey of modern demographics, landscape modification, material and nonmaterial culture, language, race and ethnicity, religion, politics and economic activities. Introduces the student to types and uses of maps. Lecture 3 hours per week.

GEO 220 World Regional Geography (3 credits)
Studies physical and cultural characteristics of selected geographical regions of the world. Focuses upon significant problems within each of the regions, and examines the geographical background of those problems. Introduces the student to types and uses of maps. Lecture 3 hours per week.

Geology

GOL 105 Physical Geology (4 credits)
Introduces the composition and structure of the earth and modifying agents and processes. Investigates the formation of minerals and rocks, weathering, erosion, earthquakes, and crustal deformation. Lecture 3 hours per week, 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 225 Environmental Geology (4 credits)
Prerequisite: GOL 105
Explores the interaction between man and his physical environment. Stresses geologic hazards and environmental pollution utilizing case histories.

Health

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 119 First Responder (3 credits)
Provides knowledge and proficiency in basic life support and in actions necessary to minimize patient discomfort and prevention of further complications. Meets requirements for Virginia Certification as a first responder. This course is dually listed under EMT, as 105. It is also listed under the health prefix to allow EMT's business and industry personnel to enroll in a health class to apply toward degree or certificate HLT requirements. Total 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 141 Introduction to Medical Terminology (2 credits)
Focuses on medical terminology for students preparing for careers in the health professions. Lecture 2 hours per week.

HLT 143 - 144 Medical Terminology I - II (3 credits/3credits)
Provides an understanding of medical abbreviations and terms. Includes the study of prefixes, suffixes, word stems and technical terms with emphasis on proper spelling, pronunciation and usage. Emphasizes more complex skills and techniques in understanding medical terminology. Lecture 3 hours per week.

HLT 145 Ethics for Health Care Personnel (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 per week.

HLT 195/295 Topics in (discipline) (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 247 - Health and Safety in Industry Settings (2 credits)

Presents an introduction to occupational health and its application in the workplace. Special emphasis is placed upon communication of health and safety principles to employees. Provides an overview of regulations that apply to health, safety and the environment in the workplace. Lecture 2 hours per week.

Health Care Technology

HCT 101 Health Care Technician I (3- 4 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 3-4 hours per week.

HCT 102 Health Care Technician II (3- 4 credits)
Prerequisite: HCT 101
Applies theory through laboratory experience for health care technicians to word in home health, long and short term facilities. Lecture 1-2 hours. Laboratory 2-6 hours. Total 4- 8 hours per week.

HCT 195 Topics in (discipline) (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.

Health Information Management

HIM 101 - Health Information Technology I (4 credits)
Introduces values, uses and content of the medical record. Defines numbering, filling and retention policies and practices. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week. 4 credits.

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.3 credits.

HIM 114 - Medical Terminology and Diseases Processes II (3 Credits)
Continues the study of prefixes, suffixes, stem words, and technical term; puts emphasis on the causes and treatment of selected disease processes. Part II of II. Lecture 3 hours per week.3 credits.

HIM 130 - Healthcare Information Systems (3 credits)
Teaches basic concepts of microcomputer software (to include operating systems, word processing, spreadsheets, and database applications. Focuses on microcomputer applications and information systems in the Healthcare environment. Provides a working introduction to electronic health information systems for allied health, teaching students how the adoption of electronic health records affects them as future healthcare professionals. Lecture 3 hours per week. 3 credits.

HIM 150 Health Records Management (3 credits)
Presents documentation format and content of the medical record relevant to the coding function. Introduces application of standard techniques for filing, maintenance, and acquisition of health information. Examines the processes of collecting, computing, analyzing, interpreting, and presenting data related to health care services. Includes legal and regulatory guidelines for the control and use of health information data. Lecture 3 hours per week. 3 credits.

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. 2 credits.

HIM 163 - Anatomy and Physiology for Administrative Health Professionals (3 credits)
Prerequisite: Medical Terminology or HLT 143 or HIM 111.
Introduces the structure and function of the systems of the human body as applied by administrative health professionals. Lecture 3 hours per week. 3 credits.

HIM 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 per week. 1-5 credits.

HIM 226 - Legal Aspects of Health Record Documentation (2 credits)
Presents the legal requirements associated with health record documentation. Emphasizes the policies and procedures concerning the protection of the confidentiality of patient's health records. Lecture 2 hours per week. 2 credits.

HIM 233 - Electronic Health Records Management (3 Credits)
Prerequisites: HIM 130 and HIM 230
Studies new trends in management and processing of health information with emphasis on the electronic health record (EHR). Covers the definition, benefits, standards, functionality, confidentiality and security, and impact of the EHR in the healthcare environment. Explores implementation of the EHR including infrastructure required, project management techniques, information technology systems, workflow processes and redesign in various health care settings. Discusses legal issues created by implementation of the EHR. Lecture 3 hours per week.3 credits.

HIM 253 Health Records Coding (3-5 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 3-4 hours per week. 3-5 credits.

HIM 254 Advanced Coding and Reimbursement (3-4 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 3-4 hours per week. 3-4 credits.

HIM 295 – Topics in (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 per week. 1-5 credits.

History

HIS 101 - History of Western Civilization I (3 credits)
Examines the development of western civilization from ancient times to the present. Part I of II. Lecture 3 hours per week.

HIS 102 - History of Western Civilization II (3 credits)
Examines the development of western civilization from ancient times to the present. Part II of II. Lecture 3 hours per week.

HIS 111 - History of World Civilization I (3 credits)
Surveys Asian, African, Latin American, and European civilizations from the ancient period to the present. Part I of II.
Lecture 3 hours per week.

HIS 112 - History of World Civilization II (3 credits)
Surveys Asian, African, Latin American, and European civilizations from the ancient period to the present. Part II of II.
Lecture 3 hours per week.

HIS 121 - United States History I (3 credits)
Surveys United States history from its beginning to the present. Part I of II. Lecture 3 hours per week.

HIS 122 - United States History II (3 credits)
Surveys United States history from its beginning to the present. Part II of II. 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 119 Irrigation Systems for Turf and Ornamentals (3 credits) (Every Other Spring)
Explains why, when, and how irrigation systems are used by the grounds management industry. Includes component selection, system design, installation, operation, and maintenance. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

HRT 120 History of Garden Design (3 credits) (Fall)
Studies the development of gardens as they chronicle the development of civilization. Introduces the periods, in both Europe and North America, beginning with settlement, on through industrial development, land and space utilization to current environmental concerns. Explores physical and cultural influences on garden design and utilization. Lecture 3 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 and co-op advisor approvals.

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 201 - 202 Landscape Plants I - II (3 credits/ 3 credits) (Fall/Spring)
Studies landscape use of plants. Considers ornamental value, growth habit, identification, and limitations. Lecture 2-3 hours. Laboratory 2 hours. Total 4-5 hours per week.

HRT 205 Soils (3 credits) (Spring)

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) (Spring)
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 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 227 Professional Landscape Management (3 credits) (Spring)
Focuses on basic practices and techniques involving landscape management. Includes development of a year-round management calendar and preparation of bid and contract proposals. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

HRT 233 Landscape Drawing Applications (3 credits)
Applies theories of landscape design and drawing to actual design projects and tasks. Emphasizes drawing techniques and use of advanced media in applications. Includes hard line, free-style, and computer-assisted landscape drawing in simple landscape drawing applications. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

HRT 245 - Woody Plants (3 credits)
Studies identification, culture, and uses of woody plants in landscaping. Includes deciduous and evergreen, native and cultivated shrubs, trees and vines. Teaches scientific and common names of plants. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

HRT 246 Herbaceous Plants (2-3 credits)
Studies identification, culture and uses of herbaceous plants in landscaping. Includes perennials, biennials, common bulbs and annuals. Teaches scientific and common names of plants. Lecture 1 – 2 hours. Laboratory 2 hours. Total 3-4 hours per week.

HRT 247 Indoor Plants (3 credits) (Spring)
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 1-2 hours. Laboratory 2 hours. Total 3-4 hours per week.

HRT 259 Arboriculture (3 credits)
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 260 Introduction to Floral Design (3 credits) (Fall)
Teaches skills required for the composition of basic table arrangements. Includes the history of design styles, identification of flowers and green, identification and use of equipment, and conditioning and handling of flowers. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

HRT 269 Professional Turf Care (3 credits) (Fall)
Covers turfgrass identification selection, culture, propagation, and pest control. Surveys commercial turf care operations and use of common equipment. Lecture 2 hours. Laboratory 2 hours. Total 4 hours Per week.

HRT 275 Landscape Construction and Maintenance (3 credits) (Fall)
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 297 Co-op (3 credits)
Requires curriculum advisor and co-op advisor approvals.
Cooperative education in ornamental horticulture. Designed to provide practical work experience for the horticulture student.

Hospitality and Tourism

HRI 140 - Fundamentals of Quality for the Hospitality Industry (3 credits)
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.3 credits

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.3 credits

HRI 195 - Topics In (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. Variable hours.
1-5 credits

HRI 197 - Cooperative Education (2 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

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 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.

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 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.

Humanities

HUM 201- 202 Survey of Western Culture I & II (3 credits/3 credits)
Studies thought, values, and arts of Western culture, integrating major developments in art, architecture, literature, music, and philosophy. Covers the following periods: Ancient and Classical, Early Christian and Byzantine, Medieval, and Early Renaissance. Lecture 3 hours per week.

Industrial Engineering Technology

IND 125 Installation and Preventive Maintenance (3 credits)
Studies practices in the installation of machinery, including mounting, grouting, leveling, and alignment. Examines methods of preventive maintenance including inspection, scheduled maintenance, controls, record keeping, repair parts stocking, and safety considerations. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

IND 137 - Team Concepts & Problem Solving (3 credits)
Studies team concepts and problem solving techniques to assist project teams in improving quality and productivity. Provides knowledge of how to work as a team, plan and conduct good meetings, manage logistics and details, gather useful data, communicate the results and implement changes. Lecture 3 hours per week.

IND 235 Statistical Quality Control (3 credits)
Gives over view of the quality control function within industry. May include the organization, cost and techniques of quality control. Emphasizes essentials and applications of statistics in the quality control function. Lecture 2-3 hours, Laboratory 0-2 hours, Total 3-4 hours per week.

Information Technology Database Processing

ITD 110 Web Page Design I (3-4 credits)
Corequisite: ITE 100 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 3-4 hours per week. 3-4 credits.

ITD 132 Structured Query Language (3-4 credits)
Prerequisite: ITE 100 and ITE 150 or division approval
Incorporates a working introduction to commands, functions and operators used in SQL for extracting data from standard databases. Lecture 3-4 hours per week. 3-4 credits.

ITD 197 Cooperative Education (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. 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. 1-5 credits.

Information Technology Essentials

ITE 100 Introduction to Information Systems (3-4 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 3-4 hours per week. 3-4 credits.

ITE 115 Introduction to Computer Applications and Concepts (3-4 credits)
Recommended prerequisite: keyboarding skills
Covers computer concepts and internet skills, and uses a software suite which includes word processing, spreadsheet, database, and presentation software to demonstrate skills. Recommended prerequisite keyboarding skills. Lecture 3-4 hours per week. 3-4 credits.

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 Spreadsheet Software (3-4 credits)
Covers the use of spreadsheet software to create spreadsheets with formatted cells and cell ranges, control pages, multiple sheets, charts, and macros. Topics include type and edit text in a cell, enter data on multiple worksheets, work with formulas and functions, create charts, pivot tables, and styles, insert headers and footers, and filter data. Lecture 3-4 hours per week. 3-4 credits.

ITE 150 Desktop Database Software (3-4 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 3-4 hours per week. 3-4 credits.

ITE 182 User Support/Help Desk Principles (3-4 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 3-4 hours per week. 3-4 credits.

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. 1-5 credits.

Information Technology Networking

ITN 106 Microcomputer Operating Systems (3-4 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 3-4 hours per week. 3-4 credits.

ITN 107 Personal Computer Hardware and Troubleshooting (3-4 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 3-4 hours per week. 3-4 credits.

ITN 113 - Active Directory (Windows Server 2008) (3-4 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 3-4 hours per week. 3-4 credits.

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 297 Cooperative Education in Networking (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. 1-5 credits.

Information Technology Programming

ITP 100 Software Design (3-4 credits)
Corequisite: ITE 100 and MTH 141 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. 3-4 credits.

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. 3-4 credits.

ITP 132 C++ Programming I (3-4 credits)
Prerequisite: ITP 100 or division approval
Centers instruction in fundamentals of object-oriented programming and design using C++. Emphasizes program construction, algorithm development, coding, debugging, and documentation of C++ applications. Lecture 3-4 hours per week. 3-4 credits.

ITP 140 - Client Side Scripting (3-4 credits)
Provides instruction in fundamentals of Internet application design, development, and deployment using client side scripting language(s). Lecture 3-4 hours per week. 3-4 credits.

ITP 197 Cooperative Education in Programming (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. 1-5 credits.

ITP 220 Java Programming II (3-4 credits)
Prerequisite: ITP 120 or division approval
Imparts instruction in application of advanced object-oriented techniques to application development using Java. Emphasizes database connectivity, inner classes, collection classes, networking, and threads. Lecture 3-4 hours per week. 3-4 credits.

ITP 232 - C++ Programming II (3-4 credits)
Presents in-depth instruction of advanced object-oriented techniques for data structures using C++. Lecture 3-4 hours per week. 3-4 credits.

ITP 240 - Server Side Programming (3-4 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 3-4 hours per week. 3-4 credits.

ITP 251 - Systems Analysis and Design (3-4 credits)
Focuses on application of information technologies (IT) to system life cycle methodology, systems analysis, systems design, and system implementation practices. Covers methodologies related to identification of information requirements, feasibility in the areas of economic, technical and social requirements, and related issues are included in course content. Software applications may be used to enhance student skills. Lecture 3-4 hours per week. 3-4 credits.

ITP 258 - Systems Development Project (3-4 credits)
Provides instruction in application of life cycle system development methodologies using a case study which incorporates feasibility study system analysis, system design, program specification, and implementation planning. Course project assignment(s) will have students perform as members of system development teams. Lecture 3-4 hours per week. 3-4 credits.

ITP 297 Cooperative Education in Programming (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. 1-5 credits.

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 215 Torts (3 credits)
Studies fundamental principles of the law of torts. May include preparation and use of pleadings and other documents involved in the trial of a civil action. Emphasizes personal injury, products liability, and malpractice cases. Lecture 3 hours per week.

Machine Technology

MAC 106 Machine Shop Operations (8 credits)
Introduces bench work, sawing, drilling, lathe, milling, grinding, precision instruments, and safety. Requires solutions of related problems and preparation of weekly laboratory reports. Variable lecture/laboratory hours per week.

MAC 107 Machine Shop Practices (8 credits)
Offers practice in bench work, sawing, drilling, lathe, milling, grinding, and precision measuring instruments. May require solutions or related problems and preparation of weekly laboratory reports. Variable lecture/laboratory hours per week.

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 (2-3 credits/2-3 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 1-2 hours, Laboratory 2-3 hours, Total 3-5 hours per week.

MAC 123 Numerical Control III (2-3 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 1-2 hours, Laboratory 2-3 hours, Total 3-5 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 131 - 132 Machine Lab I - II (2 credits/2 credits)
Teaches fundamental machine shop operations, bench work, layout, measuring tools, and safety. Lecture 1 hour, Laboratory 3 hours, Total 4 hours per week.

MAC 146 Metals/Heat Treatment (2 credits)
Provides approach to metals and their structure. Gives working knowledge of methods of treating ferrous and non-ferrous metals. Lecture 1 hour, Laboratory 3 hours, Total 4 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 151 - Machine Tool Maintenance (2 credits)
Introduces tool design from a maintenance and repair standpoint. Emphasizes proper care, repair, and preventative maintenance of machine tools. Lecture 1 hour. Laboratory 3 hours. 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 2-3 hours. Total 4-5 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 2-3 hours. Total 4-5 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 (2-3 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 2-3 hours per week.

MAC 241 - 242 Advanced Machinery Procedures I - II (3 credits/3 credits)
Prerequisite : MAC 106, 107
Focuses on machining principles and calculations necessary for the precision required by the machinist. Emphasizes advanced lathe and mill work with concentration on fits, finishes, inspections and quality control. CNC Programming and operation, included conversational programming, may be emphasized. Teaches design and construction of specific projects to determine the student's operational knowledge of all equipment. Lecture 2 hours, Laboratory 3 hours, Total 5 hours per week.

MAC 250 Advanced Computer Aided Manufacturing (2-3 credits)
Prerequisite: MAC 121, 122, 150
Focuses on advanced computer aided manufacturing with emphasis on CAD-CAM interfacing, advanced 3-D, and advanced turning. Introduces quality control inspection using coordinate measuring systems, statistical process controls and digitizers. Teaches basic and advanced fabrication programming and flexible manufacturing systems.

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 and co-op advisor approvals.
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 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 100 Principles of Marketing (3 credits)
Presents principles, methods, and problems involved in marketing to consumers and organizational buyers. Discusses problems and policies connected with distribution and sale of products, pricing, promotion, and buyer motivation. Examines variations of marketing research, legal, social, ethical, e-commerce, and international considerations in marketing. Lecture 3 hours per week. 3 credits.

Math Essentials

MTE 1 - Operations with Positive Fractions (1 credit)
Prerequisite: Qualifying placement score
Includes operations and problem solving with proper fractions, improper fractions, and mixed numbers without the use of a calculator. Emphasizes applications and includes U. S. customary units of measure. Credit is not applicable toward graduation. Lecture 1 hour per week.

MTE 2 - Operations with Positive Decimals and Percents (1 credit)
Prerequisite: MTE 1 or qualifying placement score
Includes operations and problem solving with positive decimals and percents. Emphasizes applications and includes U. S. customary and metric units of measure. Credit is not applicable toward graduation. Prerequisite(s): MTE 1 or qualifying placement score. Lecture 1 hour per week.

MTE 3 - Algebra Basics (1 credit)
Prerequisite: MTE 2 or qualifying placement score
Includes basic operations with algebraic expressions and solving simple algebraic equations using signed numbers with emphasis on applications. Credit is not applicable toward graduation. Lecture 1 hour per week.

MTE 4 - First Degree Equations and Inequalities in One Variable (1 credit)
Prerequisite(s): MTE 3 or qualifying placement score.
Includes solving first degree equations and inequalities containing one variable, and using them to solve application problems. Emphasizes applications and problem solving. Credit is not applicable toward graduation. Lecture 1 hour per week.

MTE 5 - Linear Equations, Inequalities and Systems of Linear Equations in Two Variables (1 credit)
Prerequisite(s): MTE 4 or qualifying placement score.
Includes finding the equation of a line, graphing linear equations and inequalities in two variables and solving systems of two linear equations. Emphasizes writing and graphing equations using the slope of the line and points on the line, and applications. Credit is not applicable toward graduation. Lecture 1 hour per week.

MTE 6 - Exponents, Factoring and Polynomial Equations (1 credit)

Prerequisite(s): MTE 5 or qualifying placement score.
The student will learn to perform operations on exponential expressions and polynomials. Students will also learn techniques to factor polynomials and use these techniques to solve polynomial equations. Emphasis should be on learning all the different factoring methods, and solving application problems using polynomial equations. Credit is not applicable toward graduation. Lecture 1 hour per week.

MTE 7 - Rational Expressions and Equations (1 credit)
Prerequisite(s): MTE 6 or qualifying placement score.
Includes simplifying rational algebraic expressions, solving rational algebraic equations and solving applications that use rational algebraic equations. Credit is not applicable toward graduation. Lecture 1 hour per week.

MTE 8 - Rational Exponents and Radicals (1 credit)
Prerequisite(s): MTE 7 or qualifying placement score.
Includes simplifying radical expressions, using rational exponents, solving radical equations and solving applications using radical equations. Credit is not applicable toward graduation. Lecture 1 hour per week.

MTE 9 - Functions, Quadratic Equations and Parabolas (1 credit)
Prerequisite(s): MTE 8 or qualifying placement score.
Includes an introduction to functions in ordered pair, graph, and equation form. Also introduces quadratic functions, their properties and their graphs. Credit is not applicable toward graduation. Lecture 1 hour per week.

Mathematics

MTH 06 Developmental Geometry (1-5 credits)
Prerequisites: Placement recommendation for MTH 06 and Algebra I or equivalent.
Covers topics in Euclidean geometry including similarity and congruency, plane and solid figures, right triangles, parallel and perpendicular lines, constructions, and applications. Develops the mathematical proficiency necessary for selected curriculum entrance. Credits not applicable toward graduation. Variable hours per week.

MTH 103 - 104 Applied Technical Mathematics I - II (3 credits/3 credits)
Prerequisite: Placement recommendation for MTH 103 or completion of MTE 1 – MTE 3 or equivalent
Presents a review of arithmetic, elements of algebra, geometry, and trigonometry. Directs applications to specialty areas. Prerequisites: a placement recommendation for MTH 103 and one unit of high school mathematics or equivalent. Lecture 3 hours per week.

MTH 115-116 Technical Mathematics I - II (3 credits)
Prerequisites: Placement recommendation for MTH 115 or completion of MTE 1 – MTE 6 or equivalent
Presents algebra through exponential and logarithmic functions, trigonometry, vectors, analytic geometry, and complex numbers. Lecture 3 hours per week.

MTH 126 Mathematics for Allied Health (2-3 credits)
Prerequisites: Placement recommendation for MTH 126 or completion of MTE 1 – MTE 4 or equivalent
Presents scientific notation, precision and accuracy, decimals and percents, ratio and proportion, variation, simple equations, techniques of graphing, use of charts and tables, logarithms, and the metric system. Lecture 2-3 hours per week.

MTH 141 Business Mathematics I (3 credits)
Prerequisites: Placement recommendation for MTH 141 or completion of MTE 1 – MTE 3 or equivalent
Provides instruction, review, and drill in percentages, cash and trade discounts, markup, payroll, sales, property and other taxes, simple and compound interest, bank discounts, loans, investments, and annuities. Lecture 3 hours per week.

MTH 146 Introduction to Elementary Statistics (3 credits)
Prerequisites: Placement recommendation for MTH 146 or completion of MTE 1 – MTE 5 or equivalent
Introduces the methods of statistics including sampling from normally distributed populations, estimation, regression, testing of hypotheses, and point and interval estimation methods. Lecture 3 hours per week.

MTH 151 Mathematics for the Liberal Arts I (3 credits)
Prerequisites: Placement recommendation for MTH 151 or completion of MTE 1 – MTE 5 or equivalent
Presents topics in sets, logic, numeration systems, geometric systems, and elementary computer concepts. Lecture 3 hours per week.

MTH 152 Mathematics for the Liberal Arts II (3 credits)
Prerequisites: Placement recommendation for MTH 152 or completion of MTE 1 – MTE 5 or equivalent
Presents topics in functions, combinatorics, probability, statistics and algebraic systems. Lecture 3 hours per week.

MTH 158 College Algebra (3 credits)
Prerequisites: Placement recommendation for MTH 158 or completion of MTE 1 – MTE 9 or equivalent
Covers the structure of complex number systems, polynomials, rational expressions, graphing, systems of equations and inequalities and functions, quadratic and rational equations and inequalities. Lecture 3 hours per week.

MTH 163 Precalculus I (3 credits)
Prerequisites: a placement recommendation for MTH 163 or completion of MTE 1 - MTE 9 or equivalent
Presents college algebra, matrices, and algebraic, exponential, and logarithmic functions. (Credit will not be awarded for MTH 163 and MTH 166.) Lecture 3 hours per week.

MTH 164 Precalculus II (3 credits)
Prerequisite: MTH 163 or equivalent
Presents trigonometry, analytic geometry, and sequences and series. (Credit will not be awarded for both MTH 164 and MTH 168.) Lecture 3 hours per week.

MTH 173 Calculus with Analytic Geometry I (4- 5 credits)
Prerequisites: Placement recommendation for MTH 173 and completion of MTH 164 or equivalent
Presents analytic geometry and the calculus of algebraic and transcendental functions including the study of limits, derivatives, differentials, and introduction to integration along with their applications. Designed for mathematical, physical and engineering science programs. (Credit will not be awarded for more than one of MTH 173, MTH 175, or MTH 273.) Lecture 4-5 hours per week.

MTH 174 Calculus with Analytic Geometry II (4- 5 credits)
Prerequisite: MTH 173 or equivalent
Continues the study of analytic geometry and the calculus of algebraic and transcendental functions including rectangular, polar, and parametric graphing, indefinite and definite integrals, methods of integration, and power series along with applications. Designed for mathematical, physical, and engineering science programs. (Credit will not be awarded for more than one of MTH 174, MTH 176 or MTH 274.) Lecture 4-5 hours per week.

MTH 177 - Introductory Linear Algebra (2 credits)
Covers matrices, vector spaces, determinants, solutions of systems of linear equations, and eigen values. Designed for mathematical, physical, and engineering science programs. Corequisite: MTH 175. Lecture 2 hours per week.

MTH 241 Statistics I (3 credits)
Prerequisites: Placement recommendation for MTH 241 or completion of MTE 1 – MTE 9 or equivalent.
Covers descriptive statistics, elementary probability, probability distributions, estimation, and hypothesis testing. (Credit will not be awarded for both MTH 240 and MTH 241.) Lecture 3 hours per week.

MTH 242 Statistics II (3 credits)
Prerequisite: MTN 241 or equivalent
Continues the study of estimation and hypothesis testing with emphasis on correlation and regression, analysis of variance, chi-square tests, and non-parametric methods. Lecture 3 hours per week.

MTH 243 Probability and Statistics I (3 credits)
Prerequisite: MTH 174 or equivalent
Uses calculus to develop the theory of probability and statistics including discrete and continuous distribution theory, Poisson processes, moment generating functions, central limit theorem, hypothesis testing and estimation. Designed for mathematical, physical, and engineering science programs. Lecture 3 hours per week.

MTH 271 Applied Calculus I (3 credits)
Prerequisite: Placement recommendation for MTH 271 and completion of MTH 163 or equivalent
Presents limits, continuity, differentiation of algebraic and transcendental functions with applications, and an introduction to integration. (Credit will not be awarded for both MTH 270 and MTH 271.) Lecture 3 hours per week.

MTH 272 Applied Calculus II (3 credits)
Prerequisite: MTH 271 or equivalent
Covers techniques of integration, multivariable calculus, and an introduction to differential equations. Lecture 3 hours per week.

MTH 275 Multivariable Calculus and Linear Algebra (4 credits)
Prerequisite: MTH 174 or equivalent
Presents vector valued functions, partial derivatives, multiple integrals, matrices, vector spaces, determinants, solutions of systems of linear equations, basis and dimension, eigenvalues, and eigenvectors. Designed for mathematical, physical, and engineering science programs. Lecture 4 hours per week.

MTH 277 Vector Calculus (4 credits)
Prerequisite: MTH 174 or equivalent
Presents vector valued functions, partial derivatives, multiple integrals, and topics from the calculus of vectors. Designed for mathematical, physical, and engineering science programs. Lecture 4 hours per week.

MTH 279 Ordinary Differential Equations (4 credits)
Prerequisite: MTH 174 or equivalent
Introduces ordinary differential equations. Includes first order differential equations, second and higher order ordinary differential equations with application. Designed for mathematical, physical, and engineering science programs. Lecture 4 hours per week.

MTH 285 Linear Algebra (3 credits)
Prerequisite: MTH 174 or equivalent
Covers matrices, vector spaces, determinants, solutions of systems of linear equations, basis and dimension, eigenvalues, and eigenvectors. Designed for mathematical, physical, and engineering science programs. Lecture 3 hours per week.

MTH 286 Discrete Mathematics (4 credits)
Prerequisite: MTH 174 or equivalent

Presents topics in discrete mathematical structures which are basic tools used in computer science. Covers sets, Boolean algebra, counting methods, generating functions and recurrence relations, graph theory, trees, and an introduction to finite state automata. Designed for mathematical, physical, and engineering science programs. Lecture 4 hours per week.

Mechanical Engineering Technology

MEC 101 - 102 Introduction to Engineering Technology I - II (2 credits/2 credits)
Introduces engineering technology. Provides historical background. Covers such topics as professional ethics; problem solving techniques involving forces, structures, materials, fluids, energy, and electricity and U.S. customary and S.I. units, and unit conversions. Lecture 2 hours per week.

MEC 112 Processes of Industry (3 credits)
Analyzes the processes of manufacturing products from materials for industry/engineering. Includes machining, casting, forming, molding, hot/cold working, chipless machining, and welding. Addresses quality assurance and inspection procedures. Lecture 3 hours per week.

MEC 126 Computer Programming for Technologist (2-3 credits)
Introduces computer software programming. Covers programming for the microcomputer using high level languages such as BASIC, FORTRAN, C. PASCAL. Teaches computer solutions of mathematical problems in applications such as circuit analysis and static equilibrium. Lecture 1-2 hours, Laboratory 0-2 hours, Total 2-4 hours per week.

MEC 161 Basic Fluid Mechanics-Hydraulics/Pneumatics (3-4 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 Bernouli's equation. Lecture 2-3 hours, Laboratory 2-3 hours, Total 4-6 hours per week.

MEC 205 - Piping and Auxiliary Systems (3 credits)
Studies threaded pipe, welded pipe, isometric pipe sketching and layout, gaskets, packing, industrial hoses and tubing, basic steam system operations, automatic and manual valves, and positive displacement pumps. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

Medical Assisting

MDA 100 - Introduction to Medical Assisting (1-2 credits)
Introduces the student to the medical practice environment. Stresses the responsibilities of the humanistic approach in the rendering of health care. Lecture 1-2 hours per week.

MDA 101 - Medical Assistant Science I (4-5 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 4-5 hours. Laboratory 2 hours. Total 6-7 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 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.

Music

MUS 121 - Music Appreciation I (3 Credits)
Increases the variety and depth of the student's interest, knowledge, and involvement in music and related cultural activities. Acquaints the student with traditional and twentieth century music literature, emphasizing the relationship music has as an art form with man and society. Increases the student's awareness of the composers and performers of all eras through listening and concert experiences. Part I of II. Lecture 3 hours per week. 3 credits.

MUS 122 - Music Appreciation II (3 Credits)
Increases the variety and depth of the student's interest, knowledge, and involvement in music and related cultural activities. Acquaints the student with traditional and twentieth century music literature, emphasizing the relationship music has as an art form with man and society. Increases the student's awareness of the composers and performers of all eras through listening and concert experiences. Part II of II. Lecture 3 hours per week. 3 credits.

MUS 131 - Class Voice I (2 Credits)
Introduces the many aspects of singing from the physical act through the aesthetic experience. The course is designed for the beginning singer who desires vocal improvement, and for the voice major as an addition to and extension of skills and knowledge necessary for artistic development. Introduces appropriate repertoire. Part I of II. Lecture 1 hour. Laboratory 2 hours. Total 3 hours per week. 2 credits.

MUS 132 - Class Voice II (2 Credits)
Introduces the many aspects of singing from the physical act through the aesthetic experience. The course is designed for the beginning singer who desires vocal improvement, and for the voice major as an addition to and extension of skills and knowledge necessary for artistic development. Introduces appropriate repertoire. Part II of II. Lecture 1 hour. Laboratory 2 hours. Total 3 hours per week. 2 credits.

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 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 per week. 3 credits

MUS 163 - Guitar Theory and Practice I (3 Credits)
Studies the fundamentals of sound production, music theory, and harmony as they apply to guitar. Builds proficiency in both the techniques of playing the guitar and in the application of music fundamentals to these techniques. Presents different types of guitars and related instruments. Emphasizes music as entertainment and as a communication skill. Part I of II. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week. 3 credits.

MUS 164 - Guitar Theory and Practice II (3 Credits)
Studies the fundamentals of sound production, music theory, and harmony as they apply to guitar. Builds proficiency in both the techniques of playing the guitar and in the application of music fundamentals to these techniques. Presents different types of guitars and related instruments. Emphasizes music as entertainment and as a communication skill. Part II of II. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week. 3 credits.

MUS 185 Applied Music - Percussion (1-2 credits)
Teaches fundamentals of percussion instruments. Studies the standard repertoire. Prerequisite divisional permission. 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. 1-2 half-hour lessons per week, 4-8 hours practice (laboratory) required. Laboratory 4-8 hours per week. 1-2 credits.

MUS 231 - Advanced Class Voice I (2 Credits)
Continues MUS 131-132. Continues the expansion of appropriate vocal repertoire. Part I of II. Lecture 1 hour. Laboratory 2 hours. Total 3 hours per week. 2 credits.

MUS 232 - Advanced Class Voice II (2 Credits)
Continues MUS131-132.Continues the expansion of appropriate vocal repertoire. Part II of II. Lecture 1 hour. Laboratory 2 hours. Total 3 hours per week. 2 credits.

MUS 249 – Band Ensemble (1-2 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 149.

MUS 285 - Advanced Applied Music - Percussion (1-2 credits)
Continues Applied Music - Percussion MUS 185. 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. Laboratory 1-2 hours per week.& MUS 286 PERCUSSION ENSEMBLE (1 CR.) Continues Percussion Ensemble MUS 186. Courses in ensemble consist of performance from the standard repertoires, including study of ensemble techniques and interpretation. Divisional approval required. May be repeated for credit. Laboratory 4-8 hours per week.1-2 credits.

MUS 295 - Topics In (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.

Natural Science

NAS 131 Astronomy I (4 credits)
Studies the major and minor bodies of the solar system, stars and nebulae of the milky way, and extragalactic objects. Examines life and death of stars, origin of the universe, history of astronomy, and instruments and techniques of observation. Part I of II. Lecture 3 hours per week. Recitation and laboratory 3 hours per week. Total 6 hours per week.

NAS 132 Astronomy II (4 credits)
Studies the major and minor bodies of the solar system, stars and nebulae of the milky way, and extragalactic objects. Examines life and death of stars, origin of the universe, history of astronomy, and instruments and techniques of observation. Part II of II. Lecture 3 hours per week. Recitation and laboratory 3 hours per week. Total 6 hours per week.

Nursing

NUR 105 - Nursing Skills (2–3 credits)

Prerequisites: Acceptance to the Nursing Program, MTH 126, ITE 100 or ITE 115, ENG 111, SDV

Develops nursing skills for the basic needs of individuals and introduces related theory. Includes assessment, personal care, activity/rest, sterile technique, wound care, ostomy care, catheterization, oxygen administration, infection control, suctioning and medication administration. Provides supervised learning experiences in college nursing laboratories and/or cooperating agencies. Lecture 0-2 hours. Laboratory 2-9 hours. Total 4-9 hours per week

NUR 108 - Nursing Principles and Concepts I (5 – 6 credits)

Prerequisites: Acceptance to the Nursing Program, MTH 126, ITE 100 or ITE 115, ENG 111, SDV

Introduces principles of nursing, health and wellness concepts, and the nursing process. Identifies nursing strategies to meet the multidimensional needs of individuals. Includes math computational skills, basic computer instruction related to the delivery of nursing care, introduction to the profession of nursing, nursing process, documentation; basic needs related to integumentary system, teaching/learning, stress, psychosocial, safety, nourishment, elimination, oxygenation, circulation, rest, comfort, sensory, fluid and electrolyte and mobility needs in adult clients. Also includes care of the pre/post operative client. Provides supervised learning experience in college nursing laboratories and/or cooperating agencies. Lecture 1-5 hours. Laboratory 2-15 hours. Total 7-16 hours per week

NUR 109 - Nursing Principles and Concepts II (5-6 credits)

Prequisistes: NUR 105, NUR 108,NUR 136; MTH 126; ITE 100 or ITE 115, BIO 141

Focuses on nursing care of individuals and/or families experiencing alterations in health. Includes math computational skills, basic computer instruction related to the delivery of nursing care; immunological, gastrointestinal, musculoskeletal, oncological and diabetic disorders and pre/post operative care in adult and pediatric clients. Provides supervised learning experiences in college nursing laboratories and/or cooperating agencies. Lecture 1-5 hours. Laboratory 2-15 hours. Total 7-16 hours per week.

NUR 115 - LPN Transition (2-7 credits)

Prequisites: Acceptance to the LPN to RN program, BIO 141, BIO 142, MTH 126, ITE 100 or ITE 115, ENG 111, SDV

Introduces the role of the registered nurse through concepts and skill development in the discipline of professional nursing. This course serves as a bridge course for licensed practical nurses and is based upon individualized articulation agreements, mobility exams, or other assessment criteria as they relate to local programs and service areas. Includes math computational skills and basic computer instruction related to the delivery of nursing care. (THIS COURSE HAS BEEN APPROVED BY THE VICE CHANCELLOR AS AN EXCEPTION TO THE VARIABLE CREDIT POLICY.) Lecture 1-7 hours. Laboratory 0-18 hours. Total 2-19 hours per week

NUR 136 - Principles of Pharmacology I (1-2 credits)

Prequisites: acceptance to the Nursing Program, MTH 126, ITE 100 or ITE 115, ENG 111, SDV

Focuses on principles of medication administration which include dosage calculations, major drug classifications, drug legislation, legal aspects of medication administration, drug action on speicific body systems, and basic computer applications. Lecture 1-2 hours per week.

NUR 137 - Principles of Pharmacology II (1-2 credits)

Prerequisite: NUR 136

Continues discussion on principles of medication administration which include dosage calculations, major drug classifications, drug legislation, legal aspects of medication administration, drug action on specific body systems, and basic computer applications. Lecture 1-2 hours per week.

NUR 195 Topics in Geriatric Nursing (1-5 credits)

Prerequisites: Acceptance to Nursing Program; MTH126, ITE 100 or ITE 115, ENG 111, SDV

Presents theoretical and clinical nursing aspects of the aging population. Includes the aging process, psychological aspects, common age-related disorders, pharmacologic aspects, care facilities, and relationships between elders and caregivers. Variable hours.

NUR 201 - Psychiatric Nursing (3-4 credits)

Prerequisites: NUR 109, or NUR 115, NUR 137,NUR 226, PSY 231

Focuses on the care of individuals/families requiring clinical treatment. Uses all components of the nursing process with increasing degrees of skill. Includes math computational skills and basic computer instruction related to the delivery of nursing care, alterations in behavior, eating disorders, mood disorders, anxiety, chemical dependency and dementias. Provides supervised learning experiences in college nursing laboratories and/or cooperating agencies. Lecture 1-3 hours. Laboratory 2-9 hours. Total 5-10 hours per week.

NUR 205 - Introduction to Second Level Nursing (5-6 credits)

Prerequisites: NUR 109 or NUR 115, NUR 137,NUR 226; BIO 142, PSY 231

Focuses on principles and concepts of nursing care for individuals, families, and/or groups in the community and hospital setting. Focuses on health team membership and various nursing care delivery systems. Includes math computational skills, basic computer instruction related to the delivery of nursing care; endocrine, renal, cardiovascular and immunological disorders in school and home health settings. Provides supervised learning experiences in cooperating agencies. Lecture 1-5 hours. Laboratory 2-15 hours. Total 7-16 hours per week.

NUR 208 - Acute Medical-Surgical Nursing (5-6 credits)

Prerequisites: NUR 201, NUR 205, NUR 236, PSY 232

Focuses on the use of nursing process to provide care to individuals/families with acute medical or surgical problems or to prevent such problems. Includes math computational skills and basic computer instruction related to the delivery of nursing care. Provides supervised learning experiences in cooperating agencies. Lecture 1-5 hours. Laboratory 2-15 hours. Total 7-16 hours per week.

NUR 226 - Health Assessment (2-3 credits)

Prerequisites: Acceptance to the Nursing Program, MTH 126, ITE 100 or ITE 115, ENG 111, SDV

Introduces the systematic approach to obtaining a health history and performing a physical assessment. Lecture 0-2 hours. Laboratory 2-9 hours. Total 3-9 hours per week.

NUR 236 - Principles of Pharmacology III-IV (1-2 credits)

Prerequisites NUR 109, NUR 137, NUR 226

Teaches principles of medication and administration which include dosage calculations, major drug classifications, drug legislation, legal aspects of medication administration, and drug action on specific body systems. Part I of II. Lecture 1-2 hours per week.

NUR 237 - Principles of Pharmacology III-IV (1-2 credits)

Prerequisites: NUR 236, NUR 201 and NUR 205

Teaches principles of medication and administration which include dosage calculations, major drug classifications, drug legislation, legal aspects of medication administration, and drug action on specific body systems. Part II of II. Lecture 1-2 hours per week.

NUR 245 - Maternal/Newborn Nursing (3-4 credits)

Prerequisites: NUR 201, NUR 205, NUR 236, PSY 232

Develops nursing skills in caring for families in the antepartum, intrapartum, and post-partum periods. Lecture 1-3 hours. Laboratory 0-9 hours. Total 3-9 hours per week.

NUR 254 - Dimensions of Professional Nursing (1-2 credits)

Prerequisites: NUR 201, NUR 205,NUR 236, PSY 232

Explores the role of the professional nurse. Emphasizes nursing organizations, legal and ethical implications, and addresses trends in management and organizational skills. Explores group dynamics, relationships, conflicts, and leadership styles. Lecture 1-2 hours per week.

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. Lecture 3 hours per week.

PHI 260 Studies in Eastern Thinking (3 credits)
Introduces an in-depth study of the East through a variety of approaches which include music, literature, drama and cinema. Places special emphasis on Chinese and Japanese philosophy and religion, especially Buddhism. Lecture 3 hours per week.

Physical Education and Recreation

PED 101 - 102 Fundamentals of Physical Activity I - II (1-2 credits/1-2 credits)
Presents principles underlying the components of physical fitness. Utilizes conditioning activities involving cardiovascular strength, and flexibility. May include fitness assessment, nutrition and weight control information, and concepts of wellness. Variable hours per week.

PED 103 - 104 Aerobics Fitness I - II (1-2 credits/1-2 credits)
Develops cardiovascular fitness through activities designed to elevate and sustain heart rates appropriate to age and physical condition. Variable hours per week.

PED 109 - Yoga (1-2 credits)
Focuses on the forms of yoga training emphasizing flexibility. Lecture 0-1 hours. Laboratory 2-4 hours. Total 2-4 hours per week.

PED 111 - 112 Weight Training I - II (1-2 credits/1-2 credits)
Focuses on muscular strength and endurance training through individualized workout programs. Teaches appropriate use of weight training equipment. Variable hours per week.

PED 113 - 114 Lifetime Activities I - II (1-2 credits/1-2 credits)
Presents lifetime sports and activities. Teaches skills and methods of lifetime sports and activities appropriate to the local season and facilities available. Variable hours per week.

PED 117 - Fitness Walking (1 credit)
Teaches content and skills needed to design, implement, and evaluate an individualized program of walking, based upon fitness level. Laboratory 2 hours per week.

PED 127 Cycling (1-2 credits)
Introduces cycling techniques, equipment, selection, care and maintenance, safety, and physical conditioning. Lecture 1-2 hours. Laboratory 0-2 hours. Total 1-3 hours per week.

PED 129 Self-Defense (1-2 credits)
Examines history, techniques, and movements associated with self-defense. Introduces the skills and methods of self-defense emphasizing mental and physical discipline. Lecture 1-2 hours, Laboratory 0-2 hours, Total 1-3 hours per week.

PED 130 Motorcycle Rider Safety - Beginner (2 credits)
Studies principles and basic skills of motorcycle riding with an emphasis on safety. Includes street strategies, protective gear, selection and care/maintenance of motorcycles, and supervised classroom and riding practice. Motorcycles provided. Lecture 1 hour, Laboratory 2 hours.

PED 135 - 136 Bowling I - II (1-2 credits/1-2 credits)
Teaches basic bowling skills and techniques, scoring, rules, etiquette, and terminology. Variable hours per week.

PED 137-138 Martial Arts (1-2 credits/1-2 credits)
Emphasizes forms, styles, and techniques of body control, physical and mental disciplines, and physical fitness. Presents a brief history of development of martial arts theory and practice. Lecture 1-2 hours, Laboratory 1-2 hours, Total 1-3 hours per week.

PED 141 - 142 Swimming I - II (1-2 credits/1-2 credits)
Introduces skills and methods of swimming strokes. Focuses on safety and physical conditioning. Variable hours per week.

PED 143 Lifeguard Training (2-3 credits)
Teaches lifeguarding skills with emphasis on open water rescue, theory, personnel management and safety. Prerequisites American Red Cross Certification on each Advanced Lifesaving, COR, and First Aid. Lecture 1-2 hours, Laboratory 1-2 hours, Total 2-3 hours per week.

PED 148 Snowboarding (1 credit)
Teaches the basic skills of snowboarding, selection and use of equipment, terminology and safety rules. Laboratory 2 hours per week.

PED 160 Modern Dance (1-2 credits)
Teaches the basic techniques of creative dance. Skills include self-expression, contemporary routines, dance forms, and basic choreography. Variable hours per week.

PED 163 - Jazz I (1-2 credits)
Introduces dance through contemporary jazz movements. Includes floor stretches, isolations, dance patterns and locomotor movements. Part I of II. Lecture 0-1hours. Laboratory 2-4 hours. Total 2-4 hours per week.

PED 164 - Jazz II (1-2 credits)
Introduces dance through contemporary jazz movements. Includes floor stretches, isolations, dance patterns and locomotor movements. Part II of II. Lecture 0-1 hours. Laboratory 2-4 hours. Total 2-4 hours per week.

PED 171 - 172 Ballroom Dance I - II (1-2 credits/1-2 credits)
Presents the basic step patterns, rhythmic patterns, and positions in ballroom dance. Includes techniques based upon traditional steps with basic choreographic patterns. Variable hours per week.

PED 187 Backpacking (1-2 credits)
Focuses on the preparation for backpacking trip, equipment and clothing selection, personal and group safety, ecology, and physical conditioning. Includes field experience. Variable hours per week.

PED 245 Advanced Lifesaving (2 credits)
Prerequisite: Strong swimming skills
Introduces basic swimming and non-swimming rescues, swimming approaches and carries, water survival, first aid and safety. Focuses on preparations for the American Red Cross Advanced Lifesaving Certificate. Lecture 1 hour, Laboratory 2 hours, Total 3 hours per week.

PED 246 Water Safety Instructor (2 credits)
Prerequisite: PED 245
Presents skill in water safety and teaching techniques. Focuses on American Red Cross Certification to teach swimming, lifesaving, rescue and water safety. Lecture 1 hour, Laboratory 2 hours, Total 3 hours per week.

Physics

PHY 121 - 122 Principles of Physics I - II (4 credits/4 credits)
Prerequisite for PHY 122: PHY 121
Covers fundamental principles of physics. Includes mechanics, thermodynamics, wave phenomena, electricity and magnetism, and selected topics from modern physics. Prerequisite 2 units of high school algebra and one unit of high school geometry or equivalent. Lecture 3 hours, Laboratory 3 hours, Total 6 hours per week.

PHY 201 - 202 General College Physics I - II (4 credits/4 credits)
Prerequisite: MTH 163 or equivalent
Prerequisite for PHY 202: PHY 201
Teaches fundamental principles of physics. Covers mechanics, thermodynamics, wave phenomena, electricity and magnetism, and selected topics in modern physics. Lecture 3 hours per week, Laboratory 3 hours per week, Total 6 hours per week.

PHY 231 - 232 General University Physics I - II (5 credits/5 credits)
Prerequisite for PHY 231: MTH 173 or MTH 273 or division approval
Prerequisite for PHY 232: PHY 231, MTH 174 or MTH 274 or division approval
Teaches principles of classical and modern physics. Includes mechanics, wave phenomena, heat, electricity, magnetism, relativity, solid state, quantum physics, and nuclear physics. Includes extended coverage of selected topics. Lecture 4 hours, Laboratory 2 hours, Total 6 hours per week.

PHY 241 - 242 University Physics I - II (4 credits/4 credits)
Prerequisite for PHY 241: MTH 173 or MTH 273 or division approval.
Prerequisite for PHY 242 : PHY 241, MTH 174 or MTH 274 or division approval
Teaches principles of classical and modern physics. Includes mechanics, wave phenomena, heat, electricity, magnetism, relativity, and nuclear physics. Lecture 3 hours, Laboratory 3 hours, Total 6 hours per week.

Political Science

PLS 135 American National Politics (3 credits)
Teaches political institutions and processes of the national government of the United States, focuses on the Congress, presidency, and the courts, and on their interrelationships. Gives attention to public opinion, suffrage, elections, political parties, interest groups, civil rights, domestic policy, and foreign relations. Lecture 3 hours per week.

PLS 211 U.S. Government I (3 credits)
Teaches structure, operation, and process of national, state, and local governments. Includes in-depth study of the three branches of the government and of public policy. Part I of II. Lecture 3 hours per week.

PLS 212 U.S. Government II (3 credits)
Teaches structure, operation, and process of national, state, and local governments. Includes in-depth study of the three branches of the government and of public policy. Part II of II. Lecture 3 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, behavioral research methods and analysis, and theoretical interpretations. Includes topics that cover physiological mechanisms, sensation/perception, motivation, learning, personality, psychopathology, therapy, and social psychology. Lecture 3 hours per week.

PSY 215 Abnormal Psychology (3 credits)
Prerequisite: PSY 200
Explores historical views and current perspectives of abnormal behavior. Emphasizes major diagnostic categories and criteria, individual and social factors of maladaptive behavior, and types of therapy. Includes methods of clinical assessment and research strategies. Lecture 3 hours per week.

PSY 231 - Life Span Human Development I (3 credits)
Investigates human behavior through the life cycle. Describes physical, cognitive, and psycho-social aspects of human development from conception to death. Part I of II. Lecture 3 hours per week.

PSY 232 - Life Span Human Development II (3 credits)
Investigates human behavior through the life cycle. Describes physical, cognitive, and psycho-social aspects of human development from conception to death. Part II of II. Lecture 3 hours per week.

PSY 235 Child Psychology (3 credits)
Studies development of the child from conception to adolescence. Investigates physical, intellectual, social and emotional factors involved in the child's growth. Lecture 3 hours per week.

PSY 236 Adolescent Psychology (3 credits)
Studies development of the adolescent. Investigates physical, intellectual, social, and emotional factors of the individual from late childhood to early adulthood. Lecture 3 hours per week.

PSY 237 Adult Psychology (3 credits)
Studies development of the adult personality. Investigates physical, intellectual, social, and emotional aspects of aging from early adulthood to death. 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 (2-3 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 2-3 hours per week.

RAD 110 Imaging Equipment and Protections (3 credits)
Prerequisite: 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 195 Topics in Pharmacology for Technologist (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 in Computed Tomography (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 225 Specialized Patient Care Procedure (2 credits)
Prerequisites: RAD 110, RAD 112 and RAD 121-221
Focuses on specific nursing procedures associated with routine and emergency conditions encountered in the performance of radiographic examinations. Teaches medication preparation and administration principles. Lecture 2 hours 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 245 Radiologic Specialties (1- 2 credits)
Prerequisite: Acceptance into the Radiography Program
Introduces the study of treatment of disease as it relates to various imaging modalities, computerized tomography, and magnetic resonance imaging. Introduces computers and other innovations in radiology. Emphasizes theory, principle of operation, and clinical application of these topics. Lecture 1-2 hours per week.

RAD 246 Special Procedures (1- 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 1-2 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 255 Radiographic Equipment (3 credits)
Prerequisites: ARRT or eligible, BIO 141-142 and RAD 121-221
Studies principles and operation of general and specialized X-ray equipment. Lecture 3 hours per week.

RAD 256 Radiographic Film Evaluation (3 credits)
Prerequisites: BIO 141, 142, RAD 111, 112, 121, 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 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.

Real Estate

REA 100 Principles of Real Estate (4 credits)
Examines practical applications of real estate principles. Includes a study of Titles, estates, land descriptions, contracts, legal instruments, financing and management of real estate. Lecture 4 hours per week.

REA 216 Real Estate Appraisal (3 credits)
Explores fundamentals of real estate evaluation: methods used in determining value; application of the valuation process and the principal techniques by simulations, working problems and reviewing actual appraisals. Includes the opportunities available in the appraisal field. Lecture 3 hours per week.

Religion

REL 200 Survey of the Old Testament (3 credits)
Surveys books of the Old Testament with emphasis on prophetic historical books. Examines the historical and geographical setting and place of the Israelites in the ancient Middle East as background to the writings. Lecture 3 hours per week.

REL 210 Survey of the New Testament (3 credits)
Surveys books of the New Testament with special attention upon placing the writings within their historical and geographical setting. Lecture 3 hours per week.

REL 230 Religions of the World (3 credits)
Introduces the religions of the world with attention to origin, history, and doctrine. Lecture 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 - Principles of Sociology (3 credits)
Introduces fundamentals of social life. Presents significant research and theory in areas such as culture, social structure, socialization, deviance, social stratification, and social institutions. Lecture 3 hours per week.

SOC 215 Sociology of the Family (3 credits)
Prerequisite: SOC 200
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 268 Social Problems (3 credits)
Prerequisite: SOC 200
Applies sociological concepts and methods to analysis of current social problems. Includes delinquency and crime, mental illness, drug addiction, alcoholism, sexual behavior, population crisis, race relations, family and community disorganization, poverty, automation, wars, and disarmament. Lecture 3 hours per week.

Spanish

SPA 101 - Beginning Spanish I (4-5 Credits)
Introduces understanding, speaking, reading, and writing skills and emphasizes basic Spanish sentence structure. May include an additional hour of oral drill and practice per week. Part I of II. Lecture 4-5 hours per week. May include one additional hour of oral practice per week.4-5 credits.

SPA 102 - Beginning Spanish II (4-5 Credits)
Prerequisite: SPA 101 or division approval
Introduces understanding, speaking, reading, and writing skills and emphasizes basic Spanish sentence structure. May include an additional hour of oral drill and practice per week. Part II of II. Lecture 4-5 hours per week. May include one additional hour of oral practice per week.4-5 credits.

SPA 201 - Intermediate Spanish (3-4 Credits)
Prerequisite: SPA 102 or equivalent.
Continues to develop understanding, speaking, reading, and writing skills. May include oral drill and practice. Part I of II. Lecture 3-4 hours per week. May include one additional hour of oral practice per week.3-4 credits.

SPA 202 - Intermediate Spanish (3-4 Credits)
Prerequisite: SPA 201 or division approval
Continues to develop understanding, speaking, reading, and writing skills. May include oral drill and practice. Part II of II. Lecture 3-4 hours per week. May include one additional hour of oral practice per week.3-4 credits.

Student Development

All students enrolled in an associate degree, diploma or certificate program must complete an orientation (SDV) course during their first 15 hours of enrollment, typically their first semester in college.

SDV 100 - College Success Skills (1-3 credits)
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 1-3 hours 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 1-3 hours per week.

SDV 106 Preparation for Employment (1-2 credits)
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 1-2 hours per week.

SDV 108 College Survival Skills (1- 3 credits)
Provides an orientation to the college. Introduces study skills, career and life planning. Offers an opportunity to engage in activities aimed at self-discovery. Emphasizes development of "coping skills" such as listening, interpersonal relations, competence, and improved self-concept. Recommended for students enrolled in developmental courses. Lecture 1-3 hours per week.

Telecommunications Management

TEL 150 Internet Working I (3-4 credits)
Introduces the functions of each layer of the ISO/OSI reference model, data link and network addresses, data encapsulation, different classes of IP addresses and subnetting and the functions of the TCP/IP network-layer protocols. Lecture 2-3 hours, Laboratory 2-3 hours, Total 4-6 hours.

TEL 151 Internet Working II (3-4 credits)
Prerequisite: TEL 150
Teaches features of the Cisco IOS software, including log in context-sensitive help, command history and editing, loading software, configuring and verifying IP addresses, preparing the initial configuration of a router, and adding routing protocols to the router configuration. Lecture 2-3 hours, Laboratory 2-3 hours, Total 4-6 hours per week.

TEL 250 Internet Working III (3-4 credits)
Prerequisite: TEL 151
Studies the advantages of LAN segmentation using bridges, routers, and switches, Fast Ethernet configuring access lists. Spanning Tree Protocol. Virtual LANs. Lecture 2-3 hours, Laboratory 2-3 hours, Total 4-6 hours per week.

TEL 251 Internet Working IV (3-4 credits)
Prerequisite: TEL 250
Focuses on the differences between the following WAN services: LAPB, Frame Relay, ISDN/LAPD, HDLC, PPP, and DDR. Lecture 2-3 hours, Laboratory 2-3 hours, Total 4-6 hours per week.

Travel and Tourism

TRV 100 Introduction to the Travel Industry (3 credits)
Presents an overview of the structure and scope of the travel industry with emphasis on job categories and functions, basic vocabulary, and the interrelationships of the various components. Includes the study of information displays of airline computer reservation system. Lecture 3 hours per week.

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 (3-4 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 3-6 hours. Total 5-8 hours per week.

WEL 123 Shielded Metal ARC Welding (Basic) (3-4 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 3-6 hours. Total 5-8 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 3-6 hours. Total 5-8 hours per week.

WEL 130 Inert Gas Welding (3-4 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 3-6 hours. Total 5-8 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 2-3 hours per week.

WEL 160 Gas Metal Arc Welding (3-4 credits)
Introduces semi-automatic welding processes with emphasis on practical application. Includes the study of filler wires, fluxes, and gases. Lecture 2 hours. Laboratory 3-6 hours. Total 5-8 hours per week.