Catawba Valley Community College

2550 Hwy 70 SE • Hickory, North Carolina 28602

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Main Campus Telephone Number: 828-327-7000 • College Website: www.cvcc.edu

Catawba Valley Community College is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award Certificates, Diplomas, and Associate Degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Catawba Valley Community College.

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

Accredited by the Commission on Accreditation of Allied Health Education Programs in collaboration with the Accreditation Review Committee on Education in Surgical Technology

Accredited by the Commission on Accreditation for Health Informatics and Information Management Education: Health Information Technology

The Polysomnography Program is Accredited by the Commission on Accreditation of Allied Health Education Programs in collaboration with the Committee on Accreditation for Polysomnography

The Respiratory Therapy Program is accredited by the Commission on Accreditation for Respiratory Care (www.coarc.com). Commission on Accreditation for Respiratory Care, 1248 Harwood Road, Bedford, Texas 76021-4244, 817-283-2835

Dental Hygiene is Accredited by the Commission on Dental Accreditation for Dental Hygiene

The Automotive Systems Technology Program is accredited by the National Institute of Automotive Service Excellence (ASE) upon the recommendation of the National Automotive Technician Education Foundation (NATEF)

The Computer-Integrated Machining Program is a Member of the Haas Technical Education Center Network

The Cosmetology program is accredited by the NC State Board of Cosmetic Arts

Accredited by the Accreditation Commission for Education in Nursing, Inc.: Associate Degree Nursing Program [Accreditation Commission for Education in Nursing, Inc., 3343 Peachtree Road NE, Suite 850, Atlanta, GA, 30326, 404-975-5000, www.acenursing.org] and Approved by North Carolina State Board of Nursing

The Radiography program is accredited by the Joint Review Committee on Education in Radiologic Technology 20 North Wacker Drive, Suite 2850 Chicago, IL 60606-3182, 312-704-5300, e-mail: mail@jrcert.org

The Electroneurodianostic Program is Accredited by the Commission on Accreditation of Allied Health Education Programs in collaboration with the Committee on Accreditation for Electroneurodiagnostic Technology

The Welding Technology Program is an Educational Institution Member designated by the American Welding Society

The Learning Assistance Center Peer Tutoring Program certified Level 1 and Level 2 Advanced Certified Tutor by the College Reading and Learning Association International Tutor Program

The Fire Protection Technology program is recognized as a Fire and Emergency Services Higher Educaion (FESHE) Associate Degree program by the National Fire Academy

Approved for Veteran Enrollment by North Carolina State Approving Agency for Veterans' Education

Member of
North Carolina Community College System • American Association of Community Colleges
Southern Association of Colleges and Schools • Charlotte Area Educational Consortium • League for Innovation
North Carolina Citizens for Business and Industry • Charlotte Regional Workforce Development Partnership

Catawba Valley Community College publishes this catalog for the purpose of providing students and other interested persons with information about the College and its programs. The provisions of the catalog are not to be regarded as an irrevocable contract between students and Catawba Valley Community College. The College reserves the right to change any provisions, policies, requirements, or schedules at any time or to add or withdraw course or program offerings. Every effort will be made to minimize the inconvenience such changes might create for students. Revisions are available on the CVCC website at www.cvcc.edu.

Since opening its doors to students in 1960, Catawba Valley Community College has existed as an "open-door" institution to persons of both sexes and all racial and ethnic groups. This admissions policy has been followed in all other spheres of student life ranging from activities to placement. Similarly, Catawba Valley Community College has made all personnel decisions including hiring, compensation, benefits and promotion on a nondiscriminatory basis.

The Board of Trustees of Catawba Valley Community College does hereby reaffirm this past stance by making a formal commitment to provide equal opportunity for employees and students. Catawba Valley Community College does not discriminate on the basis of race, color, national orgin, sex/gender, religion, creed, age, or disability in its programs and activities. We recognize this obligation to be a moral as well as legal responsibility because of its intrinsic worth in a country in which all should have an equal chance to let their ability guide their life choices.

An Equal Opportunity/Affirmative Action Institution

Message From The President

We began serving the Catawba Valley in 1960 as the Catawba County Industrial Education Center. Today, Catawba Valley Community College continues to evolve with campus expansion and off-campus centers such as the Alexander Center for Education, Manufacturing Solutions Center, and the Corporate Development Center.

The one core value on our campuses that remains consistent in today's global economy is our passion and commitment to improve the lives of the people we serve.

Our college graduates are prepared for the workforce, and our college transfer students are ready for their next step to a four-year college or university. Students here are invited to join clubs, be involved in student or sport activities, and while in the classroom learn critical thinking skills, medical procedures, or study a foreign language.

CVCC graduates approximately 1100 students each year in curriculum degrees and general education development diplomas. Our efforts to provide the best educational experience for our students is evident in the college's 95% student satisfaction rating.

Our students set the bar each year, winning regional and state competitions and participating at national competitions while competing against large colleges and universities. Those who transfer have very high success rates at four-year institutions and are valued by employers in the unifour region, the state, and the country.

All of this is made possible by our employees through their dedication to the classroom, and our students. Each person here contributes to the success of CVCC!

It is an honor to serve as President of Catawba Valley Community College. We welcome you to our college and the opportunity to assist you in achieving your goals and dreams the "Valley Way."

Dr. Garrett D. Hinshaw, President

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2014-2015 Institutional Calendar

FALL SEMESTER 2014

Faculty/Staff Professional Development Activities (No Curriculum Classes)	August 13
Curriculum Instructional Work Day	August 14-15
* Fall Curriculum Semester Begins	August 18
Institutional Holiday	September 1
Break for Curriculum Students	September 1
Constitution Day Activities	September 17
Fall Fling	September 17
Mid-Semester Break for Curriculum Students	October 20, 21, 22
Last Day to Withdraw from Curriculum Classes without Academic Penalty	50% Date of Class
Spring Semester Curriculum Registration Activities Begin	November
Break for Curriculum Students	November 11
Institutional Holidays	November 11
Break for Curriculum Students	November 26-29
Institutional Holidays	November 27, 28
Fall Curriculum Semester Ends	December 17**
Curriculum Snow Makeup Days (if needed)	December 18-23
Institutional Holidays	December 24-31

* While many classes begin during the first week of the semester, there are also classes which begin later in the semester.
Also, some classes do end before the last week of the semester. Please refer to the fall semester curriculum class schedule for specific class start and end dates.
** Semester end date may be extended to Dec 18-23 if snow make up days are needed.

SPRING SEMESTER 2015

Institutional Holiday	January 1-2
No Curriculum Classes	January 5-7
Curriculum Instructional Work Day	January 5
Faculty/Staff Professional Development Activities (No Curriculum Classes)	January 5
* Spring Curriculum Semester Begins	January 8
Institutional Holiday	January 19
Curriculum Flip Day (curriculum classes follow a Monday schedule)	January 22
Break for Curriculum Students	March 9-13
Institutional Holiday	April 3
Curriculum Snow Makeup Days (if needed)	March 11-13
Last Day to Withdraw from Curriculum Classes without Academic Penalty	50% Date of Class
Summer Semester Curriculum Registration Activities	April
Spring Fling	April 8
Awards Day	April 16
* Spring Curriculum Semester Ends	May 8
Commencement	May 8-9

* While many classes begin during the first week of the semester, there are also classes which begin later in the semester.
Also, some classes do end before the last week of the semester. Please refer to the spring semester curriculum class schedule for specific class start and end dates.

SUMMER SEMESTER 2015

* Summer Curriculum Semester Begins	May 18
Institutional Holiday	May 25
Last Day to Withdraw from Curriculum Classes without Academic Penalty	50% Date of Class
Adult Secondary Credentials Recognition Ceremony	June 4
Break for Curriculum Students	July 2-4
Institutional Holiday	July 2
Fall Semester Curriculum Registration Activities Begin	July
Curriculum Flip Day (curriculum classes follow a Thursday schedule)	July 21
* Summer Curriculum Semester Ends	July 28

* While many classes begin during the first week of the semester, there are also classes which begin later in the semester.
Also, some classes do end before the last week of the semester.
Please refer to the summer semester curriculum class schedule for specific class start and end dates.

Note: Please check the CVCC website (www.cvcc.edu) for calendar and registration updates.

2015-2016 Institutional Calendar

FALL SEMESTER 2015

Faculty/Staff Professional Development Activities (No Curriculum Classes)	August 12
Curriculum Instructional Work Days	August 13-14
*Fall Curriculum Semester Begins	August 17
Institutional Holiday	September 7
Fall Fling/Student Appreciation Day	September 16
Constitution Day Activities	September 17
Mid-Semester Break for Curriculum Students	October 12-14
Last Day to Withdraw from Curriculum Classes without Academic Penalty	50% Date of Class
Break for Curriculum Students (No Curriculum Classes)	November 11
Institutional Holiday	November 11
Break for Curriculum Students	November 25-28
Institutional Holidays	November 26-27
Spring Registration	November/December
*Fall Curriculum Semester Ends	December 16
*Snow Make Up Days (If Necessary Due to Inclement Weather)	December 17, 18, 19
Institutional Holidays	December 24-31

* While many classes begin during the first week of the semester, there are also classes which begin later in the semester. Also, some classes do end before the last week of the semester. Please refer to the fall semester curriculum class schedule for specific class start and end dates.

SPRING SEMESTER 2016

Institutional Holiday	January 1
CVCC Open	January 4
Faculty/Staff Professional Development Activities (No Curriculum Classes)	January 6
Curriculum Instructional Work Days	January 7-8
*Spring Curriculum Semester Begins	January 11
Institutional Holiday	January 18
Last Day to Withdraw from Curriculum Classes without Academic Penalty	50% Date of Class
Institutional Holiday	March 25
Mid-Semester Break for Curriculum Students	March 26, 28, 29, 30
* Snow Makeup Days (If Necessary Due to Inclement Weather)	March 29, 30
Summer Registration Activities	April
Spring Fling/Student Appreciation Day	April 6
Awards Day	April 28
*Spring Curriculum Semester Ends	May 7
Commencement Activities	May 6, 7

* While many classes begin during the first week of the semester, there are also classes which begin later in the semester. Also, some classes do end before the last week of the semester. Please refer to the spring semester curriculum class schedule for specific class start and end dates.

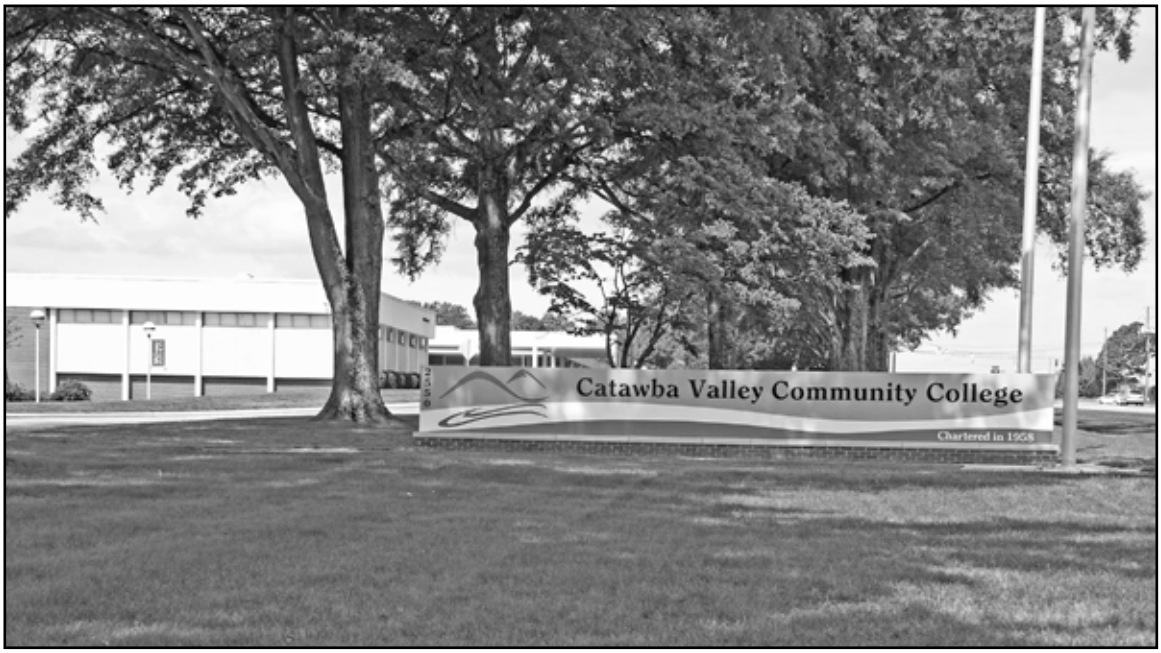
SUMMER SEMESTER 2016

*Summer Curriculum Semester Begins	May 23
Institutional Holiday	May 30
Last Day to Withdraw from Curriculum Classes without Academic Penalty	50% Date of Class
Adult Secondary Credentials Recognition Ceremony	June 2
Break for Curriculum Students	July 4
Institutional Holiday	July 4
Fall Registration Activities	July/August
*Summer Curriculum Semester Ends	August 2

*While many classes begin during the first week of the semester, there are also classes which begin later in the semester.
Also, some classes do end before the last week of the semester.
Please refer to the summer semester curriculum class schedule for specific class start and end dates

Note: Please check the CVCC website (www.cvcc.edu) for calendar and registration updates.

General Information



CVCC Main Campus

CVCC Alexander Center for Education

CVCC Newton Center

CVCC East Campus

GENERAL INFORMATION

MISSION STATEMENT

Catawba Valley Community College is an innovative, comprehensive community college that fosters and promotes a multitude of learning experiences, enabling and empowering its students, faculty, staff, and stakeholders to identify and to serve higher purposes in their lives and in their communities.

VISION STATEMENT

The vision of Catawba Valley Community College is to be validated and recognized in the achievement of its mission as the statewide, regional, and national standard of excellence for programs, services, and facilities.

HISTORY

Through the concerted efforts of concerned and united Catawba County citizens and North Carolina educational leaders, on April 3, 1958, Catawba Valley Community College was established by the North Carolina Department of Public Instruction as the ninth school of its kind in the state.

Construction of the original facilities began in 1959. The 40,000 square foot building costing approximately $500,000 was completed in August 1960. An initial enrollment of seventy-seven (77) students began classes in September of the same year. From 1960 to 1963, the College operated under the jurisdiction of the Catawba County Board of Education. During this time the College was known as the Catawba County Industrial Education Center.

In July 1963, the General Assembly of North Carolina enacted into law G.S. 115A which provided for the establishment of the present North Carolina System of Community Colleges. On January 9, 1964, Catawba Valley Technical Institute was among the original seven institutes chartered by the Department. At that time, CVTI established its own Board of Trustees and began operation as a member of the Department of Community Colleges. Thus, it was in August 1964, that the College awarded its first Associate Degree in Applied Science.

It was during the transition from an Industrial Education Center to Technical Institute that great strides began in expanding educational programs, increasing student enrollment, developing quality instruction, adding facilities, and increasing community acceptance and service.
On September 1, 1979, the name of the institution was changed to Catawba Valley Technical College by the Trustees and commissioners of Catawba County. On December 1, 1987, the State Board of Community Colleges officially approved CVTC to become Catawba Valley Community College and the College Transfer program was approved. The College continues as a publicly supported coeducational institution.

LOCATION

Catawba Valley Community College is located in Hickory on Highways 70 and 321-B, in Catawba County, North Carolina. Situated in the heart of the Piedmont some 1,175 feet above sea level, CVCC is easily accessible over Interstate 40, Highways 321, 70, 16 and 127. It is within seven miles of a commercial airport and approximately 50 miles from metropolitan Charlotte.

The campus covers approximately 162 acres and includes 17 buildings for an approximate total of 600,000 square feet of floor space. In addition, there is the CVCC East Campus, the Corporate Development Center, the Manufacturing Solutions Center, and the Cosmetology Center at the CVCC Newton Center in downtown Newton. The Alexander Center for Education, a 15,000 square foot building situated on 4.72 acres at 345 Industrial Boulevard in Taylorsville, was purchased by Alexander County in 2000 as an off-site center, which opened for classes March 28, 2003. The facilities consist of modern brick buildings. Included is a 30,000 volume library for the use of both students and public, a student center and food service area for leisure relaxation and entertainment, and numerous classrooms and laboratories.

CVCC POLICIES AND PROCEDURES

CVCC policies and procedures regarding students are available for reference on the CVCC website (www.cvcc.edu) under the About Us Link. Following are the direct links, CVCC Policies - http://www.cvcc.edu/About_Us/Policies/ and CVCC Procedures - http://www.cvcc.edu/About_Us/Procedures/. These web pages include, but are not limited to, information regarding admissions, course grading, student conduct, student due process, privacy of students, visitors on campus, sexual offense/assault protocol, campus safety and security, and reporting a crime. Printed copies of a policy/policies, or procedure/procedures are available upon request to Student Services.

TRANSFER OF CVCC CREDITS TO OTHER COLLEGES

Technical, vocational, and certificate programs of study at Catawba Valley Community College have been established primarily to prepare individuals for employment upon completion of studies. The College Transfer program has been developed at CVCC to provide opportunities for students to transfer two years of academic credit to senior colleges and universities. Numerous differences exist in the transfer policies of senior institutions. Therefore, details regarding a specific institution should be obtained from the senior institution to which transfer is being considered.

EDUCATIONAL CONSORTIUM

Catawba Valley Community College is a member of the Charlotte Area Educational Consortium (CAEC). This organization is composed of 24 colleges and universities working toward attaining the highest level of collegiate and university education for the Charlotte Metrolina region. Consortium members encourage the sharing of resources and energies among institutions and seek to generate creative ideas for the most effective use of human and other resources available among institutions.
Foremost among the goals of the Consortium is to afford students access to broader educational experiences, both curricular and extra-curricular. Full-time students at regular member colleges and universities are eligible to participate in the inter-institutional student exchange program of the Consortium. This enables them under certain circumstances to enroll in some courses at other CAEC schools without paying additional fees. For additional information on the CAEC and member institutions, please contact the Director of Student Records.

AIR FORCE ROTC PROGRAM

To prepare themselves to serve as commissioned officers in the Air Force, students in college transfer programs to pursue a bachelor's degree may participate in the Air Force Reserve Officer Training Corps (ROTC) offered by the UNC-Charlotte Department of Aerospace Studies. Information is available in Student Services or on the UNCC webpage at the following address: www.coas.uncc.edu/afrotc/.

APPALACHIAN CENTER AT HICKORY

The Appalachian State University Center in Hickory is an educational consortium of colleges and universities that offer community college students and other adults opportunities to finish their bachelors degrees from one of the participating colleges and universities. Graduate degrees are also available. A wide variety of degree programs are offered with flexible part-time and full-time schedules and face-to-face and on-line formats to meet the needs of adult learners with busy schedules, families, and work commitments. For more information on degree programs available through the Appalachian State University Center in Hickory, call 828-324-6966.

CHALLENGER EARLY COLLEGE HIGH SCHOOL

Challenger Early College High School is a Cooperative Innovative High School approved under Part 9 of Article 16 of Chapter 115C of the General Statutes, and is an application-based, selected enrollment high school and joint oversight project of the Catawba Valley Education Consortium. It is not a traditional, comprehensive high school. Enrollment is limited to no more than 400 students who must enter as high school freshmen only. Note: there are minors enrolled at CECH on CVCC's campus. Challenger students graduate with a university prep curriculum high school diploma and college credit up to an Associates degree from CVCC. Supported by the NC Dept of Public Instruction, NC Community College System, and NC New Schools Project, the early college is a national school reform model designed through research from the Bill and Melinda Gates Foundation, Stanford University, Harvard University, and Jobs for the Future.

ACCREDITATION

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

Most curriculum programs offered have been approved by the North Carolina State Approving Agency for Veteran's Education; however, students should contact the VA certifying official in Student Services for verification.

• The College is also a member of the American Association of Community Colleges.

• The Associate Degree Nursing Program is approved by the North Carolina State Board of Nursing and accredited by the Accreditation Commission for Education in Nursing, Inc., 3343 Peachtree Road NE, Suite 850, Atlanta, GA, 30326, 404-975-5000.

• The program in Dental Hygiene is accredited by the Commission on Dental Accreditation and has been granted the accreditation status of "approval without reporting requirements." The Commission is a specialized accrediting body recognized by the United States Department of Education. The Commission on Dental Accreditation can be contacted at 312-440-4653 or at 211 East Chicago Avenue, Chicago, IL 60611.

• The Emergency Medical Science program is Accredited by the Commission on Accreditation of Allied Health Education Programs, (www.caahep.org) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP) Commission on Accreditation of Allied Health Education Programs, 1361 Park Street, Clearwater, FL, 33756, 727-210-2350, www.caahep.org.

• The Health Information Technology program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education.

• The Polysomnography program is accredited by the Commission on Accreditation of Allied Health Education Programs in collaboration with the Committee on Accreditation for Polysomnography.

• The Radiography program is accredited by the Joint Review Committee on Education in Radiologic Technology 20 North Wacker Drive, Suite 2850 Chicago, IL 60606-3182, 312-704-5300, e-mail: mail@jrcert.org.

• The Respiratory Therapy Program is accredited by the Commission on Accreditation for Respiratory Care (www.coarc.com). Commission on Accreditation for Respiratory Care, 1248 Harwood Road, Bedford, Texas 76021-4244, 817-283-2835.

• The Surgical Technology program is accredited by the Commission on Accreditation of Allied Health Education Programs in collaboration with the Accreditation Review Committee on Education in Surgical Technology and the commission's Council on Accreditation and Unit Recognition.

• The Cosmetology program is accredited by the NC State Board of Cosmetic Arts.

• The Automotive Systems Technology program is accredited by the National Institute of Automotive Service Excellence (ASE).

• The Learning Assistance Center Peer Tutoring Program is Level 1 and Level 2 Tutor Certified by the College Reading and Learning Association International Tutor Program.

• The Electroneurodiagnostic Technology Program is accredited by the Commission on Accreditation of Allied Health Education Programs in collaboration with the Committee on Accreditation for Electroneurodiagnostic Technology

• The Welding Technology Program is an Educational Institution Member designated by the American Welding Society

• The Fire Protection Technology program is recognized as a Fire and Emergency Services Higher Educaion (FESHE) Associate Degree program by the National Fire Academy

• CVCC is also a member of North Carolina Community College System; American Association of Community Colleges; Charlotte Area Educational Consortium; League for Innovation; North Carolina Citizens for Business and Industry; Charlotte Regional Workforce Development Partnership.

CRITICAL SUCCESS FACTORS

In 1993, the State Board of Community Colleges began monitoring performance data on specific measures to ensure public accountability for programs and services. In 1998, the General Assembly directed the State Board to review past performance measures and define standards to ensure programs and services offered by community colleges in North Carolina were of sufficient quality. (North Carolina Community College System, 2012 Critical Success Factors Report, July 2012).

Through the 2012 reporting year, the annual NCCCS Critical Success Factors Report was the means by which the community college system reported on performance measures referred to as Critical Success Factors. In February 1999, the North Carolina State Board of Community Colleges originally adopted twelve (12) performance measures to ensure that programs and services offered by community colleges were of sufficient quality. During the 2010-2011 reporting year, the number of measures was dropped to seven (7). These performance standards focused primarily on student success and served as the System's major public accountability tool.

Beginning in 2013, the North Carolina Community College system adopted the *Performance Measures for Student Success*. The measures include basic skills progress, GED pass rates, developmental English students' performance in subsequent curricular courses, developmental mathematics students' performance in subsequent curricular courses, one-year progress, curricular completion rates, licensure pass rates, and transfer student performance. Performance funding is based on these measures.

NOTICE OF NON-DISCRIMINATION

Catawba Valley Community College does not discriminate on the basis of race, color, national origin, sex/gender, religion, creed, age, or disability in its programs and activities. The following persons have been designated to handle inquiries regarding the non-discrimination policies.

Dean of the School of Student Access, Development, and Success
2550 Highway 70 SE
Hickory, NC 28602-8302
Telephone – 828-327-7000

Director of Human Resources
2550 Highway 70 SE
Hickory, NC 28602-8302
Telephone – 828-327-7000

Catawba Valley Community College • Performance Measures For Student Success
(North Carolina Community College System)

2014 NCCCS Performance Measure for Student Success	2014 NCCCS Goal and Baseline	2014 System Institutional Average	2014 CVCC Measure
Basic Skills Progress	Goal = 51.2% Baseline = 20.6%	41.3%	38.4%
GED Pass Rate	Goal = 82% Baseline = 49.3%	73.6%	74.7%
Developmental English Subsequent Success	Goal = 74.9% Base = 45.2%	64.4%	75.5%
Developmental Mathematics Subsequent Success	Goal = 75.4% Baseline = 47.5%	64.4%	62.0%
Year One Progress	Goal = 74.6% Baseline = 53.2%	68.3%	69.2%
Curriculum Completion Rate	Goal = 45.6% Baseline = 28.6%	43.6%	38.4%
Licensure Pass Rate	Goal = 91.7% Baseline = 71.0%	83.3%	79.7%
Transfer Performance	Goal = 93.8% Baseline = 71.2%	87.8%	89.6%

For further explanation and information, please visit the
NCCCS Performance Measures for Student Success: North Carolina Community College College Creating Success
webpage at http://www.ncommunitycolleges.edu/sites/default/files/basicpage/2014_performance_report_5-12-14.pdf.

ADMISSIONS

GENERAL ADMISSION TO CVCC

CVCC follows "open door" admissions policies as established by the North Carolina Community College System. Admission is open to persons who are legal residents of the United States and who are either high school graduates; High School Equivalency graduates such as GED; or Adult High School Diploma Program graduates; or who are at least 18 years of age. Minors are admitted under provisions and rules established by the State Board of Community Colleges.

A person is classified as a student when admission requirements are met and registration for classes has occurred that cause

(1) tuition and fees to be paid (or encumbered by waiver, financial aid, third party payment, etc.) and

(2) the person enters and attends the class(es).

A person continues to be a student by attending class and making progress toward completion of the course objectives.

A person is no longer a student in a particular class when s/he has exceeded the number of absences allowed in the class or is graded with a WP or a WF. If this occurs in all classes during a particular semester, the person is no longer a student for that semester at the point in time when the last transaction has occurred.

A person is a visitor when not a student. Students are entitled to due process. Visitors are not afforded due process.

TRANSFER STUDENTS

Transfer students may be admitted provided they meet all admission requirements. Catawba Valley Community College will accept credits from college/universities accredited by any one of the following eight regional accrediting bodies authorized by the United States Department of Education:

- Middle States Commission on Higher Education
- Middle States Association of Colleges and Schools
- New England Association of Schools and Colleges
- North Central Association of Colleges and Schools
- Northwest Commission on Colleges and Universities
- Southern Association of Colleges and Schools
- Western Association of Schools and Colleges
- WASC Senior College and University Commission

Courses with grades of "C-" or better will be accepted provided such courses parallel the content of CVCC courses and are relevant to the student's program of study. Transfer students are notified about transfer credit to CVCC from other institutions via student e-mail. Transfer credit is awarded only for those courses that apply to the student's program of study.

Grades for transferred courses are not included in a student's GPA at CVCC, although the credit hours are applied toward graduation. See also Residency Requirements for graduation.

INTERNATIONAL STUDENTS

CVCC is authorized by the U.S. Department of Naturalization and Immigration to admit international students with a valid F-1 Visa or valid Permanent Resident Card. Work authorization cards **are not** permanent resident cards. The following items are required for admission and must be submitted as a complete package by the published deadline on the CVCC website (www.cvcc.edu):

1. a completed Application for Admission, 2. all financial statements as outlined on the CVCC website, 3. official transcripts from high school and secondary schools translated and evaluated by any agency associated with NACES, 4. a photograph, 5. verification of home country address, 6. an official TOEFL (Test of English as a Foreign Language) test score less than five (5) years old, and 7. a VISA clearance form if student is transferring from another United States institution of higher learning. Upon receipt of and verification of ALL application materials, a Certificate of Eligibility (I-20) may be prepared and issued to the student. International students may need to take placement tests administered at the CVCC Testing Center and are charged the applicable out of state tuition rates. Students are required to obey federal, state, and local laws. Commission or conviction of certain crimes may impact the student's ability to maintain F-1 status.

HIGH SCHOOL STUDENTS

CAREER AND COLLEGE PROMISE

Session Law 2011-145, the Appropriations Act of 2011, authorized the State Board of Education and the State Board of Community Colleges to establish the Career and College Promise program, effective January 1, 2012. Career and College Promise provides seamless dual enrollment educational opportunities for eligible North Carolina high school students in order to accelerate completion of college certificates, diplomas, and associate degrees that lead to college transfer or provide entry-level job skills. North Carolina community colleges may offer the following Career and College Promise pathways aligned with the K-12 curriculum and career and college ready standards adopted by the State Board of Education:

1. A College Transfer Pathway (CTP) leading to a minimum of 30 hours of college transfer credit;
2. A Career and Technical Education Pathway (CTE) leading to a certificate, diploma or degree;
3. A Cooperative Innovative High School Pathway approved under Part 9 of Article 16 of Chapter 115C of the General Statues.

CHALLENGER EARLY COLLEGE HIGH SCHOOL

Challenger Early College High School is a Cooperative Innovative High School approved under Part 9 of Article 16 of Chapter 115C of the General Statutes, and is an application-based, selected enrollment high school and joint oversight project of the Catawba Valley Education Consortium. It is not a traditional, comprehensive high school. Enrollment is limited to no more than 400 students who must enter as high school freshmen only. Note: there are minors enrolled at CECH on CVCC's campus. Challenger students graduate with a university prep curriculum high school diploma and college credit up to an Associates degree from CVCC. Supported by the NC Dept of Public Instruction, NC Community College System, and NC New Schools Project, the early college is a national school reform model designed through research from the Bill and Melinda Gates Foundation, Stanford University, Harvard University, and Jobs for the Future.

UNDOCUMENTED IMMIGRANTS

CVCC may admit undocumented immigrant applicants consistent with provisions of federal and state laws and regulations in the State Board of Community Colleges code 1DSBCCC400.2 (b). Under current state code, undocumented immigrant applicants do not qualify for federal or state financial aid or for in-state residency for tuition. Undocumented immigrants shall be charged at the out-of-state rate for curriculum programs. Students lawfully present in the United States shall have priority over any undocumented immigrant in any class or program of study when capacity limitations exist.

SAFETY EXCEPTION

CVCC may refuse admission to any applicant in accordance with the following conditions as specified in State Board of Community Colleges Code 1DSBCCC400.2 (e) and (f) entitled "Admission to Colleges," 23 NCAC 02C.0301 A. CVCC may refuse admission to an applicant when there is an articulable, imminent, and significant safety threat to the applicant or other individuals.

ADMISSION TO CURRICULUM PROGRAMS

Admission to the College does not guarantee admission to the curriculum or program desired by the applicant. A student must satisfy the admissions requirements for his/her program of study. Applicants will be admitted to programs as admissions requirements are completed except for programs with limited enrollment (discussed further below). Applicants may be admitted to certain programs on a provisional basis until all admissions requirements are completed.

Documentation/program requirements for specific healthcare programs in the School of Health and Public Services are published on the CVCC website. Due to the nature of healthcare accrediations, this information is subject to change without notice.

Enrollment to certain programs is limited, and admission to these programs is highly competitive. The most highly qualified applicants are selected each year based upon completion of minimum admission requirements. Applicants to healthcare programs must complete program requirements as established by the program director to be considered for selection. These admissions requirements may include, but are not necessarily limited to, attendance at specialized Information Sessions, completion of standardized aptitude tests, submission of letters of recommendations, vaccinations, and/or health examination.

Graduation from a public high school, private high school - including home schools, High School Equivalency graduates such as GED, Adult High School Diploma graduates, or a correspondence school is required for admission to all associate degree programs and certain diploma

and certificate programs. If graduation from high school or equivalent is a requirement for the intended program, applicants must provide official transcripts (from high school, state GED Office/GED Administrator, or Adult High School) evidencing graduation. The high school transcript requirement is waived for associate degree program applicants who have graduated from a regionally accredited two-year or four-year college, except for applicants to certain programs in the School of Health and Public Services, students receiving VA education benefits, and students who are applying for federal/state financial aid.

Applicants to curriculum programs of study must provide official transcripts from all regionally accredited colleges/universities previously attended. To fulfill the college's general admission requirements, students who have attended foreign schools at the secondary level (high school) and/or post-secondary level (college/university) must submit transcripts according to the following two steps:

Step 1: The foreign transcript must be written in or translated into the English language. Translated transcripts must be literal (word for word) and the translator must sign the translated copy and include contact information. The name the student is currently using and the date of birth should appear on the transcript.

Step 2: If the translator in Step 1 is not a current member of the National Association of Credential Evaluation Services (NACES) (www.naces.org) that also provides evaluation services, then the translated transcript must be evaluated by a member of NACES. Foreign secondary level transcripts must indicate US high school equivalency. Foreign post-secondary transcripts must indicate potential transfer credit.

Please note that the student will likely incur a fee for translation and/or evaluation services with NACES members. The amount of time it takes to translate and/or evaluate transcripts varies by NACES member.

Note: The evaluating agency for post-secondary transcripts (college/university) or translator for secondary transcripts (high school) must send the evaluation report directly to Catawba Valley Community College's Student Records Office. Student copies of evaluations will not be accepted.

No veteran may be certified for Veterans Educational Assistance Benefits (G.I. Bill) until all admissions requirements have been met and an unconditional acceptance has been granted.

ADMISSION PROCEDURES

The application and enrollment process at CVCC may take 1-3 weeks, depending on the applicant's program of study. Many programs require that you be a high school graduate, have a High School Equivalency such as GED, or an Adult High School Diploma before you enroll. Some programs of study are LIMITED ENROLLMENT; some have additional admissions requirements that must be completed earlier in the academic year(s).

Following are the general procedures to apply for admission to a curriculum program of study:

1. Individuals who have never attended college or former CVCC students who have not been enrolled for one year should attend a "Starting Points" Information Session. This 45 minute session is an opportunity to aid future students in understanding the admission, placement test and financial aid processes. Sessions are offered on various days at various times; schedules are posted on the CVCC homepage.

2. Determine a Program of Study. Contact the Career Center for guidance, at 828-327-7000, ext. 4690.

3. Send official high school, Adult High School, or High School Equivalency (such as GED) transcripts to CVCC. In addition, send official college transcripts from **every** institution applicant has attended, SAT scores, ACT scores or placement test scores from another institution. Contact the College Registrar or College Records of all previous schools/colleges to request official transcripts. There may be fees for transcripts. Send all official documents to CVCC Student Records, 2550 Highway 70 SE, Hickory, NC 28602. Applicants for health care programs of study must secure all official transcripts and bring them to the college when activating an application. High school and college transcripts must be presented along with the application already on file in the Student Records Office before an application can be processed.

4. Complete the paper Application to the College using blue or black ink or apply online. **ALL applicants must bring a photo ID and meet with admissions staff to activate the application.**

5. Prepare for and take any necessary placement tests as determined by Admissions Staff. There is no fee for placement testing, but it is offered by appointment only. Admissions Staff will assist applicants with an appointment day and time. (A valid photo ID is required)

6. Apply for financial aid by completing the Free Application for Federal Student Aid (FAFSA). Complete the online version of the FAFSA at www.fafsa.ed.gov; there are semester deadlines for filing the FAFSA. The FAFSA code for CVCC is 005318. Students cannot become eligible for Financial Aid until they successfully complete the FAFSA online. **Financial Aid is not final until a student has received an award letter via their CVCC e-mail from the CVCC Financial Aid Office**. If a student is going to use Veteran's Administration benefits, visit their website at http://www.gibill.va.gov/GI_BILL_Info/education_forms.htm. If a student is using TAA or WIA benefits, complete the FAFSA. Not all educational programs at CVCC are eligible for TAA/WIA benefit coverage.

SPECIAL ADMISSIONS REQUIREMENTS FOR HEALTH PROGRAMS

In addition to the general procedures to apply for admission to a curriculum program of study, applicants for the health programs must complete other procedures.

Applicants for health care programs of study must secure all official transcripts and bring them to the college when activating an application. High school and college transcripts must be presented along with the application or already on file in the Student Records Office before an application can be processed.

All applicants for health programs must attain the established minimum placement test scores determined by their department of interest. All placement test scores, depending upon the testing agency, must be less than three, or five years old. See Testing Services on page 18.

Certain health programs require completion of educational experiences in clinical/lab facilities. These clinical/lab facilities may require students **to undergo criminal background checks and/or drug testing**. If a student is excluded from clinical/lab facilities as a result of a background check and/or drug testing, the student may be asked to withdraw from the program. Some facilities may also require additional vaccinations and/or health examinations.

Admission into any health program will be contingent upon receipt of a CVCC medical form documenting that the applicant possesses satisfactory physical and mental health. Facilities for providing health care services are not available on campus. In accordance with the State Board of Community Colleges code 1DSBCCC400.2 (b), students lawfully present in the United States shall have priority over any undocumented immigrant in any class or program of study when capacity limitations exist. Additionally, community colleges shall take into account that federal law prohibits states from granting professional licenses to undocumented immigrants

Effective for fall 2015, students may apply to no more than ONE health care program within the School of Health and Public Services.

SPECIAL ADMISSIONS REQUIREMENTS FOR EARLY CHILDHOOD EDUCATION PROGRAMS

In addition to the general procedures to apply for admission to a curriculum program of study, applicants for the Early Childhood Education program must complete other procedures.

CVCC's Early Childhood Education program requires completion of educational experiences in childcare facilities and/or public school settings. These settings require students to undergo criminal background checks. If a student is excluded from an educational setting as a result of a background check, the student may be asked to withdraw from the program. Some settings may also require additional vaccinations and/or health examinations.

Admission into CVCC's Early Childhood Education program may be contingent upon receipt of a CVCC medical form documenting that the applicant possesses satisfactory physical and mental health. Facilities for providing health care services are not available on campus.

SPECIAL CREDIT STUDENTS

Individuals may enroll in classes without pursuing a certificate, diploma, or degree. Persons enrolling under these circumstances are considered SPECIAL CREDIT STUDENTS. Placement tests may be required depending upon the student's educational background and the prerequisites/corequisites of the courses in which the student wishes to register. Special Credit Students are not eligible to receive federal/state financial aid and must meet all course prerequisites.

A military veteran can not receive Veterans Educational Assistance Benefits (G.I. Bill) as a special credit student.

FEES, FINANCIAL AID, AND SCHOLARSHIPS

CVCC charges tuition in accordance with policies established by the North Carolina Community College System. Tuition rates are subject to change. Certain fees have been established in accordance with guidelines and ranges established by the North Carolina Community College System. Fees are subject to change. Due dates for tuition and fees are established by the Chief Financial Officer or designee. Students will forfeit their seat in a class if they fail to pay the applicable tuition/fees by the established due date.

TUITION (Subject to change depending on action of General Assembly.)

Tuition Per Semester:

North Carolina Residents
- 16 hrs. or more $1,152.00
- 15 hrs. or less (per semester hr.) $72.00

Out-of-State Residents
- 16 hrs. or more $4,224.00
- 15 hrs. or less (per semester hr.) $264.00

Determinations of **North Carolina Residency** for tuition purposes are made by the Director of Admissions or designee in accordance with laws and regulations established by the North Carolina General Assembly. North Carolina residency is not a factor in the tuition charged for non-credit courses. A student initially classified as an out-of-state resident for tuition purposes may request a change of residency classification upon meeting the "resident for tuition purposes" requirements. Detailed information regarding residency requirements and procedures for requesting a change in residency classification is available in Student Services.

It is the student's responsibility, whether classified as a resident or non-resident, to report any information to Student Services which may indicate a need for reclassification.

Tuition for students enrolling in Occupational Extension courses vary per course. However, fees may be established for self-supporting seminars and courses according to the schedule below in which more than normal expenses to the College are incurred. Such charges may cover the cost of instructional materials and/or textbooks required in such classes.

Continuing Education Occupational Extension (per course)
- 0-24 hours $70.00
- 25-50 hours $125.00
- 50+ hours..... $180.00

Students who take an Occupational Extension course more than twice within a five-year period; unless required for certification, recertification, or licensure; are required to pay a different formula rate per contact hour.

FEES AND INSURANCE

Student Activity Fee

7 or more credit hours $32.00
Less than 7 credit hours (per semester hour) $5.00
Student Accident Insurance (per semester)..... $1.25
Computer Use and Technology Fee
(Curriculum Students per semester)..... $16.00
Computer Use and Technology Fee
(Continuing Education Students per designated
technology-related course)..... $5.00
Diploma Fee $25.00
Certificate Fee $10.00
Liability/Malpractice
(ADN, Surgical Technology, Respiratory Therapy, EMS,
Dental Hygiene, Polysomnography, and
Electroneurodiagnostic Students) $27.50
Liability/Malpractice (CNA and Phlebotomy Students)..... $14.50
Service Charge for Returned Checks..... $25.00
Lab Fees ..... TBA
Replacement Fee for Library/Data Card..... $10.00
Transcript Fee $5.00

• To view a copy of CVCC's *Student Accident Insurance Brochure* visit **(http://www.cvcc.edu/Student_Services/Business_Office/Tuition_Fees.cfm)**

Accident insurance must be purchased by students registering for curriculum classes. The premium must be paid at the time of registration at the beginning of each semester.

Students enrolled in certain health programs/courses are required to purchase liability/malpractice insurance. The premium for this insurance is paid once annually through the business office.

Certain fees have been approved for testing services. These include fees for Microsoft Office User Specialist (MOUS) certification testing, test proctoring for non-CVCC students, or other special circumstances.

FEE WAIVERS. In compliance with North Carolina Statutes and regulations of the North Carolina Community College System, tuition and fees may be waived under the following circumstances: (1) no extension registration fee shall be charged of individuals enrolling in special extension training programs for emergency telecommunication personnel, fire department personnel, volunteer rescue and life saving personnel, local law enforcement officers, or members of auxiliaries of such groups, providing the individual is a member of the group for which training is being provided; and (2) no extension registration fee will be charged to patients of state alcoholic rehabilitation centers.

High School students taking college credit classes through the Career and College Promise program are exempt from applicable tuition for fall and spring semesters. Applicable fees will be charged.

OTHER EXPENSES. The cost of books, supplies, and equipment varies from one program of study to another.

COLLECTION NOTICE. The College reserves the right to use all means necessary to collect any outstanding balances. This may include but is not limited to the use of NC Set-off Debt.

OTHER ACTIONS REGARDING PAST DUE ACCOUNTS. All previously incurred expenses and accounts, including library and payments made to Nelnet (a third party company) for tuition, generally must be fully paid before a student may re-enter at the beginning of any semester and before transcript, diploma, or certificate will be furnished.

REFUNDS

CURRICULUM CLASSES. The College follows the refund policies established by the North Carolina Community College System. A copy of the current refund policies may be obtained from the Business Office. Specific guidelines and processes to ensure compliance with these policies shall be established by the Chief Financial Officer or designee. The following are specific guidelines which have been established in accordance with these policies. Refunds for less than $5.00 will not be made.

A full (100 %) tuition refund shall be made if the student officially withdraws **prior** to the start date of the class. Example – If the start date of the class as indicated on the student's schedule is September 1, the student must withdraw from that class on or before August 31 to receive a full (100%) tuition refund.

A 75% tuition refund shall be made if the student withdraws on or before the census date of the class. The census date for a class is the 10% point of the class.

No tuition refund shall be made if the student withdraws from a class after the census date of that class. The census date for a class is the 10% point of the class.

The student fees, accident insurance premium, and some program specific fees (i.e., mal-practice insurance fees, processing fees, etc.) are not refundable unless the student officially withdraws prior to the start of his/her classes, a student's class is cancelled, or the College determines an institutional error has occurred.

CONTINUING EDUCATION CLASSES. This policy includes occupational extension classes. A full refund will be given if the student officially withdraws from class **prior** to the first class meeting. Allow a minimum of two (2) weeks for processing of refund requests. Refunds for less than $5.00 will not be made. After the class begins, a 75% refund of registration only will be made if the student officially withdraws from the class prior to or on the 10% point of scheduled hours.

FINANCIAL AID

Students who enroll are encouraged to submit the Free Application for Federal Student Aid (FAFSA) available at www.fafsa.gov. Students are encouraged to apply by the deadline dates located on the CVCC website. The student's financial need is determined through an analysis of FAFSA application and is granted on an annual basis. Financial assistance for educational expenses may be available in the form of grants, scholarships, loans, or work programs.

Student financial aid programs require that the student: (a) demonstrate financial need, except for some loan programs, (b) provide an official high school transcript or High School Equivalency diploma (such as GED, (c) be enrolled as a regular student working toward a degree, diploma, or certificate in an eligible program, (d) be a U.S. Citizen or eligible noncitizen, (e) have a valid Social Security Number, (f) make satisfactory academic progress, and (g) register with the Selective Service, if required.

I. FEDERAL AID PROGRAMS

FEDERAL PELL GRANT. This grant is a source of federal student financial aid which provides eligible students with a "floor" of financial aid to help defray the cost of postsecondary education. Student eligibility is primarily based on financial need.

FEDERAL SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANT. This is a federal grant which is a "supplement" to the Pell Grant for students demonstrating the greatest financial need.

FEDERAL WORK STUDY. This federal program provides jobs at the College for students who have financial need. The number of hours worked is based on financial need and on how the combination of work and study hours will affect the student's academic progress.

VA EDUCATIONAL BENEFITS. Special needs and information about policies and procedures for veteran students and dependents using VA benefits are provided by the Veteran Certifying Official in Student Services, and the local county VA offices. Students desiring to use VA Educational benefits should contact Student Services for CVCC program information and admissions requirements. Students must be accepted in a VA approved program of study and meet all institutional and VA requirements before certification can be made to the Veterans Administration. The specific application for benefits can be made on line at **www.gibill.va.gov** or with a VA Certifying Official in Student Services. Additional information regarding benefits, eligibility, policies, and procedures may be obtained from these offices. (See Veterans Affairs page 19.)

DIRECT LOAN PROGRAM

A. SUBSIDIZED LOAN. This type of loan is awarded on the basis of financial need. The federal government pays the interest on the loan ("subsidizes" the loan) until repayment begins and during authorized periods of deferment.

B. UNSUBSIDIZED LOAN. This type of loan is not awarded on the basis of need. Interest will be charged from the time the loan is disbursed until it is paid in full. A student must be an independent undergraduate or a dependent student whose parents are unable to get a PLUS loan.

C. PLUS LOAN. This type of loan is for the parent of a student who qualifies as a dependent student. The parent does not have to demonstrate "need" but must not have an adverse credit history.

II. STATE SUPPORTED AID PROGRAMS

NORTH CAROLINA COMMUNITY COLLEGE GRANT. This is a need based grant established by the NC Legislature to provide funds to help meet the educational costs of NC residents attending community colleges. To apply, the student must complete the Free Application for Federal Student Aid (FAFSA). Eligibility is based on the student being a NC resident, enrolled at least half time in an eligible curriculum program, maintaining satisfactory progress, meeting the Pell Grant eligibility requirements, and demonstrating financial need. Possible recipients are selected by the College Foundation of North Carolina, with each community college certifying that the student meets all eligibility requirements.

NORTH CAROLINA EDUCATION LOTTERY SCHOLARSHIP.

The Education Lottery Scholarship was created by the 2005 General Assembly to provide financial assistance to needy North Carolina residents. To apply, the student must complete the FAFSA. Eligibility is based on the student being a NC resident, enrolled at least half time in an eligible curriculum program, maintaining satisfactory progress, meeting the Federal Pell Grant requirements, and demonstrating financial need. Possible recipients are selected by College Foundation of North Carolina, with each community college certifying that the student meets all eligibility requirements.

STATE EMPLOYEE CREDIT UNION FOUNDATION SCHOLARSHIP. The SECU Foundation established this two year scholarship program to assist North Carolina Community College students achieve academic success. Preference will be given to students whose parents or guardians and family members are public sector employees who live and work in North Carolina. To apply, students must have completed the FAFSA. In addition, the student must be full time, a U.S. citizen, have demonstrated leadership and excellence of character, and maintain a 2.5 or higher GPA. Scholarship amounts are $2,500 per year. Recipients are selected by the Financial Aid Office. Information for the scholarship is available through the CVCC Financial Aid Office.

VETERANS' CHILDREN SCHOLARSHIP. Children of certain veterans who were either killed in action, disabled while in the armed forces, a prisoner of war or missing in action for a certain period of time may be entitled to financial aid from the North Carolina Division of Veterans Affairs to attend CVCC. Students may apply through the local N.C. Division of Veterans Affairs Office.

VOCATIONAL REHABILITATION AID. By action of the United States Congress, any physically, mentally, or emotionally disabled student may be eligible for financial aid and for scholarship assistance. If a prospective student has any of these limitations, the nearest office of the North Carolina Department of Vocational Rehabilitation should be contacted. If the student prefers, the CVCC Financial Aid Office may be contacted.

WELLS FARGO TECHNICAL SCHOLARSHIP. Through a grant to the North Carolina Department of Community Colleges by Wells Fargo Bank, one scholarship is available annually to students in the second year of a two-year technical program. Selection is based upon need and scholastic performance during the first year of studies.

OTHER AID. In addition to the above programs, various companies and civic organizations provide scholarships to deserving students.

III. SATISFACTORY ACADEMIC PROGRESS STANDARDS FOR FINANCIAL AID

Satisfactory Academic Progress (SAP) is a set of standards for financial aid progress to insure that all students receiving federal (Title IV) or state aid are making progress toward completion of a degree. The policy requires the measurement of satisfactory academic progress to include all periods of enrollment at the institution, including those periods for which the student did not receive any financial aid.

New federal regulations effective July 1, 2011, affect Satisfactory Academic Progress policies and procedures. The rules limit the length of time that students not making progress can continue to receive Title IV aid and require a more structured, comprehensive, and consistent approach to the development and implementation of institutional financial aid satisfactory academic progress policies.

PURPOSE, PROCEDURES, MONITORING, WARNING & SUSPENSION, APPEALS

PURPOSE

Institutions of higher education are required by federal regulations to establish minimum standards of satisfactory academic progress for students receiving financial aid. It is the expectation that students are to achieve minimum levels of progress toward completion of a degree. The progress is measured both qualitatively and quantitatively. The maximum time frame for an academic program is divided into increments to ensure that the student is making sufficient progress toward completion of the degree. The institution will determine at the end of each increment (semester) if the student has completed a minimum of percentage of work toward completion of the degree. All semesters attempted at the institution will calculate in this determination, regardless of whether or not the student has received financial aid in the past. The Standards will apply to all students applying for or receiving federal or state aid.

The student is responsible for understanding the policy regarding Satisfactory Academic Progress and for being in compliance. The student is also responsible for understanding the consequences for noncompliance.

PROCEDURES

To be eligible for financial aid, students must meet the following minimum guidelines:

QUALITATIVE STANDARD - The student must maintain a minimum cumulative GPA of 2.00. Grades for developmental courses are not included in the semester GPA or cumulative GPA.

QUANTITATIVE STANDARD – The student must complete 67% (two-thirds) of all credit hours attempted from the beginning date of enrollment at the college. Developmental course hours are included in this measurement. Cumulative credit hours attempted will include all hours for which the student was enrolled as of the census date of the class (10% point of the class). Credit hours otherwise marked as forgiven under the previous Academic Forgiveness policy are included in hours attempted and hours completed if appropriate based on the grades received. Transfer credit hours that are accepted toward the student's educational program will count as both attempted and completed hours

MAXIMUM TIME FRAME – The student must successfully complete the program of study within the maximum time frame. Federal regulations specify that the time frame may not exceed 150% of the published length of the program as measured in credit hours. Credit hours for developmental courses required by placement testing will be excluded (up to 30 credit hours) from the 150% calculation of hours. Transfer credits accepted from other schools that apply toward the student's program of study are included in the maximum time frame.

MONITORING

The Financial Aid Office will monitor satisfactory academic progress for all students receiving or applying for federal or state aid to ensure that they are making progress toward program completion. The progress for all students receiving federal or state aid will be reviewed at the end of each semester. **Students will be notified by e-mail regarding the status.** Failure to receive notification will not change the student's status. Not enrolling for one or more terms does not change the student's status.

CUMULATIVE CREDIT HOURS ATTEMPTED – Cumulative credit hours attempted are defined as all credit hours attempted at CVCC, and all credit hours transferred from other institutions. Attempted credits include courses with grades of A, B, C, D, F, or P (pass). Credit hours for which a grade of WP (withdraw passing), WF (withdraw failing), CS (continued study), or I (incomplete) or R (repeat) count as attempted hours.

REPEATED COURSES – will be counted as hours attempted, hours completed, and also toward maximum credits allowable for each type of program for financial aid. Only one repetition of a previously passed course may be counted in the enrollment status. A course that has not been passed may count in the enrollment status until the course has been successfully completed.

CUMULATIVE CREDIT HOURS COMPLETED – Credit hours successfully completed are defined as grades of A, B, C, D or P (pass). Credit hours with a grade of F, WP, WF, CS, I, or R do not count as successfully completed credit hours.

AUDITED COURSES – Credit hours taken for a grade of "audit" do not apply toward a degree program. The grade of "audit" is not included in determining status for financial aid and does not count in the calculation of satisfactory academic progress.

INCOMPLETE GRADES – Courses with grades of I (Incomplete) will be considered as credit hours attempted and not completed. Students who have made arrangements with the instructor to complete required course work are not required to re-register for the same class during a subsequent semester to complete the work. If the "incomplete" grade resulted in a student being placed on financial aid probation or suspension, once completed, the student must notify the Financial Aid Office to have progress reevaluated.

CUMULATIVE GRADE POINT AVERAGE – The minimum cumulative GPA for graduation at CVCC is 2.00. The student receiving financial aid must meet the minimum standard of the school.

COURSE WITHDRAWALS – Any student who withdraws from a class, either officially or unofficially should know how the withdrawal could affect the eligibility for financial aid as determined by the Satisfactory Academic Progress Standards. A withdrawal will count as attempted, but not completed credit hours. A grade of WP will affect the quantitative measure, but not the qualitative measure, as it will not count in the GPA calculation. A grade of WF will affect both the quantitative and qualitative measure, as it will count in the GPA. Financial Aid recipients should discuss the consequences of withdrawing from a class with the Financial Aid Office before doing so.

DEVELOPMENTAL COURSES – Federal regulations allow financial aid recipients to take a maximum of 30 credit hours of developmental coursework. Developmental courses are included in the calculation of satisfactory progress in the quantitative measure (hours attempted versus completed). The grade received for the developmental class, however, is not included in the GPA. To remain in good standing, students enrolled in developmental courses must receive grades of P.

TRANSFER STUDENTS – All transfer credit hours granted to the student will be included in the measurement of maximum time frame. Transfer credit hours that are accepted toward the student's educational program will count as both attempted and completed hours.

CHANGE OF MAJORS – Students who change majors without graduating from a program will assume the time frame of the new major and all hours previously attempted will count toward the maximum time frame of the new major. Frequent changing of programs without graduating could result in the loss of federal or state eligibility. If a student graduates from a program of study and desires to pursue another program, the student will assume the maximum time frame of the new program less any attempted hours related to courses not required in the program previously completed. A student is allowed to receive financial aid for the completion of only two academic programs.

DOUBLE MAJORS – Students who choose to double major (pursue multiple programs at the same time) will assume the maximum time frame of only one academic program.

SUMMER SESSION – Credit hours attempted and earned during the summer session are included in the calculation of Satisfactory Academic Progress. Full-time status is the same for summer session as it is for the fall and spring semesters (12 credit hours).

ENROLLMENT STATUS – Full time (12 credit hours or more), 3/4 time (9-11 credit hours), 1/2 time (6-8 credit hours), less than 1/2 time (less than 6 credit hours)

WARNING AND SUSPENSION

Warning – The minimum credit hour completion requirement (quantitative measure) and the minimum GPA academic standards (qualitative measure) are assessed at the end of each term. **If a student does not have a 2.0 cumulative grade point average (GPA) AND pass at least 67% of the credit hours on a cumulative basis, the student is placed on WARNING for the next term attended.** This calculation is done on all classes attempted from the beginning date of enrollment at CVCC. The student will be notified by email at the end of the semester if he/she is in the **WARNING** status. Financial aid may be received during this **WARNING** term.

For students in clock hour programs, the review of progress will be done at the point the scheduled clock hours for that payment period are successfully completed. In order for the student to be eligible for the next payment period, the student must have successfully completed both the clock hours and the weeks of instructional time for the required period.

SUSPENSION - At the end of the WARNING period, students whose term completion rate and GPA do not meet SAP standards (67% completion of all hours attempted and a 2.0 cumulative GPA) will be on SUSPENSION. Students who are suspended will no longer be eligible to receive financial aid. At this time, the student must pay for college expenses each semester until the SAP standards are met or submit an Appeal if documentation can be provided to indicate extenuating circumstances that impacted academic performance.

AFTER SUSPENSION - Other than when an Appeal is granted, a student can reestablish eligibility of financial aid only by taking action that brings the student in compliance with the qualitative and quantitative components of the Satisfactory Academic Progress Policy, including the maximum time frame. It may be in the best interest of the student to consider taking fewer credit hours, which will allow the student to focus on achieving a higher GPA and completion rate. The student may, at any time, request to have eligibility reevaluated by the Financial Aid Office.

It is the student's responsibility to be aware of the Satisfactory Academic Progress Standards for financial aid eligibility. When placed on **Warning** or **Suspension, the student is notified by the CVCC email account.** If the necessary action is taken by the student to bring the student back in compliance with the qualitative and quantitative components of the Standards, financial aid (depending on the availability of funds) is reinstated at the beginning of the next term of attendance, if otherwise eligible.

APPEALS

SAP APPEALS - A student may appeal the Suspension of financial aid by obtaining a **Satisfactory Progress Appeal Request** form online at www.cvcc.edu and indicating in writing: a) reasons why he or she did not achieve minimum standards, b) reasons why his or her eligibility should not be terminated, but reinstated. Appeals must be submitted in writing with supporting documentation explaining any unusual circumstances that caused the student's academic progress to be less than required. Federal regulations give some examples where allowances might be made for mitigating circumstances. Mitigating circumstances are defined as (1) death of a relative of the student, (2) an injury or illness of the student, (3) other special circumstances causing undue hardship to the student and beyond reasonable control of the student. An **Appeal** cannot be based on the student's lack of knowledge regarding the policy or simply the need for financial aid. An **Appeal** will be automatically rejected if no documentation is provided.

A student suspended for exceeding the maximum hours allowed for degree completion should complete the **Financial Aid Satisfactory Progress Appeal Request** form and have an academic advisor submit in writing the remaining hours required for degree completion if extenuating circumstances require the student to exceed the maximum hours limit.

The Financial Aid Satisfactory Progress Appeal Request form should be submitted to the Office of Financial Aid no later than the first day of classes of the next semester of enrollment. Once the **Financial Aid Satisfactory Progress Appeal Request** is received, the Director will have 14 days to make an eligibility determination.

Students on financial aid **Suspension** who are seeking to regain eligibility for financial aid through the **Appeal** process will remain ineligible for assistance until the **Appeal** process is completed and an affirmative decision has been made. Students on financial aid **Suspension** should not depend on financial aid to pay for costs of registration, but should be prepared to pay from their own resources pending the outcome of their financial aid **Appeal**. The student will be reimbursed if the **Appeal** is approved.

Probation on Appeal – If an **Appeal** is approved, the student will be placed on **Probation by Appeal**. This status will hold the student to a higher term-based standard for SAP evaluation. **Probation on Appeal students must earn a minimum term-based GPA of 2.50 (or equivalent if course is repeated) and complete 100% of hours attempted for the term.** Those meeting the standard will continue in this status until they regain full satisfactory SAP status (67% completion and 2.0 cumulative GPA). Failure to meet the **Probation on Appeal** conditions each semester will result in **Suspension** of aid. Students may want to consider reducing the number of attempted hours per semester in order to maintain satisfactory progress.

Appealing the 150% Time frame Rule - Students who wish to appeal the 150% time frame rule are required to complete the Financial Aid Satisfactory Progress Appeal Request form and have an academic advisor complete the Academic Plan form to determine how many courses remain toward graduation. The advisor must provide the student with an educational plan that will allow the student to complete the degree. The student must successfully complete 100% of everything attempted from that point forward to complete the degree (no withdrawals, no incompletes, and no grades lower than a C). If the student fails in these requirements, the aid will be permanently suspended.

It is the student's responsibility to understand this policy. If, at any time, there are questions regarding the policy, please see the Financial Aid Office.

IV. LOCAL SCHOLARSHIPS AND FINANCIAL AID

A. CVCC FOUNDATION SCHOLARSHIPS

The Catawba Valley Community College Foundation, Inc., is a nonprofit organization that provides the community a vehicle through which investments may be made in the education of CVCC students through scholarship funds. These scholarship funds provide an opportunity for each student to compete for funds to pay for his/her education. Scholarships are provided through tax-deductible gifts from individuals, businesses, community organizations, and CVCC alumni. All CVCC students are invited to submit a scholarship application. One scholarship application initiates the application/eligibility process for all Foundation scholarships. When the CVCC student enrollment form is activated, an invitation to apply for a CVCC Foundation Scholarship is sent via the email address or home address found on the enrollment form. The CVCC Foundation Scholarship selection is a continuous process. Each student is encouraged to return the scholarship application as soon as possible for access to the scholarship process.

STUDENT LIFE

STUDENT DEVELOPMENT

Student Services provides entry, support, and transition services to curriculum students. A definitive program of services is offered to assist a student in satisfactorily selecting, entering, progressing within, and completing a program of study. In addition, a student is provided with numerous opportunities for personal development and social growth through a variety of planned activities.

ACADEMIC ADVISING. Each curriculum student enrolled in a degree, diploma or certificate program will have access to academic advising through an assigned advisor or through the Advising Center. This determination is made during the Admissions interview and will be communicated to the student as appropriate for the program of study. The purpose of academic advising is to assist the student with planning a course schedule, registration, program sequence and completion, academic probation, graduation review, and general academic advising.

ADVISING CENTER. The Center is currently located in the lower level of the Student Services Building. Hours are posted at the Center. The phone number is 828-327-7000, ext. 4687.

CAREER CENTER. 828-327-7000, ext. 4690.

CAREER COUNSELING. Individual career counseling is available to all students who are interested in discussing their career interests, choice of program, and career goals. Career assessments and career reference information are used to assist students in examining their interests, values, and skills to explore career options. Assessments available include: Self Directed Search, Myers-Briggs Personality Type Indicator, Focus 2, and CFNC Planning Tools.

JOB PLACEMENT. Students have access to jobs listed by employers who call the Career Center for assistance. The office has listings for full-time, part-time and temporary jobs. Current students, former students, and graduates of curriculum programs are eligible for placement services. Services include job preparation (job search, resume writing, applications, interviewing, etc.) job fairs, workshops, and on-campus interviews.

WORK BASED LEARNING (WBL). WBL is a curriculum (credit) course that can provide on-the-job work experience for students enrolled in eligible programs. Students work in jobs related to their program of study and receive course credit for the learning that takes place on the job. Not all programs have WBL as an option and there are requirements that students must meet prior to enrolling in a WBL course. WBL options for eligible programs are listed in each program of study. Interested students may contact the Career Center at 828-327-7000, ext. 4812, or their advisor.

COUNSELING. CVCC does not offer mental health/personal counseling services. Admission staff members are available to assist students with academic or vocational issues. Also, the CVCC Career Center may offer career/vocational assistance to students. If at any point an admissions representative determines a student's ability to benefit from campus services is limited, the staff member will recommend appropriate resources and suggest alternatives to the student.

E-MAIL ACCOUNTS. CVCC creates a college e-mail address for students within five business days of the application processing visit in the Student Development office. **Students are expected to read the CVCC email daily.** The College shares critical information regarding financial aid, New Student Orientation, academic issues, grades, registration, campus safety alerts, and general news through e-mail. It is the preferred method of communication with students to ensure timeliness of information, safety, and security. It is the student's responsibility to learn how to login and read CVCC e-mail and follow specialized requests from various campus departments.

FINANCIAL ASSISTANCE SERVICES. Consistent with the open door admissions policy, it is the intent of the college administration that no person be denied the opportunity to pursue financial assistance. Therefore, scholarship and financial assistance information is available during the admissions counseling process. The Director of Scholarships and Financial Aid is available to assist students and potential students in planning for the financial support of their education.

HIGH SCHOOL EQUIVALENCY TESTING. The Adult Secondary Credentials (ASC) tests, (such as GED) are administered on a regularly scheduled basis. Contact the Testing Center at 828-327-7000 ext. 4260 for the GED testing schedule.

HEALTH SERVICES/INFORMATION. There is no formal health care program/clinic available for students. The Student Government Association shall include various health related activities/information in its general college programming. These may include presentations by college personnel or outside health care agencies on substance abuse, HIV, wellness, nutrition, and/or other vital health care topics. Any student, faculty or staff health related emergencies are referred to area health care providers/agencies. CVCC has a policy designed to protect all employees and students in the workplace from exposure to bloodborne pathogens. A copy of the policy is on file in the office of the Dean, School of Access, Development, & Success, located in Student Services.

HOUSING. Catawba Valley Community College primarily serves students within commuting distance of the campus. CVCC has no dormitory or housing facilities.

ORIENTATION. New Student Orientation is required of all new students. Upon completion, individuals will be allowed to register for courses. New Student Orientation is offered in an online format. This orientation introduces individuals to information about how to navigate on campus, explore career options, and register for upcoming courses. Participants will also be instructed on how to access online classes, student accounts, grade information, and payment options through CVCC's student software.

PROGRAM FOR STUDENTS WITH DISABILITIES. A program of services is provided for students with disabilities. Individuals with disabilities (as defined in the Americans with Disabilities Act (ADA) of 1990, and the ADA Amended Act 2008) wishing to make a request for reasonable accommodation or wishing to file a complaint of alleged discrimination on the basis of disability should contact the Counselor for the Program for Students with Disabilities by phone at 828-327-7000, extension 4222 or by mail at 2550 Highway 70 SE, Hickory, NC 28602. It is the student's responsibility to request these services. Current documentation of the disability by an appropriate professional may be required. All information is kept confidential. Students will be required to sign a release of information form before any special contact is made to arrange accommodations. Requests for reasonable accommodation should be made several weeks in advance to allow sufficient time for accommodations to be arranged.

SINGLE POINT OF CONTACT (SPOC)
FOR HOMELESS AND UNACCOMPANIED YOUTH.
In accordance with the McKinney-Vento Homeless Assistance Act, services are provided to help smooth the transition to college for unaccompanied students who are experiencing homelessness. The Single Point of Contact (SPOC) helps to create an awareness on campus of homeless students, expedite the process of determining eligibility for independent student status for the FAFSA, and supports school access and success by facilitating campus discussions to develop a system of support for homeless and unaccompanied youth, and linking youth with campus resources and community assistance. The CVCC SPOC can be reached at 828-327-7000 ext. 4408 or by mail at 2550 Hwy. 70 SE, Hickory, NC 28602.

STUDENT RESOURCE GUIDE 2015/2016.
College policies and procedures are applicable to all students enrolled at CVCC, whether full-time, part-time, auditing, special credit, non-credit, or Career & College Promise. Information contained in this document is subject to change without notice. CVCC is an equal opportunity/affirmative action institution. These policies and procedures are outlined on our web site at http://www.cvcc.edu/About_Us/Policies/ and http://www.cvcc.edu/About_Us/Procedures/.

SPECIAL PROGRAMS. Students needing assistance with childcare funding or other supportive services such as temporary funding of tuition, books, supplies or transportation should contact the Director for Special Programs in the Learning Assistance Center (LAC). Each year special grant applications are made, and there may be funds for financial assistance. Applications are available in the Learning Assistance Center (LAC) and Student Services and are distributed to the "most in need" as long as funds last. "Most in need" is determined by information submitted on the Free Application for Federal Student Aid (FAFSA).

TESTING SERVICES. Students applying for degree, diploma, and certificate programs may be required to complete certain placement tests. CVCC utilizes the NCDAP to assess reading, writing, and numerical/algebra skills. The OPAC software program is utilized to assess computer literacy skills. Test results are used by academic advisors to place students in appropriate courses and thereby maximize their opportunities for success. Placement test scores are not used for determining admission to the College, but may be required to satisfy certain program of study requirements. Students are provided appropriate information on placement testing during the admissions process. NCDAP test scores are valid for five years. If the test scores expire before required courses are taken, the student must retest.

RE-TESTING PROCEDURE. CVCC uses the NCDAP placement test battery and every student is provided the opportunity to complete placement testing as one of the requirements to be admitted to CVCC. There is no fee for this first-time placement testing. Placement test scores using NCDAP are valid for 5 years. Generally, re-testing on NCDAP is not considered to be productive. However, re-testing may occur if one of the following conditions is met:

1. NCDAP scores are older than 5 years and have expired. There is no fee to re-test if test scores have expired.
2. The original test score is believed to be invalid due to illness, interruption, or other problems during test administration as determined by the Testing Center staff. Should any of these issues occur, the student must alert the Testing Center staff about the issue upon completion of the placement test and before exiting from the Testing Center. Testing Center staff will discuss the issue with the student and assist the student to schedule a re-test if appropriate. Testing Center staff will determine whether the student must pay a re-testing fee.
3. The student completes an intervention/remediation to provide appropriate skill development for the student. The student must discuss this option with the appropriate Department Head (Mathematics or English/Developmental Studies) and re-testing will be approved by the Department Head if appropriate. The student will be charged a $10.00 fee to re-test in Mathematics and a $10.00 fee to re-test in Reading/English.
4. The Department Head for Mathematics or English/Developmental Studies determines that the student may benefit from a re-test. The Department Head will discuss options with the student to determine the best course of action. The student will be charged a $10.00 fee to re-test in Mathematics and a $10.00 fee to re-test in Reading/English.
5. Testing Center staff are not authorized to grant re-testing except in the case of #2 listed above.

Students who are approved to re-test will receive a form from the appropriate Department Head that indicates the specific NCDAP re-test. The student will take this form to the Business Office and pay the required fee(s). The Business Office will give the student a receipt. The student will take both the Re-test Form and the receipt to the Testing Center to schedule a re-test appointment.

VETERANS AFFAIRS. Special needs and information about policies and procedures for veteran students and dependents using VA benefits are provided by the Veteran Certifying Official in Student Services, and the local county VA offices. Students desiring to use VA Educational benefits should come to Student Services for CVCC program information and admissions requirements. Students must be accepted in a VA approved program of study and meet all institutional and VA requirements before certification can be made to the Veterans Administration. The specific application for benefits can be made on line at **www.gibill.va.gov.** Additional information regarding benefits, eligibility, policies, and procedures may be obtained from these offices.

VA students are responsible for the payment of all tuition, fees, and books at registration. VA payments are made directly to the student after classes have begun, and may take sixty days or more for initial enrollment.

V.A. benefits will reimburse only for courses required in one specific program of study.

The Veteran Certifying Officials in Student Services are responsible for (1) maintaining the appropriate records regarding veteran enrollment and progress within an educational program, and (2) notifying the Veterans Administration of any change affecting the recipients enrollment status. Students receiving VA benefits must immediately notify the VA representative in Student Services of any change in their status to include dropping or adding classes, program changes, or new names and addresses. CVCC Student Services representatives are **not** employees of the Veterans Administration and are not responsible for VA policies, rules, or public laws which determine eligibility or payments. This includes, but is not limited to, the requirement that only required classes which specifically meet a graduation requirement for the approved program can be certified to the VA for the payment of benefits. Failure to comply with requests for documentation from the VA Certifying official(s) at CVCC may result in processing delays for benefits. Students using VA benefits must comply with all college satisfactory academic process guidelines and remain in good academic standing to continue receiving benefits. For additional information see the VA web page at: http://www.cvcc.edu/stud_serv/FinancialAid/va.htm.

HOURS OF CLASSES

Students may attend Catawba Valley Community College on either a full-time or part-time basis. Day classes are normally scheduled between 8:00 a.m. and 5:00 p.m., Monday through Friday. Evening classes are normally scheduled between 5:00 p.m. and 10:00 p.m., Monday through Thursday. Some classes are also scheduled on weekends, Friday evening and Saturday daytime.

The CVCC Normal Business Hours of Operation are 8:00 AM – 5:00 PM Monday – Friday and closed Saturday and Sunday. The CVCC campus buildings are open to students 7:00 AM Monday – Friday except for scheduled events. The CVCC Campus is closed 10:30 PM – 6:00 AM Monday – Thursday and closes at 5:00 PM on Friday. The Campus will close on Institutional Holidays.

LEARNING ASSISTANCE CENTER (LAC)

The Learning Assistance Center is an academic support center offering walk-in tutorial assistance to Catawba Valley Community College students who are experiencing academic difficulties or wanting to improve their academic performance. Individual assistance is available in all levels of mathematics, writing, and study skills. Computer-assisted instruction, video instruction and Internet access are also available.

In addition, students who are making grades of 80 or below or who are retaking a class are eligible for free tutorial help. Students interested in either using the Learning Assistance Center or receiving a tutor should contact the Learning Assistance Center for additional information.

Also available is the Peer Mentoring Program. The program is designed for new students who are nervous about going to college, need to learn or improve study skills, and/or need extra help and guidance. The Program provides academic and personal support to new students experiencing the challenges associated with the first semester college experience.

LIBRARY

The Library is located on the second floor of the Cuyler A. Dunbar Building. Its primary function is to support instruction and provide necessary resources to the students in each of the curricula areas. Library patrons consist of both students and the public. The Library has a capacity of 201 students with a collection of 30,000 volumes. Eight individual study rooms and two group study rooms are available for use.

OFFICE OF MULTICULTURAL AFFAIRS

The Office of Multicultural Affairs is located on the first floor of the Cuylar A. Dunbar building. Its function is for all students, staff, and faculty to embrace and value diversity. This office promotes a creative climate offering a series of Multicultural Days on CVCC's campuses for a positive educational experience for all students.

STUDENT CENTER

The Student Center, a place to meet and eat, is one of the focal points of campus social life. A cafeteria-style snack bar, dining area, outdoor patio, and television help fill leisure moments and relieve study pressures. The Student Center is also available to provide a relatively quiet but relaxed atmosphere in which students may constructively use time for academic preparation.

Behavior Expectations for the Student Center as Approved by Student Government Association (SGA)

1. Respect the rights of others to study and learn.
2. Vulgar language, shouting across the room, horseplay, loud music or engaging other users in unwanted interactions are examples of disruptive behaviors that will not be tolerated in the Student Center. Students come to school for an education. No one has the right to interfere with the education of others.
3. Use courteous and polite behavior at all times.
4. Respect the authority of all faculty and staff to enforce these guidelines.
5. Pick up your trash when you leave the Student Center.
6. Sagging or unbelted pants are prohibited.
7. Students may not rearrange the furniture. Leave the tables, chairs and couches as they are.

COLLEGE BOOKSTORE

The College operates a well-stocked, walk-in, self-service college store, were most required books, supplies, and tools are available. In addition, other items of student interest may be purchased. While operating primarily for the students, the Trove is open to the general public and is located in the Student Center.

WRITING CENTER

Learning Skills Specialists are available in the Writing Center located in the Cuyler A. Dunbar Building, Room 234, to assist students with sentence structure, paragraph development, grammar problems, and organization. Computers are available for student use for composing or revising papers. The resources for research are conveniently located nearby in the library. Also, the Writing Center offers an online writing assistance program called E-Help. This service provides students the opportunity to submit written assignments for review by an online tutor Monday through Friday.

STUDENT ACTIVITIES

CVCC encourages student co-curricular activities and student organizations that promote student growth. Organizations and activities shall be open to all students regardless of race, color, national origin, sex/gender, religion, creed, age, or disability.

STUDENT GOVERNMENT. Each curriculum student enrolled at CVCC is automatically a member of the Student Government Association (SGA). SGA is intended to be a vehicle through which students have input into CVCC decisions and into the general welfare of students. The goals of this organization are to encourage student-faculty cooperation; provide democratic action in school activities; coordinate student activities; and maintain high standards for the school by upholding high personal standards of conduct. The SGA President is a nonvoting member of the Board of Trustees.

All on and off campus fund-raising activities and other on-campus solicitation activities by students and/or student groups must be approved in advance in accordance with guidelines established by the President's Executive Council. Procedures for organizing student activities and for establishing student organizations shall be established by the Executive Chief Student Services Officer or designee. CVCC does not support campus organizations typically known as social fraternities and sororities.

Accounting Club designed to assist students in becoming better informed about the accounting profession and introduce them to the opportunities available in the private and public sectors. Advisor: Christy Land, cland@cvcc.edu, 327-7000 ext. 4308.

Ambassadors for Christ provide regular chances to study and discuss the Bible, worship and pray in a group setting. Advisor: Kenneth Mann, kmann@cvcc.edu, 327-7000 ext. 4495.

American Chemical Society's Student Affiliate Society of CVCC gives chemical science students practice in professional areas, including preparing and presenting technical material before chemical professionals. Advisor: Kim Browning, kbrowning@cvcc.edu, 327-7000 ext. 4536.

Association of Respiratory Therapy Students promotes professionalism in respiratory care students. Members are involved in promoting healthy lifestyles and providing assistance at an asthma camp for children. Advisor: Cathy Bitsche, cbitsche@cvcc.edu, 327-7000 ext. 4391 and Advisor: Jason Elder, jelder@cvcc.edu, ext. 4083.

Automotive Systems Technology Club includes all automotive systems technology students. Members tour assembly plants, go to races, and volunteer with many campus events. Advisor: Shawn Mull, smull@cvcc.edu, 327-7000 ext. 4234.

Biology Club members promote community service, service learning, and outdoor recreation. Activities include wetlands restoration, biodiversity surveys, and waterfall hikes. Advisor: Emily Whiteley, ewhiteley@cvcc.edu, 327-7000 ext. 4361.

Business Leaders of Tomorrow provides out-of-the-classroom learning and experience to office administration, business, accounting and entrepreneurship students. Opportunities abound to build business and community relationships. Members are often able to attend conferences, seminars, and participate in educational trips. Advisors: Brenda DeLee, bdelee@cvcc.edu, 327-7000 ext. 4673; Selena Maxie, smaxie@cvcc.edu, ext. 4307.

Chess Club members get together to enjoy playing chess. Advisor: Kenneth Mann, kmann@cvcc.edu, 327-7000 ext. 4495.

Christians United For Israel (CUFI) is open to all students. Their purpose is to educate and advocate for the State of Israel. Advisor: Johnny Scott, jscott@cvcc.edu, 327-7000 ext. 4623

CKI (Circle K, affiliated with Kiwanis International) is the largest collegiate community service, leadership development, and friendship organization in the world. Members work on campus and community service projects throughout the year. Advisor: Annis Shields, ashields@cvcc.edu, 327-7000 ext. 4458.

Collegiate Music Educators Club helps students become aware of employment in music education and performance. Members are exposed to professional learning opportunities in music and receive material about continuing music education at four-year institutions. Advisor: Amalie Hinson, ahinson@cvcc.edu, 327-7000 ext. 4418.

Computer Information Systems Security Club keeps members current on the latest security issues and fixes, promotes the CVCC information security program to high schools and in the community, and provides a scholarship for a student in the curriculum program. Advisor: Rick Barnes, rbarnes@cvcc.edu, 327-7000 ext. 4312.

Cosmetology Club (The Cutting Edge) fosters the development of skills necessary to become successful cosmetologists. Members have a variety of activities and field trips. Advisor: Tammy Muller, tmuller@cvcc.edu, 327-7000 ext. 4108.

Criminal Justice Club designed to give students in the the Criminal Justice and Latent Evidence program the opportunity for open exchange of ideas and knowledge pertaining to issues in the criminal justice field. Advisor: Sherry Herman, sherman@cvcc.edu, 327-7000 ext. 4050

CVANS gives nursing students an opportunity to complete service projects in the community. Advisor: Robin Caldwell, rcaldwell@cvcc.edu, 327-7000 ext. 4299; Pam Pinkerton, ppinkerton@cvcc.edu, ext. 4825.

CVCC Campus Crusade for Christ (CRU) is an international organization that seeks to develop tomorrow's leaders by embracing the purpose, love and forgiveness that God offers them in a relationship with Jesus Christ. Advisor: Ari Sigal, asigal@cvcc.edu, 327-7000 ext. 4355.

CVCC Lesbian, Gay, Bi-sexual, Transgender (LGBT) and Allies Club is open to all students. The purpose is to create a "safe zone" where all students can find help and support while promoting school spirit and equality. Advisor: Brian Bergman, bbergman@cvcc.edu, 327-7000 ext. 4720.

Debate Club promotes a higher level of understanding and insight on issues through debate. Advisor: Kenneth Man, kmann@cvcc.edu, 327-7000 ext. 4495

Dr. Who Club exists to socialize and learn about cultural topics related to the Dr. Who show and to participate in community service. Advisor: Polly Waston, pwatson@cvcc.edu, 327-7000 ext. 4495.

Early Childhood Club encourages students working in or seeking careers in the Early Childhood field. Advisor: Aden Cranford, acranford@cvcc.edu, 327-7000 ext. 4575.

Electroneurodiagnostic Club members help market the END professions. Fundraising activities throughout the year mean club members can attend statewide seminars and workshops. Advisor: Sarah Hoffman Shelton, shoffman@cvcc.edu, 327-7000 ext. 4517.

Emerging Entrepreneur Club fosters the use of entrepreneurial thinking and helps develop the skills necessary to become successful business owners or managers. Members have a variety of activities during the school year, including speakers' forums, field trips and special projects. Advisor: Gary Muller, gmuller@cvcc.edu, 327-7000 ext. 4672.

Epsilon Sigma Pi-EMS Club encourages awareness, concern, and interest in the emergency medical care profession. The society shall promote services and fellowship through community improvement and awareness. Advisor: Tonja Poole, tpoole@cvcc.edu, 327-7000 ext. 4167; Kevin Lyford, klyford@cvcc.edu, ext. 4347.

Geology Club provides students with access to field trips and research opportunities in geology and environmental science. Volunteering, community service and stewardship are all practiced by the club. Advisor: Ron Teseneer, rteseneer@cvcc.edu, 327-7000 ext. 4534.

Health Information Technology Club encourages HIT students to network with area Health Information Management professionals, mentor HIT students and provide a forum for student questions and concerns. Advisor: Debbie Cook, dcook@cvcc.edu, ext. 327-7000 ext. 4342.

HOSA Health Occupation Student Association is designed to generate awareness of health care professions and the delivery of quality health care. Advisor: Tanya Clanton, tclanton@cvcc.edu, 327-7000 ext. 4347.

Minority Males on the Move encourages minority males to attend and graduate from CVCC. Members explore employment opportunities and seek to prepare minority males with the right college courses. Advisor: Steve Hunt, shunt@cvcc.edu, 327-7000 ext. 4570.

Phi Theta Kappa is an international honor society that recognizes and encourages scholarship, leadership, service and fellowship. Membership invitations are extended to students who excel academically and in their service. Members participate in campus and community projects. Advisor: Krysten Buchanan, kbuchanan@cvcc.edu, 327-7000 ext. 4691.

Polysomnography Club members are often found participating in community events promoting improved health care and good sleep hygiene. They actively promote the "Polysom" program throughout the area to ensure a continued pipeline of quality applicants. Advisor: Sarah Hoffman Shelton, shoffman@cvcc.edu, 327-7000 ext. 4517.

Radiography Club promotes communication among radiography students. Members attend a conference each year where they network with radiography professionals. Advisor: Robin Cornett, rcornett@cvcc.edu, 327-7000 ext. 4074.

Rotaract (affiliated with Rotary International) is a service club that gives members an opportunity to work on campus and community projects. Advisors: Teresa Biggs, tbiggs@cvcc.edu, 327-7000 ext. 4288; Steve Hunt, shunt@cvcc.edu, ext. 4570; Mary Beth Sjaardema, msjaardema@cvcc.edu, ext. 4282.

Skills USA unites students in industrial, technical, health occupations and vocational trades. Club members acquire leadership skills, learn about and promote high professional standards and share in establishing career goals. Advisor: Gary Muller, gmuller@cvcc.edu, 327-7000 ext. 4672.

Student American Dental Hygiene Association gives dental hygiene students a chance to volunteer for and participate in community events. Guest speakers regularly present lively topics. Club members attend statewide scientific meetings. Advisors: Debbie LeFevers, dlefever@cvcc.edu, 327-7000 ext. 4157; Connie Preiser, cpreiser@cvcc.edu, ext. 4440.

Student Government Association (SGA) sponsors activities open to all currently enrolled curriculum students. SGA activities promote cultural, social, physical, and academic growth. Programs sponsored include Fall and Spring Fling, N4C SGA conferences, co-curricular activities, and much more! Advisors: Bo Glenn, bglenn@cvcc.edu, 327-7000 ext. 4388; Debra Cook, dcook@cvcc.edu, ext. 4342.

Student Photographic Society is a chapter of the national group sponsored by Professional Photographers of America. The club is involved in loads of campus and community events photographing and displaying their works. Advisor: Clayton Joe Young, jyoung@cvcc.edu, 327-7000 ext. 4467.

Student Veteran's Organization fosters support of Veterans and their dependants as well as current service members attending CVCC. Advisor: Ellen Gibbs, egibbs@cvcc.edu, 327-7000 ext. 4205

Surgical Technology Club members participate in campus blood drives, walk-in community walk-a-thons, and raise funds for surg tech "extras," like a very special pinning ceremony. Advisor: Kimberly Poteet, kpoteet@cvcc.edu, 327-7000 ext. 4332.

Theater Arts Club gives all students a chance to be involved in theatrical events like dramatic readings, one-act plays, and storytelling. Follow on Facebook: http://www.facebook.com/cvcctheatreartsclub. Advisor: Kim Stinson, kstinson@cvcc.edu, 327-7000 ext. 4406.

CVCC FOUNDATION

The Catawba Valley Community College Foundation, Inc., is a non-profit organization with the mission to foster and promote growth, progress, and the general welfare of Catawba Valley Community College. It is the vehicle through which the community may invest in education.

CVCC ALUMNI AFFAIRS

The CVCC Alumni Association was founded in 2014 to connect, enrich, and serve a growing body of alumni. The association celebrates the achievements of CVCC alumni and the opportunities that community college education provides. It also seeks to give alumni opportunities to give back to students, the college, and the community it serves. Individuals who finished a degree, certificate, diploma, or earned job skills through CVCC are invited to join. For more information, visit www.cvcc.edu/alumni, or contact Mary Reynolds, Alumni Affairs Director, alumni@cvcc.edu.

VISITORS ON CAMPUS

VISITORS/CHILDREN ON CAMPUS/SOLICITORS/FREE SPEECH, PUBLIC ASSEMBLY, AND DISTRIBUTION/PETITIONING

Visitors are defined as anyone other than CVCC personnel, officially enrolled students, members of the Board of Trustees, and members of the CVCC Foundation Board.

Visitors are permitted (and welcomed) on CVCC property for participation in or attendance at CVCC sponsored or approved activities/events and for use of the CVCC library facility.

Employers wishing to recruit on campus must coordinate their visit with the Director of Career Services or the Director of the Alexander Center for Education.

Media representatives are encouraged to inquire with the Public Information Officer prior to interviewing, photographing or videotaping employees or students on the various CVCC campuses. See also CVCC policy 4.2 (Authorized Spokesperson).

Visitors must comply with all other CVCC policies including the CVCC policy on free speech, public assembly, distribution/petitioning, and the CVCC policy on solicitation.

Visitors may be required to provide personal identification to CVCC officials or campus security. Visitors who do not comply with requests for identification, or who interfere with the normal operations, functions, or learning environment of CVCC, will be asked to leave. Individuals who refuse to leave will be considered trespassing and will be subject to arrest. CVCC shall not be held responsible for accidents or injuries to visitors who are in violation of CVCC policies.

CHILDREN ON CAMPUS

For the purposes of this policy, a child is defined as any youth under the age of 16 who is not officially registered in a CVCC class or Challenger High School class.

Children accompanying employees, students, or visitors of CVCC must be under the constant supervision of a responsible adult while on CVCC property, or on the site of any approved off-campus class or other CVCC event. Employees of CVCC have assigned duties and cannot take supervisory responsibility for any unattended children of employees, students, or visitors. Children should not be unattended in any CVCC facility at any time.

CVCC assumes no responsibility or liability for children, or for any accidents or injuries to children.

Students, faculty, and staff are expected to arrange for their personal childcare away from the work site. An employee must have the approval of his/her supervisor to bring a child to the workplace during working hours due to an emergency situation at home. Sick children should not be brought to campus.

Children accompanying employees, students, or visitors are not permitted in classes, labs, or other learning environments.

Persons receiving CVCC services may be refused service if accompanied by a child who will be unattended during the time the patron is receiving services, or if accompanied by a child who is disruptive to CVCC operations. CVCC personnel are not expected to provide supervision of such children.

If children are left unattended, CVCC may notify law enforcement personnel and/or the Department of Social Services.

SOLICITATION

For purposes of this policy, solicitation is an oral or written request/notice for, or effort to achieve, a contribution, a donation, or a sale/purchase of goods or services on any property owned, leased, or under the jurisdiction of CVCC.

Solicitation for commercial (for profit) purposes that is not a routine and necessary part of CVCC's normal operations, activities, or functions is restricted as to time, place, and manner and must be approved in accordance with procedures established by the President (or designee). Such solicitation may not utilize state property. Such solicitation must not interfere or disrupt the normal operating and learning environment at CVCC. Fees for use of building or grounds space may be assessed. Specifically prohibited is the distribution of printed solicitation material on parked vehicles and on CVCC bulletin boards.

CVCC students and employees may utilize certain bulletin boards designated by the President (or designee) to advertise the sale of used personal items. The President (or designee) shall establish procedures and guidelines for such usage.

Solicitation for charitable, community service, not-for-profit, or civic purposes must be approved in accordance with procedures and guidelines established by the President (or designee). Such solicitation must not interfere or disrupt the normal operating and learning environment at CVCC.

FREE SPEECH, PUBLIC ASSEMBLY, AND DISTRIBUTION/PETITIONING

Consistent with its educational mission, CVCC encourages the free exchange of ideas on campus, while assuring that other important CVCC interests and activities are not infringed upon or disrupted. CVCC recognizes the value of providing students, faculty, staff and others the opportunity to assemble and communicate with one another, as well as to distribute informative printed material to members of the CVCC community. CVCC is committed to protecting First Amendment rights of individuals and supports reasonable opportunity for people to distribute printed materials and to engage in other forms of expression and assembly on campus (collectively termed "expression activities" for purposes of this policy). Except with respect to commercial expression, and expression (e.g., obscenity, defamation, fighting words, harassment) which the Supreme Court has held constitutes content which can be proscribed, CVCC will not make decisions or take actions based on the content of expressive activities on campus. However, the President shall establish restrictions, unrelated to the content of noncommercial expression, on the time, place and manner of use of CVCC facilities for expression activities so that other important CVCC interests and activities are not infringed upon or disrupted. Such restrictions shall be published as part of the procedures for obtaining authorization to use CVCC facilities for expression activities. All persons engaging in expression activities must observe such restrictions. Failure to comply with established restrictions may result in sanctions including, but not limited to, charges of trespass and forfeit of the right to use CVCC facilities for further expression activities.

Unlawful conduct is not permitted. Unlawful conduct is conduct that is prohibited by Federal, State, or local law or regulation, or that violates one or more rights of a person or entity under the common law of North Carolina.

In order to provide opportunity for access to multiple and diverse persons/groups, the President (or designee) may establish procedures and/or guidelines to regulate use by a single person/group.

Individuals have the right to dissent to the expression activities of another. However, such right to dissent shall not interfere with the authorized expression activities of another and need not occupy the same forum at the same time.

Use of public address systems or amplified sound is not permitted.

Duly authorized persons/groups may distribute printed materials by hand within designated areas on the condition that such material is for informational (not commercial) purposes. Such persons/groups shall be responsible for any clean-up costs associated with the distribution of such materials. Printed materials may not be distributed through CVCC's internal mail system.

Persons/groups utilizing CVCC facilities must comply with CVCC Policy 6.2 (Use of CVCC Facilities, Approval, Fees, Appropriate Use).

CVCC reserves the right to immediately terminate any expression activities otherwise permitted by this policy if in the judgment of CVCC officials, continuation of such activities will result in: (a) danger to participants or others; (b) unlawful conduct by participants or others; or (c) interference with disruption or disturbance of the CVCC's educational mission, operations, business, or functions.

STUDENT CONDUCT POLICY

Students are expected to conduct themselves appropriately. The following conduct is considered inappropriate and may result in disciplinary action, including suspension or expulsion from CVCC:

a) Interruption or in any manner interfering with normal CVCC operations;
b) Destruction, damage, or misuse of CVCC equipment, facilities, or property;
c) Physical abuse of another person in the CVCC community;
d) Theft of property belonging to another in the CVCC community;
e) Participation in hazing;
f) Plagiarism and other forms of academic cheating (see also the Academic Dishonesty Policy);
g) Harassment, including harassment of a sexual nature and harassment of a student with disabilities;
h) Violation of CVCC policies including those regarding the use and/or possession of firearms or other weapons, alcoholic beverages, illegal drugs or controlled substances, and tobacco products;
i) Making a threat to the safety of the CVCC community; or
j) Commission of any other offense which, in the opinion of the administration or faculty, may be contrary to the best interest of the CVCC community.

Disciplinary action may include the following: (1) warning, (2) probation, (3) suspension, or (4) expulsion. The Dean, School of Access, Development, & Success may include campus service as a condition of probation provided that the service required is designed to educate and enlighten the student regarding the policy violated. A faculty member may impose disciplinary action on a student in his/her classes and on a student who is participating in school activities under his/her supervision. The disciplinary action imposed by a faculty member may include a warning, probation, or dismissal from the applicable class or activity. Only the President, Vice Presidents, and the Dean, School of Access, Development, & Success have the authority to suspend a student from CVCC. Permanent expulsion of a student from CVCC must be authorized by the President. Suspensions and expulsions for disciplinary reasons shall be recorded in the student's permanent record (on the transcript). Students are entitled to appeal any disciplinary action in accordance with CVCC's student due process policy.

STUDENT ADVOCATE. Students may contact the Director of Admissions for assistance regarding academic problems and/or concerns. The Director of Admissions (or designee) will work with the student, instructors, academic supervisors, and other College resources to identify and implement the best available solution to academic problems and/or concerns.

STUDENT DUE PROCESS PROCEDURES. Upon request by a student, the Dean, School of Access, Development, and Success will provide assistance with this process. Students who have a grievance with CVCC may have their grievance reviewed in accordance with this student due process policy. A grievance for purposes of this policy is a dispute regarding a final course grade received, a dispute regarding a disciplinary action imposed, other allegation of unjust treatment, or discrimination on the basis of race, color, national origin, sex/gender, religion, creed, age, or disability. The "event date" for purposes of this policy is as follows:

For a grievance regarding a final course grade received, the date on which the grade was mailed to the student, made available to the student through an online portal or other electronic means, or otherwise made available to the student; for a grievance regarding disciplinary action, the date on which written notice of the disciplinary action was mailed or otherwise provided to the student; or for other grievances, the date on which

the alleged unjust or discriminatory treatment occurred.

Steps that students must take to have their grievance reviewed. The student is not required in any step to confront alone the person he/she claims is responsible for the unjust or discriminatory treatment.

Step 1 - As soon as possible but no later than the 14th calendar day (excluding CVCC institutional holidays) following the "event date," the student is encouraged to initiate a discussion of the grievance with the CVCC employee who is allegedly responsible for the unjust or discriminatory treatment and/or with that employee's immediate supervisor (the "Step 1 Supervisor" for purposes of this policy). This discussion should include an attempt to resolve the grievance.

Step 2 - If the grievance is not resolved in Step 1, the student may initiate a Step 2 grievance review by completing the student portion of the CVCC Student Grievance Form ("the Form") and submitting the Form to the following CVCC official (the "Step 2 Supervisor" for purposes of this policy):

- If the Step 1 Supervisor is other than an executive director, dean, or vice-president, the Step 2 Supervisor shall be the dean for the school in which the grievance originated; or
- If the Step 1 Supervisor is an executive director, dean, or vice-president, the Step 2 Supervisor shall be the immediate supervisor of the Step 1 supervisor.

The student must submit the Form as soon as possible after completion of Step 1 but no later than the 21st calendar day (excluding CVCC institutional holidays) following the "event date." Students may obtain the Form from the Step 2 Supervisor or from the Chief Student Services Officer.

The Step 2 Supervisor shall review the grievance and provide the student with a Step 2 written decision within 7 calendar days (excluding institutional holidays) following receipt of the Form. The Step 2 Supervisor shall also complete the supervisor portion of the Form and submit a copy to the Office of the President.

Step 3 - If the grievance is not resolved in Step 2, the student may initiate a Student Grievance Committee review by completing the student portion of the CVCC Student Grievance Committee Review Form (the "Committee Review Form") and submitting that Committee Review Form to the Office of the President as soon as possible but no later than the 7th calendar day (excluding CVCC institutional holidays) following receipt of the Step 2 written decision. Students may obtain a Committee Review Form from the Office of the President or from the Dean, School of Access, Development, & Success.

Following receipt of a Committee Review Form, a Student Grievance Committee ("the Committee") shall be selected. The Committee membership (5 voting members and a non-voting chair) shall be as follows and shall not include any members who have had any involvement in the grievance to date:

- Committee Chair (a non-voting member) - A Vice President selected by the President;
- 2 voting representatives selected by the Committee Chair from a group of 9 faculty or non-credit professional staff representatives (3 from each academic school) appointed by the President;
- 1 voting representative selected by the Committee Chair from a group of 2 Student Services counselors or admissions representatives appointed by the President; and
- 2 voting student representatives selected by the Committee Chair from the group of 5 current SGA officers.

The Committee Chair shall schedule a review/hearing by the Committee within 7 calendar days (excluding CVCC institutional holidays) following the receipt of the Committee Review Form by the Office of the President. Following the review/hearing, the Committee must decide if the student has been treated unjustly and if so, must recommend corrective action. Committee decisions shall be determined by a majority vote of the Committee members and are final. Decisions made by the Committee shall be provided in writing to the student by the Committee Chair within 3 calendar days following the completion of the review and hearing. Copies of the written decision shall be provided to the Dean, School of Access, Development, & Success, to the Office of the President, and to the CVCC employees involved in Steps 1 and 2 of the grievance process. The following exception applies if the CVCC employee who is allegedly responsible for the unjust treatment is a Vice President. The Step 1 Supervisor shall be another Vice President appointed by the President.

PROHIBITION OF SEXUAL HARASSMENT

CVCC is committed to providing its students, faculty, and staff with an educational and work environment in which all people are treated with respect and dignity. CVCC maintains a strict policy prohibiting sexual harassment, discrimination, and harassment on the basis of race, color, religion, gender, national or ethnic origin, age, disability, veteran or active military status, genetic characteristics, or any other category protected by law. This policy is applicable to all employees and students and applies to the workplace, the classroom, or in any other setting where students, faculty, and staff may find themselves in connection with their education or employment. Such conduct is unlawful and will not be tolerated by CVCC. While this policy sets forth CVCC's goal of promoting an educational and work environment that is free of harassment, it is not designed or intended to limit authority to discipline or take remedial action for conduct which is deemed unacceptable, regardless of whether that conduct satisfies the legal definition of harassment.

Sexual Harrasment

In the employment context, sexual harassment refers to sexual advances, requests for sexual favors, and/or verbal or physical conduct of a sexual nature, which when: submission to or rejection of such advances, requests, or conduct is made either explicitly or implicitly a term or condition of employment, or as a basis for employment decisions or; such advances, requests or conduct have the purpose or effect of unreasonably interfering with an individual's work performance by creating an intimidating, hostile, humiliating, or sexually offensive work environment.

Under these definitions, direct or implied requests by a supervisor for sexual favors in exchange for actual or promised job benefits, such as favorable reviews, salary increases, promotions, increased benefits, or continued employment constitutes sexual harassment. Likewise, direct or implied requests for sexual favors by one who has the power or authority to influence a student's academic record or to compromise one's full and unfettered participation in the CVCC community, academically, and otherwise, constitutes harassment. Similarly, harassment consists of sexual advances, requests, or conduct that has the purpose or effect of unreasonably interfering with one's freedom by creating an intimidating, hostile, humiliating, or sexually offensive academic environment.

While in some cases individuals may make sexual comments or jokes or personal advances without intending harm, such actions can be unwanted, threatening, and perceived as harassment. Stopping sexual harassment in its many forms requires an increased awareness by everyone at the College of the impact that such actions may have on others. The following is a partial list of unwelcome, unwanted behavior, which may be considered sexual harassment:

- Unwelcome sexual advances or propositions – whether they involve physical touching or not;
- Written or verbal sexual epithets, jokes, or references to sexual conduct, gossip regarding one's sex life;
- Written or verbal abuse of a sexual nature, use of sexually degrading, or vulgar words to describe an individual;
- Leering, whistling, brushing against another's body, sexual gestures;
- The display of sexually suggestive objects, pictures, posters, cartoons, websites, and any form of electronic communication;
- Comments about an individual's body or appearance, or regarding one's sex life, experience, sexual prowess, or sexual deficiencies;
- Asking questions about sexual conduct or probing into one's sex life or relationships; and
- Harassment consistently targeted at only one sex, even if the content of the verbal abuse is not of a sexual nature.

Discriminatory Harassment

Discriminatory harassment in the employment context refers to any verbal or physical conduct that denigrates, threatens, intimidates, or shows hostility or aversion to an individual because of that person's race, color, religion, gender, national, or ethnic origin, age, disability, veteran

or active military status, genetic characteristics when such conduct has the purpose or effect of unreasonably interfering with an individual's work performance by creating an intimidating, hostile, humiliating, or offensive work environment. Likewise, discriminatory harassment in the educational context refers to verbal or physical conduct of a similar nature directed at a student, which has the purpose or effect of unreasonably interfering with one's freedom by creating an intimidating, hostile, humiliating, or sexually offensive academic environment.

The following is a partial list of unwelcome, unwanted behavior, which when based upon one's race, color, religion, gender, national, or ethnic origin, sexual orientation, age, disability, veteran or active military status, or genetic characteristics, may be considered discriminatory harassment:

• Verbal or physical conduct that denigrates or shows hostility or aversion toward an individual or group;
• Epithets, slurs, negative stereotyping, or threatening, intimidating, or hostile acts;
• Written or graphic material that denigrates or shows hostility or aversion toward an individual or group, including the display of objects, pictures, posters, cartoons, websites, and any form of electronic communication.

Unprofessional Relationships and Abuse of Authority

Amorous relationships that might be appropriate in other circumstances have inherent dangers when they occur between supervisor and employee, or between any member of the faculty, administration or staff, and students of the College. Such relationships are fundamentally asymmetric, and unprofessional and they raise serious concerns about the validity of the consent, conflict of interest, and unfair treatment of others. CVCC faculty, administrators, managers, and officers should be aware that any romantic involvement with any student or employees over whom they serve in a supervisory capacity could expose them to disciplinary action under this policy and individual liability under the law. Even when both parties have initially consented to such a relationship, it is the administrator, manager, or faculty member who, by virtue of his or her status, may be held accountable for the unprofessional relationship or abuse of authority. In addition, such relationships are to be avoided because they may create an impression on the part of colleagues of inappropriate or inequitable academic or professional advantage or favoritism that is destructive to the working and learning environment that the College seeks to foster and may raise doubts about the integrity of the work performed.

Reporting A Complaint of Harassment or Discrimination

Employees who believe that they are being harassed or discriminated against, or have taken measure to stop the harassment or discrimination but have been unsuccessful, may report a complaint to any of the following persons:

• The employee's immediate supervisor;
• Any CVCC administrator;
• CVCC's personnel office; or
• The CVCC President.

Students who believe that they are being sexually harassed, or who have taken measures to stop the harassment but have been unsuccessful, may report a complaint to any of the following College representatives:

• The Dean, School of Access, Development, & Success;
• Any School Dean;
• Any Vice President; or
• The CVCC President.

If individuals decide they want to make a report, contact should be made with the CVCC representative (in list above) with whom they feel the most comfortable. As with any job-related or student complaint, CVCC encourages following the chain of command where possible. However, due to the personal nature of harassment and discrimination and CVCC's strong opposition to sexual harassment, any employee/student who feels he or she is being subject to harassment or discrimination can complain to any one of the persons listed previously, orally or in writing.

When making a complaint of harassment or discrimination, the employee/student should be prepared to provide the following information:

• Name;
• The name of the person or persons committing the harassment or discrimination;
• The specific nature of the harassment or discrimination; or
• Whether the employee/student has previously reported such harassment or discrimination and, if so, when and to whom.

The appropriate Vice President is the person designated by the President to be investigator of complaints of harassment or discrimination which involve only employees. The Vice President may delegate the investigation to another College employee, under his or her supervision. In the event the harassment or discrimination complaint is against the Vice President, the investigator shall be a CVCC employee appointed by the President.

The Dean, School of Access, Development, & Success is the person designated by the President to be investigator of complaints of harassment or discrimination which involve students only or students and employees. The Dean, School of Access, Development, & Success may delegate the investigation to another CVCC employee under his or her supervision. In the event the harassment or discrimination complaint is against the Chief Student Services Officer, the investigator shall be a CVCC employee appointed by the Vice President with primary responsibility for student services or the President.

The College's complaint procedure provides for an immediate, thorough and objective investigation of the harassment or discrimination. All actions taken to investigate and resolve complaints through this process will be conducted in a matter that preserves confidentiality to the greatest extent possible under the circumstances, without compromising the thoroughness of the investigation. The investigation will be completed and a determination made and communicated to the person filing the harassment complaint as soon as practical.

If CVCC determines that a violation of this policy has occurred, it will take appropriate remedial action against a person found to have engaged in prohibited conduct. The discipline will be commensurate with the severity of the offense. Any person who is found to be in violation of this policy is subject to disciplinary action up to and including discharge from employment or expulsion.

Protection Against Retaliation

Retaliation is a very serious violation of this policy and should be reported immediately using the complaint process described above. Retaliation, whether by the alleged wrongdoer or other individuals, can take any of many forms. Retaliation is defined as any materially adverse action that might well have dissuaded a reasonable person from making or supporting a complaint of discrimination or harassment. Examples of tangible, adverse actions may include a transfer to an undesirable location, a reduction in work hours, a serious loss in responsibility, the denial of an earned benefit, or termination of employment.

Retaliation against any individual for reporting discrimination or harassment or against one who participates in an investigation will not be tolerated. In responding to reports of retaliation, the College will follow the same process, outlined above, including conducting a prompt, thorough and impartial investigation and taking appropriate remedial measures.

False Accusation

CVCC recognizes that the question of whether a particular course of conduct constitutes discrimination or harassment requires a factual determination. The College also recognizes that false accusations can have serious effects on innocent persons. If, after investigation, it is clear that a person who has accused another of discrimination or harassment has maliciously or recklessly made a false accusation, the accuser will be subject to appropriate disciplinary action, up to and including termination or, in the case of a student, expulsion. In such an event, the College will also take appropriate action to restore the reputation of the accused.

SEXUAL ASSAULT PROTOCOL

Catawba Valley Community College is committed to the maintenance of an environment that is supportive of its primary educational mission and free from all exploitation and intimidation. CVCC will not tolerate rape, sexual assault, or other forcible and non-forcible sex offenses and supports this policy for students, faculty, and staff by sponsoring prevention, intervention, and education programs specifically addressing these offenses. Information and awareness programs are offered at various times by way of a variety of events throughout the year. CVCC recognizes the importance of assisting individuals who are victims of sexual assault and helping them to regain a sense of personal control over their lives and decisions. **The protocol for reporting of and responding to sex offenses is available on the CVCC website, in Student Services, and in the Personnel Office.**

Definition of Sex Offenses

• Sex Offenses (Forcible) – Any sexual act directed against another person, forcibly and/or against that person's will; or not forcibly or against the person's will where the victim is incapable of giving consent.

• Forcible Rape – The carnal knowledge of a person, forcibly and/or against that person's will; or not forcibly or against the person's will where the victim is incapable of giving consent because of temporary or permanent mental or physical incapacity (or because of youth).

• Forcible Sodomy – Oral or anal sexual intercourse with another per-

son, forcibly and/or against that person's will; or not forcibly against the person's will where the victim is incapable of giving consent because of youth or because of temporary or permanent mental or physical incapacity.

• Sexual Assault With An Object – The use of an object or instrument to unlawfully penetrate, however slightly, the genital or anal opening of the body of another person, forcibly and/or against that person's will; or not forcibly or against the person's will where the victim is incapable of giving consent because of youth or because of temporary or permanent mental or physical incapacity.

• Forcible Fondling – The touching of the private body parts of another person for the purpose of sexual gratification, forcibly and/or against that person's will; or not forcibly or against the person's will where the victim is incapable of giving consent because of youth or because of temporary or permanent mental incapacity.

• Sex Offenses (Non-forcible) - Unlawful, non-forcible sexual intercourse.

• Incest – Non-forcible sexual intercourse between persons who are related to each other within the degrees wherein marriage is prohibited by law.

• Statutory Rape – Non-forcible sexual intercourse with a person who is under the statutory age of consent.

Reporting Sexual Assault

If you are sexually assaulted, you should do the following:

- **Go to a safe place.**
- **Do not shower or bathe.**
- **Do not urinate, if possible.**
- **Do not eat, drink, smoke or brush your teeth if oral contact took place.**
- **Do not destroy or wash the clothes you were wearing. If you change, place your clothes in a paper bag.**
- **Contact Campus Security, local law enforcement (Catawba County Sheriff's Department, Hickory Police Department, Newton Police Department, Alexander County Sheriff's Department, or Taylorsville Police Department) or the Dean, School of Access, Development, & Success.**
- **Seek medical treatment immediately (preferably within 72 hours).**

Following the above suggestions will ensure the preservation of evidence. Victims of sexual assault are encouraged to contact campus security, local law enforcement or Student Services immediately following an incident. A report may be filed with campus security and/or local law enforcement. The filing of a report does not obligate the victim to pursue charges, but does make filing of charges easier at a later date.

Options available to sexual assault victims are resolution through the College's Policies and Procedures Manual and/or the judicial system (criminal and/or civil). Catawba Valley Community College will assist in pursuing option(s) elected by the victim. The College and the courts are independent systems; charges may be filed in either or both systems.

If an assault victim does not wish to pursue action with the College or the judicial system, the victim may make an anonymous report. With the victim's permission, the College can file a report on the details of the incident without revealing the victim's identity. This type of anonymous report helps to ensure the future safety of the victim and others. With such information, the College can keep accurate records about the number of incidents involving students, determine where there is a pattern of assaults with regard to a particular location, method, or assailant, and alert the campus community to potential danger.

Victim's Rights

- To have all incidents and medical records kept confidential
- To be treated without prejudice based upon race, class, lifestyle, sex, age, occupation, or religious beliefs
- To receive private and confidential examination/treatment for personal injuries, sexually transmittable disease, and pregnancy.
- To be considered as credible as a person reporting any other crime
- To be made aware of the options available through the College and the judicial system
- To receive emotional and psychological support and advocacy
- To prosecute or not to prosecute
- To receive current information on community and campus resources
- To answer only those questions relevant to the crime
- To freedom from harassment
- To feasible class schedule adjustments (without academic or financial penalty) as necessary to minimize the potential for contact with the alleged perpetrator or those associated with the alleged perpetrator.

Taking Action for a Sexual Violation

To begin a college action where both the victim and the alleged perpetrator are students, the victim should file a complaint for sexual assault with the Dean, School of Access, Development, & Success. An immediate investigation shall follow. Due process procedures as outlined in the Policy and Procedure Manual, Section 3.18 and 3.19 will apply.

To begin a college action where the victim is a student and the alleged perpetrator is a College employee, the victim should file a complaint for sexual assault with the Dean, School of Access, Development, & Success (if a curriculum student) or the Dean of the appropriate School (if a continuing education student). An immediate investigation shall follow. Due process procedures as outlined in the Policy and Procedure Manual. Sections 3.18 and 3.19 will apply.

There are many instances when children and adolescents are present on the campuses of Catawba Valley Community College. Campus Safety and Security personnel work together with local law enforcement to inform, educate and maintain the safety and security of students, employees and visitors on the various College campuses.

North Carolina Law **[NC General Statute 7B-301 and 115C-400]** requires reporting of any known or suspected case of child abuse or neglect (a child is an unmarried victim under age 18) by a "parent, guardian, custodian or caretaker" to the local Department of Social Services within 24 hours.

Resources for Victims of Sexual Assault

Emergency	911
CVCC Campus Emergency	711
Campus Security	327-7000 ext. 4610
Dean of Access, Development, and Success	327-7000 ext. 4143
Student Services	327-7000 ext. 4216
Rape Crisis Center	
Catawba County www.rapecrisiscenter.com	322-6011
Alexander County	635-8881
Catawba County Sheriff's Department	465-8301
Hickory Police Department	328-5551
Hickory Police Department, Victim's Services	261-2642
Newton Police Department	465-7430
Taylorsville Police Department	632-2218
Alexander County Sheriff's Department	632-4658
Catawba Valley Medical Center Emergency	326-3850
Frye Regional Medical Center Emergency	345-5625
Victim's Compensation Fund	1-800-826-6200
NC SAVAN (Statewide Automated Victim Assistance & Notification)	1-877-627-2826 www.ncsavan.org
RAINN (Rape, Abuse & Incest National Network)	1-800-656-HOPE www.rainn.org
NC Coalition Against Sexual Assault	1-919-871-1015 www.nccasa.net
NC Coalition Against Domestic Violence	1-800-232-9124 www.nccadv.org

Because of the traumatic nature of sexual assault, victims are encouraged to seek immediate counseling. The Rape Crisis Center provides counseling and group services free of charge. Student Services will assist victims with any academic concerns or change in class schedule requests that are feasible.

Response to Sexual Assault

College personnel will observe the following guidelines when responding to a sexual assault report:

- Assess the victim's well being, render aid, and express concern and assurance.
- Notify the Director of Campus Security and/or the Dean, School of Access, Development, & Success.
- Identify the assailant if possible.
- **Do not question the victim about the details of the incident; other trained personnel will do this.**
- Make sure the victim is in a secure place.
- Identify the location of the crime.
- Do not touch, move or collect any evidence unless that evidence may be lost if you do not. If you have to collect evidence, record the following information:
  1. Item seized,
  2. Time seized, and
  3. Location seized.
- If evidence is given to you, record the following information:
  1. The person's name, address, telephone number and date of birth,
  2. The item given to you,
  3. The time and location where the person seized the item,
  4. The time you received the item, and
  5. Document chain of custody of the evidence.
- **Encourage the victim to seek medical treatment (preferably within 72 hrs.)**
- Assist law enforcement or medical personnel responding to the incident as needed.

STUDENT TRANSPORTATION

Students are requested to be especially alert and careful in entering and leaving the school grounds. The maximum on- campus speed is 10 miles per hour. Employees, students, and visitors are expected to park in designated parking spaces only. Handicapped parking spaces are designated and are regulated by NC General Statutes. Vehicles parked in areas not designated for parking may be ticketed and/or towed at vehicle owner expense. CVCC will not be responsible for vehicles damaged while parked on the school premises, during towage, or while being stored.

In order to maintain open fire lanes and clear roadways in case of emergency, the Board of Trustees of CVCC has established parking regulations. Student and visitor parking shall be in the lots so designated. Students, faculty and staff parking will be unreserved and will require a parking hang tag which will be issued during registration.

INCLEMENT WEATHER CLOSINGS

Catawba Valley Community College will cancel classes only when the weather is considered too hazardous for safe travel to and from the college. The decision will be made as soon as possible by the President or designee, in order to inform students and staff. An official announcement stating that classes are delayed or the College is closed will be made by the automated attendant (updated college closing information option), on the telephone system 828-327-7000, CVCC's web page (www.cvcc.edu), or by CVCC's text alert option.

ACADEMIC STANDARDS

DEGREES, DIPLOMAS, AND CERTIFICATES

Catawba Valley Community College awards the ASSOCIATE in APPLIED SCIENCE DEGREE (A.A.S.) upon the successful completion of a two-year program of study in the School of Academics, Education, and Fine Arts; the School of Business, Industry, and Technology; the School of Health and Public Services.

The ASSOCIATE in ARTS, and ASSOCIATE in SCIENCE DEGREE is awarded graduates of college transfer curriculums. The College also awards the ASSOCIATE in GENERAL EDUCATION (A.G.E.) degree.

Upon completion of a vocational program of study one or more years in length, CVCC grants a DIPLOMA in the major area of training.

Program CERTIFICATES are awarded in curricula where the curriculum provides for skill-training subjects only. Certificates of course completion are also awarded for non- credit short courses and special programs.

HIGH SCHOOL EQUIVALENCY DIPLOMAS are awarded by the North Carolina Department of Community Colleges to individuals who make satisfactory scores on the General Educational Development (known as GED) or the Adult Basic High School Diploma.

REGISTRATION

The Dean, School of Access, Development, & Success or designee is responsible for establishing and communicating the dates, times, locations, and processes for registration in curriculum courses.

Registration is generally not permitted in a class on or after the start date of the class unless the registration is a course section switch. Approval for registration in a class on or after the start date of the class must be based on extenuating circumstances and be educationally sound as determined by the Executive Vice President or designees.

Registration in certain courses may be restricted to students meeting certain criteria established by the North Carolina Community College System or the Executive Vice President.

Students enrolling in credit courses are expected to register for course work during the registration periods specified for each semester. Registration for non-credit classes is usually held at the first class meeting for the course.

Course **additions** will not be approved after the ten (10) percent point of the class. Section changes are allowable under departmental jurisdiction with the approval of the department head.

Veterans and other eligible persons certified by the Veterans Administration for Education Payments (G.I. Bill) cannot receive such benefits for any course not required for graduation in their approved educational program of study. Such individuals may register for other than required courses, but such courses will not be considered in determining the enrollment status of the recipient of educational benefits.

COURSE LOAD

Unless required by suggested curriculum sequence, students are strongly encouraged not to enroll for more than 18 credit hours per semester. Should you choose to do so, you need to meet with the Dean, School of Access, Development, & Success or designee prior to enrolling for classes.

COURSE PREREQUISITES AND CO-REQUISITES

CVCC and each student are responsible for ensuring that prerequisite and co-requisite requirements have been satisfied.

If requisite competencies are not documented in the student's CVCC transcript but are evidenced by completion of academic experiences at other regionally accredited institutions or completion of certain testing administered by other institutions, then satisfaction of the requisite shall be documented in the student's record on the student database following processes specified by the Dean, School of Student Access, Development, and Success or designee.

If requisite competencies are not documented in the student's CVCC transcript and are not evidenced by academic experiences completed elsewhere as outlined above, the academic supervisor (department head, dean, etc.) for the course may authorize enrollment in the course if the requisite competencies are evidenced by other life experiences such as work (for

example, the department head for math could make this determination for a math course). Such authorization shall be documented in the student's record on the student database following processes specified by the Dean, School of Access, Development, & Success or designee.

WAIVER OF DEVELOPMENTAL COURSES may be waived based upon coursework successfully completed (grade of C or better) at a regionally accredited college using the following guidelines:

- Completion of the appropriate developmental coursework at another college.
- Completion of a college-level course, which has a developmental prerequisite/corequisite as indicated in the current CVCC college catalog, may permit waiving the prerequisite. This includes a course taken at a regionally accredited college other than CVCC, if the course is equivalent in content to a course in the current CVCC catalog.

CLASSIFICATION/ENROLLMENT STATUS

Catawba Valley Community College classifies students in several categories for various administrative purposes. Those classifications and their definitions are as follows:

FULL-TIME STUDENT. A full-time student is any student enrolled for at least 12 credit hours in the fall and spring semesters and 9 credit hours in the summer semester.

FULL-TIME STUDENT FOR TUITION PAYMENT. For the purpose of tuition and fee payment, a full-time student is any student enrolled in at least 16 credit hours in any semester.

PART-TIME STUDENT. A part-time student is any student enrolled for fewer than 12 credit hours in the fall and spring semesters and 9 credit hours in the summer semester.

PART-TIME STUDENT FOR TUITION PAYMENT. For the purpose of tuition and fee payment, a part-time student is any student enrolled for less than 16 credit hours in any semester.

FRESHMAN STUDENT. A freshman student is any student who has earned fewer than 32 semester hours of credit.

SOPHOMORE STUDENT. A sophomore student is any student who has earned a minimum of 32 semester hours of credit.

SPECIAL CREDIT STUDENT. Individuals may enroll in classes without pursuing a diploma or degree. Persons enrolling under these circumstances are considered SPECIAL CREDIT STUDENTS. Placement tests may be required depending upon the student's educational background and the prerequisites/corequisites of the courses in which the student wishes to register.

AUDITING A COURSE. Students may attempt a course as an audit student one time. Students may not audit a class for which they have received credit unless justified by a clear benefit connected to a current program of study at CVCC. A change from an auditing status to a credit status (or vice versa) on or after the start date of the class must be approved by the instructor of the class and the Dean, School of Access, Development, & Success.

Students wishing to audit a course must satisfy all requisite requirements for the course just as do students taking a course for credit. Students who audit a course will not receive a grade (other than AU) or credit for the course. Credit will not be granted under advanced placement procedures after enrolling in a course as an audit student. Tuition and fees for auditing a course are the same as those for enrolling in a course for credit.

Students who audit are required to comply with class attendance policies, complete assignments, and participate in class activities. They are not required to take examinations unless specified by the academic department. Students should be aware that audited credit hours do not qualify for federal financial aid, VA Benefits, and certain other grants and/or scholarships.

ATTENDANCE (MEMBERSHIP)

Instructors are required to establish attendance requirements and maintain accurate records of membership/attendance for their classes in accordance with the North Carolina Community College System and other regulatory guidelines. The attendance requirements for a class shall be included in the syllabus for the class.

Students shall be permitted excused absences from all classes two days per academic year for religious observances required by the faith of a student. Students shall be provided reasonable opportunity to make up any tests or other work missed due to an excused absence for a religious observance. Specific procedures that students must follow to obtain authorization for an excused absence for a religious observance shall be established by the Chief Academic Officer. These procedures shall, at a minimum, require the student to submit a written request for the absence sufficiently in advance to permit the instructor and student to develop a sound plan for making up any missed class work. All students must plan absences from a class so that their total absences, including any absences authorized in accordance with this policy, do not exceed the total absences otherwise permitted by the instructor, a certifying board, or an accrediting agency. For purposes of this policy, an academic year begins on the first day of the fall semester and ends on the last day of the summer semester in the following calendar year.

Additionally, instructors are required to maintain and submit accurate attendance and/or membership reports according to instructions provided by the Dean, School of Access, Development, & Success or designee. Attendance and/or membership records shall comply with all federal and state guidelines related to the disbursement of financial aid. Procedures to ensure the recording and reporting of membership/attendance in accordance with the above policies shall be established by the Chief Financial Officer. If an instructor fails to meet his/her class within 15 minutes of its scheduled beginning time, the students may leave without attendance penalty.

ELECTIVE COURSES

In selected curricula, students may take elective courses to meet graduation requirements. Where provisions have been made and approved, students may elect to take work-based learning in place of electives.

DISTANCE EDUCATION

Catawba Valley Community College strives to meet the needs of all students by utilizing technologies effectively to provide affordable, accessible, and quality learning opportunities for those students who, because of time, geographic, or other constraints, choose not to attend traditional, seated classes. CVCC offers a variety of distance education courses.

North Carolina Information Highway (NCIH) courses utilize a statewide network to deliver instruction to and from remote sites. Hybrid courses combine both face-to-face meetings on the CVCC campuses with online course work. Fully online courses are entirely on the Internet with no, or very little face-to-face interaction with the instructor.

CVCC ensures that all distance education courses meet the high standard of quality that students expect. The college has developed a list of standards that all online courses must meet. All online instructors must complete CVCC's Excellence in Online Instruction class and all online classes are subject to evaluation.

ACADEMIC CREDIT

The Dean, School of Access, Development, and Success, or designee will ensure appropriate procedures and guidelines exist for the granting and recording of academic credit. CVCC shall award credit for all curriculum courses completed at CVCC with a final grade of D or higher.

Additionally, credit may be awarded as a result of the following processes: (credits awarded through these processes shall not exceed sixty-five (65) percent of the total credit hours required for graduation in a student's program of study)

a. CVCC will grant transfer credit for a course completed at a regionally accredited institution provided the coursework is relevant to the student's program of study, the competencies required for successful completion are at least equivalent to those required for successful completion of the equivalent CVCC course, and the final grade received, as evidenced by an official transcript, was a C-minus or higher;

b. CVCC will grant transfer credit for a course completed at a foreign (outside the United States) institution provided that the coursework is relevant to the student's program of study, the competencies required for successful completion are at least equivalent to those required for successful completion of the equivalent CVCC course, and the final grade received was a C-minus or higher. The Chief Academic Officer or designees will determine relevance to the program of study and equivalence of competencies. Students desiring transfer credit must submit transcripts that have been evaluated by a current member of NACES (National Association of Credential Evaluation Services) at www.naces.org. (The name the student is currently using should appear on the transcript as well as the date of birth.) The evaluating agency for post-secondary transcripts (college/university) must send the evaluation report directly to CVCC's Student Records Office. Student copies of evaluations will not be accepted;

c. Articulation agreements may be established with high schools whereby high school students may receive transfer credit for courses completed at their high school;

d. Students enrolled in degree, diploma, or certificate programs and special credit students may petition for credit to be granted through an advanced placement assessment. To be eligible for an advanced placement assessment, the student must provide evidence of prior education and/or experience which would likely have provided skills, knowledge, and/or abilities similar to those provided in the CVCC course. The dean for the school in which the course is offered will determine the credit to be allowed, if any. Credit will be based upon the minimum attainment of a grade of "B" on oral, written, and/or manipulative tests and the credit hours indicated for the appropriate course in the current catalog; or

e. Students may earn credit by successfully completing (score of 3 or better) Advanced Placement (AP) exams sponsored by the College Entrance Examination Board and/or by successfully completing (scores per ACE guide) College Level Examination Program (CLEP) exams.

Transfer credits, credits granted based on advanced placement assessments, and credits earned by successful completion of AP/CLEP exams may be used to satisfy program of study requirements but will not be included in the calculation of semester or cumulative grade point averages (GPAs).

Transfer credits, credits granted based on advanced placement assessments, and credits earned by successful completion of AP/CLEP exams may not be used to obtain VA educational benefits or federal financial aid.

At this time no fee or tuition charge is imposed for advanced placement assessment for curriculum course credit. Some charges may apply for certain non-credit course assessments.

If a Workforce Development/Corporate and Continuing Education advance placement exam is requested to certify course competency, a flat rate of $30 for each testing session will apply. An additional $10 will be charged for each additional person tested.

COURSE SUBSTITUTION

Courses may be substituted in a curriculum for a student only under exceptional circumstances and only if the substitution is within the NCCCS Curriculum Standards. Course substitutions must be recommended by the student's academic advisor. Course substitutions must be approved by the department head or director of the requesting curriculum, by the department head or director responsible for the course to be substituted, and by the Director of Student Records.

CURRICULUM COURSE REPEAT POLICY

A student may attempt a course a maximum of three times. A course is considered attempted when any one of the following grades is received – A, B, C, D, F, WP, WF, CS, P, R, AU. The highest grade received will be used in the computation of the student's grade point average. An academic program may have a more restrictive policy regarding the number of permissible attempts to fulfill a program requirement. Students should be aware that satisfactory academic progress requirements exist for students applying for or receiving financial aid and that repeated attempts of a course may have an undesirable effect on these satisfactory progress measures. Exception to the 3-attempt maximum may be granted if the student has not completed the course with a grade of A, B, or C and if the student provides documented evidence of mitigating circumstances, academic intervention which increases the likelihood of success in the course, or three year break in enrollment. Petition for exceptions should be directed to the Dean, School of Access, Development, & Success or designee.

GRADING SYSTEM

CURRICULUM/CREDIT COURSES. The measure of a student's overall academic performance for courses attempted at the College and with a course number greater than or equal to 100 shall be a grade point average (GPA) based on a 4.0 scale.

Students enrolled in the Associate Degree Nursing (ADN) program are required to achieve a numerical grade of 80 or above in NUR classes to progress to subsequent Associate Degree Nursing program courses.

Students enrolled in various Healthcare/Allied Health programs are required to achieve specific grades to continue enrollment in the program. See specific program requirements for details.

Credits received for successful completion of developmental courses (courses with a course number less than 100) are included in the computation of attempted credits and earned credits but shall be excluded from all GPA computations.

Transfer credits and credits granted based on advanced placement processes shall also be excluded from all GPA computations.

The Dean, School of Access, Development, & Success or designee will ensure that the grade system and the processes used for record keeping purposes comply with college policy.

Grades listed below are calculated into all grade point average (GPA) computations. Developmental grades (courses below 100 level) are not calculated in computing the grade point average (GPA).

Grading System

Grade	Description	Grade Points per Credit Hour	
A	Excellent	4	Numerical grade of 90-100
B	Above Average	3	Numerical grade of 80-89
C	Average	2	Numerical grade of 70-79
D	Below Average	1	Numerical grade of 60-69
F	Failed	0	Numerical grade below 60
WF	Withdrew Failing	0	Numerical grade below 60

Grades listed below are not calculated into grade point average (GPA) computations.

Grading System	
Grade	Description
AP	Credit by Exam/Other Proficiency Assessment
AU	Audit
CS	Continued Study
I	Incomplete
NC	*Non-Course Credit by Exam/Other Proficiency Exam
NG	No Grade
P	Passed
R	Re-enroll
R/Grade (ie. RA)	Repeat (see note below)
TR	Transfer Credit
WP	Withdraw Passing

*Non-course credits awarded prior to 2002-2003 may be recorded as AP.
NOTE: Repeated courses are graded with the letter grade actually earned for the course preceded by an R.

GRADE POINT AVERAGE. How To Calculate GPA.

The measure of a student's overall academic performance at the college shall be a grade point average (GPA) based on a 4.0 scale. **The computation of GPA includes only those courses completed at CVCC numbered 100 or higher and for which a grade of A, B, C, D, F, or WF is received.** (See also Repeat Policy).

The GPA may be calculated in the following manner:

1. Determine Total Hours Attempted. (Hours attempted are equal to the number of credit hours assigned to a course as shown on your CVCC transcript.)
2. Determine Total Grade Points Earned. The grade point value for a course is multiplied by the number of attempted credit hours for the course.

For Example: A grade of A is earned in ENG 111. A grade of A carries a value of 4 grade points per credit hour.
ENG 111 is a 3 credit hour course: 4 x 3 = 12.
In this example, 12 grade points were earned for ENG 111.

3. Divide the Total Grade Points Earned by the Total Hours attempted to determine Cumulative GPA.

Example:

Course	Hours Attempted	Grade Earned	Grade Points Earned
BIO 168	4	A	16 (4 x 4 = 16)
ART 111	3	C	6 (3 x 2 = 6)
ACA 111	1	B	3 (1 x 3 = 3)

Total Grade Points Earned = 25
Total Hours Attempted = 8
25 divided by 8 = 3.125

INCOMPLETES. A grade of I (Incomplete) may be given under extenuating circumstances to be determined by the instructor of the course. A grade of I must be replaced with the final course grade by the end of the subsequent semester unless approval is granted by the Executive Vice President for continuation of the incomplete course for one additional semester. Otherwise, the grade of I changes to an F. A grade of WP or WF cannot be used to replace a grade of I.

DEVELOPMENTAL COURSES. Developmental courses are curriculum courses with a course number less than 100. Students who successfully complete developmental courses will earn grades of A, B, C, or P depending upon the level of acquired competence. Students who fail to complete developmental course requirements by the end of the grading period for the course will be assigned a grade of CS or R. Students who receive a CS or R must register for the developmental course again and pay tuition and fees again.

Developmental course credit does not count toward graduation requirements. In addition, developmental course grades are excluded from GPA calculations.

WITHDRAWALS. When a student is unable to maintain regular attendance as defined by the syllabus for a class, either the student or instructor may initiate the process to withdraw the student from class membership. If such action occurs on or before the 50% point of the class, the student's grade shall be WP (Withdrawal Passing) unless the instructor issues a grade of WF (Withdrawal Failing) based on extenuating circumstances. If such action occurs after the 50% point of the class, the student's grade shall be a WF (Withdrawal Failing) unless the instructor authorizes a WP based upon appropriate circumstances. The student's grade is recorded on the student's permanent record. To withdraw from class membership, the student should meet with Advising Center staff to begin this process. Instructors may submit an add/withdrawal form to the Student Records Office.

CONTINUING EDUCATION COURSE GRADE. For continuing education courses, a grade of S signifies satisfactory progress and a grade of U designates unsatisfactory progress. Grades earned in continuing education courses are not included in GPA calculations.

ACADEMIC SANCTIONS AND DUE PROCESS

STUDENT ADVOCATE. Students may contact the Director of Admissions for assistance regarding academic problems and/or concerns. The Director of Admissions (or designee) will work with the student, instructors, academic supervisors, and other College resources to identify and implement the best available solution to academic problems and/or concerns.

ACADEMIC SANCTIONS. When a student's cumulative grade point average is based upon 12 or more credit hours and is less than a 2.0, the student shall be placed on academic probation. The Dean, School of Access, Development, & Success or designee shall be responsible for notifying the student and for establishing procedures to ensure the student receives academic counseling. A student who remains on academic probation for two consecutive semesters may be suspended from CVCC for one semester. Certain programs may establish additional academic progress requirements and impose sanctions for failure to meet those requirements. The Executive Vice President shall ensure any additional academic requirements and potential sanctions for failure to meet those requirements are communicated to students in those programs.

In addition to academic probation, other academic sanctions may be imposed on students enrolled in certain health sciences programs. Students applying for or admitted to these programs should contact their faculty advisor for further information.

ACADEMIC HONESTY. Students at CVCC are expected to be honest in all academic pursuits, whether class, lab, shop, or clinical. Acts of academic dishonesty are considered unethical and subject to behavior sanctions. Examples of academic dishonesty include, but are not limited to the following:

a. Sharing information about the content of quizzes, exams, classroom/lab/shop/clinical assignments (scheduled or make-up) without approval of the instructor including but not limited to unauthorized copying, collaboration, or use of notes, books, or other materials when preparing for or completing examinations or other academic assignments (scheduled or make-up).
b. Buying, selling, or otherwise obtaining a copy of a quiz, exam, project, term paper, or like document, without approval of the instructor.
c. Plagiarism, which is defined as the intentional representation of another person's work, words, thoughts, or ideas (from any source) as one's own.
d. Failing to follow approved test taking procedures by performing such acts as the following:
   - Looking on another student's test
   - Use of unauthorized notes; written, electronic, or otherwise
   - Changing answers after exam is scored
   - Verbal, non-verbal, or electronic communication with another student during an exam.

Instructors have the authority to impose either a warning, probation, or dismissal from the class for acts of academic dishonesty relative to classes under their supervision.

Students have an obligation to report any acts of academic dishonesty to the instructor or appropriate campus authority when reasonable grounds exist for such a report. Students also have a responsibility to cooperate in the investigation of any alleged acts of academic dishonesty. Failure to report acts of academic dishonesty could result in a behavior sanction.

ATTENDANCE SANCTIONS. Instructors have the responsibility and authority to establish and enforce attendance requirements for their classes. An instructor may withdraw a student from class when the instructor believes that the student's absences are excessive or that the student does not intend to pursue the learning activities of the class. In justifiable cases, instructors have the prerogative to re-admit a student to class membership when the withdrawal process was initiated by the instructor.

VETERANS BENEFITS AND STUDENT FINANCIAL AID. The College complies with the Standards of Progress for Veterans certified for education benefits. Under such standards students will no longer be certified for benefits or aid if placed on academic probation for two sucessive semesters. Eligibility may be reestablished after one semester of satisfactory progress on a minimum of six or more credit hours.

REQUIREMENTS FOR GRADUATION

GENERAL REQUIREMENTS. The student is responsible for officially applying to Student Services for his/her degree, diploma, or certificate according to guidelines established by the Dean, School of Access, Development, & Success. Graduation applications and specific deadlines are available in Student Services and on the website at cvcc.edu/Student_Services/Student_Records/Graduation.cfm. A diploma fee is due when the application for graduation is submitted. (See Fees and Insurance.) This fee applies regardless of any election by the student not to participate in commencement. Students who apply for graduation and then fail to meet graduation criteria must reapply for graduation, and may be required to resubmit the fee.

The student is responsible for determining and fulfilling all requirements for the program of study from which he/she expects to graduate. Minimum credit hours and the required courses for each program have been established and are listed in the Program Listings section of the CVCC General Catalog. A minimum graduation requirement of all curriculum programs is a cumulative grade point average of 2.00 or a program grade point average of 2.00. Certain programs may have additional requirements. Students should consult the Advising Center or their advisor for information on program and graduation requirements.

The catalog of record is the catalog that is current at the time a student enrolls at CVCC in his/her program of study. If a student changes his/her program of study, then the catalog of record becomes the catalog that is current at the time of that change of program. To graduate under a program of study, a student must meet the requirements of his/her catalog of record or any catalog in effect within the next five years as long as the student has been continuously enrolled. If a student breaks enrollment for one academic year (fall and spring consecutively), the catalog of record will become the catalog that is current at the time of re-entry. From that point of reentry, the rule of continuous enrollment will apply. The program faculty or the Director of Student Records have/has the authority to choose a catalog, within a five year period of continuous enrollment, that best suits the student's needs for his/her particular program of study at the time of graduation. Exceptions to this policy must be approved by ExecutiveVice President or designee(s).

To be eligible for graduation, the applicant must also fulfill all financial obligations to the College.

RESIDENCE REQUIREMENTS. Students graduating from Catawba Valley Community College must enroll in and complete at CVCC a minimum of 35% of the semester hours required for their program of study (credits granted through transfer credit and advanced placement credit processes may not be used to satisfy this requirement). The final fifteen credit hours of study prior to graduation must be completed at CVCC unless special permission is obtained through the Dean, School of Access, Development, & Success or designee.

As a Servicemembers Opportunity College (SOC) institution, CVCC recognizes the following for active-duty service-members: An SOC institution limits academic residency requirements for active-duty service-members to no more than 25 percent of the undergraduate degree program; recognizes all credit course work offered by the institution as applicable in satisfying academic residency requirements; and allows service-members to satisfy academic residency requirements with courses taken from the institution at any time during their program of study, specifically avoiding any "final year" or "final semester" residency requirement, subject to stated requirements in specific course areas such as majors.

EXIT INTERVIEW. Graduates are required to complete an online exit interview prior to receipt of diploma.

GRADUATING WITH HONORS AND HIGH HONORS.

Students graduating from a degree or diploma program of study with a final cumulative GPA greater than or equal to 3.80 will receive recognition in their permanent student record as graduating with "high honors."

Students graduating from a degree or diploma program of study with a final cumulative GPA greater than or equal to 3.50 and less than 3.80 will receive recognition in their permanent student record as graduating with "honors."

The student's cumulative GPA at the end of the most recent fall semester and the GPA ranges noted above will be used to determine which graduates will be recognized as graduating with "high honors" or "honors" during the May commencement ceremony.

"High honors and "honors" designation on the student's diploma will be based on their final term of enrollment at the time of graduation and the GPA at the end of that term. (For example, a student who is enrolled in the spring semester may be recognized as a graduate with either honors or high honors during the ceremony.) The actual determination of honors will be evaluated at the end of the spring semester and will be based on his or her cumulative GPA. This may differ from the GPA that was used to recognize his or her status during the ceremony.

SEMESTER HONORS AND HIGH HONORS

At the conclusion of the fall and spring semesters, the CVCC President shall recognize those students who meet the following requirements for semester honors and high honors.

- Semester high honors: students who complete 6 or more credit hours (included in the computation of GPA) during the completed semester while earning a semester GPA greater than or equal to 3.80 on a 4.0 scale.
- Semester honors: students who complete 6 or more credit hours (included in the computation of GPA) during the completed semester while earning a semester GPA greater than or equal to 3.50 and less than 3.80 on a 4.0 scale.

STUDENT RECORDS AND TRANSCRIPTS

PRIVACY OF STUDENTS. The College protects the privacy of students in accordance with the Family Educational Rights and Privacy Act (FERPA) of 1974 (the "Act"), as amended, enacted as section 444 of the General Education Provisions Act. A copy of the Federal Regulations setting out the requirements for the protection of the privacy of students under the act is available at Federal FERPA Regulations or in Student Services.

Under this Act, students have the right to:

- Inspect and review their education records.
- Seek amendment of their education records that they believe to be inaccurate, misleading, or otherwise in violation of their privacy rights.
- Consent to disclosures of personally identifiable information contained in their record, except to the extent that the Act (and in particular section 99.31) authorizes disclosure without consent.
- File with the U.S. Department of Education a complaint under Sections 99.63 and 99.64 concerning alleged failures by the College to comply with the requirements of the Act.

A student may exercise the right to inspect and review his/her education record by making written application to the Director of Student Records.

A student may request amendment(s) to his/her record under section 99.20 of the Act by contacting the Director of Student Records. The Director of Student Records will attempt to resolve the issue. If the student is not satisfied with the resolution offered by the Director of Student Records, then the student may commence formal student due process procedures.

The College does disclose education records to College officials, including faculty, who are determined to have a legitimate educational interest. Faculty/staff are considered to have a legitimate educational interest if they might reasonably need to access information to academically advise a student or assist the student in a transaction with the College. All full time faculty have access to the student database.

Upon request, the College may disclose directory information. Directory information means information contained in the education record of

a student which would not generally be considered harmful or an invasion of privacy if disclosed. The College has designated directory information to be the student's name, student ID photo, student ID number, address, institutionally assigned electronic mail address, telephone listing, date of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, enrollment status (full-time or part-time), degrees and awards received, and the most recent previous educational agency or institution attended. A student has the right to refuse to let the College designate any or all types of information about him/her as directory information. The student must notify the Director of Student Records in writing that he/she does not want any or all types of information about him/her designated as directory information prior to the first day of the semester.

Under the Act, the College may not disclose personally identifiable information to the parents of an "eligible student" without the written consent of the student unless the disclosure is to parents of a dependent student as defined in Internal Revenue Code. An "eligible student" means a student who is 18 years of age or is attending an institution of postsecondary education. Parents must provide appropriate tax return information documenting the dependent status of the student before disclosure will be made without the student's written consent.

COPIES OF ACADEMIC RECORD. The College will provide students with official copies of their CVCC transcripts. There is a fee of $5 for each CVCC transcript. Complete the "Transcript Request" form and submit it to the Business Office along with payment.

The college will provide students with personal and/or official copies of placement testing results and other testing administered by CVCC Testing Services. At this time there is no cost for this service. (TEAS and PSB Exam results may not be available through CVCC. Students receive a copy of this result at the time of their exam).

Student access to transcripts from other educational institutions is generally limited to visual access. CVCC does not provide students with file copies or photocopies of transcripts and/or test reports from other institutions.

Proof of identity is required to obtain a transcript and/or test score report.

STUDENT RECORD RETENTION. CVCC maintains student records in accordance with the Records Retention and Disposition schedule approved for colleges in the North Carolina Community College System. This schedule was approved for colleges in the North Carolina Community College system in accordance with provisions of the General Statutes of North Carolina.

ACADEMIC FREEDOM

Catawba Valley Community College is committed to the provision of and protection of academic freedom. The college seeks to foster an academic learning environment that allows for the advancement of knowledge and critical thinking on the part of faculty, staff, and students through ethical teaching and research practices. Faculty, staff, and students are expected to use reasonable judgment as they exercise their academic freedom.

INTELLECTUAL PROPERTY RIGHTS

OWNERSHIP OF MATERIALS. The College retains the right to use student work produced as a part of class assignments for non-profit educational purposes.

CONTINUING EDUCATION

GENERAL INFORMATION

An important function of the College is to provide quality courses of continuing education for adults. The development of these courses is based upon community needs and interests.

Continuing Education provides life-long learning experiences that will help adults fulfill occupational, social and personal needs. It allows adults to achieve their fullest potential and effectiveness in a rapidly changing world of increasing knowledge, skill and understanding. Courses offered are helpful in achieving occupational goals, as well as increasing the quality of life. The diversity of these programs ranges from basic reading and writing skills to vocational and technical upgrading to cultural and personal enrichment.

CVCC also offers specialized services to the business, corporate, and industrial community.

ADMISSION

Admission to classes in the division is open to individuals 18 years of age or older. Individuals less than 18 years old who are high school graduates or whose high school class has graduated may also enroll in continuing education courses. High school juniors and seniors, sixteen years of age and older, may enroll with permission from high school officials. See general college admissions requirements for further details.

ATTENDANCE

Students are expected to attend class regularly. Individual attendance records are maintained and retained. Students must meet attendance requirements to receive recognition for the course. Some classes are offered in accordance with state guidelines which may require stricter attendance policies.

This policy also applies to continuing education courses for which CEUs or certifications are issued. Minimum attendance requirements are communicated to students. Failure to meet these requirements will result in a grade of U (unsatisfactory). Make-up of missed class time is not guaranteed but may be permitted, within a specified timeline, in documented emergency situations with approval of the faculty, program director, and within state auditing guidelines.

CLASS LOCATIONS

While a number of classes are held on CVCC East and Main campuses, as well as the Alexander Center for Education in Taylorsville, others are conducted at various locations in surrounding communities or within a particular business or industry throughout the area served by CVCC.

CLASS SCHEDULE

Classes are scheduled continuously throughout each semester. Special business seminars and industrial courses may be scheduled to begin at any time period appropriate to a company and CVCC. For specific announcements of course offerings, registration dates, and locations, check the website: http://cce.cvcc.edu.

CONTINUING EDUCATION UNITS (C.E.U.)

The Southern Association of Colleges and Schools, of which CVCC is an accredited member, has recommended that the Continuing Education Unit (C.E.U.) be used as the basic instrument of measurement for a student's participation in an institution's offering of non-credit classes, courses, and programs. The C.E.U. is a unit measure. One C.E.U. is defined as ten contact hours of participation in an organized continuing education experience under responsible sponsorship, capable direction, and qualified instruction. Continuing Education Units may be offered for CVCC courses that are applicable to professional certification or license renewal.

COURSE COMPLETION

Certificates are given for the satisfactory completion. Requests for enrollment verification or course transcript should be directed to the Continuing Education Business Office located at the East Campus.

FEES

Occupational Extension course fees are on a graduated scale as outlined in the fee schedule on page 14. Other Self-Supporting course fees vary. Fees may be waived in compliance with North Carolina Statutes, as specified under fee waivers. There are no registration fees for enrollees in Basic Skills Education. Other costs in continuing education classes may include textbooks, equipment, tools, or other specific fees.

INTELLECTUAL PROPERTY RIGHTS

OWNERSHIP OF MATERIALS. The College retains the right to use student work produced as a part of class assignments for non-profit educational purposes.

MINIMUM ENROLLMENT REQUIRED

Normally, a course may be offered when a minimum of 10-15 persons enroll for the subject. The College reserves the right to cancel any course when an insufficient number of people register.

TO ENROLL

Individuals interested in enrolling must register and prepay by mail, telephone, fax, or visiting the CVCC East Campus or Alexander Center for Education. Applicants are registered on a first-come, first-served basis.

CONTINUING EDUCATION

(PROGRAM OFFERINGS/CENTERS)

HEALTH & PUBLIC SERVICE

INNOVATION CENTER

OCCUPATIONAL EXTENSION COURSES

The College offers many vocational, technical, and business courses. The primary objectives of these courses are to (1) provide adults additional skills and/or knowledge applicable to the present occupation; (2) provide training for occupations in which skill and knowledge requirements are undergoing transition due to technological advances in equipment, materials, and machines; and (3) provide area businesses and industries assistance in meeting manpower needs through other specialized courses.

Occupational upgrading courses are available in each of the following areas:

BUSINESS courses are available to a wide variety of business organizations, administration, management, sales, and secretarial occupations.

COMPUTER courses are also available in popular software applications currently used by local employers. Courses are also available to prepare students to take certification exams in networking such as PC Repair A+.

FIRE, RESCUE, & EMS training is offered for members of municipal, volunteer, industrial fire brigades, and rescue squads. EMT courses are available to the public. Entrance tests are required for certain courses.

HEALTHCARE TRAINING

Healthcare Occupation programs have been established for persons seeking initial or additional training in the medical field. All level courses from entry level to para-professional to professional are offered. Entrance tests are required for certain classes.

Electronic Health Record Specialist Training programs have been established for persons seeking additional training in the medical field. CVCC offers the Health Systems Trainer Track and the Health Information Technology Technical/Software Support Specialist Track.

LAW ENFORCEMENT courses have been designed for law enforcement personnel in cooperation with training departments of agencies.

Additional information regarding occupational upgrading courses may be obtained by contacting the Continuing Education Office at the CVCC East Campus.

LEARNING & PERSONAL ENRICHMENT

INNOVATION CENTER

BASIC SKILLS EDUCATION PROGRAMS

Basic Skills Education covers the four main program areas: Adult Basic Skills, Compensatory Education, English as a Second Language, and Adult Secondary Credentials. Basic Skills Education is an instructional program designed to assist adults 16 years of age or older who need academic remediation. Emphasis is placed on assisting the adult in obtaining a higher education level.

Classes are organized and designed to assist individual student's efforts of reaching a level where individualized study is possible. As the student gains competency in subject areas, a greater scope of subjects is introduced. Each person receives assistance in selecting the correct level from which to begin his/her studies.

After gaining competency in subject areas, the adult will be encouraged to enroll in the Adult Secondary Credential Program. This includes the Adult High School Diploma and High School Equivalency such as GED. Currently, Basic Skills Education classes are available on campus and at various locations throughout Catawba and Alexander counties. Additional information may be obtained by contacting the Basic Skills office at 828-327-7000, ext. 4353.

MATH SENSE is a six-week intensive basic skills review for students whose placement tests indicate this is the appropriate math level in which to begin their curriculum studies. Topics include operations with whole numbers, decimals, and fractions; data analysis and measurement; statistics and probability; basic geometry; order of operations; and a very brief introduction to algebraic expressions and integers. Contact the Basic Skills Office for registration information 828-327-7000, ext. 4353.

ENGLISH FOUNDATIONS is an eight-week intensive basic skills review for students whose placement tests indicate this is the appropriate reading and writing level at which to begin their curriculum studies. Topics include vocabulary review, comprehension development, grammar review, basic sentence and paragraph construction, and the writing process. Contact the Basic Skills Office for registration information 828-327-000, ext. 4353.

ADULT BASIC EDUCATION (ABE)

The Adult Basic Education program teaches basic skills to help adults survive in an adult world. Instruction is designed to assist individuals with learning to read, improving reading skills, math, and writing skills. Classes are available both on campus and at a number of off-campus locations for all program areas. Please call the Basic Skills Office for further information at 828-327-7000, ext. 4353.

COMPENSATORY EDUCATION (CED)

Instruction designed for adults who have intellectual disabilities or who have suffered a brain injury. These classes assist students in learning basic functional and literacy skills as a means to improve their level of daily independent living. Classes are available at both the East Campus 828-327-7000, ext. 4268, and the Alexander Center for Education 828-632-8221, ext. 304.

ENGLISH AS A SECOND LANGUAGE (ESL)

English as a Second Language is a program of instruction designed for adults with limited English skills. Information covered throughout the course will include survival language, health and safety information, dealing with cultural differences, occupational language, U.S. history and legal information, and citizenship requirements. Emphasis is placed on conversational skills. Additional information may be obtained by contacting the Basic Skills Office at 828-327-7000, extension 4353. Classes are offered on and off campus.

ADULT SECONDARY CREDENTIAL PROGRAM

The Adult Secondary Credential Program allows students two options to complete a secondary credential: the Adult High School Diploma Program or the High School Equivalency Program (such as GED).

Adult High School Diploma classes offer students the opportunity to earn a high school diploma sanctioned by the Board of Education of Catawba and Alexander Counties. Students are given full credit for any units they have completed in high school. Classes are free. Please contact

the Basic Skills Office at 828-327-7000, ext. 4353 for more information.

The High School Equivalency Program (such as GED) focuses on the areas of mathematics, literature, writing, social studies, and science. Catawba Valley Community College offers classes in a variety of locations and online. **Classes are free; however there is a cost for the GED exam.** Please contact the Basic Skills Office at 828-327-7000, ext. 4353, if you are in need of financial assistance for the GED exam fee and would like to apply for a scholarship.

PERSONAL ENRICHMENT PROGRAMS

These programs are offered to individuals 16 years of age and older. These are short-term courses for self-improvement, cultural enrichment, and academic achievement. The program is intended to meet the growing needs and interests of the community. The purpose is to give an individual a chance to pursue special interests and to fill his/her leisure time with worthwhile educational projects. Some of these include conversational foreign languages, economics, government, consumer education, cake decorating, sign language, guitar, needlepoint, quilting, landscaping, dancing and personal development. Normally, a course may be offered when a minimum of 10-15 individuals indicate interest. Additional information regarding these classes may be obtained by contacting the Continuing Education Office at 828-327-7037.

WORKFORCE DEVELOPMENT
INNOVATION CENTER

CATAWBA VALLEY FURNITURE ACADEMY

Catawba Valley Furniture Academy is an industry-driven training program designed by local furniture manufacturers that prepares students for skilled positions in high demand. The Catawba Valley Furniture Academy covers furniture fundamentals, pattern making, manual cutting, automated cutting, sewing, introduction to upholstery, spring up, inside upholstery, and outside upholstery. This program provides career path exploration and assessment, plant tours, and career previews. The CVCC Furniture Academy is in partnership with Century Furniture, Lee Industries, Lexington Home Brands, Sherrill Furniture, and Vanguard Furniture. To find out more about the program, register for the class, and learn about scholarship opportunities, please contact us at 828-327-7000 ext. 4294 or kswright@cvcc.edu

COMPUTRAIN

CVCC's Corporate Computer Training Center provides professional development courses in the most current versions of software applications used by area businesses. These short, one-day, six-hour-per-day courses are designed for employees who need to become more productive in the shortest time possible with practical hands-on experience in a Windows and LAN environment. COMPUTRAIN will also design short courses to meet a company's specific personal computer application needs, to be held on CVCC's campuses or at a company's computer lab. For more information, contact the Director of COMPUTRAIN at 828-327-7000, Ext. 4330 or e-mail sblake@cvcc.edu.

CORPORATE DEVELOPMENT CENTER

The Corporate Development Center at CVCC was designed to meet the needs of business, industry, entrepreneurs, and job seekers. Its mission is to help individuals and businesses attain profitability/prosperity in a global economy. The Center works collaboratively with the Manufacturing Solutions Center. The Center includes the Small Business Center, Advanced Manufacturing Labs, flexible corporate training rooms, a computer lab, and a teleconferencing meeting room. Courses/Training offered at the Center include Mechatronics/Robotics, SolidWorks, Lean/ISO, Professional in Human Resources/PHR, Senior Professional in Human Resources/SPHR Certifications, Project Management Certification, Certified Production Technician, Certified Logistics Technician, Six Sigma Green & Black Belt, and the Catawba Valley Furniture Academy. For more information, call 828-327-7000, ext. 4294. Or visit the Workforce Development Innovation Center website: http//www.cvcc/edu/Workforce_Development/.

CUSTOMIZED TRAINING

The Customized Training Program supports the economic development efforts of North Carolina by providing education and training services to ensure the presence of a well-trained workforce for new and existing business and industry to remain productive and profitable within the State. This Customized Training assistance supports full-time production and direct customer service positions created in the State of North Carolina, thereby enhancing the growth potential of companies located in the state while simultaneously preparing North Carolina's workforce with the skills essential to successful employment in emerging industries. Call 828-327-7000, ext. 4294.

HUMAN RESOURCES DEVELOPMENT

The Human Resources Development Program (HRD) is designed to provide skill assessment services, employability skills training, and career development counseling to unemployed and underemployed adults. The courses shall address six core components as follows: assessment of an individual's assets and limitations, positive self-concept, employability skills, communication skills, problem-solving skills, and an awareness of the impact on information technology in the workplace. Students enrolling in HRD classes may be eligible for a fee waiver if they meet any of the following criteria: unemployed, received notice of lay-off, working and eligible for Federal Earned Income Tax Credit (EITC), or working and earning at or below 200% of federal poverty guidelines. For information about the HRD program call 828-327-7000, ext. 4370 or 4522. Or visit the HRD website: http://www.cvcc.edu/Workforce_Development/HRD/index.cfm.

MANAGEMENT AND SUPERVISORY DEVELOPMENT

courses are offered to improve supervisory and management techniques for experienced as well as beginning personnel.

MANUFACTURING SOLUTIONS CENTER

The mission of the Manufacturing Solutions Center (MSC) is to help US Manufacturer's increase sales, improve quality and improve efficiency to create or retain jobs. This is accomplished by

- enhancing and improving products through research and development.
- assisting in creating prototypes for new, innovative offerings.
- analyzing new materials to enhance structure and programs.
- testing products for reliable content and quality.
- training personnel for lean manufacturing processes and supply chain efficiences.
- providing a forum for rollout of new 21st century technologies.
- providing hands-on guidance for international marketing and sales and military procurement.
- industry advocacy.

PROFESSIONAL DEVELOPMENT FOR EDUCATORS

courses are offered to assist teachers in meeting recertification requirements.

SMALL BUSINESS CENTER

The Small Business Center (SBC) is dedicated to increasing the success rate of all businesses in Alexander and Catawba counties. The Small Business Center offers Start-It seminars for budding entrepreneurs, as well as Grow-It seminars for more seasoned business owners. Seminar topics range from feasibility to product/service analysis to marketing, operations, management, and business finances. For help with business planning, the SBC director is available by appointment for one-on-one, confidential counseling. The SBC also maintains a resource library of print and electronic media for use in exploring business ownership. In keeping with its economic development mission, many services are delivered in conjunction with chambers of commerce, economic development offices, local business and merchant associations. The SBC also works closely with CVCC career instructors to help students learn how to start and operate a business once they have mastered the subject matter of their trade. To register for a seminar, contact the SBC Support Team at dsawyer@cvcc.edu or call 828-327-7000, extension 4117. For a counseling appointment, contact the SBC Director at jneuville@cvcc.edu or call 828-327-7000, extension 4102. Funded annually by grant with tax dollars, the SBC is one of 58 centers comprising the North Carolina Community College Small Business Center Network (SBCN).

PROGRAM LISTINGS
2015-2016

The following pages list alphabetically by discipline area the curriculum programs to be offered by Catawba Valley Community College during the 2015-2016 academic year. Programs in addition to those shown are being planned and may be implemented prior to or during the year. Catawba Valley Community College reserves the right to delete or change programs and courses as may be required; however, this general catalog represents the most accurate information available concerning the CVCC curriculum at the time of its publication.

HOW TO USE THE LISTINGS

Each curriculum offered for credit is listed along with course numbers, titles, and semester hours of credit required for graduation. The credit hours shown in each curriculum are classified as follows: class hours per week; lab hours per week; clinical/work experience hours per week (where applicable); and credit hours. Some courses entail both lab hours and clinical/work experience, and in these courses the number of hours for each is listed. A complete course syllabus for each credit course is on file in the offices of the respective department heads and is available for review by interested persons.

PROGRAM SEQUENCES

Program Sequences are suggestions only. The College retains the right to alter Program Sequences as it deems necessary.

COLLEGE TRANSFER

The College Transfer program is designed to parallel the freshman and sophomore years of study of a four-year college or university. In the first two years of college, students pursue a program of general education in the area of humanities, communications, social and behavioral sciences, mathematics, and sciences.

Catawba Valley Community College provides advising to help students plan their program for transfer to the college of their choice. Students should structure their programs of study in conference with academic advisors, and admissions personnel at the college or university to which they wish to transfer. The structure of each student's program should be based on high school records, occupational goals, and choice of college to which the student plans to transfer.

COLLEGE TRANSFER

Associate in Arts Degree Curricula:

•Associate in Arts: General

Associate in Science Degree Curricula:

•Associate in Science: General

Courses required to meet graduation requirements in these programs are offered during day and evening hours, as well as online.

Minimum time for completion:
Day – four semesters full-time attendance;
Evening – will vary according to semester load of student.

The Associate in Arts, or the Associate in Science Degree is awarded to graduates of college transfer programs.

Comprehensive Articulation Agreement (CAA)

The governing boards of the North Carolina Community College System and the University of North Carolina, in response to a legislative mandate, have approved a Comprehensive Articulation Agreement (CAA) which addressed in a system-wide manner the transfer of students from the community colleges to the universities. This CAA is for the A.A. and A.S. degrees. It specifies 45 semester hours of general education transfer courses and reflects the distribution of discipline areas commonly included in institution-wide, lower division, general education requirements for the baccalaureate degree. The CAA specifies study areas and semester hours credit (SHC) distributions for each.

The A.A. degree requires the following: English composition (6 SHC), humanities/fine arts (9 SHC), social/behavioral sciences (9 SHC), mathematics (3/4 SHC), and natural sciences (4 SHC).

The A.S. degree requires the following: English composition (6 SHC), humanities/fine arts (6 SHC), social/behavioral sciences (6 SHC), mathematics (8 SHC), and natural sciences (8 SHC). Community colleges and universities have identified community college courses appropriate for general education transfer. Those courses are listed in this section of the catalog.

The A.A. degree or A.S. degree, if completed successfully with grade C or better in each course, will transfer as a block across the community college system and to UNC institutions. No D grades will transfer.

Community college graduates receiving the A.A. or A.S. degree who have successfully completed the general education transfer courses will be considered to have fulfilled the institution-wide, lower division, general education requirements of the receiving UNC institution and will transfer with junior status. Completion of the A.A. or A.S. degree includes a Transfer Assured Admissions Policy (TAAP), which assures admission to one of the 16 University of North Carolina institutions with the following stipulations:

- Admission is not assured to a specific campus or specific program or major.
- Students must have graduated from a NC community college with an A.A. or A.S. degree.
- Students must meet all requirements of the CAA.
- Students must have an overall GPA of at least 2.0 on a 4.0 scale, as calculated by the college from which they graduated, and a grade of C or better in all CAA courses.
- Students must be academically eligible for readmission to the last institution attended.
- Students must meet judicial requirements of the institution to which they applied.
- Students must meet all application requirements at the receiving institution including the submission of all required documentation by stated deadlines.

In addition, students must meet the receiving university's foreign language and/or health and physical education requirements. These requirements, if applicable, may be completed prior to or after transfer to the senior institution.

The A.A. and A.S. degree programs of study are structured to include two components: **Universal General Education Transfer Components** that comprise a minimum of 30 semester hours of credit, and **additional general education, pre-major, and elective courses** that prepare students for successful transfer into selective majors at UNC institutions and bring the total number of hours in the degree programs to 60/61 semester hours.

To ensure maximum transferability of credits, students should select a transfer major and preferred transfer university before completing 30 semester hours of credit. Additional general education, pre-major, and elective courses should be selected based on a student's intended major and transfer institution.

All courses approved for transfer in the CAA are designated as fulfilling general education or pre-major/elective requirements. While general education and pre-major courses may also be used as electives, elective courses may not be used to fulfill general education requirements.

Community college students who have not completed the A.A. or A.S. degree, will have their transcripts evaluated on a course-by-course basis by the receiving institution.

Mission Statement for the General Education Program

The mission of the General Education Program is to develop solid reasoning skills and a background in the various disciplines upon which to base a program of lifelong learning. The skills to connect the world of the individual to the rest of the world will be important in preparing the student to become an effective citizen.

Goals and Competencies of General Education Courses

Communication

The student will gain proficiency in reading, writing, speaking and comprehending Standard English. The student will be able to communicate effectively in all four areas.

Mathematics

The student will gain proficiency in basic computational skills, fundamental algebraic concepts, and interpretational skills of numerical and graphical data as these skills apply to real world situations.

Arts and Humanities

The student will gain an appreciation of the aesthetic aspect of human existence and how human expression in this area gives insight into the foundations of the basic questions of value in human life.

Social and Behavioral Sciences

The student will gain an understanding of the dynamics of the physiological and psychological self, group and societal interaction, and have an introduction to the influences of past events on the present. Further, the student will gain the necessary application and communication skills to utilize this knowledge in future academic and vocational pursuits.

Natural Science

The student will be introduced to the methods, concepts, and principles of science; will be exposed to representative applications of science and how these affect our society; and will experience the gathering, organization and interpretation of data.

Foreign Languages

The student will gain an understanding of foreign culture, cultural diversity, and language skills necessary for reading and speaking the language.

ASSOCIATE IN ARTS DEGREE
(A10100)

The Associate in Arts degree shall be granted for a planned program of study consisting of a minimum of 60 semester hours of credit (SHC) of college transfer courses. Within the degree program, the institution shall include opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and basic computer use.

Courses are approved for transfer through the Comprehensive Articulation Agreement (CAA). The CAA enables North Carolina community college graduates of two-year associate in arts programs who are admitted to constituent institutions of The University of North Carolina to transfer with junior status.

Community college graduates must obtain a grade of C or better in each course and an overall GPA of at least 2.0 on a 4.0 scale in order to transfer with a junior status. Courses may also transfer through bilateral agreements between institutions.

GENERAL EDUCATION COURSES: Total of 45 SHC

UNIVERSAL GENERAL EDUCATION
TRANSFER COMPONENT (UGETC)

Students will select the first 31-32 hours of the 45-hour General Education Requirement from the classes listed below. All of these courses are classified by the Comprehensive Articulation Agreement as Universal General Education Transfer Component courses (UGETC), and they will transfer to UNC institutions for equivalency credit.

English Composition (6 SHC)

ENG	111	Writing & Inquiry	3
ENG	112	Writing/Research in the Disciplines	3

Humanities/Fine Arts/Communications (9 SHC)

Select three (3) courses below from at least two (2) different disciplines:

Communications			
COM	231	Public Speaking	3
Humanities/Fine Arts			
ART	111	Art Appreciation	3
ART	114	Art History Survey I	3
ART	115	Art History Survey II	3
ENG	231	American Literature I	3
ENG	232	American Literature II	3
MUS	110	Music Appreciation	3
MUS	112	Introduction to Jazz	3
PHI	215	Philosophical Issues	3
PHI	240	Introduction to Ethics	3

Social/Behavioral Sciences (9 SHC)

Select three (3) courses below from at least two (2) different disciplines:

ECO	251	Principles of Microeconomics	3
ECO	252	Principles of Macroeconomics	3
HIS	111	World Civilizations I	3
HIS	112	World Civilizations II	3
HIS	131	American History I	3
HIS	132	American History II	3
POL	120	American Government	3
PSY	150	General Psychology	3
SOC	210	Introduction to Sociology	3

Mathematics (3/4 SHC)

Select one (1) course from the following:

MAT	143	Quantitative Literacy	3
MAT	152	Statistical Methods I	4
MAT	171	Pre-calculus Algebra	4

Natural/Physical Sciences (4 SHC)

Select one (1) course or (1) course and lab that equal four (4) SHC from the following course(s):

AST	151	General Astronomy I	3
	And		
AST	151A	General Astronomy Lab I	1
BIO	111	General Biology I	4
CHM	151	General Chemistry I	4
GEL	111	Introductory Geology	4
PHY	110	Conceptual Physics	3
	And		
PHY	110A	Conceptual Physics Lab	1

Additional General Education Hours (13/14 SHC)

An additional 13-14 SHC of courses should be selected from one of the following lists:

- from the UGETC courses the student did not select for the first 31-32 hours of General Education requirements above.
- from the list of courses below classified as General Education within the Comprehensive Articulation Agreement.

Comprehensive Articulation Agreement
General Education Course Listing:

ANT	220	ENG	113	MUS	113
ANT	221	ENG	114	MUS	210
ARA	111	ENG	131	MUS	211
ARA	112	ENG	241	MUS	212
AST	152	ENG	242	MUS	213
AST	152A	ENG	251	PHI	210
BIO	112	ENG	252	PHY	151
BIO	120	FRE	111	PHY	152
BIO	130	FRE	112	PHY	251
BIO	140	FRE	211	PHY	252
BIO	140A	FRE	212	POL	110
CHI	111	GEL	113	PSY	237
CHI	112	GEL	120	PSY	239
CHM	131	GEL	230	PSY	241
CHM	131A	GEO	111	PSY	281
CHM	132	GEO	112	REL	110
CHM	152	GEO	130	REL	211
CIS	110	GER	111	REL	212
CIS	115	GER	112	REL	221
COM	110	HIS	121	SOC	213
COM	120	HIS	122	SOC	220
DAN	110	HUM	110	SOC	225
DRA	111	HUM	120	SOC	230
DRA	112	HUM	211	SPA	111
DRA	115	HUM	220	SPA	112
DRA	122	MAT	172	SPA	211
DRA	126	MAT	263	SPA	212
DRA	211	MAT	271		
DRA	212	MAT	272		
		MAT	273		

Students should select these courses based on their intended major and transfer university.

Total General Education Hours Required 45

ASSOCIATE IN ARTS DEGREE (continued)

OTHER REQUIRED HOURS **Total of 15 SHC**

ACA 122 College Transfer Success 1

An additional 14 SHC of courses should be selected from the following lists:

- from the UGETC courses the student did not select for the first 31-32 hours of General Education requirements listed above
- from the list of courses above classified as General Education within the Comprehensive Articulation Agreement.
- from the list of pre-major/elective courses identified in the Comprehensive Articulation Agreement and listed below.

Comprehensive Articulation Agreement Pre-Major/Elective Course Listing:

ACC	120	CHM	130	EGR	150	MUS	134	PED	121	PED	259
ACC	121	CHM	130A	EGR	210	MUS	135	PED	122	PHS	130
ARA	181	CHM	251	EGR	220	MUS	136	PED	123	POL	130
ARA	182	CHM	252	ENG	125	MUS	141	PED	124	PSY	211
ART	130	CHM	263	ENG	126	MUS	142	PED	125	PSY	231
ART	131	CHM	271	ENG	235	MUS	151	PED	128	PSY	243
ART	132	CHM	271A	ENG	273	MUS	152	PED	129	PSY	246
ART	140	CJC	111	ENG	275	MUS	161	PED	130	PSY	263
ART	171	CJC	121	FRE	181	MUS	162	PED	131	PSY	275
ART	231	CJC	141	FRE	182	MUS	181	PED	137	SOC	215
ART	232	COM	251	FRE	281	MUS	182	PED	138	SOC	234
ART	240	CSC	120	FRE	282	MUS	214	PED	139	SOC	242
ART	241	CSC	130	GER	181	MUS	215	PED	142	SOC	244
ART	264	CSC	134	GER	182	MUS	217	PED	143	SOC	250
ART	271	CSC	139	HEA	110	MUS	221	PED	144	SOC	254
ART	281	CSC	151	HEA	112	MUS	222	PED	145	SPA	141
ART	282	CSC	239	HEA	120	MUS	231	PED	146	SPA	161
ART	283	CTS	115	HIS	141	MUS	232	PED	147	SPA	181
ART	284	DFT	170	HIS	145	MUS	233	PED	148	SPA	182
BIO	143	DRA	120	HIS	151	MUS	234	PED	150	SPA	221
BIO	145	DRA	124	HIS	162	MUS	235	PED	152	SPA	281
BIO	146	DRA	128	HIS	211	MUS	236	PED	153	SPA	282
BIO	155	DRA	130	HIS	221	MUS	241	PED	154		
BIO	163	DRA	131	HIS	226	MUS	242	PED	156		
BIO	168	DRA	132	HIS	227	MUS	251	PED	158		
BIO	169	DRA	135	HIS	228	MUS	252	PED	160		
BIO	175	DRA	136	HIS	232	MUS	261	PED	161		
BIO	224	DRA	140	HIS	236	MUS	262	PED	163		
BIO	230	DRA	141	HIS	261	MUS	281	PED	171		
BIO	250	DRA	142	JOU	110	MUS	282	PED	181		
BIO	275	DRA	145	MAT	285	MUS	283	PED	212		
BIO	280	DRA	170	MUS	111	PED	110	PED	217		
BUS	110	DRA	171	MUS	121	PED	113	PED	218		
BUS	115	DRA	240	MUS	122	PED	114	PED	220		
BUS	137	DRA	260	MUS	131	PED	117	PED	252		
CHI	181	DRA	270	MUS	132	PED	118	PED	254		
CHI	182	DRA	271	MUS	133	PED	120	PED	256		

Students should select these courses based on their intended major and transfer university.

Total Semester Hours Credit (SHC) in Program: 60-61*

**One semester hour of credit may be included in a 61 SHC Associate in Arts program of study. The transfer of this hour is not guaranteed.*

Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.

DEVELOPMENTAL COURSE REQUIREMENTS*

DRE 098 Integrated Reading and Writing III.....3
DMA DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, (MAT 143 & MAT 152).....5
OR
DMA DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 065 (MAT 171).....7

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, and mathematics. Please refer to the Course Description section for prerequisite course information.

ASSOCIATE IN SCIENCE DEGREE
(A10400)

The Associate in Science degree shall be granted for a planned program of study consisting of a minimum of 60 semester hours of credit (SHC) of college transfer courses. Within the degree program, the institution shall include opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and basic computer use.

Courses are approved for transfer through the Comprehensive Articulation Agreement (CAA). The CAA enables North Carolina community college graduates of two-year associate in science programs who are admitted to constituent institutions of The University of North Carolina to transfer with junior status.

Community college graduates must obtain a grade of C or better in each course and an overall GPA of at least 2.0 on a 4.0 scale in order to transfer with a junior status. Courses may also transfer through bilateral agreements between institutions.

GENERAL EDUCATION COURSES: Total of 45 SHC

Universal General Education Transfer Component (UGETC)

Students will select the first 34 hours of the 45-hour General Education Requirement from the classes listed below. All of these courses are classified by the Comprehensive Articulation Agreement as Universal General Education Transfer Component courses (UGETC), and they will transfer to UNC institutions for equivalency credit.

English Composition (6 SHC)

ENG	111	Writing & Inquiry	3
ENG	112	Writing/Research in the Disciplines	3

Humanities/Fine Arts/Communication (6 SHC)

Select two (2) courses from the following list from two (2) different disciplines:

Communications			
COM	231	Public Speaking	3
Humanities/Fine Arts			
ART	111	Art Appreciation	3
ART	114	Art History Survey I	3
ART	115	Art History Survey II	3
ENG	231	American Literature I	3
ENG	232	American Literature II	3
MUS	110	Music Appreciation	3
MUS	112	Introduction to Jazz	3
PHI	215	Philosophical Issues	3
PHI	240	Introduction to Ethics	3

Social/Behavioral Sciences (6 SHC)

Select two (2) courses from the following list from two (2) different disciplines:

ECO	251	Principles of Microeconomics	3
ECO	252	Principles of Macroeconomics	3
HIS	111	World Civilizations I	3
HIS	112	World Civilizations II	3
HIS	131	American History I	3
HIS	132	American History II	3
POL	120	American Government	3
PSY	150	General Psychology	3
SOC	210	Introduction to Sociology	3

Mathematics (8 SHC)

Select two (2) courses from the following list:

MAT	171	Precalculus Algebra	4
MAT	172	Pre-calculus Trigonometry	4
MAT	263	Brief Calculus	4
MAT	271	Calculus I	4

Natural/Physical Sciences (8 SHC)

Select two (2) courses with labs to total eight (8) SHC from the following list:

AST	151	General Astronomy I	3
	And		
AST	151A	General Astronomy Lab I	1
BIO	111	General Biology I	4
	And		
BIO	112	General Biology II	4
CHM	151	General Chemistry I	4
	And		
CHM	152	General Chemistry II	4
GEL	111	Introductory Geology	4
PHY	110	Conceptual Physics	3
	And		
PHY	110A	Conceptual Physics Lab	1
PHY	151	College Physics I	4
	And		
PHY	152	College Physics II	4
PHY	251	General Physics I	4
	And		
PHY	252	General Physics II	4

Additional General Education Hours (11 SHC)

An additional 11 SHC of courses should be selected from one of the following lists:

- from the UGETC courses the student did not select for the first 34 hours of General Education requirements above.
- from the list of courses below classified as General Education within the Comprehensive Articulation Agreement.

Comprehensive Articulation Agreement General Education Course Listing:

ANT	220	DRA	111	GEO	111	PSY	237
ANT	221	DRA	112	GEO	112	PSY	239
ARA	111	DRA	115	GEO	130	PSY	241
ARA	112	DRA	122	GER	111	PSY	281
AST	152	DRA	126	GER	112	REL	110
AST	152A	DRA	211	HIS	121	REL	211
BIO	120	DRA	212	HIS	122	REL	212
BIO	130	ENG	113	HUM	110	REL	221
BIO	140	ENG	114	HUM	120	SOC	213
BIO	140A	ENG	131	HUM	211	SOC	220
CHI	111	ENG	241	HUM	220	SOC	225
CHI	112	ENG	242	MAT	143	SOC	230
CHM	131	ENG	251	MAT	152	SPA	111
CHM	131A	ENG	252	MAT	272	SPA	112
CHM	132	ENG	131	MAT	273	SPA	211
CIS	110	FRE	111	MUS	113	SPA	212
CIS	115	FRE	112	MUS	210		
COM	110	FRE	211	MUS	211		
COM	120	FRE	212	MUS	212		
DAN	110	GEL	113	MUS	213		
		GEL	120	PHI	210		
		GEL	230	POL	110		

Students should select these courses based on their intended major and transfer university.

Total General Education Hours Required 45

OTHER REQUIRED HOURS	Total of 15 SHC
ACA 122 College Transfer Success	1

An additional 14 SHC of courses should be selected from the following lists:

- from the UGETC courses the student did not select for the first 34 hours of General Education requirements listed above
- from the list of courses above classified as General Education within the Comprehensive Articulation Agreement.
- from the list of pre-major/elective courses identified in the Comprehensive Articulation Agreement and listed below.

Comprehensive Articulation Agreement Pre-Major/Elective Course Listing:

ACC 120	CHM 130	EGR 150
ACC 121	CHM 130A	EGR 210
ARA 181	CHM 251	EGR 220
ARA 182	CHM 252	ENG 125
ART 130	CHM 263	ENG 126
ART 131	CHM 271	ENG 235
ART 132	CHM 271A	ENG 273
ART 140	CJC 111	ENG 275
ART 171	CJC 121	FRE 181
ART 231	CJC 141	FRE 182
ART 232	COM 251	FRE 281
ART 240	CSC 120	FRE 282
ART 241	CSC 130	GER 181
ART 264	CSC 134	GER 182
ART 271	CSC 139	HEA 110
ART 281	CSC 151	HEA 112
ART 282	CSC 239	HEA 120
ART 283	CTS 115	HIS 141
ART 284	DFT 170	HIS 145
BIO 143	DRA 120	HIS 151
BIO 145	DRA 124	HIS 162
BIO 146	DRA 128	HIS 211
BIO 155	DRA 130	HIS 221
BIO 163	DRA 131	HIS 226
BIO 168	DRA 132	HIS 227
BIO 169	DRA 135	HIS 228
BIO 175	DRA 136	HIS 232
BIO 224	DRA 140	HIS 236
BIO 230	DRA 141	HIS 261
BIO 250	DRA 142	JOU 110
BIO 275	DRA 145	MAT 285
BIO 280	DRA 170	MUS 111
BUS 110	DRA 171	MUS 121
BUS 115	DRA 240	MUS 122
BUS 137	DRA 260	MUS 131
CHI 181	DRA 270	MUS 132
CHI 182	DRA 271	MUS 133

MUS 134	PED 121	PED 259
MUS 135	PED 122	PHS 130
MUS 136	PED 123	POL 130
MUS 141	PED 124	PSY 211
MUS 142	PED 125	PSY 231
MUS 151	PED 128	PSY 243
MUS 152	PED 129	PSY 246
MUS 161	PED 130	PSY 263
MUS 162	PED 131	PSY 275
MUS 181	PED 137	SOC 215
MUS 182	PED 138	SOC 234
MUS 214	PED 139	SOC 242
MUS 215	PED 142	SOC 244
MUS 217	PED 143	SOC 250
MUS 221	PED 144	SOC 254
MUS 222	PED 145	SPA 141
MUS 231	PED 146	SPA 161
MUS 232	PED 147	SPA 181
MUS 233	PED 148	SPA 182
MUS 234	PED 150	SPA 221
MUS 235	PED 152	SPA 281
MUS 236	PED 153	SPA 282
MUS 241	PED 154	
MUS 242	PED 156	
MUS 251	PED 158	
MUS 252	PED 160	
MUS 261	PED 161	
MUS 262	PED 163	
MUS 281	PED 171	
MUS 282	PED 181	
MUS 283	PED 212	
PED 110	PED 217	
PED 113	PED 218	
PED 114	PED 220	
PED 117	PED 252	
PED 118	PED 254	
PED 120	PED 256	

Students should select these courses based on their intended major and transfer university.

Total Semester Hours Credit (SHC) in Program: 60-61*

**One semester hour of credit may be included in a 61 SHC Associate in Science program of study. The transfer of this hour is not guaranteed.*

Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.

DEVELOPMENTAL COURSE REQUIREMENTS*

DRE 098 Integrated Reading Writing III 3
DMA DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 065 7

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, and mathematics. Please refer to the Course Description section for prerequisite course information.

ASSOCIATE IN ENGINEERING
(A10500)

The Associate in Engineering (AE) degree shall be granted for a planned program of study consisting of a minimum of 60 semester hours of credit (SHC) of courses. Within the degree program, the institution shall include opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and basic computer use.

The degree plan includes required general education and prerequisite courses that are acceptable to all state funded Bachelor of Engineering programs. Students who follow the degree progression plan will meet the entrance requirements at all of the North Carolina public Bachelor of Science Engineering programs. Associate in Engineering graduates may then apply to any of these programs without taking additional and sometimes duplicative courses. *Admission to Engineering programs is highly competitive and admission is not guaranteed.*

To be eligible for the transfer of credits under the AE to the Bachelor of Science in Engineering Articulation Agreement, community college graduates must obtain a grade of "C" or better in each course and an overall GPA of at least 2.5 on a 4.0 scale.

GENERAL EDUCATION COURSES: Total of 42 SHC

GENERAL EDUCATION

The general education common course pathway includes study in areas of English composition; humanities and fine arts; social and behavioral sciences; natural sciences, and mathematics.

UNIVERSAL GENERAL EDUCATION TRANSFER COMPONENT (UGETC)

(Universal General Transfer Component (UGETC) courses will transfer for equivalency credit to all UNC institutions) ***• Exceptions (i.e. courses which are not classified as UGETC) are italicized.***

English Composition (6 SHC)

ENG	111	Writing & Inquiry	3
ENG	112	Writing/Research in the Disciplines	3

Humanities/Fine Arts/Communications (6 SHC)

Students must select (1) course from **each category** for a total of 6 SHC.

Humanities:

ENG	231	American Literature I	3
ENG	232	American Literature II	3
PHI	215	Philosophical Issues	3
PHI	240	Introduction to Ethics	3
**REL*	*110*	*World Religions*	3

*(*REL 110 will transfer for equivalency credit to the engineering programs at all five UNC institutions that offer undergraduate engineering programs. It may not transfer with equivalency to other programs.)*

Fine Arts and Communication:

Students **must take one (1)** of the following courses:

COM	231	Public Speaking	3
ART	111	Art Appreciation	3
ART	114	Art History Survey I	3
ART	115	Art History Survey II	3
MUS	110	Music Appreciation	3
MUS	112	Introduction to Jazz	3

Social/Behavioral Sciences (6 SHC)

Students must take the following **required** course:

ECO	251	Principles of Microeconomics	3

Students must **select one (1) additional** course from the following courses:

HIS	111	World Civilizations I	3
HIS	112	World Civilizations II	3
HIS	131	American History I	3
HIS	132	American History II	3
POL	120	American Government	3
PSY	150	General Psychology	3
SOC	210	Introduction to Sociology	3

Mathematics (12 SHC)

Calculus I is the ***lowest*** *level math course that will be accepted by the engineering programs for transfer as a math credit. Students who are not calculus-ready will need to take additional math courses.*

Students **must take the following three (3) courses**.

MAT	271	Calculus I	4
MAT	272	Calculus II	4
MAT	273	Calculus III	4

Natural Sciences (12 SHC)

Students **must take the following three (3) courses**:

CHM	151	General Chemistry I	4
PHY	251	General Physics I	4
PHY	252	General Physics II	4

Total General Education Hours Required 42 SHC

OTHER REQUIRED HOURS Total of 18 SHC

Academic Transition

Student must take the following **required** course:

ACA 122 College Transfer Success 1

Students must complete ACA 122 within the first 30 hours of enrollment.

Pre-Major Elective

Students must take the following **required** course:

EGR 150 Introduction to Engineering 2

Other General Education and Pre-major Elective Hours (15 SHC)

Other General Education and Pre-major Elective Hours (15 SHC)

Students **must choose 15 SHC** from the following courses classified as pre-major, elective, or general education courses within the Comprehensive Articulation Agreement. *(Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.)*

Students should choose courses appropriate to the specific university and engineering major requirements.

BIO	111	General Biology I	4
CHM	152	General Chemistry II	4
COM	110	Introduction to Communication	3
CSC	134	C++ Programming	3
CSC	151	JAVA Programming	3
DFT	170	Engineering Graphics	3
ECO	252	Principles of Macroeconomics	3
EGR	210	Intro to Electrical/Computer Engineering Lab	2
EGR	212	Logic System Design I	3
EGR	215	Network Theory I	3
EGR	216	Logic and Network Lab	1
EGR	220	Engineering Statics	3
EGR	225	Engineering Dynamics	3
EGR	228	Introduction to Solid Mechanics	3
HUM	110	Technology and Society	3
MAT	280	Linear Algebra	3
MAT	285	Differential Equations	3
PED	110	Fitness and Wellness for Life	2

Total Semester Hours Credit in the Associate in Engineering Program 60

ASSOCIATE in GENERAL EDUCATION
A.G.E. Program (A10300)

The Associate in General Education curriculum is designed for the academic enrichment of students who wish to broaden their education, with emphasis on personal interest, growth and development. Coursework includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition. Opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and the basic use of computers will be provided. Through these skills, students will have a sound base for lifelong learning. Graduates are prepared for advancements within their field of interest and become better qualified for a wide range of employment opportunities.

*All courses in the program are college-level courses. Many of the courses are equivalent to college transfer courses; however, the program is not principally designed for college transfer.

GENERAL EDUCATION CORE (15 SHC)

The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition. Within the core, colleges must include opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and the basic use of computers (SACS Criteria, 4.2.2).

English Composition (6 SHC)

Humanities/Fine Arts (3 SHC)

Select courses from the following discipline areas: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy and religion.

Social/Behavioral Sciences (3 SHC)

Select courses from the following discipline areas: anthropology, economics, geography, history, political science, psychology, and sociology.

Natural Sciences/Mathematics (3 SHC)

Mathematics

Select courses from the following discipline areas: college algebra, trigonometry, calculus, computer science, and statistics.

or

Natural Sciences

Select courses from the following discipline areas: astronomy, biology, chemistry, earth sciences, physics, and/or general science.

OTHER REQUIRED HOURS (49-50 SHC)

Other required hours include additional general education and professional courses. A maximum of 7 SHC in health, physical education, college orientation, and/or study skills may be included as other required hours.

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65

GENERAL OCCUPATIONAL TECHNOLOGY
A.A.S. Program (A55280)

The General Occupational Technology (GOT) curriculum provides individuals with an opportunity to upgrade their skills and earn an associate degree, diploma, or certificate by taking courses that offer specific job knowledge and skills.

The curriculum content will be individualized for students according to their occupational interests and needs. A program of study for each student will be developed from any non-developmental level courses from approved curriculum programs of study offered by the College.

Graduates will become more effective workers, better qualified for advancements within their field of employment, and better qualified for a wide range of entry-level employment opportunities.

All courses included in the GOT must be taken from approved Associate of Applied Science (A.A.S.), diploma or certificate programs.

GENERAL EDUCATION (15 SHC)

Associate Degree programs must contain a minimum of 15 semester hours of general education coursework. The general education hours must include a minimum of 6 semester hours in communications and at least one course from each of the following areas: humanities/fine arts, social/behavioral sciences, and natural sciences/mathematics. Diploma programs must contain a minimum of 6 semester hours of general education, 3 semester hours of which must be in communications. General education is optional in certificate programs.

MAJOR COURSES (49 SHC)

Program Courses

The General Occupational Technology Associate in Applied Science (A.A.S.), diploma, and certificate programs must include courses which offer specific job knowledge and skills. The student must select and complete a minimum of 49 SHC from a combination of major courses for curriculums approved to be offered by the college. Work experience, including cooperative education, practicums, and internships, may be included in a degree program up to a maximum of 8 semester hours of credit, in a diploma up to a maximum of 4 semester hours credit, and in a certificate program up to a maximum of 2 semester hours of credit.

OTHER REQUIRED HOURS (0-7 SHC)

Local employer requirements, as well as college designated graduation requirements, may be accommodated in "other required hours." Up to a maximum of 7 semester hours of credit in other required hours may be included in an A.A.S. degree program, 4 semester hours of credit in a diploma program, and 1 semester hour of credit in other required hours may be included in a certificate program. Any course in the Combined Course Library that is educationally relevant to the student's career objective may be used in other required hours, as long as it is not a restricted or unique course.

TOTAL SHC (64-76 SHC)

The total number of semester hour credit must include a minimum of 64 hours and a maximum of 76 hours.

CAREER PROGRAMS

Career programs are offered in the Schools of Academics, Education & Fine Arts; Business, Industry, and Technology; Health and Public Services. Specific program offerings and options are listed alphabetically. Descriptions for career courses are listed alphabetically by subject area in the course listings beginning on page 111.

SCHOOL OF ACADEMICS, EDUCATION & FINE ARTS

In addition to excellent two-year programs in such diverse areas as Early Childhood Education, Photography, and Advertising and Graphic Design, the School offers general education courses for students planning to transfer to a four-year institution. An agreement with the University of North Carolina system as well as many private colleges assures that our graduates' courses will be accepted for full credit. Studies in the humanities, sciences, arts, social sciences, English, and mathematics are a part of the general education core and are given high priority by our creative, innovative faculty members. The following programs are offered in the School of Academics, Education, and Fine Arts:

- Associate in Arts
- Associate in Science
- Associate in General Education
- Advertising and Graphic Design
- Early Childhood Education
- Health & Fitness Science
- Photographic Technology

SCHOOL OF BUSINESS, INDUSTRY & TECHNOLOGY

Today's emerging digital economy demands problem solving skills using state-of-the-art technology and equipment. Programs within CVCC's School of Business, Industry, and Technology use some of the most current technology to prepare you for a rapidly changing marketplace. From our Workforce Development Innovation Center which provides services to help businesses succeed in today's global economy, to our academic departments, we stand prepared to assist you in reaching your goals. The School of Business, Industry, and Technology is known for its talented faculty, staff, students, and alumni. These stakeholders have worked to create an innovative climate that stresses teamwork, entrepreneurship, a global point of view, and an emphasis on new ideas and fresh perspectives. The following programs are offered in the School of Business, Industry, and Technology:

- Accounting
- Air Conditioning, Heating and Refrigeration Technology
- Automotive Systems Technology
- Business Administration
- Computer Engineering Technology
- Computer Information Technology
- Computer-Integrated Machining Technology
- Computer Programming
- Electrical SystemsTechnology
- Electronics Engineering Technology
- Entrepreneurship
- Funeral Service Education (Collaborative)
- General Occupational Technology
- Horticulture Technology
- Industrial Systems Technology
- Information Systems Security
- Mechanical Engineering Technology
- Mechatronics Engineering Technology
- Networking Technology
- Office Administration
- Turfgrass Management Technology
- Web Technologies
- Welding Technology

SCHOOL OF HEALTH & PUBLIC SERVICES

Individuals choosing health services should have an appreciation for human life, enjoy working with people of all ages, and be interested in the application of biological and scientific principles. Students will spend time in clinical facilities, hospitals, and other locations gaining skills through first-hand experience under the direction of competent professionals. Graduates of health and human resources associate degree programs may seek immediate employment. Students who are interested in pursuing a four year degree should contact their advisor or Student Services for specific information. Public Services provides comprehensive programs that offer associate degrees, certificates, and training in an array of disciplines and occupational interest to the Public Services community. In addition, technical pre-service and in-service advanced training is provided in a number of areas. Certificates are offered for Basic Law Enforcement Training (BLET) and in a range of criminal justice themes. Continuing/in-service public safety instruction is also provided in the areas of emergency medical training, fire, and rescue. The following programs are offered in the School of Health and Public Services:

- Associate Degree Nursing
- Basic Law Enforcement Training
- Cosmetology
- Criminal Justice Technology
- Criminal Justice Technology: Latent Evidence Concentration
- Dental Hygiene
- Electroneurodiagnostic Technology
- Emergency Medical Science
- Fire Protection Technology
- Health Information Technology
- Healthcare Management Technology
- Medical Office Administration
- Polysomnography
- Radiography
- Respiratory Therapy
- Surgical Technology

WORK-BASED LEARNING

Work-Based Learning (WBL) is designed to give students enrolled in many programs within the College a chance to work on a job while completing their degree. This combination of classroom instruction with practical/related work experience provides numerous benefits to participating students.

WBL students work one or more semesters in part-time or full time jobs related to their major. Academic credit is given for the knowledge gained during the work period. Students are assigned to a WBL faculty advisor and receive on-the-job supervision by the employers.

Admission to the Work-Based Learning program is based on scholastics and interest, not financial need. Employers select the students and determine salaries to be offered for their position; therefore, the college does not guarantee placement or pay for all who are eligible.

Eligibility. Students who are enrolled in programs offering WBL for academic credit and who have completed a minimum of 12 credit hours at the college (unless otherwise specified by the program) are eligible to participate if they meet the following conditions:

1. Have a minimum 2.0 GPA.
2. Obtain approval from the WBL Coordinator.
3. Have approval of WBL Faculty Advisor.
4. Willing to follow program guidelines.
5. Certain curriculum programs may specify additional conditions.

Application Procedure. Interested students should schedule an interview with the Work-Based Learning Coordinator. Students are selected on the basis of information obtained from their resume, college transcripts, and an interview regarding career goals. After students have been accepted into the program, the WBL Program Coordinator or Faculty Advisor will be responsible for locating and/or approving an appropriate work assignment.

Academic Credit. WBL students may earn one or more semester hours of work-based learning credit toward completion of diploma or degree requirements in approved curriculums. One credit hour equals 160 work hours.

Registration. Registration for WBL courses is restricted. Students will meet with the Work-Based Learning Coordinator to register for these courses.

Students interested in Work-Based Learning are invited to contact the WBL Office, located in the Career Center. Information is also available through faculty advisors.

NOTE: WBL options are listed under each participating curriculum course schedule. The Work-Based Coordinator must enroll students in WBL classes (one exception WBL 110).

PROGRAM SEQUENCES

Program Sequences are suggestions only. The College retains the right to alter Program Sequences as it deems necessary.

CAREER PROGRAM ELECTIVES

Humanities/Fine Arts and/or Social/Behavioral Science elective courses are specified in some programs. In order to assist students in planning their schedules, approved courses in these categories that are generally offered at CVCC are listed below. If a course is specified as a required course in the program sequence, it may not be chosen as an elective. All prerequisites and corequisites must be met for these courses. In programs where only one (1) Humanities/Fine Arts elective is required, introductory foreign language courses are not accepted as the elective. If you have additional questions about program electives please contact the Advising Center.

Humanities/Fine Arts Elective

ART	111	Art Appreciation	3-0-0-3
ART	131	Drawing I	0-6-0-3
ART	132	Drawing II	0-6-0-3
ART	171	Computer Art I	0-6-0-3
ART	240	Painting I	0-6-0-3
ART	241	Painting II	0-6-0-3
ART	271	Computer Art II	0-6-0-3
ART	281	Sculpture I	0-6-0-3
ART	283	Ceramics I	0-6-0-3
ART	114	Art History Survey I	3-0-0-3
ART	115	Art History Survey II	3-0-0-3
DAN	110	Dance Appreciation	3-0-0-3
DRA	111	Theatre Appreciation	3-0-0-3
DRA	112	Literature of the Theatre	3-0-0-3
DRA	115	Theatre Criticism	3-0-0-3
DRA	120	Voice for Performance	3-0-0-3
DRA	122	Oral Interpretation	3-0-0-3
DRA	124	Readers Theatre	3-0-0-3
DRA	126	Storytelling	3-0-0-3
DRA	128	Children's Theatre	3-0-0-3
DRA	130	Acting I	0-6-0-3
DRA	211	Theatre History I	3-0-0-3
DRA	212	Theatre History II	3-0-0-3
ENG	125	Creative Writing I	3-0-0-3
ENG	131	Introduction to Literature	3-0-0-3
ENG	231	American Literature I	3-0-0-3
ENG	232	American Literature II	3-0-0-3
ENG	241	British Literature I	3-0-0-3
ENG	242	British Literature II	3-0-0-3
ENG	251	Western World Literature I	3-0-0-3
ENG	252	Western World Literature II	3-0-0-3
ENG	273	African-American Literature	3-0-0-3
ENG	275	Science Fiction	3-0-0-3
HUM	110	Technology and Society	3-0-0-3
HUM	120	Cultural Studies	3-0-0-3
HUM	211	Humanities I	3-0-0-3
HUM	220	Human Values and Meaning	3-0-0-3
MUS	110	Music Appreciation	3-0-0-3
MUS	111	Fundamentals of Music	3-0-0-3
MUS	112	Introduction to Jazz	3-0-0-3
MUS	113	American Music	3-0-0-3
MUS	121	Music Theory I	3-0-0-3
MUS	122	Music Theory II	3-0-0-3
MUS	210	History of Rock Music	3-0-0-3
MUS	211	History of Country Music	3-0-0-3
MUS	213	Opera and Musical Theatre	3-0-0-3
PHI	210	History of Philosophy	3-0-0-3
PHI	215	Philosophical Issues	3-0-0-3
PHI	240	Introduction to Ethics	3-0-0-3
REL	110	World Religions	3-0-0-3
REL	211	Intro to Old Testament	3-0-0-3
REL	212	Intro to New Testament	3-0-0-3
REL	221	Religion in America	3-0-0-3
SPA	141	Culture and Civilization	3-0-0-3

Social/Behavioral Science Elective

ANT	220	Cultural Anthropology	3-0-0-3
ANT	221	Comparative Cultures	3-0-0-3
ANT	230	Physical Anthropology	3-0-0-3
ECO	251	Prin of Microeconomics	3-0-0-3
ECO	252	Prin of Macroeconomics	3-0-0-3
GEO	111	World Regional Geography	3-0-0-3
GEO	112	Cultural Geography	3-0-0-3
GEO	113	Economic Geography	3-0-0-3
GEO	121	North Carolina Geography	3-0-0-3
GEO	130	General Physical Geography	3-0-0-3
HIS	111	World Civilizations I	3-0-0-3
HIS	112	World Civilizations II	3-0-0-3
HIS	121	Western Civilization I	3-0-0-3
HIS	122	Western Civilization II	3-0-0-3
HIS	131	American History I	3-0-0-3
HIS	132	American History II	3-0-0-3
HIS	151	Hispanic Civilization	3-0-0-3
HIS	162	Women and History	3-0-0-3
HIS	211	Ancient History	3-0-0-3
HIS	221	African-American History	3-0-0-3
HIS	226	The Civil War	3-0-0-3
HIS	227	Native American History	3-0-0-3
HIS	236	North Carolina History	3-0-0-3
HIS	261	East Asian History	3-0-0-3
POL	110	Intro Political Science	3-0-0-3
POL	120	American Government	3-0-0-3
POL	130	State & Local Government	3-0-0-3
PSY	110	Life Span Development	3-0-0-3
PSY	150	General Psychology	3-0-0-3
PSY	211	Psychology of Adjustment	3-0-0-3
PSY	237	Social Psychology	3-0-0-3
PSY	239	Psychology of Personality	3-0-0-3
PSY	241	Developmental Psychology	3-0-0-3
PSY	243	Child Psychology	3-0-0-3
PSY	244	Child Development I	3-0-0-3
PSY	245	Child Development II	3-0-0-3
PSY	246	Adolescent Psychology	3-0-0-3
PSY	263	Educational Psychology	3-0-0-3
PSY	275	Health Psychology	3-0-0-3
PSY	281	Abnormal Psychology	3-0-0-3
SOC	210	Introduction to Sociology	3-0-0-3
SOC	213	Sociology of the Family	3-0-0-3
SOC	215	Group Processes	3-0-0-3
SOC	220	Social Problems	3-0-0-3
SOC	225	Social Diversity	3-0-0-3
SOC	230	Race and Ethnic Relations	3-0-0-3
SOC	234	Sociology of Gender	3-0-0-3
SOC	242	Sociology of Deviance	3-0-0-3
SOC	244	Soc of Death & Dying	3-0-0-3
SOC	250	Sociology of Religion	3-0-0-3
SOC	254	Rural and Urban Sociology	3-0-0-3

ACCOUNTING
A.A.S. Program (A25100)

Courses required to meet graduation requirements in this curriculum are offered during day and evening hours. Minimum time for completion: Day – four semesters full-time attendance. The Associate in Applied Science degree is awarded graduates of this curriculum.

The Accounting curriculum is designed to provide students with the knowledge and the skills necessary for employment and growth in the accounting profession. Using the "language of business," accountants assemble and analyze, process, and communicate essential information about financial operations. In addition to course work in accounting principles, theories, and practice, students will study business law, finance, management, and economics. Related skills are developed through the study of communications, computer applications, financial analysis, critical thinking skills, and ethics. Graduates should qualify for entry-level accounting positions in many types of organizations including accounting firms, small businesses, manufacturing firms, banks, hospitals, school systems, and governmental agencies. With work experience and additional education, an individual may advance in the accounting profession.

GENERAL EDUCATION COURSES:			**SHC**
English/Communications:			
ENG 111		Writing and Inquiry	3
ENG 112		Writing/Research in the Disc	3
	OR	ENG 113 Literature-Based Research	3
	OR	ENG 114 Prof Research & Reporting	3
Humanities/Fine Arts:			
Elective			3
Natural Sciences/Mathematics:			
MAT 110		Math Measurement & Literacy	3
	OR	MAT 143 Quantitative Literacy	3
Social/Behavioral Sciences:			
Elective			3
MAJOR COURSES:			
ACC	120	Prin of Financial Accounting	4
ACC	121	Prin of Managerial Accounting	4
ACC	129	Individual Income Taxes	3
ACC	140	Payroll Accounting	2
ACC	150	Accounting Software Appl	2
ACC	220	Intermediate Accounting I	4
ACC	225	Cost Accounting	3
ACC	240	Gov & Not-for-Profit Acct	3
BUS	110	Introduction to Business	3
BUS	115	Business Law I	3
BUS	116	Business Law II	3
CIS	110	Introduction to Computers	3
CTS	130	Spreadsheet	3
ECO	251	Prin of Microeconomics	3

Accounting Electives			**6**
ACC	130	Business Income Taxes	3
ACC	221	Intermediate Acct II	4
ACC	269	Auditing & Assurance Services	3
BUS	125	Personal Finance	3
BUS	139	Entrepreneurship I	3
BUS	217	Employment Law and Regs	3
BUS	245	Entrepreneurship II	3
ETR	240	Funding for Entrepreneurs	3
INT	110	International Business	3
WBL	110	World of Work	1
WBL	XXX	Work-Based Learning	1-6

Total Credit Hours Required 64

DEVELOPMENTAL COURSE REQUIREMENTS*			
CTS	080	Computing Fundamentals	3
DRE	098	Integrated Reading Writing III	3
DMA	DMA 010, DMA 020, DMA 030, (MAT 110)		3
DMA	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, (MAT 143)		5

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Description section for prerequisite course information.

Accounting • A25100
Suggested Program Sequence Day

	Class	Lab	Clin/WkExp	Credit
Fall - 1st year				
ACC 120 Prin of Financial Accounting	3	2	0	4
BUS 110 Introduction to Business	3	0	0	3
ENG 111 Writing and Inquiry	3	0	0	3
MAT 110 Math Measurement & Literacy	2	2	0	3
OR MAT 143 Quantitative Literacy	2	2	0	3
Social/Behavorial Science Elective	3	0	0	3
Total	14	4	0	16
Spring - 1st year				
ACC 121 Principles of Managerial Accounting	3	2	0	4
BUS 115 Business Law I	3	0	0	3
CIS 110 Introduction to Computers	2	2	0	3
ENG 112 Writing/Research in the Disc (Preferred)	3	0	0	3
OR ENG 113 Literature-Based Research	3	0	0	3
OR ENG 114 Prof Research & Development	3	0	0	3
Accounting Elective	3	0	0	3
Total	14	4	0	16
Fall - 2nd year				
ACC 129 Individual Income Taxes	2	2	0	3
ACC 220 Intermediate Accounting I	3	2	0	4
ACC 225 Cost Accounting	3	0	0	3
CTS 130 Spreadsheet	2	2	0	3
Humanities/Fine Arts Elective	3	0	0	3
Total	13	6	0	16
Spring - 2nd year				
ACC 140 Payroll Accounting	1	2	0	2
ACC 150 Accounting Software Appl	1	2	0	2
ACC 240 Gov & Not-for-Profit Acct	3	0	0	3
BUS 116 Business Law II	3	0	0	3
ECO 251 Prin of Microeconomics	3	0	0	3
Accounting Elective	3	2	0	3
Total	14	6	0	16
Grand Total	55	20	0	64

ACCOUNTING – Diploma Program (D25100)

GENERAL EDUCATION COURSES:			SHC
ENG	111	Writing and Inquiry	3
Social/Behavioral Sciences Elective			3
MAJOR COURSES:			**SHC**
ACC	120	Prin of Financial Accounting	4
ACC	121	Prin of Managerial Accounting	4
ACC	129	Individual Income Taxes	3
ACC	140	Payroll Accounting	2
ACC	150	Accounting Software Appl	2
BUS	110	Introduction to Business	3
BUS	115	Business Law I	3
CIS	110	Introduction to Computers	3
CTS	130	Spreadsheet	3
ECO	251	Prin of Microeconomics	3
Total Credit Hours Required			**36**

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
DRE	098	Integrated Reading Writing III	3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Description section for prerequisite course information.

Accounting – Diploma Program (D25100) Suggested Sequence

Fall – 1st year					
ACC 120	Prin of Financial Accounting	3	2	0	4
BUS 110	Introduction to Business	3	0	0	3
CIS 110	Introduction to Computers	2	2	0	3
ENG 111	Writing and Inquiry	3	0	0	3
	Total	11	4	0	13
Spring – 1st year					
ACC 121	Prin of Managerial Accounting	3	2	0	4
ACC 140	Payroll Accounting	1	2	0	2
ACC 150	Accounting Software Appl	1	2	0	2
BUS 115	Business Law I	3	0	0	3
	Total	8	6	0	11
Fall – 2nd year					
ACC 129	Individual Income Taxes	2	2	0	3
CTS 130	Spreadsheet	2	2	0	3
ECO 251	Prin of Microeconomics	3	0	0	3
	Total	7	4	0	9
Spring – 2nd year					
Social/Behavorial Science Elective		3	0	0	3
	Total	3	0	0	3
	Grand Total	29	14	0	36

ACCOUNTING
General – Certificate Program (C2510001)

MAJOR COURSES:			SHC
ACC	120	Prin of Financial Accounting	4
ACC	121	Prin of Managerial Accounting	4
ACC	129	Individual Income Taxes	3
ACC	140	Payroll Accounting	2
Total Credit Hours Required			**13**

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
DRE	098	Integrated Reading Writing III	3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Description section for prerequisite course information.

General – Certificate Program • (C2510001)
Suggested Program Sequence Day

Fall – 1st Year					
ACC 120	Prin of Financial Accounting	3	2	0	4
ACC 121	Prin of Managerial Accounting	3	2	0	4
	Total	6	4	0	8
Spring – 1st Year					
ACC 129	Individual Income Taxes	2	2	0	3
ACC 140	Payroll Accounting	1	2	0	2
	Total	3	4	0	5
	Grand Total	9	8	0	13

ACCOUNTING
Computerized – Certificate Program (C2510003)

MAJOR COURSES:			SHC
ACC	120	Prin of Financial Accounting	4
ACC	150	Accounting Software Appl	2
CIS	110	Introduction to Computers	3
CTS	130	Spreadsheet	3
Total Credit Hours Required			**12**

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
DRE	098	Integrated Reading Writing III	3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Description section for prerequisite course information.

Computerized – Certificate Program • (C2510003)
Suggested Program Sequence Day

Fall – 1st Year					
ACC 120	Prin of Financial Accounting	3	2	0	4
CIS 110	Introduction to Computers	2	2	0	3
	Total	5	4	0	7
Spring – 1st Year					
ACC 150	Accounting Software Appl	1	2	0	2
CTS 130	Spreadsheet	2	2	0	3
	Total	3	4	0	5
	Grand Total	8	8	0	12

ACCOUNTING
Taxation – Certificate Program (C2510004)

MAJOR COURSES:			SHC
ACC	120	Prin of Financial Accounting	4
ACC	129	Individual Income Taxes	3
ACC	130	Business Income Taxes	3
ACC	140	Payroll Accounting	2
Total Credit Hours Required			**12**

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
DRE	098	Integrated Reading Writing III	3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Description section for prerequisite course information.

Taxation – Certificate Program • (C2510004)
Suggested Program Sequence Day

Fall – 1st Year					
ACC 120	Prin of Financial Accounting	3	2	0	4
ACC 129	Individual Income Taxes	2	2	0	3
	Total	5	4	0	7
Spring – 1st Year					
ACC 130	Business Income Taxes	2	2	0	3
ACC 140	Payroll Accounting	1	2	0	2
	Total	3	4	0	5
	Grand Total	8	8	0	12

ADVERTISING AND GRAPHIC DESIGN

A.A.S. Program (A30100)

Courses required to meet graduation requirements in this curriculum are offered during day hours only. Minimum time for completion: five semesters full-time attendance. The Associate in Applied Science degree is awarded graduates of this curriculum.

The Advertising and Graphic Design curriculum is designed to provide students with knowledge and skills necessary for employment in the graphic design profession, which emphasizes design, advertising, illustration, and digital and multimedia preparation of printed and electronic promotional materials. Students will be trained in the development of concept and design for promotional materials such as newspaper and magazine advertisements, posters, folders, letterheads, corporate symbols, brochures, booklets, preparation of art for printing, lettering and typography, photography, and electronic media. Graduates should qualify for employment opportunities with graphic design studios, advertising agencies, printing companies, department stores, a wide variety of manufacturing industries, newspapers, and businesses with in-house graphics operations.

GENERAL EDUCATION COURSES: **SHC**

English/Communications:

ENG	111	Writing and Inquiry	3
ENG	113	Literature-Based Research	3
	OR	ENG 114 Prof Research & Reporting	3

Humanities/Fine Arts:

Elective 3

Natural Sciences/Mathematics:

MAT	143	Quantitative Literacy	3
	OR	MAT 152 Statistical Methods I	3
	OR	MAT 171 Precalculus Algebra	4

Social/Behavioral Sciences:

Elective 3

MAJOR COURSES:

BUS	110	Introduction to Business	3
GRA	151	Computer Graphics I	2
GRA	152	Computer Graphics II	2
GRA	153	Computer Graphics III	2
GRA	255	Image Manipulation I	2
GRD	110	Typography I	3
GRD	121	Drawing Fundamentals I	2
GRD	131	Illustration I	2
GRD	141	Graphic Design I	4
GRD	142	Graphic Design II	4
GRD	180	Interactive Design	3
GRD	241	Graphic Design III	4
GRD	249	Advanced Design Practice	4
GRD	265	Digital Print Production	3
GRD	280	Portfolio Design	4
MKT	120	Principles of Marketing	3

Program Elective OR Work-Based Learning 3

Students are required to take 3 SHC from the following:

ART	131	Drawing I	3
ART	231	Printmaking I	3
ART	264	Digital Photography I	3
CIS	110	Introduction to Computers	3
GRA	121	Graphic Arts I	4
GRA	256	Image Manipulation II	2
GRD	271	Multimedia Design I	2
MKT	220	Advertising and Sales Promotion	3
MKT	221	Consumer Behavior	3
PHO	110	Fund of Photography	5
PRN	155	Screen Printing I	2
SGD	111	Introduction to SGD	3
SGD	112	SGD Design	3
SGD	114	3D Modeling	3
WBL	XXX	Work-Based Learning	1-3
WEB	110	Internet/Web Fundamentals	3
WEB	111	Intro to Web Graphics	3
WEB	120	Intro Internet Multimedia	3

OTHER REQUIRED COURSES:

ACA 111 College Student Success 1

Work-Based Learning Option: Qualified students may elect to take up to 3 credit hours of Work-Based Learning in place of 3 hours Program electives.

Total Credit Hours Required 66/67

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
DRE	098	Integrated Reading Writing III	3
DMA	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050 (MAT 143/MAT 152)		5
DMA	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 060, DMA 065, (MAT 171)		7

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Advertising and Graphic Design • A30100
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall – 1st Year						
ACA	111	College Student Success	1	0	0	1
GRA	151	Computer Graphics I	1	3	0	2
GRD	141	Graphic Design I	2	4	0	4
GRD	110	Typography I	2	2	0	3
GRD	121	Drawing Fundamentals I	1	3	0	2
ENG	111	Writing and Inquiry	3	0	0	3
		Total	10	12	0	15
Spring – 1st year						
GRA	152	Computer Graphics II	1	3	0	2
GRD	142	Graphic Design II	2	4	0	4
GRA	255	Image Manipulation I	1	3	0	2
GRD	131	Illustration I	1	3	0	2
ENG	113	Literature-Based Research	3	0	0	3
	OR	ENG 114 Prof Research & Reporting 3	0	0	3	
		Total	8	13	0	13
Summer – 1st year						
BUS	110	Introduction to Business	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
	OR	MAT 152 Statistical Methods I	3	2	0	4
	OR	MAT 171 Precalculus	3	2	0	4
		Social/Behavioral Science Elective	3	0	0	3
		Total	8/9	2	0	9/10
Fall – 2nd year						
GRA	153	Computer Graphics III	1	3	0	2
GRD	180	Interactive Design	1	4	0	3
GRD	241	Graphic Design III	2	4	0	4
GRD	265	Digital Print Production	1	4	0	3
MKT	120	Principles of Marketing	3	0	0	3
		Total	8	15	0	15
Spring – 2nd year						
GRD	249	Advanced Design Practice	1	9	0	4
GRD	280	Portfolio Design	2	4	0	4
		Humanities/Fine Arts Elective	3	0	0	3
		Program/ Work-Based Learning Elective				3
		Total	6	13	0	14
		Grand Total	40/41	55	0	66/67

Program Electives 3 SHC: Must be selected from the following list:
ART 131, ART 231, ART 264, CIS 110, GRA 121, GRA 256, GRD 271, MKT 220, MKT 221, PHO 110, PRN 155, SGD 111, SGD 112, SGD 114, WEB 110, WEB 111, WEB 120, WBL XXX.

AIR CONDITIONING, HEATING, AND REFRIGERATION TECHNOLOGY

Diploma Program (D35100)

Courses required to meet graduation requirements in this curriculum are offered during day and evening hours. Minimum time for completion: Day – two semesters full-time attendance; Evening – four semesters of part-time attendance. The Diploma is awarded graduates of this curriculum.

The Air Conditioning, Heating, and Refrigeration Technology curriculum provides the basic knowledge to develop skills necessary to work with residential and light commercial systems. Topics include mechanical refrigeration, heating and cooling theory, electricity, controls, and safety. The diploma program covers air conditioning, furnaces, heat pumps, tools and instruments. Diploma graduates should be able to assist in the start up, preventive maintenance, service, repair, and/or installation of residential and light commercial systems.

GENERAL EDUCATION COURSES:.....SHC

English/Communications:

ENG 102 Applied Communications II.....3
OR ENG 111 Writing and Inquiry.....3

Natural Sciences/Mathematics:

MAT 110 Math Measurement & Literacy.....3
OR MAT 121 Algebra/Trigonometry I.....3

MAJOR COURSES:

AHR 110 Intro to Refrigeration.....5
AHR 111 HVACR Electricity.....3
AHR 112 Heating Technology.....4
AHR 113 Comfort Cooling.....4
AHR 114 Heat Pump Technology.....4
AHR 130 HVAC Controls.....3
AHR 151 HVAC Duct Systems I.....2
AHR 160 Refrigerant Certification.....1
AHR 180 HVACR Customer Relations.....1
AHR 210 Residential Building Code.....2
AHR 211 Residential System Design.....3
WBL 110 World of Work.....1

Total Credit Hours Required.....39

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS 080 Computing Fundamentals.....3
DRE 097 Integrated Reading Writing II.....3
DMA DMA 010, DMA 020, DMA 030 (MAT 110).....3
DMA DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 060 (MAT 121).....3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Air Conditioning, Heating and Refrigeration • D35100
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
AHR	110	Intro to Refrigeration (1st 8 weeks)	2	6	0	5
AHR	111	HVACR Electricity (1st 8 weeks)	2	2	0	3
AHR	112	Heating Technology (2nd 8 weeks)	2	4	0	4
AHR	151	HVAC Duct Systems I	1	3	0	2
AHR	180	HVACR Customer Relations (2nd 8 weeks)	1	0	0	1
AHR	211	Residential Systems Design (2nd 8 weeks)	2	2	0	3
		Total	10	17	0	18
Spring – 1st year						
AHR	113	Comfort Cooling (2nd 8 weeks)	2	4	0	4
AHR	210	Residential Building Code (1st 8 weeks)	1	2	0	2
AHR	114	Heat Pump Technology (1st 8 weeks)	2	4	0	4
AHR	130	HVAC Controls (2nd 8 weeks)	2	2	0	3
AHR	160	Refrigerant Certification (2nd 8 weeks)	1	0	0	1
WBL	110	World of Work	1	0	0	1
MAT	110	Math Measurement & Literacy	2	2	0	3
	OR	MAT 121 Quantitative Literacy	2	2	0	3
		Total	11	14	0	18
Summer – 1year						
ENG	102	Applied Communications II	3	0	0	3
	OR	ENG 111 Writing and Inquiry	3	0	0	3
		Total	3	0	0	3
		Grand Total	24	31	0	39

Air Conditioning, Heating and Refrigeration • D35100
Evening Courses Are Offered On Demand
(See Your HVAC Advisor)

ENG 102 Applied Communications II.....3
OR ENG 111 Writing and Inquiry.....3
MAT 110 Math Measurement & Literacy.....3
OR MAT 121 Algebra/Trigonometry I.....3
AHR 110 Intro to Refrigeration.....5
AHR 111 HVACR Electricity.....3
AHR 112 Heating Technology.....4
AHR 113 Comfort Cooling.....4
AHR 114 Heat Pump Technology.....4
AHR 130 HVAC Controls.....3
AHR 151 HVAC Duct Systems I.....2
AHR 160 Refrigerant Certification.....1
AHR 180 HVACR Customer Relations.....1
AHR 210 Residential Building Code.....2
AHR 211 Residential System Design.....3
WBL 110 World of Work.....1

Total Credit Hours Required.....39

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS 080 Computing Fundamentals.....3
DRE 097 Integrated Reading Writing II.....3
DMA DMA 010, DMA 020, DMA 030 (MAT 110).....3
DMA DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 060 (MAT 121).....3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Air Conditioning, Heating and Refrigeration Certificate • C35100

MAJOR COURSES:

AHR 110 Intro to Refrigeration.....5
AHR 111 HVACR Electricity.....3
AHR 112 Heating Technology.....4
AHR 160 Refrigerant Certification.....1

Total Credit Hours Required.....13

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS 080 Computing Fundamentals.....3
DRE 097 Integrated Reading Writing II.....3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Air Conditioning, Heating and Refrigeration Certificate • C35100
Suggested Program Sequence Day

Fall – 1st year						
AHR	110	Intro to Refrigeration	2	6	0	5
AHR	111	HVACR Electricity	2	2	0	3
AHR	112	Heating Technology	2	4	0	4
AHR	160	Refrigerant Certification	1	0	0	1
		Total	7	12	0	13
		Grand Total	7	12	0	13

Air Conditioning, Heating and Refrigeration Certificate • C35100
Evening Courses Are Offered On Demand
(See Your HVAC Advisor)

AHR 110 Intro to Refrigeration.....5
AHR 111 HVACR Electricity.....3
AHR 112 Heating Technology.....4
AHR 160 Refrigerant Certification.....1

Total Credit Hours Required.....13

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS 080 Computing Fundamentals.....3
DRE 097 Integrated Reading Writing II.....3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

ASSOCIATE DEGREE NURSING

A.A.S. Program (A45110)

Courses required to meet graduation requirements in this curriculum are offered during day hours only. Minimum time for completion: five semesters full-time attendance. The Associate in Applied Science degree is awarded to graduates of this curriculum.

The Associate Degree Nursing curriculum provides knowledge, skills, and strategies to integrate safety and quality into nursing care, to practice in a dynamic environment, and to meet individual needs which impact health, quality of life, and achievement of potential. Coursework includes and builds upon the domains of healthcare, nursing practice, and the holistic individual. Content emphasizes the nurse as a member of the interdisciplinary team providing safe, individualized care while employing evidence-based practice, quality improvement, and informatics. Graduates of this program are eligible to apply to take the National Council Licensure Examination (NCLEX-RN). Employment opportunities are vast within the global health care system and may include positions within acute, chronic, extended, industrial, and community health care facilities.

GENERAL EDUCATION COURSES: .....SHC

English/Communications:

ENG	111	Writing and Inquiry	3
ENG	112	Writing/Research in the Disc	3
OR		ENG 114 Prof Research & Reporting	3

Humanities/Fine Arts:

Elective			3

Natural Sciences/Mathematics:

BIO	168	Anatomy and Physiology I	4
BIO	169	Anatomy and Physiology II	4

Social/Behavioral Sciences:

PSY	150	General Psychology	3

MAJOR COURSES:

BIO	275	Microbiology	4
CIS	111	Basic PC Literacy	2
NUR	111	Intro to Health Concepts	8
NUR	112	Health-Illness Concepts	5
NUR	113	Family Health Concepts	5
NUR	114	Holistic Health Concepts	5
NUR	211	Health Care Concepts	5
NUR	212	Health System Concepts	5
NUR	213	Complex Health Concepts	10
PSY	241	Developmental Psych	3

Total Credit Hours Required 72

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
DRE	098	Integrated Reading Writing III	3
DMA		DMA 010, DMA 020, DMA 030, DMA 040, DMA 050	5

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Humanities/Fine Arts Elective 3

Students must select one course from the following:

ART	111	Art Appreciation	3
ART	114	Art History Survey I	3
ART	115	Art History Survey II	3
HUM	115	Critical Thinking	3
MUS	110	Music Appreciation	3
MUS	112	Introduction to Jazz	3
PHI	215	Philosophical Issues	3
PHI	240	Introduction to Ethics	3

NOTE: The courses listed in CVCC's Associate Degree Nursing Program have a Uniform Articulation Agreement between the University of North Carolina Registered Nurse to Bachelor of Science in Nursing (RN to BSN) Programs. Students who transfer to senior institutions outside of the University of North Carolina system should contact each college directly for transfer information.

Associate Degree Nursing • A45110 Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
NUR	111	Intro to Health Concepts	4	6	6	8
BIO	168	Anatomy and Physiology I	3	3	0	4
PSY	150	General Psychology	3	0	0	3
CIS	111	Basic PC Literacy	1	2	0	2
		Total	11	11	6	17
Spring – 1st year						
NUR	112	Health-Illness Concepts	3	0	6	5
NUR	114	Holistic Health Concepts	3	0	6	5
BIO	169	Anatomy and Physiology II	3	3	0	4
PSY	241	Developmental Psychology	3	0	0	3
		Total	12	3	12	17
Summer – 1st year						
NUR	212	Health System Concepts	3	0	6	5
ENG	111	Writing and Inquiry	3	0	0	3
		Total	6	0	6	8
Fall – 2nd year						
NUR	113	Family Health Concepts	3	0	6	5
NUR	211	Health Care Concepts	3	0	6	5
BIO	275	Microbiology	3	3	0	4
		Humanities/Fine Arts Elective	3	0	0	3
		Total	12	3	12	17
Spring – 2nd year						
NUR	213	Complex Health Concepts	4	3	15	10
ENG	112	Writing/Research in the Disc (Preferred)	3	0	0	3
OR	ENG 114	Prof Research & Reporting	3	0	0	3
(Students considering transfer to a four-year university should take ENG 112)						
		Total	7	3	15	13
		Grand Total	48	20	51	72

Associate Degree Nursing • A45110 Suggested Prog. Sequence Evening

Spring – 1st year						
NUR	111 AB	Intro to Health Concepts-AB	2	3	3	4
BIO	168	Anatomy and Physiology I	3	3	0	4
CIS	111	Basic PC Literacy	1	2	0	2
		Total	6	8	3	10
Summer – 1st year						
NUR	111 BB	Intro to Health Concepts-BB	2	3	3	4
BIO	169	Anatomy and Physiology II	3	3	0	4
PSY	150	General Psychology	3	0	0	3
		Total	8	6	3	11
Fall – 1st year						
NUR	112	Health-Illness Concepts	3	0	6	5
NUR	114	Holistic Health Concepts	3	0	6	5
PSY	241	Developmental Psych	3	0	0	3
		Total	9	0	12	13
Spring – 2nd year						
NUR	211	Health Care Concepts	3	0	6	5
NUR	212	Health System Concepts	3	0	6	5
ENG	111	Writing and Inquiry	3	0	0	3
		Total	9	0	12	13
Summer – 2nd year						
NUR	113	Family Health Concepts	3	0	6	5
BIO	275	Microbiology	3	3	0	4
		Total	6	3	6	9
Fall – 2nd year						
NUR	213 AB	Complex Health Concepts-AB	2	2	7	5
		Humanities/Fine Arts Elective	3	0	0	3
		Total	5	2	7	8
Spring – 3rd year						
NUR	213 BB	Complex Health Concepts-BB	2	1	8	5
ENG	112	Writing/Research in the Disc (Preferred)	3	0	0	3
OR	ENG	114 Prof Research & Reporting	3	0	0	3
(Students considering transfer to a four-year university should take ENG 112)						
		Total	5	1	8	8
		Grand Total	48	20	51	72

ASSOCIATE DEGREE NURSING
Hickory RIBN Articulation Agreement
A.A.S. Program (A45110RB)

Catawba Valley Community College
Associate Degree Nursing
and
Lenoir-Rhyne University
Bachelor of Science Degree with a Major in Nursing

This articulation agreement between Catawba Valley Community College (CVCC) and Lenoir-Rhyne University (LRU) allows graduates of Hickory RIBN to earn both an Associate degree in Nursing from CVCC and a Bachelor of Science degree with a Major in Nursing from LRU in 10 semesters through dual admission and continued enrollment. Courses required to meet graduation requirements in this curriculum are offered during day hours only. Minimum time for completion of the A.A.S. portion is seven semesters full-time attendance. During this time students will be dually enrolled in CVCC and LRU. The Associate in Applied Science degree is awarded to graduates of this curriculum, after which students will be eligible to take the NCLEX. The remaining three semesters will be taken at Lenoir-Rhyne University for a total of 10 program semesters.

Non-nursing courses completed at CVCC for the first three years will, as designated, satisfy course requirements towards the Bachelor of Science degree. All courses designated by **(LRU/BS)** shown in the CVCC sequence will be completed at LRU for the first three years of Hickory RIBN. A total of 128 semester hours are required for students to complete their bachelors of science degree with a major in Nursing.

All courses designated by **(BS)** will be taken **on CVCC's campus**, and will be credited toward the Bachelor of Science degree. Nursing students will enroll in NUR 420, Transition to Professional Nursing (3 SHC), during the eighth semester. Successful completion of this course results in the awarding of a 39 semester hour block of credit.

GENERAL EDUCATION COURSES: .....SHC

English/Communications:
ENG 111 Writing and Inquiry.....3
ENG 112 Writing/Research in the Disc 3

Humanities/Fine Arts:
Elective 3

Natural Sciences/Mathematics:
BIO 168 Anatomy and Physiology I.....4
BIO 169 Anatomy and Physiology II 4
MAT 152 Statistical Methods I.....4

Social/Behavioral Sciences:
PSY 150 General Psychology 3

MAJOR COURSES:
BIO 275 Microbiology.....4
CIS 111 Basic PC Literacy.....2
NUR 111 Intro to Health Concepts 8
NUR 112 Health-Illness Concepts 5
NUR 113 Family Health Concepts.....5
NUR 114 Holistic Health Concepts 5
NUR 211 Health Care Concepts.....5
NUR 212 Health System Concepts 5
NUR 213 Complex Health Concepts 10
PSY 241 Developmental Psych.....3

Total Credit Hours Required 72

DEVELOPMENTAL COURSE REQUIREMENTS*
CTS 080 Computing Fundamentals.....3
DRE 098 Integrated Reading Writing III 3
DMA DMA 010, DMA 020, DMA 030, DMA 040 5

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Humanities/Fine Arts Elective 3
Students must select one course from the following:
ART 111 Art Appreciation 3
ART 114 Art History Survey I 3
ART 115 Art History Survey II.....3
MUS 110 Music Appreciation 3
MUS 112 Introduction to Jazz 3

Associate Degree Nursing/RIBN • A45110RB
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall - 1st year						
BIO	168	Anatomy and Physiology I	3	3	0	4
CHM	131	Introduction to Chemistry **(BS)**	3	0	0	3
CHM	131A	Introduction to Chemistry Lab **(BS)**	0	3	0	1
ENG	111	Writing and Inquiry	3	0	0	3
PSY	150	General Psychology	3	0	0	3
FYE	191	First Year Experience I **(LRU/BS)**				3
		Total	12	6	0	17
Spring - 1st year						
BIO	169	Anatomy and Physiology II	3	3	0	4
CIS	110	Introduction to Computers **(BS)**	2	0	0	3
	OR					
CIS	111	Basic PC Literacy **(BS) and**	3	2	0	2
PED (1 Hour Activity) **(BS)**			0	2	0	1
MAT	152	Statistical Methods I **(BS)**	3	2	0	4
PSY	241	Developmental Psych	3	0	0	3
FYE	192	First Year Experience II **(LRU/BS)**				3
		Total	11/12	5/9	0	17
Fall - 2nd year						
NUR	111	Intro to Health Concepts	4	6	6	8
BIO	275	Microbiology	3	3	0	4
		Foreign Language **(LRU/BS)**				3
		Total	7	9	6	15
Spring - 2nd year						
NUR	112	Health-Illness Concepts	3	0	6	5
NUR	114	Holistic Health Concepts	3	0	6	5
HEA	110	Personal Health/Wellness **(BS)**	3	0	0	3
		Foreign Language **(LRU/BS)**				3
		Total	9	0	12	16
Summer - 2nd year						
NUR	212	Health System Concepts	3	0	6	5
ENG	112	Writing/Research in the Disc	3	0	0	3
		Total	6	0	6	8
Fall - 3rd year						
NUR	113	Family Health Concepts	3	0	6	5
NUR	211	Health Care Concepts	3	0	6	5
REL	100	Christian Faith **(LRU/BS)**				3
		Fine Arts Elective	3	0	0	3
		Total	9	0	12	16
Spring 3rd year						
NUR	213	Complex Health Concepts	4	3	15	10
COM	231	Public Speaking **(BS)**	3	0	0	3
SOC	XXX	Sociology **(LRU/BS)**				3
		Total	7	3	15	16
		Grand Total	61/62	23/27	51	105

• Semester Hour Totals include courses taken at Lenoir Rhyne

Note: The following courses will be taken at Lenoir-Rhyne University upon completion of the A.A.S. at CVCC.

Fall 4th year			
NUR	400	Health Assessment of Individuals & Populations **(LRU)**	3
NUR	420	Transition to Professional Practice **(LRU)**	3
NAT	388	Environmental Science-Level II **(LRU)**	3
		Humanities Level I **(LRU)**	3
		Total	12
Spring 4th year			
NUR	455G	Health Promotion with Populations **(LRU)**	3
NUR	460	Concepts of Leadership in Nursing: **(LRU)** Theory and Application	4
HSB	388	Level II **(LRU)**	3
	OR		
HUM	388	Level II **(LRU)**	3
		NUR Elective-Select Topics **(LRU)**	2
		Total	12
Summer 4th year			
NUR	435	Concepts of Evidence-Based Practice **(LRU)**	3
NUR	470G	Trends in Professional Nursing In a Global Society	3
		Total	6

AUTOMOTIVE SYSTEMS TECHNOLOGY
A.A.S. Program (A60160)

Courses required to meet graduation requirements for the Associate in Applied Science degree are offered during day hours. Courses required to meet graduation requirements for the Diploma are offered during afternoon and evening hours. Minimum time for completion: Day – five semesters full-time attendance; Evening – five semesters part-time attendance. The Associate in Applied Science degree or Diploma is awarded graduates of this curriculum.

The Automotive Systems Technology curriculum prepares individuals for employment as Automotive Service Technicians. It provides an introduction to automotive careers and increases student awareness of the challenges associated with this fast and ever-changing field. Classroom and lab experiences integrate technical and academic course work. Emphasis is placed on theory, servicing and operation of brakes, electrical/electronic systems, engine performance, steering/suspension, automatic transmission/transaxles, engine repair, climate control, and manual drive trains. Upon completion of this curriculum, students should be prepared to take the ASE exams and be ready for full-time employment in dealerships and repair shops in the automotive service industry. The Automotive Systems Technology program is ASE Accredited by the National Automotive Technicians Education Foundation.

GENERAL EDUCATION COURSES: .....SHC

English/Communications:

ENG	111	Writing and Inquiry	3
ENG	114	Prof Research & Reporting	3
	OR	ENG 112 Writing/Research in the Disc	3
	OR	ENG 113 Literature-Based Research	3

Humanities/Fine Arts:

Elective 3

Natural Sciences/Mathematics:

MAT	110	Math Measurement & Literacy	3
	OR	MAT 143 Quantitative Literacy	3

Social/Behavioral Sciences:

Elective 3

MAJOR COURSES:

AUT	116	Engine Repair	3
AUT	116A	Engine Repair Lab	1
AUT	141	Suspension & Steering Sys	3
AUT	141A	Suspension & Steering Lab	1
AUT	151	Brake Systems	3
AUT	151A	Brake Systems Lab	1
AUT	163	Adv Auto Electricity	3
AUT	163A	Adv Auto Electricity Lab	1
AUT	181	Engine Performance 1	3
AUT	181A	Engine Performance 1 Lab	1
AUT	183	Engine Performance 2	4
AUT	212	Auto Shop Management	3
AUT	221	Auto Transm/Transaxles	3
AUT	221A	Auto Transm/Transax Lab	1
AUT	231	Man Trans/Axles/Drtrains	3
AUT	231A	Man Trans/Ax/Drtrains Lab	1
AUT	281	Adv Engine Performance	3
TRN	110	Intro to Transport Tech	2
TRN	120	Basic Transp Electricity	5
TRN	140	Transp Climate Control	2
TRN	140A	Transp Climate Cont Lab	2
TRN	170	Pc Skills for Transp	2
WBL	110	World of Work	1

Work-Based Learning Option: Qualified students may elect to take up to 7 credit hours of Work-Based Learning in place of AUT 116A, AUT 141A, AUT 151A, AUT 163A, AUT 181A, AUT 221A, or AUT 231A.

Total Credit Hours Required 67

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
DRE	098	Integrated Reading Writing III	3
DMA		DMA 010, DMA 020, DMA 030, (MAT 110)	3
DMA		DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, (MAT 143)	5

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Automotive Systems Technology • A60160
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
AUT	116	Engine Repair (1st 8 weeks)	2	3	0	3
AUT	116A	Engine Repair Lab (1st 8 weeks)	0	3	0	1
AUT	181	Engine Performance 1 (2nd 8 weeks)	2	3	0	3
AUT	181A	Engine Performance 1 Lab (2nd 8 weeks)	0	3	0	1
TRN	110	Intro to Transport Tech	1	2	0	2
TRN	120	Basic Transp Electricity	4	3	0	5
TRN	170	Pc Skills for Transp	1	2	0	2
		Total	10	19	0	17
Spring – 1st year						
AUT	183	Engine Performance 2 (1st 8 weeks)	2	6	0	4
AUT	151	Brake Systems (2nd 8 weeks)	2	3	0	3
AUT	151A	Brake Systems Lab (2nd 8 weeks)	0	3	0	1
AUT	163	Adv Auto Electricity	2	3	0	3
AUT	163A	Adv Auto Electricity Lab	0	3	0	1
WBL	110	World of Work	1	0	0	1
		Total	7	18	0	13
Summer – 1st year						
ENG	111	Writing and Inquiry	3	0	0	3
		Social/Behavioral Science Elective	3	0	0	3
		Total	6	0	0	6
Fall – 2nd year						
AUT	141	Suspension & Steering Sys (2nd 8 Weeks)	2	3	0	3
AUT	141A	Suspension & Steering Lab (2nd 8 Weeks)	0	3	0	1
AUT	212	Auto Shop Management	3	0	0	3
AUT	281	Adv Engine Performance	2	2	0	3
TRN	140	Transp Climate Control (1st 8 weeks)	1	2	0	2
TRN	140A	Transp Climate Cont Lab (1st 8 weeks)	1	2	0	2
		Total	9	12	0	14
Spring – 2nd year						
AUT	221	Auto Transm/Transaxles (2nd 8 Weeks)	2	3	0	3
AUT	221A	Auto Transm/Transax Lab (2nd 8 Weeks)	0	3	0	1
AUT	231	Man Trans/Axles/Drtrains (1st 8 weeks)	2	3	0	3
AUT	231A	Man Trans/Ax/Drtrains Lab (1st 8 weeks)	0	3	0	1
MAT	110	Math Measurement & Literacy	2	2	0	3
	OR	MAT 143 Quantitative Literacy	2	2	0	3
		Total	6	14	0	11
Summer – 2nd year						
ENG	114	Prof Research & Reporting (Preferred)	3	0	0	3
	OR	ENG 112 Writing/Research in the Disc	3	0	0	3
	OR	ENG 113 Literature-Based Research	3	0	0	3
		Humanities/Fine Art Elective	3	0	0	3
		Total	6	0	0	6
		Grand Total	44	63	0	67

Work-Based Learning Option: Qualified students may elect to take up to 7 credit hours of Work-Based Learning in place of AUT 116A, AUT 141A, AUT 151A, AUT 163A, AUT 181A, AUT 221A, or AUT 231A.

AUTOMOTIVE SYSTEMS TECHNOLOGY
Diploma Program (D60160)

GENERAL EDUCATION COURSES: .....SHC

English/Communications:

ENG	111	Writing and Inquiry	3

Natural Sciences/Mathematics:

MAT	110	Math Measurement & Literacy	3
	OR	MAT 143 Quantitative Literacy	3

MAJOR COURSES:

AUT	116	Engine Repair	3
AUT	116A	Engine Repair Lab	1
AUT	141	Suspension & Steering Sys	3
AUT	141A	Suspension & Steering Lab	1
AUT	151	Brake Systems	3
AUT	151A	Brake Systems Lab	1
AUT	163	Adv Auto Electricity	3
AUT	181	Engine Performance 1	3
AUT	181A	Engine Performance 1 Lab	1
AUT	183	Engine Performance 2	4
AUT	221	Auto Transm/Transaxles	3
AUT	221A	Auto Transm/Transax Lab	1
AUT	231	Man Trans/Axles/Drtrains	3
AUT	231A	Man Trans/Ax/Drtrains Lab	1
TRN	110	Intro to Transport Tech	2
TRN	120	Basic Transp Electricity	5
TRN	140	Transp Climate Control	2
TRN	140A	Transp Climate Cont Lab	2

Automotive Systems Technology
Work-Based Learning Option: Qualified students may elect to take up to 4 credit hours of Work-Based Learning in place of AUT 116A, AUT 141A, AUT 151A, AUT 181A, AUT 221A, or AUT 231A.

Total Credit Hours Required 48

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
DMA	DMA 010, DMA 020, DMA 030, (MAT 110)		3
DMA	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, (MAT 143)		5
DRE	098	Integrated Reading Writing III	3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Automotive Systems Technology – Diploma • D60160
Suggested Program Sequence Evening

Fall – 1st year						
AUT	116	Engine Repair (2nd 8 Wks)	2	3	0	3
AUT	116A	Engine Repair Lab (2nd 8 Wks)	0	3	0	1
TRN	110	Intro to Transport Tech	1	2	0	2
TRN	120	Basic Transp Electricity (1st 8 Wks)	4	3	0	5
		Total	7	11	0	11
Spring – 1st year						
AUT	151	Brake Systems (2nd 8 Wks)	2	3	0	3
AUT	151A	Brake Systems Lab (2nd 8 Wks)	0	3	0	1
AUT	163	Adv Auto Electricity (1st 8 Wks)	2	3	0	3
MAT	110	Math Measurement & Literacy	2	2	0	3
	OR	MAT 143 Quantitative Literacy	2	2	0	3
		Total	6	11	0	10
Fall – 2nd year						
AUT	181	Engine Performance 1 (1st 8 Wks)	2	3	0	3
AUT	181A	Engine Performance 1 Lab (1st 8 Wks)	0	3	0	1
AUT	231	Man Trans/Axles/Drtrains (2nd 8 Wks)	2	3	0	3
AUT	231A	Man Trans/Axl/Drtrains Lab (2nd 8 Wks)	0	3	0	1
		Total	4	12	0	8
Spring – 2nd year						
AUT	221	Auto Transm/Transaxles (1st 8 Wks)	2	3	0	3
AUT	221A	Auto Transm/Transax Lab (1st 8 Wks)	0	3	0	1
AUT	183	Engine Performance 2 (2nd 8 Wks)	2	6	0	4
ENG	111	Writing and Inquiry	3	0	0	3
		Total	7	12	0	11
Fall – 3rd year						
AUT	141	Suspension & Steering (2nd 8 Wks)	2	3	0	3
AUT	141A	Suspension & Steering Lab (2nd 8 Wks)	0	3	0	1
TRN	140	Transp Climate Control (1st 8 weeks)	1	2	0	2
TRN	140A	Transp Climate Cont Lab (1st 8 weeks)	1	2	0	2
		Total	4	10	0	8
		Grand Total	28	56	0	48

AUTOMOTIVE SYSTEMS TECHNOLOGY
Under Car Services Concentration Cert. Program (C60160)

Major Courses .....SHC

AUT	141	Suspension & Steering Sys	3
AUT	141A	Suspension & Steering Lab	1
AUT	151	Brake Systems	3
AUT	151A	Brake Systems Lab	1
TRN	110	Intro to Transport Tech	2
TRN	120	Basic Transp Electricity	5

Total Credit Hours Required 15

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
DMA	DMA 010, DMA 020, DMA 030		3
DRE	097	Integrated Reading Writing II	3

* Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Automotive Systems Technology – Under Car Services Concentration Certificate Program (C60160) Suggested Sequence

Fall – 1st Year						
TRN	110	Intro to Transport Tech	1	2	0	2
TRN	120	Basic Transp Electricity	4	3	0	5
AUT	141	Suspension & Steering Sys	2	3	0	3
AUT	141A	Suspension & Steering Lab	0	3	0	1
		Total	7	11	0	11
Spring – 1st Year						
AUT	151	Brake Systems	2	3	0	3
AUT	151A	Brake Systems Lab	0	3	0	1
		Total	2	6	0	4
		Grand Total	9	17	0	15

Work-Based Learning Option: Qualified students may elect to take up to 2 credit hours of work-based learning in place of AUT 141A, AUT 151A.

BASIC LAW ENFORCEMENT TRAINING
Certificate Program (C55120)

This course is designed, developed, monitored, and constantly updated by the Criminal Justice Training and Standards Division of the North Carolina Department of Justice. Minimum time for completion is approximately six months. Classes meet during evening hours and on Saturdays. Basic Law Enforcement Training (BLET) is designed to give students essential skills required for entry-level employment as law enforcement officers with state, county, or municipal governments, or with private enterprise. This program utilizes State commission-mandated topics and methods of instruction. General subjects include, but are not limited to, criminal, juvenile, civil, traffic, and alcoholic beverage laws; investigative, patrol, custody, and court procedures; emergency responses; and ethics and community relations. Successful graduates receive a curriculum certificate and are qualified to take certification examinations mandated by the North Carolina Criminal Justice Education and Training Standards Commission and/or the North Carolina Sheriffs' Education and Training Standards Commission.

The application cycle for the Fall class begins in March and ends in June, with the application cycle for the Spring class beginning in August and ending in November. Contact the Law Enforcement Training Director at 828-327-7000, extension 4448 for further information on the application process and to receive an application packet.

MAJOR COURSES: .....SHC

CJC 100 Basic Law Enforcement Training	19
Total Credit Hours Required	**19**

BUSINESS ADMINISTRATION
A.A.S. Program (A25120)

Courses required to meet graduation requirements in this curriculum are offered during day and evening hours. Minimum time for completion: Day – four semesters full-time attendance; Evening – will vary according to semester load of student (usually eight to nine semesters). The Associate in Applied Science degree is awarded graduates of this curriculum.

The Business Administration curriculum is designed to introduce students to the various aspects of the free enterprise system. Students will be provided with a fundamental knowledge of business functions, processes, and an understanding of business organizations in today's global economy. Coursework includes business concepts such as accounting, business law, economics, management, and marketing. Skills related to the application of these concepts are developed through the study of computer applications, communication, team building, and decision making. Graduates are prepared for employment opportunities in governmental agencies, financial institutions, and large to small business or industry.

GENERAL EDUCATION COURSES:.....SHC

English/Communications:

ENG 111 Writing and Inquiry 3
ENG 112 Writing/Research in the Disc.....3
OR ENG 113 Literature-Based Research.....3
OR ENG 114 Prof Research & Reporting.....3

Humanities/Fine Arts:

Elective 3

Natural Sciences/Mathematics:

MAT 110 Math Measurement & Literacy.....3
OR MAT 143 Quantitative Literacy 3

Social/Behavioral Sciences:

Elective 3

MAJOR COURSES:

ACC 120 Prin of Financial Accounting.....4
ACC 121 Prin in Managerial Accounting.....4
BUS 110 Introduction to Business 3
BUS 115 Business Law I 3
BUS 116 Business Law II 3
BUS 137 Principles of Management.....3
BUS 240 Business Ethics 3
BUS 285 Business Management Issues 3
CIS 110 Introduction to Computers.....3
ECO 251 Prin of Microeconomics 3
ECO 252 Prin of Macroeconomics.....3
MKT 120 Principles of Marketing 3

Business/WBL Electives.....12

Students are required to take 12 SHC from the following:

BUS 125 Personal Finance.....3
BUS 139 Entrepreneurship I 3
BUS 153 Human Resource Management.....3
BUS 217 Employment Law and Regs.....3
BUS 230 Small Business Management.....3
BUS 245 Entrepreneurship II 3
BUS 253 Leadership and Mgt Skills.....3
CTS 130 Spreadsheet.....3
ETR 215 Law for Entrepreneurs 3
ETR 220 Innovation and Creativity 3
ETR 230 Entrepreneur Marketing 3
ETR 240 Funding for Entrepreneurs 3
INT 110 International Business 3
MKT 123 Fundamentals of Selling 3
MKT 220 Advertising and Sales Promotion 3
MKT 221 Consumer Behavior 3
MKT 223 Customer Service.....3
WBL 110 World of Work.....1
WBL XXX Work-Based Learning..... 1-6

Work-Based Learning Option: Qualified students may elect to take up to 6 credit hours of Work-Based Learning in place of 6 hours Business electives.

Total Credit Hours Required 65

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS 080 Computing Fundamentals.....3
DRE 098 Integrated Reading Writing III 3
DMA DMA 010, DMA 020, DMA 030, (MAT 110).....3
DMA DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, (MAT 143) 5

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Business Administration • A25120
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
BUS	110	Introduction to Business	3	0	0	3
BUS	137	Principles of Management	3	0	0	3
CIS	110	Introduction to Computers	2	2	0	3
ENG	111	Writing and Inquiry	3	0	0	3
MAT	110	Math Measurement & Literacy	2	2	0	3
	OR	MAT 143 Quantitative Literacy	2	2	0	3
		Total	13	4	0	15
Spring – 1st year						
ACC	120	Prin of Financial Accounting	3	2	0	4
BUS	115	Business Law I	3	0	0	3
BUS	240	Business Ethics	3	0	0	3
MKT	120	Principles of Marketing	3	0	0	3
ENG	114	Prof Research & Reporting	3	0	0	3
		OR ENG 112 or ENG 113				
		Total	15	2	0	16
Fall – 2nd year						
ACC	121	Prin in Managerial Accounting	3	2	0	4
BUS	116	Business Law II	3	0	0	3
ECO	251	Prin of Microeconomics	3	0	0	3
		Business Elective	3	0	0	3
		Business Elective	3	0	0	3
		Social/Behavioral Science Elective	3	0	0	3
		Total	18	2	0	19
Spring – 2nd year						
BUS	285	Business Management Issues	2	2	0	3
ECO	252	Prin of Macroeconomics	3	0	0	3
		Business Elective	3	0	0	3
		Business Elective	3	0	0	3
		Humanities/Fine Arts Elective	3	0	0	3
		Total	14	2	0	15
		Grand Total	60	10	0	65

Business Administration • A25120
Evening Courses Offered On Demand (See Your Business Advisor)

ACC 120 Prin of Financial Accounting.....4
ACC 121 Prin in Managerial Accounting 4
BUS 110 Introduction to Business 3
BUS 115 Business Law I.....3
BUS 116 Business Law II 3
BUS 137 Principles of Management.....3
BUS 240 Business Ethics 3
BUS 285 Business Management Issues 3
CIS 110 Introduction to Computers.....3
ECO 251 Prin of Microeconomics 3
ECO 252 Prin of Macroeconomics.....3
ENG 111 Writing and Inquiry 3
ENG 112 Writing/Research in the Disc.....3
OR ENG 113 Literature-Based Research.....3
OR ENG 114 Prof Research & Reporting 3
MAT 110 Math Measurement & Literacy.....3
OR MAT 143 Quantitative Literacy.....3
MKT 120 Principles of Marketing 3
Humanities/Fine Arts: Elective.....3
Social/Behavioral Sciences: Elective.....3

Business/WBL Electives.....12

Students are required to take 12 SHC from the following:
BUS125, BUS 139, BUS 153, BUS 217, BUS 230, BUS 245, BUS 253, CTS 130, ETR 215, ETR 220, ETR 230, ETR 240, MKT 217, MKT 123, MKT 220, MKT 221, MKT 223, WBL XXX.

Work-Based Learning Option: Qualified students may elect to take up to 6 credit hours of Work-Based Learning in place of 6 hours Business electives.

Total Credit Hours Required 65

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS 080 Computing Fundamentals.....3
DRE 098 Integrated Reading Writing III 3
DMA DMA 010, DMA 020, DMA 030, (MAT 110).....3
DMA DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, (MAT 143).....5

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Business Administration Diploma Program • D25120

GENERAL EDUCATION COURSES: ..... **SHC**
English/Communications:
ENG 111 Writing and Inquiry 3
Social/Behavioral Sciences:
Elective 3

MAJOR COURSES:
ACC 120 Prin of Financial Accounting 4
BUS 110 Introduction to Business 3
BUS 115 Business Law I 3
BUS 137 Principles of Management 3
BUS 240 Business Ethics 3
CIS 110 Introduction to Computers 3
ECO 251 Prin of Microeconomics 3
MKT 120 Principles of Marketing 3
Business Electives **6**

Business Diploma Electives – Must be selected from the following list:
ACC 121, BUS 116, BUS 125, BUS 153, BUS 217, BUS 230, BUS 253, CTS 130, BUS 139, BUS 245, ECO 252, ETR 220, ETR 240, INT 110, MKT 123, MKT 220, MKT 223, WBL XXX (1 –4 SHC).

Total Credit Hours Required **37**

DEVELOPMENTAL COURSE REQUIREMENTS*
CTS 080 Computing Fundamentals 3
DRE 098 Integrated Reading Writing III 3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Business Administration • D25120 Suggested Program Sequence

Fall – 1st year					
BUS 110	Introduction to Business	3	0	0	3
BUS 137	Principles of Management	3	0	0	3
CIS 110	Introduction to Computers	2	2	0	3
ENG 111	Writing and Inquiry	3	0	0	3
	Total	11	2	0	12
Spring – 1st year					
ACC 120	Prin of Financial Accounting	3	2	0	4
BUS 115	Business Law I	3	0	0	3
BUS 240	Business Ethics	3	0	0	3
MKT 120	Principles of Marketing	3	0	0	3
	Total	12	2	0	13
Fall – 2nd year					
ECO 251	Prin of Microeconomics	3	0	0	3
	Business Elective	3	0	0	3
	Business Elective	3	0	0	3
	Total	9	0	0	9
Spring – 2nd year					
	Social/Behavioral Science Elective	3	0	0	3
	Total	3	0	0	3
	Grand Total	35	4	0	37

BUSINESS ADMINISTRATION General Cert. Prog. (C2512001)

MAJOR COURSES: **SHC**
BUS 110 Introduction to Business 3
BUS 115 Business Law I 3
BUS 137 Principles of Management 3
MKT 120 Principles of Marketing 3
Total Credit Hours Required **12**

Business Administration – General Certificate (C2512001)

Fall – 1st year					
BUS 110	Intro to Business	3	0	0	3
MKT 120	Prin of Marketing	3	0	0	3
	Total	6	0	0	6
Spring – 1st year					
BUS 115	Business Law I	3	0	0	3
BUS 137	Prin of Management	3	0	0	3
	Total	6	0	0	6
	Grand Total	12	0	0	12

BUSINESS ADMINISTRATION Advancded Cert. #1 (C2512002)

MAJOR COURSES: **SHC**
ACC 120 Prin of Financial Accounting 4
BUS 110 Introduction to Business 3
BUS 115 Business Law I 3
BUS 137 Principles of Management 3
Total Credit Hours Required **13**

Business Administration – Advanced Certificate #1 (C2512002)

Fall – 1st year					
BUS 110	Introduction to Business	3	0	0	3
BUS 137	Principles of Management	3	0	0	3
	Total	6	0	0	6
Spring – 1st year					
ACC 120	Prin of Financial Accounting	3	2	0	4
BUS 115	Business Law I	3	0	0	3
	Total	6	2	0	7
	Grand Total	12	2	0	13

BUSINESS ADMINISTRATION
Advanced Certificate #2 (C2512003)

MAJOR COURSES: **SHC**
ACC 120 Prin of Financial Accounting 4
ACC 121 Prin of Managerial Accounting 4
CIS 110 Introduction to Computers 3
ECO 251 Prin of Microeconomics 3
ECO 252 Prin of Macroeconomics 3
Total Credit Hours Required **17**

DEVELOPMENTAL COURSE REQUIREMENTS*
CTS 080 Computing Fundamentals 3
DRE 098 Integrated Reading Writing III 3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Business Administration – Advanced Certificate #2 (C251003)

		Class	Lab	Clin/WkExp	Credit
Fall – 1st year					
ACC 120	Prin of Financial Accounting	3	2	0	4
CIS 110	Introduction to Computers	2	2	0	3
ECO 251	Prin of Microeconomics	3	0	0	3
	Total	8	4	0	10
Spring – 1st year					
ACC 121	Prin of Managerial Accounting	3	2	0	4
ECO 252	Prin of Macroeconomics	3	0	0	3
	Total	6	2	0	7
	Grand Total	14	6	0	17

BUSINESS ADMINISTRATION
Customer Service Certificate Program (C2512004)

MAJOR COURSES: **SHC**
BUS 110 Introduction to Business 3
MKT 120 Principles of Marketing 3
MKT 221 Consumer Behavior 3
MKT 223 Customer Service 3
Total Credit Hours Required **12**

Business Administration – Customer Service Cert (C2512004)

Fall – 1st year					
BUS 110	Intro to Business	3	0	0	3
MKT 223	Customer Services	3	0	0	3
	Total	6	0	0	6
Spring – 1st year					
MKT 120	Principles of Marketing	3	0	0	3
MKT 221	Consumer Behavior	3	0	0	3
	Total	6	0	0	6
	Grand Total	12	0	0	12

BUSINESS ADMINISTRATION
Marketing Certificate Program (C2512005)

MAJOR COURSES: **SHC**
BUS 110 Introduction to Business 3
MKT 120 Principles of Marketing 3
MKT 123 Fundamentals of Selling 3
MKT 220 Advertising and Sales Promotion 3
Total Credit Hours Required **12**

Business Administration – Marketing Certificate (C2512005)

Fall – 1st year					
BUS 110	Introduction to Business	3	0	0	3
MKT 123	Fundamentals of Selling	3	0	0	3
	Total	6	0	0	6
Spring – 1st year					
MKT 120	Principles of Marketing	3	0	0	3
MKT 220	Advertising and Sales Promotion	3	0	0	3
	Total	6	0	0	6
	Grand Total	12	0	0	12

COMPUTER ENGINEERING TECHNOLOGY
A.A.S. Program (A40160)

Courses required to meet graduation requirements in this curriculum are offered during day and evening hours. Minimum time for completion: five semesters full-time attendance. The Associate in Applied Science degree is awarded graduates of this curriculum.

The Computer Engineering Technology curriculum prepares the students to use basic engineering principles and technical skills for installing, servicing, and maintaining computers, peripherals, networks, and microprocessor and computer controlled equipment. Includes instruction in mathematics, computer electronics and programming, prototype development and testing, systems installation and testing, solid state and microminiature circuitry, peripheral equipment, and report preparation. Graduates should qualify for employment opportunities in electronics technology, computer service, computer networks, server maintenance, programming, and other areas requiring knowledge of electronic and computer systems. Graduates may also qualify for certification in electronics, computers, or networks.

GENERAL EDUCATION COURSES:.....SHC

English/Communications:.....

ENG 111 Writing and Inquiry.....3
ENG 114 Prof Research & Reporting.....3
OR ENG 112 Writing/Research in the Disc.....3
OR ENG 113 Literature-Based Research.....3

Humanities/Fine Arts:
Elective 3

Natural Sciences/Mathematics:
MAT 171 Precalculus Algebra.....4
OR MAT 121 Algebra/Trigonometry I.....3

Social/Behavioral Sciences:
Elective 3

MAJOR COURSES:

CTS 120 Hardware/Software Support 3
OR CET 111 Computer Upgrade/Repair I.....3
CIS 110 Introduction to Computers 3
CSC 134 C++ Programming.....3
DFT 117 Technical Drafting.....2
EGR 110 Intro to Engineering Tech.....2
ELC 138 DC Circuit Analysis 4
ELC 139 AC Circuit Analysis 4
ELC 229 Applications Project.....2
ELN 131 Analog Electronics I.....4
ELN 132 Analog Electronics II..... 4
ELN 133 Digital Electronics.....4
ELN 233 Microprocessor Systems 4
MAT 172 Precalculus Trigonometry 4
OR MAT 122 Algebra/Trigonometry II.....3
NET 125 Networking Basics 3
PHY 151 College Physics I.....4
OR PHY 131 Physics-Mechanics 4

CET Electives 6
Students are required to take a minimum of 6 SHC from the following:
CET 211 Computer Upgrade/Repair II 3
CSC 139 Visual BASIC Programming..... 3
CSC 151 JAVA Programming..... 3
CTS 130 Spreadsheet 3
NOS 110 Operating System Concepts..... 3
NOS 120 Linux/UNIX Single User 3
PHY 133 Physics-Sound & Light 4
WEB 110 Internet/Web Fundamentals 3

Work-Based Learning Option: Qualified students may elect to take 2 credit hours of Work-Based Learning in place of ELC 229.
Physics Note: Students planning to transfer to a 4-year college should consider taking PHY 151 or PHY 131, and PHY 133. Please see your Computer Engineering Technology advisor.

Total Credit Hours Required 70/72

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS 080 Computing Fundamentals.....3
DRE 098 Integrated Reading Writing III 3
DMA DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 060 (MAT 121) 6
DMA DMA 010, DMA 020. DMA 030, DMA 040, DMA 050, DMA 065, (MAT 171) 7

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Computer Engineering Technology • A40160
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
CIS	110	Introduction to Computers	2	2	0	3
CSC	134	C++ Programming	2	3	0	3
DFT	117	Technical Drafting	1	2	0	2
EGR	110	Intro to Engineering Tech	1	2	0	2
ELC	138	DC Circuit Analysis	3	3	0	4
MAT	171	Precalculus Algebra	3	2	0	4
OR		MAT 121 Algebra/Trigonometry I	2	2	0	3
		Total	11/12	14	0	17/18
Spring – 1st year						
ELC	139	AC Circuit Analysis	3	3	0	4
ELN	131	Analog Electronics I	3	3	0	4
ENG	111	Writing and Inquiry	3	0	0	3
MAT	172	Precalculus Trigonometry	3	2	0	4
OR		MAT 122 Algebra/Trigonometry II	2	2	0	3
NET	125	Networking Basics	1	4	0	3
		Total	12/13	12	0	17/18
Summer – 1st year						
ENG	114	Prof Research and Reporting (Preferred)	3	0	0	3
OR		ENG 112 Writing/Research in the Disc	3	0	0	3
OR		ENG 113 Literature-Based Research	3	0	0	3
		Humanities/Fine Arts Elective	3	0	0	3
		Total	6	0	0	6
Fall – 2nd year						
CTS	120	Hardware/Software Support	2	3	0	3
OR		CET 111 Computer Upgrade/Repair I	2	3	0	3
ELN	132	Analog Electronics II	3	3	0	4
ELN	133	Digital Electronics	3	3	0	4
PHY	151	College Physics I	3	2	0	4
OR		PHY 131 Physics-Mechanics	3	2	0	4
		Total	11	11	0	15
Spring – 2nd year						
ELC	229	Applications Project	1	3	0	2
ELN	233	Microprocessor Systems	3	3	0	4
		CET Elective	2	3	0	3
		CET Elective	2	3	0	3
		Social/Behavioral Science Elective	3	0	0	3
		Total	11	12	0	15
		Grand Total	51/53	49	0	70/72

Computer Engineering Technology • A40160
Evening Courses Are Offered On Demand
(See Your Computer Engineering Tech. Advisor)

CTS	120	Computer Hardware/Support	3
	OR	CET 111 Computer Upgrade/Repair I	3
CIS	110	Introduction to Computers	3
CSC	134	C++ Programming	3
DFT	117	Technical Drafting	2
EGR	110	Intro to Engineering Tech	2
ELC	138	DC Circuit Analysis	4
ELC	139	AC Circuit Analysis	4
ELC	229	Applications Project	2
ELN	131	Analog Electronics I	4
ELN	132	Analog Electronics II	4
ELN	133	Digital Electronics	4
ELN	233	Microprocessor Systems	4
ENG	111	Writing and Inquiry	3
ENG	114	Prof Research & Reporting	3
	OR	ENG 112 Writing/Research in the Disc	3
	OR	ENG 113 Literature-Based Research	3
MAT	171	Precalculus Algebra	3
	OR	MAT 121 Algebra/Trigonometery I	3
MAT	172	Precalculus Trigonometry	3
	OR	MAT 122 Algebra/Trigonometry II	3
NET	125	Networking Basics	3
PHY	151	College Physics I	4
	OR	PHY 131 Physics-Mechanics	4

Humanities/Fine Arts:
Elective 3

Social/Behavioral Sciences:
Elective 3

CET Electives 6

Students are required to take a minimum of 6 SHC from the following:

CET	211	Computer Upgrade/Repair II	3
CSC	139	Visual BASIC Programming	3
CSC	151	JAVA Programming	3
CTS	130	Spreadsheet	3
NOS	110	Operating System Concepts	3
NOS	120	Linux/UNIX Single User	3
PHY	133	Physics-Sound & Light	4
WEB	110	Internet/Web Fundamentals	3

Work-Based Learning Option: Qualified students may elect to take 2 credit hours of Work-Based Learning in place of ELC 229.

Physics Note: Students planning to transfer to a 4-year college should consider taking PHY 151 or PHY 131, and PHY 133. Please see your Computer Engineering Technology advisor.

Total Credit Hours Required 70/72

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
DRE	098	Integrated Reading Writing III	3
DMA	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 060 (MAT (121)		6
DMA	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 065 (MAT 171)		7

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

COMPUTER INFORMATION TECHNOLOGY

A.A.S. Program (A25260)

Courses required to meet graduation requirements in this curriculum are offered during the day and online. The core courses are offered mostly online. Minimum time for completion: Day – five semesters full-time attendance. The Associate in Applied Science degree is awarded graduates of this curriculum.

The Computer Information Technology curriculum is designed to prepare graduates for employment with organizations that use computers to process, manage, and communicate information. This is a flexible curriculum that can be customized to meet community information systems needs. Coursework will develop a student's ability to communicate complex technical issues related to computer hardware, software, and networks in a manner that computer users can understand. Classes cover computer operations and terminology, operating systems, database, networking, security, and technical support. Graduates should qualify for employment in entry-level positions with businesses, educational systems, and governmental agencies which rely on computer systems to manage information. Graduates should be prepared to sit for industry-recognized certification exams.

GENERAL EDUCATION COURSES: ..... SHC

English/Communications:

ENG	111	Writing and Inquiry	3
ENG	114	Prof Research & Reporting	3
	OR	ENG 113 Literature-Based Research	3

Humanities/Fine Arts:
Elective 3

Natural Sciences/Mathematics:
MAT 143 Quantitative Literacy 3

Social/Behavioral Sciences:
Elective 3

MAJOR COURSES:

CIS	110	Introduction to Computers	3
CIS	115	Intro to Prog & Logic	3
CTS	115	Info Sys Business Concept	3
CTS	120	Hardware/Software Support	3
CTS	130	Spreadsheet	3
CTS	285	Systems Analysis & Design	3
CTS	289	System Support Project	3
DBA	110	Database Concepts	3
DBA	115	Database Applications	3
DBA	120	Database Programming I	3
NET	125	Networking Basics	3
NOS	110	Operating System Concepts	3
NOS	130	Windows Single User	3
NOS	230	Windows Administration I	3
SEC	110	Security Concepts	3
WBL	XXX	Work-Based Learning	2

Programming Elective 3

Students must select one course from the following:

CSC	134	C++ Programming	3
CSC	139	Visual BASIC Programming	3

Program Elective 3

CET	211	Computer Upgrade/Repair II	3
CIS	277	Network Design & Imp	3
CSC	234	Advanced C++ Programming	3
CSC	239	Advanced Visual BASIC Prog	3
DBA	220	Oracle DB Programming II	3
NET	126	Routing Basics	3
NET	175	Wireless Technology	3
NOS	120	Linux/UNIX Single User	3
NOS	231	Windows Administration II	3
NOS	244	Operating Sytem – AS/400	3
SEC	150	Secure Communications	3
SEC	160	Secure Administration I	3
WBL	XXX	Work-Based Learning	1-3

Work-Based Learning Option: Qualified students may elect to take 3 additional credit hours of Work-Based Learning in place of 3 hours program electives.

Total Credit Hours Required 68

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
DRE	098	Integrated Reading Writing III	3
DMA	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050		5

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Computer Information Technology Program Elective Pick List: CIS 277, CSC 234, CSC 239, DBA 220, NET 126, NOS 120, NOS 231, NOS 244, SEC 150, SEC 160, NET 175.

Computer Information Technology • A25260
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
CIS	110	Introduction to Computers	2	2	0	3
CIS	115	Intro to Prog & Logic	2	3	0	3
DBA	110	Database Concepts	2	3	0	3
NOS	110	Operating System Concepts	2	3	0	3
		Total	8	11	0	12
Spring – 1st year						
CSC	139/134	Visual BASIC OR C++ Programming	2	3	0	3
DBA	115	Database Applications	2	2	0	3
CTS	120	Hardware/Software Support	2	3	0	3
NOS	130	Windows Single User	2	2	0	3
WBL	XXX	Work-Based Learning	0	0	20	2
		Total	8	10	20	14
Summer – 1st year						
ENG	111	Writing and Inquiry	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
		Social/Behavioral Science Elective	3	0	0	3
		Total	8	2	0	9
Fall – 2nd year						
CTS	130	Spreadsheet	2	2	0	3
CTS	285	Systems Analysis & Design	3	0	0	3
DBA	120	Database Programming I	2	2	0	3
NET	125	Networking Basics	1	4	0	3
NOS	230	Windows Administration I	2	2	0	3
SEC	110	Security Concepts	2	2	0	3
		Total	12	12	0	18
Spring – 2nd year						
CTS	115	Info Sys Business Concepts	3	0	0	3
CTS	289	System Support Project	1	4	0	3
ENG	114	Prof Research & Reporting	3	0	0	3
	OR	ENG 113 Literature-Based Research	3	0	0	3
		Humanities/Fine Arts Elective	3	0	0	3
		Program Elective	3	0	0	3
		Total	13	4	0	15
		Grand Total	43	39	20	68

Computer Information Technology • A25260
Suggested Program Sequence Evening

Fall – 1st year						
CIS	110	Introduction to Computers	2	2	0	3
SEC	110	Security Concepts	2	2	0	3
		Total	4	4	0	6
Spring – 1st year						
CTS	115	Info Sys Business Concepts	3	0	0	3
CSC	139/134	Visual BASIC OR C++Programming	2	3	0	3
NOS	110	Operating Systems Concepts	2	3	0	3
		Total	7	6	0	9
Summer – 1st year						
ENG	111	Writing and Inquiry	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
		Total	5	2	0	6
Fall – 2nd year						
CIS	115	Intro to Prog & Logic	2	3	0	3
CTS	130	Spreadsheet	2	2	0	3
DBA	110	Database Concepts	2	3	0	3
NET	125	Networking Basics	1	4	0	3
		Total	7	12	0	12
Spring – 2nd year						
DBA	115	Database Applications	2	2	0	3
NOS	130	Windows Single User	2	2	0	3
		Total	4	4	0	6
Summer – 2nd year						
ENG	114	Prof Research & Reporting	3	0	0	3
	OR	ENG 113 Literature-Based Research	3	0	0	3
WBL	XXX	Work-Based Learning	0	0	20	2
		Social/Behavioral Science Elective	3	0	0	3
		Total	6	0	20	8
Fall – 3rd year						
CTS	285	Systems Analysis & Design	3	0	0	3
DBA	120	Database Programming I	2	2	0	3
NOS	230	Windows Administration I	2	2	0	3
		Total	7	4	0	9
Spring – 3rd year						
CTS	289	System Support Project	1	4	0	3
CTS	120	Hardware/Software Support	2	3	0	3
		Total	3	7	0	6
Summer – 3rd year						
		Program Elective	3	0	0	3
		Humanities/Fine Arts Elective	3	0	0	3
		Total	6	0	0	6
		Grand Total	49	39	20	68

COMPUTER INFORMATION TECHNOLOGY
Certificate Program (C25260)

MAJOR COURSES:.....SHC

CIS 110 Introduction to Computers 3
CTS 115 Info Sys Business Concepts 3
CTS 130 Spreadsheet 3
DBA 110 Database Concepts 3
DBA 115 Database Applications.....3

Total Credit Hours Required 15

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS 080 Computing Fundamentals.....3
DRE 098 Integrated Reading Writing III 3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Computer Information Technology (C25260)
Certificate Suggested Sequence

Fall – 1st year						
CIS	110	Introduction to Computers	2	2	0	3
CTS	130	Spreadsheet	2	2	0	3
DBA	110	Database Concepts	2	3	0	3
		Total	6	7	0	9
Spring 1st year						
DBA	115	Database Applications	2	2	0	3
CTS	115	Info Sys Business Concept	2	3	0	3
		Total	4	5	0	6
		Grand Total	10	12	0	15

COMPUTER INFORMATION TECHNOLOGY
Database Certificate (C2526001)
Suggested Sequence

MAJOR COURSES:..... SHC

DBA 110 Database Concepts 3
DBA 115 Database Applications 3
DBA 120 Database Programming I 3
DBA 220 Oracle DB Programming II 3

Total Credit Hours Required 12

Computer Information Technology – Database Certificate (C2526001)
Suggested Sequence

Fall – 1st year						
DBA	110	Database Concepts	2	3	0	3
		Total	2	3	0	3
Spring – 1st year						
DBA	115	Database Applications	2	2	0	3
		Total	2	2	0	3
Fall – 2nd year						
DBA	120	Database Programming I	2	2	0	3
		Total	2	2	0	3
Spring – 2nd year						
DBA	220	Oracle DB Programming II	2	3	0	3
		Total	2	3	0	3
		Grand Total	8	10	0	12

COMPUTER-INTEGRATED MACHINING TECHNOLOGY A.A.S. Program (A50210)

Courses required to meet graduation requirements in this curriculum are offered during day and evening hours. The Associate in Applied Science degree is awarded graduates of this curriculum.

The Computer-Integrated Machining curriculum prepares students with the analytical, creative and innovative skills necessary to take a production idea from an initial concept through design, development and production, resulting in a finished product. Coursework may include manual machining, computer applications, engineering design, computer-aided drafting (CAD), computer-aided machining (CAM), blueprint interpretation, advanced computerized numeric control (CNC) equipment, basic and advanced machining operations, precision measurement, and high-speed multi-axis machining. Graduates should qualify for employment as machining technicians in high-tech manufacturing, rapid-prototyping and rapid-manufacturing industries, specialty machine shops, fabrication industries, and high-tech or emerging industries such as aerospace, aviation, medical, and renewable energy, and to sit for machining certification examinations.

GENERAL EDUCATION COURSES:			**SHC**
English/Communications:			
ENG	111	Writing and Inquiry	3
ENG	114	Prof Research & Reporting	3
	OR	ENG 112 Writing/Research in the Disc	3
	OR	ENG 113 Literature-Based Research	3
Humanities/Fine Arts:			
Elective			3
Natural Sciences/Mathematics:			
MAT	121	Algebra/Trigonometry I	3
Social /Behavioral Sciences:			
Elective			3
MAJOR COURSES:			
CIS	110	Introduction to Computers	2
	OR	CIS 111 Basic PC Literacy	3
ISC	112	Industrial Safety	2
MAC	122	CNC Turning	2
MAC	124	CNC Milling	2
MAC	131	Blueprint Reading/Mach I	2
MAC	132	Blueprint Reading/Mach II	2
MAC	141	Machining Applications I	4
MAC	142	Machining Applications II	4
MAC	143	Machining Appl III	4
MAC	151	Machining Calculations	2
MAC	222	Advanced CNC Turning	2
MAC	224	Advanced CNC Milling	2
MAC	231	CAM: CNC Turning	3
MAC	232	CAM: CNC Milling	3
MAC	233	Appl in CNC Machining	6
MAC	234	Adv Multi-Axis Machin	3
MAC	241	Jigs & Fixtures I	4
MAC	242	Jigs & Fixtures II	4
MEC	110	Intro to CAD/CAM	2
MEC	142	Physical Metallurgy	2
WBL	110	World of Work	1

Work-Based Learning Option: Qualified students may elect to take 4–6 credit hours of Work-Based Learning in place of MAC 233 or MAC 242.

Total Credit Hours Required 73/74

DEVELOPMENTAL COURSE REQUIREMENTS*			
CTS	080	Computing Funamentals	3
DRE	098	Integrated Reading Writing III	3
DMA	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 060		6

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Computer-Integrated Machining Technology – A50210
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
ISC	112	Industrial Safety	2	0	0	2
MAC	131	Blueprint Reading/Mach I	1	2	0	2
MAC	141	Machining Applications I (1st 8 Wks)	2	6	0	4
MAC	142	Machining Application II (2nd 8 Wks)	2	6	0	4
MAC	151	Machining Calculations I	1	2	0	2
CIS	110	Introduction to Computers	2	2	0	2
	OR	CIS 111 Basic PC Literacy	1	2	0	3
		Total	9/10	18	0	16/17
Spring – 1st year						
MAC	122	CNC Turning (1st 4 Wks)	1	3	0	2
MAC	222	Advanced CNC Turning (2nd 4 Wks)	1	3	0	2
MAC	132	Blueprint Reading Mach. II	1	2	0	2
MAC	124	CNC Milling (3rd 4 Wks)	1	3	0	2
MAC	224	Advanced CNC Milling (4th 4 Wks)	1	3	0	2
MAT	121	Algebra/Trigonometry I	2	2	0	3
WBL	110	World of Work	1	0	0	1
		Total	8	16	0	14
Summer – 1st year						
ENG	111	Writing and Inquiry	3	0	0	3
MEC	110	Intro to CAD/CAM	1	2	0	2
MAC	143	Machining Applications III	2	6	0	4
		Total	6	8	0	9
Fall – 2nd year						
MAC	231	CAM:CNC Turning	1	4	0	3
MAC	232	CAM:CNC Milling	1	4	0	3
MAC	241	Jigs & Fixtures I	2	6	0	4
		Humanities/Fine Arts Elective	3	0	0	3
		Total	7	14	0	13
Spring – 2nd year						
MAC	234	Adv Multi-Axis Machining	2	3	0	3
MAC	242	Jigs & Fixtures II	1	9	0	4
MEC	142	Physical Metallurgy	1	2	0	2
		Social/Behavioral Science Elective	3	0	0	3
		Total	7	14	0	12
Summer – 2nd year						
ENG 114		Literature-Based Research (Preferred)	3	0	0	3
	OR	ENG 112 Writing/Research in the Disc	3	0	0	3
	OR	ENG 113 Literature-Based Research	3	0	0	3
MAC	233	Appl in CNC Machining	2	12	0	6
		Total	5	12	0	9
		Grand Total	42/43	82	0	73/74

Computer-Integrated Machining Technology Diploma (D50210)

GENERAL EDUCATION COURSES:			SHC
English/Communications:			
ENG	111	Writing and Inquiry	3
Natural Sciences/Mathematics:			
MAT	121	Algebra/Trigonometry I	3
MAJOR COURSES:			
CIS	111	Basic PC Literacy	2
	OR	CIS 110 Introduction to Computers	3
MAC	122	CNC Turning	2
MAC	124	CNC Milling	2
MAC	131	Blueprint Reading/Mach I	2
MAC	132	Blueprint Reading/Mach II	2
MAC	141	Machining Applications I	4
MAC	142	Machining Applications II	4
MAC	151	Machining Calculations	2
MAC	222	Advanced CNC Turning	2
MAC	224	Advanced CNC Milling	2
MEC	110	Intro to CAD/CAM	2
WBL	110	World of Work	1
*CIM/WBL ProgramElective			6
MAC	231	CAM: CNC Turning	3
MAC	232	CAM: CNC Milling	3
MAC	241	Jigs & Fixtures I	4
MEC	142	Physical Metallurgy	2
WBL	XXX	Work-Based Learning	1-4

Work-Based Learning Option: Qualified students may elect to take up to 4 credit hours of work-based learning in place of Programming electives.

Total Credit Hours Required 39/40

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
DRE	097	Integrated Reading Writing II	3
DMA	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 060		6

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Computer-Integrated Machining Technology – Diploma • D50210
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
CIS	111	Basic PC Literacy	1	2	0	2
OR		CIS 110 Introduction to Computers	2	2	0	3
MAC	131	Blueprint Reading/Mach I	1	2	0	2
MAC	141	Machining Applications I	2	6	0	4
MAC	142	Machining Applications II	2	6	0	4
MAC	151	Machining Calculations	1	2	0	2
Program Elective						3
		Total	10/11	18	0	17/18
Spring – 1st year						
MAC	122	CNC Turning (1st 4 Wks)	1	3	0	2
MAC	222	Advanced CNC Turning (2nd 4 Wks)	1	3	0	2
MAC	132	Blueprint Reading/Mach II	1	2	0	2
MAC	124	CNC Milling (3rd 4 Wks)	1	3	0	2
MAC	224	Advanced CNC Milling (4th 4 Wks)	1	3	0	2
MAT	121	Algebra/Trigonometry I	2	2	0	3
WBL	110	World of Work	1	0	0	1
Program Elective						3
		Total	11	16	0	17
Summer – 1st year						
ENG	111	Writing and Inquiry	3	0	0	3
MEC	110	Intro to CAD/CAM	1	2	0	2
		Total	4	2	0	5
		Grand Total	25/26	36	0	39/40

Computer-Integrated Machining Technology – Diploma • D50210
Courses Are Offered On Demand/Evening (See Your CIM Advisor)

CIS	111	Basic PC Literacy	2
	OR	CIS 110 Introduction to Computers	3
ENG	111	Writing and Inquiry	3
MAC	122	CNC Turning	2
MAC	124	CNC Milling	2
MAC	131	Blueprint Reading/Mach I	2
MAC	132	Blueprint Reading/Mach II	2
MAC	141	Machining Applications I	4
MAC	142	Machining Applications II	4
MAC	151	Machining Calculations	2
MAC	222	Advanced CNC Turning	2
MAC	224	Advanced CNC Milling	2
MEC	110	Intro to CAD/CAM	2
WBL	110	World of Work	1
Natural Sciences/Mathematics:			
MAT	121	Algebra/Trigonometry I	3
*CIM/WBL ProgramElective			6
MAC	231	CAM: CNC Turning	3
MAC	232	CAM: CNC Milling	3
MAC	241	Jigs & Fixtures I	4
MEC	142	Physical Metallurgy	2
WBL	XXX	Work-Based Learning	1-4

Work-Based Learning Option: Qualified students may elect to take up to 4 credit hours of work-based learning in place of Programming electives.

Total Credit Hours Required 39/40

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
DRE	097	Integrated Reading Writing II	3
DMA	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 060		6

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Computer-Integrated Machining Technology Cert. Prog. (C50210)

MAJOR COURSES:

MAC	122	CNC Turning	2
MAC	124	CNC Milling	2
MAC	131	Blueprint Reading/Mach I	2
MAC	141	Machining Applications I	4
MAC	151	Machining Calculations	2
MEC	110	Intro to CAD/CAM	2

Total Credit Hours Required 14

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
DRE	097	Integrated Reading Writing II	3
MAT	DMA 010, DMA 020, 030		3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Computer-Integrated Machining Technology Certificate – Suggest Program Sequence Day (C50210)

Fall – 1st year						
MAC	122	CNC Turning	1	3	0	2
MAC	124	CNC Milling	1	3	0	2
MAC	131	Blueprint Reading/Mach I	1	2	0	2
MAC	141	Machining Applications I	2	6	0	4
MAC	151	Machining Calculations	1	2	0	2
MEC	110	Intro to CAD/CAM	1	2	0	2
		Grand Total	7	18	0	14

Computer-Integrated Machining Technology Evening (C50210)
Courses Are Offered On Demand (See Your CIM Advisor)

MAC	122	CNC Turning	2
MAC	124	CNC Milling	2
MAC	131	Blueprint Reading/Mach I	2
MAC	141	Machining Applications I	4
MAC	151	Machining Calculations	2
MEC	110	Intro to CAD/CAM	2

Total Credit Hours Required 14

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
DRE	097	Integrated Reading Writing II	3
MAT	DMA 010, DMA 020, DMA 030		3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

COMPUTER PROGRAMMING

A.A.S. Program (A25130)

Courses required to meet graduation requirements in this curriculum are offered during the day and online. The core courses are offered mostly online. Minimum time for completion: Day – five semesters full-time attendance. The Associate in Applied Science degree is awarded graduates of this curriculum.

The Computer Programming curriculum prepares individuals for employment as computer programmers and related positions through study and applications in computer concepts, logic, programming procedures, languages, generators, operating systems, networking, data management, and business operations. Students will solve business computer problems through programming techniques and procedures, using appropriate languages and software. The primary emphasis of the curriculum is hands-on training in programming and related computer areas that provide the ability to adapt as systems evolve. Graduates should qualify for employment in business, industry, and government organizations as programmers, programmer trainees, programmer/analysts, computer operators, systems technicians, or database specialists.

GENERAL EDUCATION COURSES:.....SHC

English/Communications:

ENG	111	Writing and Inquiry	3
ENG	114	Prof Research & Reporting	3
	OR	ENG 113 Literature-Based Research	3

Humanities/Fine Arts:

Elective 3

Natural Sciences/Mathematics:

MAT	143	Quantitative Literacy	3

Social/Behavioral Sciences:

Elective 3

MAJOR COURSES:

CIS	110	Introduction to Computers	3
CIS	115	Intro to Prog & Logic	3
CSC	138	RPG Programming	3
CSC	139	Visual BASIC Programming	3
CSC	141	Visual C++ Programming	3
	OR	CSC 134 C++ Programming	3
CSC	238	Advanced RPG Programming	3
CSC	239	Advanced Visual BASIC Prog	3
CSC	289	Programming Capstone Project	3
CTS	115	Info Sys Business Concepts	3
CTS	130	Spreadsheet	3
CTS	285	Systems Analysis & Design	3
DBA	110	Database Concepts	3
NET	125	Networking Basics	3
NOS	110	Operating System Concepts	3
NOS	244	Operating System – AS/400	3
SEC	110	Security Concepts	3

Programming Elective 3

Students must select 3 SHC from the following courses:

CSC	151	JAVA Programming	3
DBA	115	Database Applications	3
DBA	120	Database Programming I	3
SGD	111	Introduction to SGD	3
SGD	112	SGD Design	3
SGD	114	3D Modeling	3

Programming/Work-Based Learning Elective 1-3

Students are required to take one (1) course from the following:

CSC	151	JAVA Programming	3
DBA	115	Database Applications	3
DBA	120	Database Programming I	3
SGD	111	Introduction to SGD	3
SGD	112	SGD Design	3
SGD	114	3D Modeling	3
WBL	XXX	Work-Based Learning	1-3

Work-Based Learning Option: Qualified students may elect to take 1-3 credit hours of Work-Based Learning in place of Programming elective.

OTHER REQUIRED COURSES:

ACA	111	College Student Success	1

Total Credit Hours Required 68/70

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
DRE	098	Integrated Reading Writing III	3
DMA	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050		5

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Computer Programming • A25130
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
ACA	111	College Student Success	1	0	0	1
CIS	110	Introduction to Computers	2	2	0	3
CIS	115	Intro to Prog & Logic	2	3	0	3
DBA	110	Database Concepts	2	3	0	3
NET	125	Networking Basics	1	4	0	3
		Total	8	12	0	13
Spring – 1st year						
CSC	141	Visual C++ Programming	2	3	0	3
	OR	CSC 134 C++ Programming				
CTS	115	Info Sys Business Concepts	3	0	0	3
NOS	110	Operating Systems Concepts	2	3	0	3
NOS	244	Operating Systems – AS/400	2	2	0	3
		Program Elective	3	0	0	3
		Total	12	8	0	15
Summer – 1st year						
ENG	111	Writing and Inquiry	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
		Humanities/Fine Arts Elective	3	0	0	3
		Total	8	2	0	9
Fall – 2nd year						
CTS	130	Spreadsheet	2	2	0	3
CTS	285	Systems Analysis & Design	3	0	0	3
CSC	138	RPG Programming	2	3	0	3
CSC	139	Visual BASIC Programming	2	3	0	3
SEC	110	Security Concepts	2	2	0	3
		Total	11	10	0	15
Spring – 2nd year						
ENG	114	Prof Research & Reporting	3	0	0	3
	OR	ENG 113 Literature-Based Research	3	0	0	3
CSC	289	Programming Capstone Project	1	4	0	3
CSC	238	Advanced RPG Programming	2	3	0	3
CSC	239	Advanced Visual BASIC Programming	2	3	0	3
		Social/Behavioral Science Elective	3	0	0	3
		Programming/WBL Elective	0	0	0	1/3
		Total	11	10	0	16/18
		Grand Total	50	42	0	68/70

COMPUTER PROGRAMMING - Cert. Prog. (C25130)

MAJOR COURSES:.....SHC

CIS	115	Intro to Prog & Logic	3
CSC	139	Visual BASIC Programming	3
CSC	141	Visual C++ Programming	3
CSC	239	Advanced Visual BASIC Prog	3

Total Credit Hours Required 12

DEVELOPMENTAL COURSE REQUIREMENTS*

MAT	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050		5

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Computer Programming – Cert. Suggested Sequence (C25130)

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
CIS	115	Intro to Prog & Logic	2	3	0	3
		Total	2	3	0	3
Spring – 1st year						
CSC	139	Visual BASIC Programming	2	3	0	3
CSC	141	Visual C++ Programming	2	3	0	3
		Total	4	6	0	6
Spring – 2nd year						
CSC	239	Advanced Visual BASIC Prog	2	3	0	3
		Total	2	3	0	3
		Grand Total	8	12	0	12

COSMETOLOGY
Diploma Program (D55140)

Courses required to meet graduation requirements in this curriculum are offered during evening hours. All courses, state hours, and state performances must be completed before graduation. Minimum time for completion: four semesters full-time attendance; nine semesters part-time attendance. The Diploma is awarded graduates of this curriculum.

The Cosmetology curriculum is designed to provide competency-based knowledge, scientific/artistic principles, and hands-on fundamentals associated with the cosmetology industry. The curriculum provides a simulated salon environment which enables students to develop manipulative skills. Course work includes instruction in all phases of professional imaging, hair design, chemical processes, skin care, nail care, multi-cultural practices, business/computer principles, product knowledge, and other selected topics. Graduates should qualify to sit for the State Board of Cosmetic Arts examination. Upon successfully passing the State Board exam, graduates will be issued a license. Employment is available in beauty salons, spas, nail salons, and related businesses. General Education Courses, including developmental courses, English, and psychology will be taught on the CVCC campus. Instruction and course materials are available in Spanish.

GENERAL EDUCATION COURSES:			**SHC**
English/Communications:			
ENG	102	Applied Communications II	3
Social/Behavioral Sciences:			
PSY	150	General Psychology	3

MAJOR COURSES:			
COS	111	Cosmetology Concepts I	4
OR			
COS	111AB	Cosmetology Concepts I-AB	2
COS	111BB	Cosmetology Concepts I-BB	2
COS	112	Salon I	8
OR			
COS	112AB	Salon I-AB	4
COS	112BB	Salon I-BB	4
COS	113	Cosmetology Concepts II	4
OR			
COS	113AB	Cosmetology Concepts II-AB	2
COS	113BB	Cosmetology Concepts II-BB	2
COS	114	Salon II	8
OR			
COS	114AB	Salon II-AB	4
COS	114BB	Salon II-BB	4
COS	115	Cosmetology Concepts III	4
OR			
COS	115AB	Cosmetology Concepts III-AB	2
COS	115BB	Cosmetology Concepts III-BB	2
COS	116	Salon III	4
OR			
COS	116AB	Salon III-AB	2
COS	116BB	Salon III-BB	2
COS	117	Cosmetology Concepts IV	2
OR			
COS	117AB	Cosmetology Concepts IV-AB	1
COS	117BB	Cosmetology Concepts IV-BB	1
COS	118	Salon IV	7
OR			
COS	118AB	Salon IV-AB	4
COS	118BB	Salon IV-BB	3
WBL	110	World of Work	1
Total Credit Hours Required			**48**

DEVELOPMENTAL COURSE REQUIREMENTS*

DRE	098	Integrated Reading Writing III	3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Cosmetology – Diploma • D55140
Suggested Program Sequence Day

		Class	Lab	Clin/WkExp	Credit
Fall – 1st year					
COS 111	Cosmetology Concepts I	4	0	0	4
COS 112	Salon I	0	24	0	8
WBL 110	World Of Work	1	0	0	1
	Total	5	24	0	13
Spring – 1st year					
COS 113	Cosmetology Concepts II	4	0	0	4
COS 114	Salon II	0	24	0	8
ENG 102	Applied Communication II	3	0	0	3
	Total	7	24	0	15
Summer – 1st year					
COS 115	Cosmetology Concepts III	4	0	0	4
COS 116	Salon III	0	12	0	4
	Total	4	12	0	8
Fall – 2nd year					
COS 117	Cosmetology Concepts IV	2	0	0	2
COS 118	Salon IV	0	21	0	7
PSY 150	General Psychology	3	0	0	3
	Total	5	21	0	12
	Grand Total	21	81	0	48

Cosmetology – Diploma/Part-Time • D55140
Suggested Program Sequence Evening

Fall – 1st year					
COS 111AB	Cosmetology Concepts I-AB	2	0	0	2
COS 112AB	Salon I-AB	0	12	0	4
WBL 110	World Of Work	1	0	0	1
	Total	3	12	0	7
Spring – 1st year					
COS 111BB	Cosmetology Concepts I-BB	2	0	0	2
COS 112BB	Salon I-BB	0	12	0	4
ENG 102	Applied Communications II	3	0	0	3
	Total	5	12	0	9
Summer – 1st year					
PSY 150	General Psychology	3	0	0	3
	Total	3	0	0	3
Fall – 2nd year					
COS 113AB	Cosmetology Concepts II-AB	2	0	0	2
COS 114AB	Salon II-AB	0	12	0	4
	Total	2	12	0	6
Spring – 2nd year					
COS 113BB	Cosmetology Concepts II-BB	2	0	0	2
COS 114BB	Salon II-BB	0	12	0	4
	Total	2	12	0	6
Fall – 3rd year					
COS 115AB	Cosmetology Concepts III-BB	2	0	0	2
COS 116AB	Salon III-AB	0	6	0	2
	Total	2	6	0	4
Spring – 3rd year					
COS 115BB	Cosmetology Concepts III-BB	2	0	0	2
COS 116BB	Salon III-BB	0	6	0	2
	Total	2	6	0	4
Fall – 4th year					
COS 117AB	Cosmetology Concepts IV-AB	1	0	0	1
COS 118AB	Salon IV-AB	0	12	0	4
	Total	1	12	0	5
Spring – 4th year					
COS 117BB	Cosmetology Concepts IV-BB	1	0	0	1
COS 118BB	Salon IV-BB	0	9	0	3
	Total	1	9	0	4
	Grand Total	21	81	0	48

CRIMINAL JUSTICE TECHNOLOGY
A.A.S. Program (A55180)

Courses required to meet graduation requirements in this curriculum are offered during day and evening hours. Minimum time for completion: Day – five semesters full-time attendance; Evening – ten semesters part-time attendance. The Associate in Applied Science Degree is awarded graduates of this curriculum.

The Criminal Justice Technology curriculum is designed to provide knowledge of criminal justice systems and operations. Study will focus on local, state, and federal law enforcement, judicial processes, corrections, and security services. The criminal justice system's role within society will be explored. Emphasis is on criminal justice systems, criminology, juvenile justice, criminal and constitutional law, investigative principles, ethics, and community relations. Additional study may include issues and concepts of government, counseling, communications, computers, and technology. Employment opportunities exist in a variety of local, state, and federal law enforcement, corrections, and security fields. Examples include police officer, deputy sheriff, county detention officer, state trooper, intensive probation/parole surveillance officer, correctional officer, and loss prevention specialist.

GENERAL EDUCATION COURSES:			**SHC**
English/Communications:			
ENG	111	Writing and Inquiry	3
ENG	113	Literature-Based Research	3
	OR	ENG 114 Prof Research & Reporting	3
Humanities/Fine Arts:			
Elective			3
Natural Sciences/Mathematics:			
MAT	110	Math Measurement & Literacy	3
	OR	MAT 143 Quantitative Literacy	3
Social/Behavioral Sciences:			
PSY	150	General Psychology	3

MAJOR COURSES:			
CIS	110	Introduction to Computers (Effective Spr 2015)	3
CJC	111	Intro to Criminal Justice	3
CJC	112	Criminology	3
CJC	113	Juvenile Justice	3
CJC	121	Law Enforcement Operations	3
CJC	131	Criminal Law	3
CJC	132	Court Procedure & Evidence	3
CJC	141	Corrections	3
CJC	151	Intro to Loss Prevention	3
CJC	160	Terrorism: Underlying Issues	3
CJC	212	Ethics & Comm Relations	3
CJC	215	Organization & Administration	3
CJC	221	Investigative Principles	4
CJC	225	Crisis Intervention	3
CJC	231	Constitutional Law	3
SOC	210	Introduction to Sociology	3

Program Elective			3
CJC	114	Investigative Photography	2
CJC	222	Criminalistics	3
HIS	111	World Civilizations I	3
HIS	112	World Civilizations II	3
HIS	121	Western Civilization I	3
HIS	122	Western Civilization II	3
POL	120	American Government	3
POL	130	State & Local Government	3
PSY	231	Forensic Psychology	3
PSY	241	Developmental Psych	3
PSY	281	Abnormal Psychology	3
SOC	220	Social Problems	3
WBL	XXX	Work-Based Learning	1-3

Work-Based Learning Option: Qualified students may elect to take 1-3 credit hours of Work-Based Learning.

Credits applied for prior completion of B.L.E.T.

Total Credit Hours Required 67

DEVELOPMENTAL COURSE REQUIREMENTS*			
CTS	080	Computing Fundamentals	3
DRE	098	Integrated Reading Writing III	3
DMA	DMA 010, DMA 020, DMA 030 (MAT 110)		3
DMA	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050 (MAT 143)		5

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Criminal Justice Technology • A55180
Suggested Program Sequence Day

		Class	Lab	Clin/WkExp	Credit
Fall – 1st year					
CJC 111	Intro to Criminal Justice	3	0	0	3
CJC 131	Criminal Law	3	0	0	3
CJC 132	Court Procedures & Evidence	3	0	0	3
CJC 160	Terrorism: Underlying Issu 3	0	0	3	
ENG 111	Writing and Inquiry	3	0	0	3
	Total	15	0	0	15
Spring – 1st year					
CJC 112	Criminology	3	0	0	3
CJC 121	Law Enforcement Operations	3	0	0	3
CJC 221	Investigative Principles	3	2	0	4
CIS 110	Introduction to Computers	2	2	0	3
	Total	11	4	0	13
Summer – 1st year					
ENG 113	Literature-Based Research	3	0	0	3
OR	ENG 114 Prof Research & Reporting	3	0	0	3
MAT 110	Math Measurement & Literacy	2	2	0	3
OR	MAT 143 Quantitative Literacy	2	2	0	3
PSY 150	General Psychology	3	0	0	3
	Total	8	2	0	9
Fall – 2nd year					
CJC 113	Juvenile Justice	3	0	0	3
CJC 215	Organization & Administration	3	0	0	3
CJC 231	Constitutional Law	3	0	0	3
SOC 210	Introduction to Sociology	3	0	0	3
	Humanities/Fine Arts Elective	3	0	0	3
	Total	15	0	0	15
Spring – 2nd year					
CJC 141	Corrections	3	0	0	3
CJC 151	Intro to Loss Prevention	3	0	0	3
CJC 212	Ethics & Comm Relations	3	0	0	3
CJC 225	Crisis Intervention	3	0	0	3
	Program Elective				3
	Total	15	0	0	15
	Grand Total	64	6	0	67

Criminal Justice Technology • A55180
Suggested Program Sequence Evening

		Class	Lab	Clin/WkExp	Credit
Fall – 1st year					
CJC 111	Intro to Criminal Justice	3	0	0	3
CJC 131	Criminal Law	3	0	0	3
ENG 111	Writing and Inquiry	3	0	0	3
	Total	9	0	0	9
Spring – 1st year					
CJC 121	Law Enforcement Operations	3	0	0	3
CIS 110	Introduction to Computers	2	2	0	3
	Total	5	2	0	6
Summer – 1st year					
MAT 110	Math Measurement & Literacy	2	2	0	3
OR	MAT 143 Quantitative Literacy	2	2	0	3
PSY 150	General Psychology	3	0	0	3
	Total	5	2	0	6
Fall – 2nd year					
CJC 113	Juvenile Justice	3	0	0	3
SOC 210	Introduction to Sociology	3	0	0	3
	Total	6	0	0	6
Spring – 2nd year					
CJC 141	Corrections	3	0	0	3
CJC 212	Ethics & Comm Relations	3	0	0	3
	Humanities/Fine Arts Elective	3	0	0	3
	Total	9	0	0	9
Summer – 2nd year					
ENG 113	Literature-Based Research	3	0	0	3
	OR ENG 114 Prof. Research & Reporting	3	0	0	3
	Total	3	0	0	3
Fall – 3rd year					
CJC 132	Court Procedures & Evidence	3	0	0	3
CJC 160	Terrorism: Underlying Issu	3	0	0	3
	Program Elective	3	0	0	3
	Total	9	0	0	9
Spring – 3rd year					
CJC 112	Criminology	3	0	0	3
CJC 221	Investigative Principles	3	2	0	4
	Total	6	2	0	7
Fall – 4th year					
CJC 215	Organization & Administration	3	0	0	3
CJC 231	Constitutional Law	3	0	0	3
	Total	6	0	0	6
Spring – 4th year					
CJC 151	Intro to Loss Prevention	3	0	0	3
CJC 225	Crisis Intervention	3	0	0	3
	Total	6	0	0	6
	Grand Total	64	6	0	67

CRIMINAL JUSTICE TECHNOLOGY
Law Enforcement Certificate Prog (C5518001)

MAJOR COURSES:	**SHC**
CJC 111 Intro to Criminal Justice	3
CJC 121 Law Enforcement Operations	3
CJC 132 Court Procedure & Evidence	3
CJC 212 Ethics & Comm Relations	3
CJC 225 Crisis Intervention	3
Total Credit Hours Required	**15**

Criminal Justice Technology
Law Enforcement Cert. (C5518001) Suggested Sequence

Fall – 1st year					
CJC 111	Intro to Criminal Justice	3	0	0	3
CJC 132	Court Procedure & Evidence	3	0	0	3
	Total	6	0	0	6
Spring – 1st year					
CJC 121	Law Enforcement Operations	3	0	0	3
CJC 212	Ethics & Comm Relations	3	0	0	3
CJC 225	Crisis Intervention	3	0	0	3
	Total	9	0	0	9
	Grand Total	15	0	0	15

CRIMINAL JUSTICE TECHNOLOGY
Correctional – Probation & Parole Certificate Prog (C5518002)

MAJOR COURSES:	**SHC**
CJC 111 Intro to Criminal Justice	3
CJC 141 Corrections	3
CJC 212 Ethics & Comm Relations	3
CJC 215 Organization & Administration	3
CJC 225 Crisis Intervention	3
Total Credit Hours Required	**15**

Correctional – Probation & Parole
Cert. Suggested Sequence (C5518002)

Fall – 1st year					
CJC 111	Intro to Criminal Justice	3	0	0	3
CJC 215	Organization & Administration	3	0	0	3
	Total	6	0	0	6
Spring – 2nd year					
CJC 141	Corrections	3	0	0	3
CJC 212	Ethics & Comm Relations	3	0	0	3
CJC 225	Crisis Intervention	3	0	0	3
	Total	9	0	0	9
	Grand Total	15	0	0	15

CRIMINAL JUSTICE TECHNOLOGY
Judicial – Court Administrator Certificate Prog (C5518004)

MAJOR COURSES:	**SHC**
CJC 111 Intro to Criminal Justice	3
CJC 131 Criminal Law	3
CJC 132 Court Procedure & Evidence	3
CJC 215 Organization & Administration	3
CJC 225 Crisis Intervention	3
Total Credit Hours Required	**15**

Judicial – Court Administrator – Cert. Suggested Sequence (C5518004)

Fall – 1st year					
CJC 111	Intro to Criminal Justice	3	0	0	3
CJC 131	Criminal Law	3	0	0	3
CJC 132	Court Procedure & Evidence	3	0	0	3
CJC 215	Organization & Administration	3	0	0	3
	Total	12	0	0	12
Spring – 1st year					
CJC 225	Crisis Intervention	3	0	0	3
	Total	3	0	0	3
	Grand Total	15	0	0	15

CRIMINAL JUSTICE TECHNOLOGY
Retail – Industrial Security Certificate Prog (C5518003)

MAJOR COURSES:	**SHC**
CJC 111 Intro to Criminal Justice	3
CJC 131 Criminal Law	3
CJC 151 Intro to Loss Prevention	3
CJC 215 Organization & Administration	3
CJC 221 Investigative Principles	4
Total Credit Hours Required	**16**

Retail – Industrial Security – Cert. Suggested Sequence (C551803)

Fall – 1st year					
CJC 111	Intro to Criminal Justice	3	0	0	3
CJC 131	Criminal Law	3	0	0	3
CJC 215	Organization & Administration	3	0	0	3
	Total	9	0	0	9
Spring – 1st year					
CJC 221	Investigative Principles	3	2	0	4
CJC 151	Intro to Loss Prevention	3	0	0	3
	Total	6	2	0	7
	Grand Total	15	2	0	16

CRIMINAL JUSTICE TECHNOLOGY
Latent Evidence Concentration
A.A.S. Program (A5518A)

Courses required to meet graduation requirements in this curriculum are offered during day and evening hours. Minimum time for completion: Day – five semesters full-time attendance; Evening – ten semesters part-time attendance. The Associate in Applied Science degree is awarded graduates of this curriculum.

Latent Evidence is a concentration under the curriculum of Criminal Justice Technology. This curriculum is designed to provide knowledge of latent evidence systems and operations. Study will focus on local, state, and federal law enforcement, evidence processing, and procedures. Students will learn both theory and hands-on analysis of latent evidence. They will learn fingerprint classification, identification, and chemical development. Students will record, cast, and recognize footwear and tire-tracks, and process crime scenes. Issues and concepts of communications and the use of computers and computer assisted design programs in crime scene technology will be discussed. Graduates should qualify for employment in a variety of criminal justice organizations, especially in local, state, and federal law enforcement, and correctional agencies.

GENERAL EDUCATION COURSES:			**SHC**
English/Communications:			
ENG	111	Writing and Inquiry	3
ENG	113	Literature-Based Research	3
	OR	ENG 114 Prof Research & Reporting	3
Humanities/Fine Arts:			
Elective			3
Natural Sciences/Mathematics:			
MAT	110	Math Measurement & Literacy	3
	OR	MAT 143 Quantitative Literacy	3
Social/Behavioral Sciences:			
PSY	150	General Psychology	3

MAJOR COURSES:			
CIS	110	Introduction to Computers	3
CJC	111	Intro to Criminal Justice	3
CJC	112	Criminology	3
CJC	113	Juvenile Justice	3
CJC	121	Law Enforcement Operations	3
CJC	131	Criminal Law	3
CJC	132	Court Procedure & Evidence	3
CJC	144	Crime Scene Processing	3
CJC	146	Trace Evidence	3
CJC	212	Ethics & Comm Relations	3
CJC	221	Investigative Principles	4
CJC	222	Criminalistics	3
CJC	231	Constitutional Law	3
CJC	245	Friction Ridge Analysis	3
CJC	246	Adv. Friction Ridge Analy	3
CJC	250	Forensic Biology I	3
	OR	CJC 251 Forensic Chemistry I	4
PSY	231	Forensic Psychology	3
Criminal Justice Elective			1-4
CJC	114	Investigative Photography	2
WBL	XXX	Work-Based Learning	1-4
Total Credit Hours Required			**68-72**

DEVELOPMENTAL COURSE REQUIREMENTS*		
CTS	080	Computing Fundamentals 3
DRE	098	Integrated Reading Writing III 3
DMA	DMA 010, DMA 020, DMA 030 (MAT 110)	3
DMA	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050 (MAT 143)	5

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Criminal Justice Technology
Latent Evidence Concentration • A5518A
Suggested Program Sequence Day

		Class	Lab	Clin/WkExp	Credit
Fall – 1st year					
CJC 111	Intro to Criminal Justice	3	0	0	3
CJC 131	Criminal Law	3	0	0	3
CJC 132	Court Procedures & Evidence	3	0	0	3
ENG 111	Writing and Inquiry	3	0	0	3
	Total	12	0	0	12
Spring – 1st year					
CJC 112	Criminology	3	0	0	3
CJC 121	Law Enforcement Operations	3	0	0	3
CJC 221	Investigative Principles	3	2	0	4
CIS 110	Introduction to Computers	2	2	0	3
	Total	11	4	0	13
Summer – 1st year					
ENG 113	Literature-Based Research	3	0	0	3
OR	ENG 114 Prof. Research & Reporting	3	0	0	3
MAT 110	Math Measurement & Literacy	2	2	0	3
OR	MAT 143 Quantitative Literacy	2	2	0	3
PSY 150	General Psychology	3	0	0	3
	Humanities/Fine Arts Elective	3	0	0	3
	Total	11	2	0	12
Fall – 2nd year					
CJC 113	Juvenile Justice	3	0	0	3
CJC 146	Trace Evidence	2	3	0	3
CJC 231	Constitutional Law	3	0	0	3
CJC 245	Friction Ridge Analysis	2	3	0	3
	Criminal Justice Elective				1/4
	Total	10	6	0	13/16
Spring – 2nd year					
CJC 222	Criminalistics	3	0	0	3
CJC 144	Crime Scene Processing	2	3	0	3
CJC 212	Ethics & Comm. Relations	3	0	0	3
CJC 246	Adv. Friction Ridge Analy	2	3	0	3
CJC 250	Forensic Biology I	2	2	0	3
OR	CJC 251 Forensic Chemistry I	3	2	0	4
PSY 231	Forensic Psychology	3	0	0	3
	Total	15/16	8	0	18/19
	Grand Total	59/60	20	0	68/72

Criminal Justice Technology
Latent Evidence Concentration • A5518A
Suggested Program Sequence Evening

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
CJC 111	Intro to Criminal Justice		3	0	0	3
CJC 131	Criminal Law		3	0	0	3
ENG 111	Writing and Inquiry		3	0	0	3
		Total	9	0	0	9
Spring – 1st year						
CJC 121	Law Enforcement Operations		3	0	0	3
CIS 110	Introduction to Computers		2	2	0	3
		Total	5	2	0	6
Summer – 1st year						
MAT 110	Math Measurement & Literacy		2	2	0	3
OR	MAT 143 Quantitative Literacy		2	2	0	3
PSY 150	General Psychology		3	0	0	3
		Total	5	2	0	6
Fall – 2nd year						
CJC 113	Juvenile Justice		3	0	0	3
CJC 146	Trace Evidence		2	3	0	3
	Criminal Justice Elective					1/4
		Total	5	3	0	7/10
Spring – 2nd year						
CJC 144	Crime Scene Processing		2	3	0	3
CJC 212	Ethics & Comm Relations		3	0	0	3
PSY 231	Forensic Psychology		3	0	0	3
		Total	8	3	0	9
Summer – 2nd year						
ENG 113	Literature-Based Research		3	0	0	3
OR	ENG 114 Prof Research & Reporting		3	0	0	3
	Humanities/Fine Arts Elective		3	0	0	3
		Total	6	0	0	6
Fall – 3rd year						
CJC 132	Court Procedures & Evidence		3	0	0	3
		Total	3	0	0	3
Spring – 3rd year						
CJC 221	Investigative Principles		3	2	0	4
CJC 112	Criminology		3	0	0	3
		Total	6	2	0	7
Fall – 4th year						
CJC 231	Constitutional Law		3	0	0	3
CJC 245	Friction Ridge Analysis		2	3	0	3
		Total	5	3	0	6
Spring – 4th year						
CJC 222	Criminalistics		3	0	0	3
CJC 246	Adv. Friction Ridge Analy		2	3	0	3
CJC 250	Forensic Biology I		2	2	0	3
OR	CJC 251 Forensic Chemistry I		3	2	0	4
		Total	7/8	5	0	9/10
		Grand Total	59/60	20	0	68/72

CRIMINAL JUSTICE TECHNOLOGY
Latent Evidence Concentration Crime Scene Investigation Certificate Program (C5518A01)

MAJOR COURSES:			SHC
CJC	111	Intro to Criminal Justice	3
CJC	114	Investigative Photography	2
CJC	144	Crime Scene Processing	3
CJC	146	Trace Evidence	3
CJC	221	Investigative Principles	4
Total Credit Hours Required			**15**

CRIMINAL JUSTICE TECHNOLOGY
Latent Evidence Concentration Crime Scene Investigation Cert. Prog. Suggested Sequence (C5518A01)

Fall – 1st year						
CJC 111	Intro to Criminal Justice		3	0	0	3
CJC 146	Trace Evidence		2	3	0	3
CJC 114	Investigative Photography		1	2	0	2
		Total	6	5	0	8
Spring – 1st year						
CJC 221	Investigative Principles		3	2	0	4
CJC 144	Crime Scene Processing		2	3	0	3
		Total	5	5	0	7
		Grand Total	11	10	0	15

DENTAL HYGIENE
A.A.S. Program (A45260)

Courses required to meet graduation requirements in this curriculum are offered during day hours only. Some general education courses are offered at night. Minimum time for completion: seven semesters. The Associate in Applied Science degree is awarded graduates of this curriculum.

The Dental Hygiene curriculum provides individuals with the knowledge and skills to assess, plan, implement, and evaluate dental hygiene care for individuals and the community. Students will learn to prepare the operatory, collect patient histories, note abnormalities, plan care, teach oral hygiene, debride and polish teeth, expose radiographs, apply preventive agents, complete necessary chart entries, and perform other procedures related to dental hygiene care. Graduates of this program may be eligible to take national and state/regional examinations for licensure which are required to practice dental hygiene. Employment opportunities include dental offices, clinics, schools, public health agencies, industry, and educational institutions.

GENERAL EDUCATION COURSES:			**SHC**
English/Communications:			
COM	110	Introduction to Communication	3
ENG	111	Writing and Inquiry	3
ENG	114	Prof Research & Reporting	3
	OR	ENG 112 Writing/Research in the Disc	3
	OR	ENG 113 Literature-Based Research	3
Humanities/Fine Arts:			
Elective			3
Natural Sciences/Mathematics:			
CHM	130	Gen, Org, & Biochemistry	3
CHM	130A	Gen, Org, & Biochem Lab	1
Social/Behavioral Sciences:			
PSY	150	General Psychology	3
SOC	210	Introduction to Sociology	3
MAJOR COURSES:			
BIO	163	Basic Anat & Physiology	5
BIO	175	General Microbiology	3
DEN	110	Orofacial Anatomy	3
DEN	111	Infection/Hazard Control	2
DEN	112	Dental Radiography	3
DEN	120	Dental Hyg Preclinic Lec	2
DEN	121	Dental Hygiene Precl Lab	2
DEN	123	Nutrition/Dental Health	2
DEN	124	Periodontology	2
DEN	130	Dental Hygiene Theory I	2
DEN	131	Dental Hygiene Clinic I	3
DEN	140	Dental Hygiene Theory II	1
DEN	141	Dental Hygiene Clinic II	2
DEN	220	Dental Hygiene Theory III	2
DEN	221	Dental Hygiene Clinic III	4
DEN	222	General & Oral Pathology	2
DEN	223	Dental Pharmacology	2
DEN	224	Materials and Procedures	2
DEN	230	Dental Hygiene Theory IV	1
DEN	231	Dental Hygiene Clinic IV	4
DEN	232	Community Dental Health	3
DEN	233	Professional Development	2
Total Credit Hours Required			**76**

DEVELOPMENTAL COURSE REQUIREMENTS*

DRE	098	Integrated Reading Writing III	3
DMA	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050		5

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Background Check - A criminal background check is required for students to participate in external rotations and for North Carolina Dental Hygiene Licensure.

Dental Hygiene • A45260
Suggested Program Sequence Day

		Class	Lab	Clin/WkExp	Credit
Spring – 1st year					
BIO 163	Basic Anatomy and Physiology	4	2	0	5
CHM 130	Gen, Org & Biochemistry	3	0	0	3
CHM 130A	Gen, Org & Biochem Lab	0	2	0	1
ENG 111	Writing and Inquiry	3	0	0	3
PSY 150	General Psychology	3	0	0	3
	Total	13	4	0	15
Fall – 1st year					
BIO 175	General Microbiology	2	2	0	3
COM 110	Introduction to Communication	3	0	0	3
ENG 114	Prof Research & Reporting (Preferred)	3	0	0	3
OR	ENG 112 Writing/Research in the Disc	3	0	0	3
OR	ENG 113 Literature-Based Research	3	0	0	3
SOC 210	Introduction to Sociology	3	0	0	3
	Total	11	2	0	12

Note: General Education Course Requirements– Applicants must have compeleted the following courses required for the program, prior to the Dental Hygiene Program application deadline **(March 15)**. Students must complete BIO 163, BIO 175, CHM 130 & CHM 130A, COM 110, ENG 111, ENG 114, PSY 150, & SOC 210. Grades lower than C will not be accepted. Students must also be accepted into the Dental Hygiene program prior to taking DEN courses.

Fall – 2nd year					
DEN 110	Orofacial Anatomy	2	2	0	3
DEN 111	Infection/Hazard Control	2	0	0	2
DEN 120	Dental Hygiene Preclinic Lecture	2	0	0	2
DEN 121	Dental Hygiene Precl Lab	0	6	0	2
	Humanities/Fine Arts Elective	3	0	0	3
	Total	9	8	0	12
Spring – 2nd year					
DEN 112	Dental Radiography	2	3	0	3
DEN 222	General & Oral Pathology	2	0	0	2
DEN 130	Dental Hygiene Theory I	2	0	0	2
DEN 131	Dental Hygiene Clinic I	0	0	9	3
DEN 123	Nutrition/Dental Health	2	0	0	2
	Total	8	3	9	12
Summer – 2nd year					
DEN 124	Periodontology	2	0	0	2
DEN 140	Dental Hygiene Theory II	1	0	0	1
DEN 141	Dental Hygiene Clinic II	0	0	6	2
	Total	3	0	6	5
Fall – 3rd year					
DEN 220	Dental Hygiene Theory III	2	0	0	2
DEN 221	Dental Hygiene Clinic III	0	0	12	4
DEN 223	Dental Pharmacology	2	0	0	2
DEN 232	Community Dental Health	2	3	0	3
	Total	6	3	12	11
Spring – 3rd year					
DEN 224	Materials and Procedures	1	3	0	2
DEN 230	Dental Hygiene Theory IV	1	0	0	1
DEN 231	Dental Hygiene Clinic IV	0	0	12	4
DEN 233	Professional Development	2	0	0	2
	Total	4	3	12	9
	Grand Total	54	23	39	76

EARLY CHILDHOOD EDUCATION

A.A.S. Program (A55220)

Courses required to meet graduation requirements in this curriculum are offered during day and evening hours. Minimum time for completion: Day – five semesters full-time attendance; Evening – ten semesters part-time attendance. An Associate in Applied Science degree is awarded graduates of the Early Childhood Education degree curriculum. A Diploma is awarded students completing the diploma curriculum. A Certificate is awarded students completing the certificate curriculum. Special Admissions Requirements for Early Childhood Education Programs: In addition to the general procedures to apply for admission to a curriculum program of study, applicants for the Early Childhood Education program must complete other procedures. CVCC's Early Childhood Education program requires completion of educational experiences in childcare facilities and/or public school settings. These settings require students to undergo criminal background checks. If a student is excluded from an educational setting as a result of a background check, the student may be asked to withdraw from the program. Some settings may also require additional vaccinations and/or health examinations. Admission into CVCC's Early Childhood Education program may be contingent upon receipt of a CVCC medical form documenting that the applicant possesses satisfactory physical and mental health. Facilities for providing health care services are not available on campus. The Early Childhood Education curriculum prepares individuals to work with children from infancy through middle childhood in diverse learning environments. Students will combine learned theories with practice in actual settings with young children under the supervision of qualified teachers. Coursework includes child growth and development; physical/nutritional needs of children; care and guidance of children; and communication skills with parents and children. Students will foster the cognitive/language, physical/motor, social/emotional, and creative development of young children. Graduates are prepared to plan and implement developmentally appropriate programs in early childhood settings. Employment opportunities include child development and child care programs, preschools, public and private schools, recreational centers, Head Start Programs, and school-age programs. **Program Graduation Requirements:** The Early Childhood Education Department is currently seeking National Accreditation through the National Association for the Education of Young Children. The standards for students are rigorous and require students to perform at a minimum competency level. Due to the minimum competency level expected for graduates, the Education Department requires a grade of C or higher on all required Education Courses for graduation with a certificate, diploma, or degree.

GENERAL EDUCATION COURSES: **SHC**

English/Communications:

COM	110	Introduction to Communication	3
ENG	111	Writing and Inquiry	3
ENG	113	Literature-Based Research	3
	OR	ENG 112 Writing/Research in the Disc	3
	OR	ENG 114 Prof Research & Reporting	3

Humanities/Fine Arts:
Elective 3

Natural Sciences/Mathematics:
Elective 3/4

Social/Behavioral Science:
Elective 3

MAJOR COURSES:

EDU	119	Intro to Early Child Educ	4
EDU	131	Child, Family, & Commun	3
EDU	144	Child Development I	3
EDU	145	Child Development II	3
	OR		
	PSY 244	Child Development I	3
	PSY 245	Child Development II	3
EDU	146	Child Guidance	3
EDU	151	Creative Activities	3
EDU	153	Health, Safety, & Nutrit	3
EDU	221	Children With Exceptional	3
EDU	234	Infants, Toddlers, & Twos	3
EDU	251	Exploration Activities	3
EDU	259	Curriculum Planning	3
EDU	271	Educational Technology	3
EDU	280	Language & Literacy Exp	3
EDU	284	Early Child Capstone Prac	4
PSY	150	General Psychology	3
SOC	210	Introduction to Sociology	3

EDU Elective 2/4

Students are required to take one (1) course from the following:

EDU	216	Foundations of Education	4
EDU	235	School-Age Dev & Program	3
EDU	261	Early Childhood Admin I	3
EDU	262	Early Childhood Admin II	3
EDU	275	Effective Teach Train	2

(Early Childhood Education cont.)

OTHER REQUIRED COURSES:

ACA	111	College Student Success	1

Total Credit Hours Required 71/74

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
DRE	098	Integrated Reading Writing III	3
DMA	DMA 010, DMA 020, DMA 030, (MAT 110)		3
DMA	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, (MAT 143 or MAT 152)		5
DMA	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 060, (MAT 121)		6
DMA	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050 DMA 065, (MAT 171)		7

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Early Childhood Education • A55220
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
ACA	111	College Student Success	1	0	0	1
EDU	119	Intro to Early Child Educ	4	0	0	4
*EDU	144	Child Development I	3	0	0	3
EDU	151	Creative Activities	3	0	0	3
EDU	271	Educational Technology	2	2	0	3
ENG	111	Writing and Inquiry	3	0	0	3
		Total	16	2	0	17
Spring – 1st year						
*EDU	145	Child Development II	3	0	0	3
EDU	146	Child Guidance	3	0	0	3
EDU	153	Health, Safety, & Nutrit	3	0	0	3
SOC	210	Intro to Sociology	3	0	0	3
		EDU Elective	2/4	0	0	3/4
		Total	14/16	0	0	15/16
Summer – 1st year						
		Humanities/Fine Arts Elective	3	0	0	3
		Natural Science/Mathematics Elective	2/3	2	0	3/4
		Social/Behavioral Science Elective	3	0	0	3
		Total	8/9	2	0	9/10
Fall – 2nd year						
ENG	113	Literature-Based Research	3	0	0	3
	OR	ENG 112 Writing/Research in the Disc	3	0	0	3
	OR	ENG 114 Prof Research & Reporting	3	0	0	3
EDU	131	Child, Family, & Commun	3	0	0	3
EDU	221	Children With Exceptional	3	0	0	3
EDU	259	Curriculum Planning	3	0	0	3
PSY	150	General Psychology	3	0	0	3
		Total	15	0	0	15
Spring – 2nd year						
COM	110	Introduction to Communication	3	0	0	3
EDU	234	Infants, Toddlers, & Twos	3	0	0	3
EDU	251	Exploration Activities	3	0	0	3
EDU	280	Language & Literacy Exp	3	0	0	3
EDU	284	Early Child Capstone Prac	1	9	0	4
		Total	13	9	0	16
		Grand Total	66/69	13	0	71/74

EDU Electives: EDU 216, EDU 261, EDU 262, EDU 235, EDU 275.

Natural Science and Math Electives: AST 151, AST 151A, BIO 111, BIO 143, BIO 163, BIO 168, CHM 130, CHM 130A Lab, CHM 131, CHM 131A Lab, GEL 111, GEL 120, MAT 110, MAT 121, MAT 143, MAT 152, MAT 171, PHS 130, PHY 110 and PHY 110A Lab, PHY 121.

* Students may take PSY 244 and PSY 245 for EDU 144 and EDU 145

EARLY CHILDHOOD EDUCATION
Diploma Program (D55220)

GENERAL EDUCATION COURSES: ..... SHC

English/Communications:

ENG	111	Writing and Inquiry	3
ENG	113	Literature-Based Research	3
OR		ENG 112 Writing/Research in the Disc	3
OR		ENG 114 Prof Research & Reporting	3

MAJOR COURSES:

EDU	119	Intro to Early Child Educ	4
EDU	131	Child, Family, & Commun	3
EDU	144	Child Development I	3
EDU	145	Child Development II	3
OR			
PSY	244	Child Development I	3
PSY	245	Child Development II	3
EDU	146	Child Guidance	3
EDU	151	Creative Activities	3
EDU	153	Health, Safety, & Nutrit	3
EDU	221	Children with Exceptional	3
EDU	259	Curriculum Planning	3
EDU	271	Educational Technology	3
EDU	280	Language & Literacy Exp	3
EDU	284	Early Child Capstone Prac	4

OTHER REQUIRED COURSES:

ACA	111	College Student Success	1

Total Credit Hours Required 45

DEVELOPMENTAL COURSE REQUIREMENTS*

DRE	098	Integrated Reading Writing III	3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Early Childhood Education Diploma Suggested Sequence (D55220)

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
ACA	111	College Student Success	1	0	0	1
EDU	119	Intro to Early Child Educ	4	0	0	4
*EDU	144	Child Development I	3	0	0	3
EDU	151	Creative Activities	3	0	0	3
EDU	271	Educational Technology	2	2	0	3
		Total	13	2	0	14
Spring – 1st year						
*EDU	145	Child Development II	3	0	0	3
EDU	146	Child Guidance	3	0	0	3
ENG	111	Writing and Inquiry	3	0	0	3
EDU	153	Health, Safety, & Nutriti	3	0	0	3
EDU	280	Language & Literacy Exp	3	0	0	3
		Total	15	0	0	15
Fall – 2nd year						
EDU	131	Child, Family, & Commun	3	0	0	3
EDU	221	Children With Exceptional	3	0	0	3
EDU	259	Curriculum Planning	3	0	0	3
EDU	284	Early Child Capstone Prac	1	9	0	4
ENG	113	Literature-Based Research	3	0	0	3
OR		ENG 112 Writing/Research in the Disc	3	0	0	3
OR		ENG 114 Prof Research & Reporting	3	0	0	3
		Total	13	9	0	16
		Grand Total	41	11	0	45

EARLY CHILDHOOD EDUCATION
School-Age Certificate Program (C5522004)

MAJOR COURSES: SHC

EDU	131	Child, Family, & Commun	3
EDU	144	Child Development I	3
EDU	145	Child Development II	3
OR			
PSY	244	Child Development I	3
PSY	245	Child Development II	3
EDU	146	Child Guidance	3
EDU	235	School-Age Dev & Program	3
EDU	275	Effective Teach Train	2

OTHER REQUIRED COURSES:

ACA	111	College Student Success	1

Total Credit Hours Required 18

DEVELOPMENTAL COURSE REQUIREMENTS*

DRE	098	Integrated Reading Writing III	3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

School-Age Cert. Suggested Sequence (C5522004)

Fall – 1st year						
ACA	111	College Student Success	1	0	0	1
EDU	131	Child, Family, & Commun	3	0	0	3
*EDU	144	Child Development I	3	0	0	3
EDU	235	School-Age Dev & Program	3	0	0	3
		Total	10	0	0	10
Spring – 1st year						
*EDU	145	Child Development II	3	0	0	3
EDU	146	Child Guidance	3	0	0	3
EDU	275	Effective Teach Train	2	0	0	2
		Total	8	0	0	8
		Grand Total	18	0	0	18

INFANT/TODDLER CARE Certificate Prog. (C55290)

Courses required to meet graduation requirements in this curriculum are offered during day and evening hours. The Certificate is awarded graduates of this curriculum. The curriculum prepares individuals to work with children from infancy to three years of age in diverse learning environments. Students will combine learned theories, competency-based knowledge, and practice in actual settings with young children under the supervision of qualified teachers. Course work includes infant/toddler growth and development: physical/nutritional needs of infants and toddlers; safety issues in the care of infants and toddlers; care and guidance; communication skills with parents and children; design and implementation of appropriate curriculum; and other related topics. Graduates should be prepared to plan and implement developmentally appropriate infant/toddler programs in early childhood settings. Employment opportunities include child development and child care programs, preschools, public and private schools, recreational centers, Early Head Start Programs, and other infant/toddler programs.

MAJOR COURSES: SHC

EDU	119	Intro to Early Child Educ	4
EDU	131	Child, Family & Commun	3
EDU	153	Health, Safety & Nutrit	3
EDU	234	Infants, Toddlers, & Twos	3
EDU Child Development Elective			3
(Select a course from the following)			
EDU	144	Child Development I	3
PSY	244	Child Development I	3

OTHER REQUIRED COURSES:

ACA	111	College Student Success	1

Total Credit Hours Required: 17

DEVELOPMENTAL COURSE REQUIREMENTS*

DRE	098	Integrated Reading Writing III	3

Infant/Toddler Care Cert. Prog. (C55290) Suggested Sequence

Fall – 1st year						
ACA	111	College Student Success	1	0	0	1
EDU	119	Intro to Early Childhood Education	4	0	0	4
EDU	131	Child, Family and Community	3	0	0	3
		Child Development Elective	3	0	0	3
		Total	11	0	0	11
Spring – 1st year						
EDU	153	Health, Safety and Nutrition	3	0	0	3
EDU	234	Infants, Toddlers, & Twos	3	0	0	3
		Total	6	0	0	6
		Grand Total	17	0	0	17

ELECTRICAL SYSTEMS TECHNOLOGY
Diploma Program (D35130)

Courses required to meet graduation requirements in this curriculum are offered during day and evening hours. Minimum time for completion: Day – two semesters full-time attendance; Evening – four semesters full-time attendance. The Diploma is awarded graduates of this curriculum. The Electrical Systems Technology curriculum is designed to provide training for persons interested in the installation and maintenance of electrical systems found in residential, commercial, and industrial facilities. Coursework, most of which is hands-on, will include such topics as AC/DC theory, basic wiring practices, programmable logic controllers, industrial motor controls, applications for the National Electric Code, and other subjects as local needs require. Graduates should qualify for a variety of jobs in the electrical field as an on-the-job apprentice assisting in the layout, installation, and maintenance of electrical systems.

GENERAL EDUCATION COURSES:			SHC
English/Communications:			
ENG	111	Writing and Inquiry	3
	OR	ENG 102 Applied Communications II	3
Natural Sciences/Mathematics:			
MAT	121	Algebra/Trigonometry I	3
	OR	MAT 110 Math Measurement & Literacy	3
	OR	MAT 143 Quantitative Literacy	3
MAJOR COURSES:			
BPR	111	Print Reading	2
ELC	112	DC/AC Electricity	5
ELC	113	Residential Wiring	4
ELC	115	Industrial Wiring	4
ELC	117	Motors and Controls	4
ELC	118	National Electrical Code	2
ELC	119	NEC Calculations	2
ELC	128	Intro to PLC	3
ELN	229	Industrial Electronics	4
Total Credit Hours Required			**36**

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
DRE	098	Integrated Reading Writing III	3
DMA	DMA 010, DMA 020, DMA 030, (MAT 110)		3
DMA	DMA 010, DMA 020, DMA 030, DMA, 040, DMA 050, (MAT 143)		5
DMA	DMA 010, DMA 020, DMA 030, DMA, 040, DMA 050, DMA 060, (MAT 121)		6

Note: Students interested in pursuing an A.A.S. degree should consider taking ENG 111. Please see your Electrical Systems Technology advisor.

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Electrical Systems Technology Diploma • D35130
Suggested Program Sequence Day

Fall – 1st year						
BPR	111	Print Reading	1	2	0	2
ELC	112	DC/AC Electricity	3	6	0	5
ELC	113	Residential Wiring	2	6	0	4
ELC	118	National Electrical Code	1	2	0	2
ELC	119	NEC Calculations	1	2	0	2
		Total	8	18	0	15
Spring – 1st year						
ELC	115	Industrial Wiring	2	6	0	4
ELC	117	Motors and Controls	2	6	0	4
ELC	128	Intro to PLC	2	3	0	3
ELN	229	Industrial Electronics	2	4	0	4
		Total	8	19	0	15
Summer – 1st yr						
ENG	111	Writing and Inquiry	3	0	0	3
	OR	ENG 102 Applied Communications II	3	0	0	3
MAT	121	Algebra/Trigonometry I	2	2	0	3
	OR	MAT 110 Math Measurement & Literacy	2	2	0	3
	OR	MAT 143 Quantitative Literacy	2	2	0	3
		Total	5	2	0	6
		Grand Total	21	39	0	36

Electrical Systems Technology Diploma • D35130
Suggested Prog Seq Evening

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
ELC	113	Residential Wiring	2	6	0	4
ELC	118	National Electrical Code	1	2	0	2
MAT	121	Algebra/Trigonometry I	2	2	0	3
	OR	MAT 110 Math Measurement & Literacy	2	2	0	3
	OR	MAT 143 Quantitative Literacy	2	2	0	3
		Total	5	10	0	9
Spring – 1st year						
BPR	111	Print Reading	1	2	0	2
ELC	112	DC/AC Electricity	3	6	0	5
ELC	119	NEC Calculations	1	2	0	2
ENG	111	Writing and Inquiry	3	0	0	3
	OR	ENG 102 Applied Communications II	3	0	0	3
		Total	8	10	0	12
Fall – 2nd year						
ELC	117	Motors and Controls	2	6	0	4
ELN	229	Industrial Electronics	2	4	0	4
		Total	4	10	0	8
Spring – 2nd year						
ELC	115	Industrial Wiring	2	6	0	4
ELC	128	Intro to PLC	2	3	0	3
		Total	4	9	0	7
		Grand Total	21	39	0	36

Electrical Systems Technology
Electrical Installation Concentration – Cert. Prog. (C35130)

MAJOR COURSES:			SHC
BPR	111	Print Reading	2
ELC	113	Residential Wiring	4
ELC	115	Industrial Wiring	4
ELC	118	National Electrical Code	2
Total Credit Hours Required			**12**

DEVELOPMENTAL COURSE REQUIREMENTS*

DRE	098	Integrated Reading Writing III	3

Electrical Systems Technology
Electrical/Installation Concentration (C35130)
Certificate Program Suggested Sequence

Fall – 1st year						
BPR	111	Print Reading	1	2	0	2
ELC	113	Residential Wiring	2	6	0	4
ELC	118	National Electrical Code	1	2	0	2
		Total	4	10	0	8
Spring – 1st year						
ELC	115	Industrial Wiring	2	6	0	4
		Total	2	6	0	4
		Grand Total	6	16	0	12

ELECTRONEURODIAGNOSTIC TECHNOLOGY
A.A.S. Program (A45320)

Courses required to meet graduation requirements in this curriculum are offered during day hours only. Some general education courses are offered at night. Minimum time for completion: four semesters. The Associate in Applied Sciencedegree is awarded graduates of this curriculum.

The Electroneurodiagnostic Technology curriculum is designed to provide students with the knowledge and skills to obtain recordings of patients' nervous system functions through the use of electroencephalographic equipment and other electrophysiological devices. Course work includes communication skills with patients and healthcare personnel, taking appropriate patient histories, electrode application, documentation of patients' clinical status, electrical waveform recognition, management of medical emergencies, and preparation of descriptive reports for the physician. Graduates will qualify to take the ABRET (American Board of Registration of EEG and EP Technologists) Exam and, working under the supervision of a qualified physician, may be employed by hospitals or private offices of neurologists and neurosurgeons.

GENERAL EDUCATION COURSES:			**SHC**
English/Communications:			
ENG	111	Writing and Inquiry	3
English Elective			3
Students are required to take one (1) course from the following:			
ENG	112	Writing/Research in the Disc	3
ENG	113	Literature-Based Research	3
ENG	114	Prof Research & Reporting	3
Humanities/Fine Arts:			
Elective			3
Natural Sciences/Mathematics:			
MAT	143	Quantitative Literacy	3
Social/Behavioral Sciences:			
PSY	150	General Psychology	3

MAJOR COURSES:			
BIO	168	Anatomy and Physiology I	4
BIO	169	Anatomy and Physiology II	4
CIS	110	Introduction to Computers	3
EDT	110	Neuroscience/Pathol Cond	4
EDT	111	Laboratory Management	1
EDT	111A	EDT Laboratory Basics	1
EDT	112	Instrument/Record Methods	3
EDT	113	Clinical Correlates	2
EDT	114	Special Procedures	3
EDT	115	EDT Laboratory Practice	2
EDT	116	EDT Clinical Experience	12
EDT	118	EDT Laboratory Pract. II	3
ELC	111	Intro to Electricity	3
MED	118	Medical Law and Ethics	2
MED	121	Medical Terminology I	3
MED	122	Medical Terminology II	3

Total Credit Hours Required 68

DEVELOPMENTAL COURSE REQUIREMENTS*			
CTS	080	Computing Fundamentals	3
DRE	098	Integrated Reading Writing III	3
DMA	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050		5

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Electroneurodiagnostic Technology • A45320
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
EDT	110	Neuroscience/Pathol Cond	4	0	0	4
EDT	111	Laboratory Management	1	0	0	1
EDT	111A	EDT Laboratory Basics	1	0	0	1
ELC	111	Intro to Electricity	2	2	0	3
ENG	111	Writing and Inquiry	3	0	0	3
MED	121	Medical Terminology I	3	0	0	3
PSY	150	General Psychology	3	0	0	3
		Total	17	2	0	18
Spring – 1st year						
BIO	169	Anatomy and Physiology II	3	3	0	4
CIS	110	Introduction to Computers	2	2	0	3
EDT	112	Instrumental/Record Methods	3	0	0	3
EDT	113	Clinical Correlates	2	0	0	2
EDT	115	EDT Laboratory Practice	0	6	0	2
ENG	112	Writing/Research in the Disc	3	0	0	3
OR	ENG 113	Literature-Based Research				
OR	ENG 114	Prof Research & Reporting				
		Total	13	11	0	17
Fall – 2nd year						
EDT	114	Special Procedures	3	0	0	3
EDT	118	EDT Laboratory Prac. II	0	9	0	3
MAT	143	Quantitative Literacy	2	2	0	3
MED	118	Medical Law and Ethics	2	0	0	2
MED	122	Medical Terminology II	3	0	0	3
		Humanities/Fine Arts Elective	3	0	0	3
		Total	13	11	0	17
Spring – 2nd year						
EDT	116	EDT Clinical Experience	0	0	36	12
		Total	0	0	36	12
		Grand Total	43	24	36	64

Note: Students must complete BIO 168, Anatomy & Physiology I, **4 credits hours**, prior to admission into the program.

Electroneurodiagnostic Technology Degree Completion Program (A4532009)

This special program was developed to offer technologists who are ABRET registered in EEG and are currently working in the neurodiagnostic field a pathway to obtain an Associate in Applied Science degree. The length of the course will vary depending on the student's prior education and advanced placement success. Applicants will be eligible for admission after having met the following admissions standards:

a. The applicant must apply for and meet CVCC's institutional requirements for admission as a student.
b. The applicant must be currently employed as a neurodiagnostic technologist.
c. The applicant must hold the credentials of R.EEG.T. through ABRET. Credentials must be current and in good standing.
d. The applicant must provide two letters of reference: one from an immediate supervisor and one from the Medical Director of the neurodiagnostic facility with which the applicant is employed. These letters should attest to the individual's competence as a neurodiagnostic technologist.
e. Once admitted to the program, students will receive Advanced Placement in the following courses based on their ABRET credentials and letters of reference:

		Credit Hours
EDT 111A	EDT Laboratory Basics	1
EDT 115	EDT Laboratory Practice	2
EDT 118	EDT Laboratory Practice II	3
EDT 116	EDT Clinical Experience	12

Students will also be offered Advanced Placement Exams in the following courses. **If the written exam is passed with a grade of 80 or higher, advanced placement will be given:**

EDT 110	Neuroscience/Pathol Cond	4
EDT 111	Laboratory/Management	1
EDT 112	Instrument/Record Methods	3
EDT 113	Clinical Correlates	2
EDT 114	Special Procedures	3

Students are required to complete the following courses, and maintain a 2.0 GPA, in order to successfully complete the program requirements.

BIO 168	Anatomy and Physiology I	4
BIO 169	Anatomy and Physiology II	4
CIS 110	Introduction to Computers	3
ELC 111	Intro to Electricity	3
ENG 111	Writing and Inquiry	3
ENG 112	Writing/Research in Disc	3
OR ENG 113	Literatured-Based Research	3
OR ENG 114	Prof Research & Reporting	3
MAT 143	Quantitative Literacy	3
MED 118	Medical Law and Ethics	2
MED 121	Medical Terminology I	3
MED 122	Medical Terminology II	3
PSY 150	General Psychology	3
`		34 SHC

The student may transfer or advance place up to sixty-five percent of the required course hours. The duration and timing of this program will vary between individuals depending on their prior college credits and success with advanced placement testing.

Grading, transcript evaluation, transfer policies, curriculum and graduation requirements will follow current CVCC policy. Program completion will vary according to progression of required classes for each student accepted.

ELECTRONICS ENGINEERING TECHNOLOGY
A.A.S. Program (A40200)

Courses required to meet graduation requirements in this curriculum are offered during day and evening hours. Minimum time for completion: Day – five semesters full-time attendance; Evening – ten semesters full-time attendance. The Associate in Applied Science degree is awarded graduates of this curriculum.

The Electronics Engineering Technology curriculum prepares the students to apply basic engineering principles and technical skills to become technicians who design, build, install, test, troubleshoot, repair, and modify developmental and production electronic components, equipment, and systems such as industrial/computer controls, manufacturing systems, communication systems, and power electronic systems. Includes instruction in mathematics, basic electricity, solid-state fundamentals, digital concepts, and microprocessors or programmable logic controllers. Graduates should qualify for employment as electronics engineering technician, field service technician, instrumentation technician, maintenance technician, electronic tester, electronic systems integrator, bench technician, and production control technician.

GENERAL EDUCATION COURSES:			SHC
English/Communications:			
ENG	111	Writing and Inquiry	3
ENG	114	Prof Research & Reporting	3
OR		ENG 112 Writing/Research in the Disc	3
OR		ENG 113 Literature-Based Research	3
Humanities/Fine Arts:			
Elective			3
Natural Sciences/Mathematics:			
MAT	171	Precalculus Algebra	4
OR		MAT 121 Algebra/Trigonometry I	3
Social/Behavioral Sciences:			
Elective			3
MAJOR COURSES:			
CSC	134	C++ Programming	3
DFT	117	Technical Drafting	2
DFT	151	CAD I	3
EGR	110	Intro to Engineering Tech	2
ELC	138	DC Circuit Analysis	4
ELC	139	AC Circuit Analysis	4
ELC	229	Applications Project	2
ELN	131	Analog Electronics I	4
ELN	132	Analog Electronics II	4
ELN	133	Digital Electronics	4
ELN	234	Communication Systems	4
ELN	260	Prog Logic Controllers	4
MAT	172	Precalculus Trigonometry	4
OR		MAT 122 Algebra/Trigonometry II	3
PHY	151	College Physics I	4
OR		PHY 131 Physics-Mechanics	4
EET Electives			7
Students are required to take a minimum of 7 SHC from the following:			
ELC	135	Electrical Machines	3
ELC	136	Electrical Machines II	4
ELN	235	Data Communication Sys	4
PHY	133	Physics-Sound & Light	4

Work-Based Learning Option: Qualified students may elect to take 2 credit hours of Work-Based Learning in place of ELC 229.

Physics Notes: Students planning to transfer to a 4-year college should consider taking PHY 151 or PHY 131, and PHY 133. Please see your Electronics Engineering Technology advisor.

Total Credit Hours Required 69/71

DEVELOPMENTAL COURSE REQUIREMENTS*

DRE	098 Integrated Reading Writing III	3
DMA	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 060 (MAT 121)	6
DMA	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, MAT 065 (MAT 171)	7

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Electronics Engineering Technology • A40200
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
CSC	134	C++ Programming	2	3	0	3
DFT	117	Technical Drafting	1	2	0	2
EGR	110	Intro to Engineering Tech	1	2	0	2
ELC	138	DC Circuit Analysis	3	3	0	4
MAT	171	Precalculus Algebra	3	2	0	4
OR		MAT 121 Algebra/Trigonometry I	2	2	0	3
		Total	9/10	12	0	14/15
Spring – 1st year						
DFT	151	CAD I	2	3	0	3
ELC	139	AC Circuit Analysis	3	3	0	4
ELN	131	Analog Electronics I	3	3	0	4
ENG	111	Writing and Inquiry	3	0	0	3
MAT	172	Precalculus Trigonometry	3	2	0	4
OR		MAT 122 Algebra/Trigonometry II	2	2	0	3
		Total	13/14	11	0	17/18
Summer – 1st year						
ENG	114	Prof Research & Reporting (Preferred)	3	0	0	3
OR		ENG 112 Writing/Research in the Disc	3	0	0	3
OR		ENG 113 Literature-Based Research	3	0	0	3
Humanities/Fine Arts Elective			3	0	0	3
		Total	6	0	0	6
Fall – 2nd year						
ELN	132	Analog Electronics II	3	3	0	4
ELN	133	Digital Electronics	3	3	0	4
PHY	151	College Physics I	3	2	0	4
OR		PHY 131 Physics-Mechanics	3	2	0	4
Electronics Engineering Technology Elective			2	2	0	3
		Total	11	10	0	15
Spring – 2nd year						
ELC	229	Applications Project	1	3	0	2
ELN	234	Communication Systems	3	3	0	4
ELN	260	Prog Logic Controllers	3	3	0	4
Social/Behavioral Science Elective			3	0	0	3
Electronics Engineering Technology Elective			3	3	0	4
		Total	13	12	0	17
		Grand Total	52/54	45	0	69/71

Work-Based Learning Option: Qualified Students may elect to take up to 2 credit hours of Work-Based Learning in place of ELC 229.

Physics Note: Students planning to transfer to a 4-year college should consider taking PHY 151 or PHY 131, and PHY 133. Please see your Electronics Engineering Technology advisor.

Electronic Engineering Technology Electives: The student is required to take a minimum of 7 credits from this list.

ELC 135	Electrical Machines	2	2	0	3
ELC 136	Electrical Machines II	3	3	0	4
ELN 235	Data Communications Sys	3	3	0	4
PHY 133	Physics - Sound & Light	3	2	0	4

Electronics Engineering Technology Evening • A40200
Courses Are Offered On Demand
(See Your Electronics Engineering Technology Advisor)

CSC	134	C++ Programming	3
DFT	117	Technical Drafting	2
DFT	151	CAD I	3
EGR	110	Intro to Engineering Tech	2
ELC	138	DC Circuit Analysis	4
ELC	139	AC Circuit Analysis	4
ELC	229	Applications Project	2
ELN	131	Analog Electronics I	4
ELN	132	Analog Electronics II	4
ELN	133	Digital Electronics	4
ELN	234	Communication Systems	4
ELN	260	Prog Logic Controllers	4
ENG	111	Writing and Inquiry	3
ENG	114	Prof Research & Reporting	3
OR		ENG 112 Writing/Research in the Disc	3
OR		ENG 113 Literature-Based Research	3
MAT	171	Precalculus Algebra	3
OR		MAT 121 Algebra/Trigonometry I	3
MAT	172	Precalculus Trigonometry	4
OR		MAT 122 Algebra/Trigonometry II	3
PHY	151	College Physics I	4
OR		PHY 131 Physics-Mechanics	4

Humanities/Fine Arts:
Elective 3

Social/Behavioral Sciences:
Elective 3

EET Electives 7

Students are required to take a minimum of 7 SHC from the following:

ELC	135	Electrical Machines	3
ELC	136	Electrical Machines II	4
ELN	235	Data Communication Sys	4
PHY	133	Physics-Sound & Light	4

Work-Based Learning Option: Qualified students may elect to take 2 credit hours of Work-Based Learning in place of ELC 229.

Physics Note: Students planning to transfer to a 4-year college should consider taking PHY 151 or PHY 131, and PHY 133. Please see your Electronics Engineering Technology advisor.

Total Credit Hours Required 69/71

DEVELOPMENTAL COURSE REQUIREMENTS*

DRE	098	Integrated Reading Writing III	3
DMA		DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 060 (MAT 121)	6
DMA		DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, MAT 065 (MAT 171)	7

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

EMERGENCY MEDICAL SCIENCE
A.A.S. Program (A45340)

The Emergency Medical Science Curriculum is Accredited by the Commission on Accreditation of Allied Health Education Programs, (www.caahep.org) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP).

The Emergency Medical Science curriculum provides individuals with the knowledge, skills and attributes to provide advanced emergency medical care as a paramedic for critical and emergent patients who access the emergency medical system and prepares graduates to enter the workforce. Students will gain complex knowledge, competency, and experience while employing evidence based practice under medical oversight, and serve as a link from the scene into the healthcare system. Graduates of this program may be eligible to take state and/or national certification examinations. Employment opportunities include providers of emergency medical services, fire departments, rescue agencies, hospital specialty areas, industry, educational and government agencies.

GENERAL EDUCATION COURSES:			**SHC**
English/Communications:			
ENG	111	Writing and Inquiry	3
ENG	114	Prof Research & Reporting	3
	OR	ENG 112 Writing/Research in the Disc	3
	OR	ENG 113 Literature-Based Research	3
Humanities/Fine Arts:			
Elective			3
Natural Sciences/Mathematics:			
BIO	168	Anatomy and Physiology I	4
Social/Behavioral Sciences:			
PSY	150	General Psychology	3
MAJOR COURSES:			
BIO	169	Anatomy and Physiology II	4
CIS	110	Introduction to Computers	3
EMS	110	EMT	8
EMS	122	EMS Clinical Practicum I	1
EMS	130	Pharmacology	4
EMS	131	Advanced Airway Management	2
EMS	140	Rescue Scene Management	2
EMS	160	Cardiology I	2
EMS	220	Cardiology II	3
EMS	221	EMS Clinical Practicum II	2
EMS	231	EMS Clinical Pract III	3
EMS	235	EMS Management	2
EMS	240	Patients W/Special Challenges	2
EMS	241	EMS Clinical Practicum IV	4
EMS	250	Medical Emergencies	4
EMS	260	Trauma Emergencies	2
EMS	270	Life Span Emergencies	3
EMS	285	EMS Capstone	2
MED	121	Medical Terminology I	3
MED	122	Medical Terminology II	3
Total Credit Hours Required			**75**

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
DRE	098	Integrated Reading Writing III	3
DMA	DMA 010, DMA 020, DMA 030, DMA 040		4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Emergency Medical Science
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
BIO	168	Anatomy and Physiology I	3	3	0	4
EMS	110	EMT	6	6	0	8
MED	121	Medical Terminology I	3	0	0	3
MED	122	Medical Terminology II	3	0	0	3
		Total	15	9	0	18
Spring – 1st year						
BIO	169	Anatomy and Physiology II	3	3	0	4
CIS	110	Introduction to Computers	2	2	0	3
EMS	122	EMS Clinical Practicum I	0	0	3	1
EMS	130	Pharmacology	3	3	0	4
EMS	131	Advanced Airway Management	1	2	0	2
EMS	160	Cardiology I	1	3	0	2
EMS	260	Trauma Emergencies	1	3	0	2
		Total	11	16	3	18
Summer – 1st year						
ENG	111	Writing and Inquiry	3	0	0	3
EMS	140	Rescue Scene Management	1	3	0	2
EMS	220	Cardiology II	2	3	0	3
EMS	221	EMS Clinical Practicum II	0	0	6	2
EMS	240	Patients W/Special Challenges	1	2	0	2
		Total	7	8	6	12
Fall – 2nd year						
EMS	231	EMS Clinical Pract III	0	0	9	3
EMS	235	EMS Management	2	0	0	2
EMS	250	Medical Emergencies	3	3	0	4
EMS	270	Life Span Emergencies	2	3	0	3
		Total	7	6	9	12
Spring – 2nd year						
ENG	114	Prof Research & Reporting (Preferred)	3	0	0	3
	OR	ENG 112 Writing/Research in the Disc	3	0	0	3
	OR	ENG 113 Literature-Based Research	3	0	0	3
EMS	241	EMS Clinical Practicum IV	0	0	12	4
EMS	285	EMS Capstone	1	3	0	2
PSY	150	General Psychology	3	0	0	3
		Humanities/Fine Arts Elective	3	0	0	3
		Total	10	3	12	15
		Grand Total	50	42	30	75

Note: Students must complete BIO 168, Anatomy & Physiology I, and EMS 110, EMT, prior to admission into the program.

EMERGENCY MEDICAL SCIENCE CURRICULUM
Certificate Paramedic Advancement Program (A4534009)

This special track was developed to facilitate a North Carolina or Nationally Registered certified paramedic in returning to school to obtain an Associate in Applied Science degree. The length of this course varies depending on the individual's experience and prior education. In order to enable the most rapid completion of the CPA Program the following prerequisites and/or admission requirements will be used:

1. Meet CVCC's institutional requirements for admissions as an EMS student.
2. Letter from EMS director confirming 1000 hours or more of direct patient care.
3. Provider and/or instructor cards for ITLS or PHTLS, ACLS or ACLS-EP, PALS or PEPP.
4. Valid North Carolina or National Registry Paramedic Certification.
5. Letter of reference from service's Medical Director attesting to the individual's competence in basic and advanced life support skills.
6. Once the criterion above has been met, the student will then be offered Advanced Placement exams in the following courses so as to facilitate his or her movement through the program. To successfully advance place a student must score a "B" or higher.

   A. EMS 110 EMT
   B. EMS 130 Pharmacology
   C. EMS 131 Advanced Airway Management
   D. EMS 140 Rescue Scene Management
   E. EMS 160 Cardiology I
   F. EMS 220 Cardiology II
   G. EMS 240 Patients W/Special Challenges
   H. EMS 250 Medical Emergencies
   I. EMS 260 Trauma Emergencies
   J. EMS 270 Life Span Emergencies
   K. EMS 285 Capstone
   L. EMS 122, EMS, 221, EMS 231, and EMS 241 (Clinical Practicum) Advanced Placement requirement will be satisfied with documentation of 1000 hours or more of direct patient care.

Students are required to complete the following courses, and maintiain a 2.0 GPA, in order to successfully complete the program requirements.

BIO	168	Anatomy and Physiology I	4
BIO	169	Anatomy and Physiology II	4
CIS	110	Introduction to Computers	3
ENG	111	Expository Writing	3
ENG	112	Argument-Based Research	3
	OR	ENG 113 Literature-Based Research	3
	OR	ENG 114 Prof Research & Reporting	3
EMS	235	EMS Management	2
MED	121	Medical Terminology I	3
MED	122	Medical Terminology II	3
PSY	150	General Psychology	3
		Humanities/Fine Arts Elective	3
			31 SHC

The student may transfer and/or advance place up to sixty-five percent of the required course hours. This track will be highly individualized depending on any prior college credits by the student and his or her success with advanced placement scores.

HEALTH SCIENCE: THERAPEUTIC AND DIAGNOSTIC SERVICES
EMERGENCY MEDICAL SCIENCE
Diploma Program (D45910)

This curriculum is designed to prepare students for careers in the Health Sciences. Students will complete general education courses that provide a foundation for success in nursing and allied health curricula. Students may select a career pathway that will prepare them for an entry level position in health care. Courses may also provide foundational knowledge needed in the pursuit of advanced health science degrees or programs.

Graduates should qualify for an entry-level job associated with the program major such as Emergency Medical Technician (EMT) or Advanced Emergency Medical Technician (AEMT), Medical Assistant, Nursing Assistant, Pharmacy Technician, Phlebotomist, or Massage Therapist dependent upon the selected program major. **Emergency Medical Science:** A program that prepares graduates to enter the workforce as Emergency Medical Technicians or Advanced Emergency Medical Technicians. The course of study provides the student an opportunity to acquire basic life support knowledge and skills by utilizing classroom instruction, practical laboratory sessions, and hospital/field internships. Students progressing through the program may be eligible to apply for both state and national certification exams. Employment opportunities include ambulance services, fire and rescue agencies, air medical services, specialty areas of hospitals, industry, educational institutions, and government agencies.

GENERAL EDUCATION COURSES:

English/Communication:			
ENG	111	Writing and Inquiry	3
ENG	112	Argument Based Research	3
Humanities/Fine Arts:			
PHI	240	Introduction to Ethics	3

MAJOR COURSES:

Technical Core:			
MED	121	Medical Terminology I	3
MED	122	Medical Terminology II	3
Program Major:			
EMS	110	EMT	8
EMS	120	Advanced EMT	6
EMS	121	AEMT Clinical Practicum	2
Other Major:			
BIO	168	Anatomy and Physiology I	4
BIO	169	Anatomy and Physiology II	4
MAT	143	Quantitative Literacy	3
PSY	150	General Psychology	3

Total Credit Hours Required: 45

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
DRE	098	Integrated Reading and Writing III	3
DMA 010, DMA 020, DMA 030, DMA 040, DMA 050			5

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, and mathematics. Please refer to the Course Description section for prerequisite course information.

Note: Pre-requisite general education work must be completed prior to taking EMS coursework.

Health Science: Therapeutic And Diagnostic Services
Emergency Medical Science • D45910
Suggested Program Sequence

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
ENG	111	Writing and Inquiry	3	0	0	3
BIO	168	Anatomy and Physiology I	3	3	0	4
PSY	150	General Psychology	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
		Total	11	5	0	13
Spring – 1st year						
ENG	112	Argument Based Research	3	0	0	3
PHI	240	Introduction to Ethics	3	0	0	3
BIO	169	Anatomy and Physiology II	3	0	0	4
		Total	9	0	0	10
Fall – 2nd year						
EMS	110	EMT	6	6	0	8
MED	121	Medical Terminology I (1st 8wks)	3	0	0	3
MED	122	Medical Terminology II (2nd 8wks)	3	0	0	3
		Total	12	6	0	14
Spring – 2nd year						
EMS	120	Advanced EMT	4	6	0	6
EMS	121	EMT Clinical Practicum	0	0	6	2
		Total	4	6	6	8
		Grand Total	36	17	6	45

Note: Pre-requisite general education work must be completed prior to taking EMS coursework.

ENTREPRENEURSHIP
A.A.S. Program (A25490)

The Entrepreneurship curriculum is designed to provide students with the knowledge and the skills necessary for employment and growth as self-employed business owners. Coursework includes developing a student's ability to make informed decisions as future business owners. Courses include entrepreneurial concepts learned in innovation and creativity, business funding, and marketing. Additional coursework includes computers and economics. Through these skills, students will have a sound education base in entrepreneurship for lifelong learning. Graduates are prepared to be self-employed and open their own businesses.

GENERAL EDUCATION COURSES: **SHC**

English/Communications:
ENG 111 Writing and Inquiry 3
ENG 114 Prof Research & Reporting 3

Humanities/Fine Arts:
Elective 3

Social/Behavioral Sciences:
Elective 3

Natural Sciences/Mathematics:
MAT 110 Math Measurement & Literacy 3
OR MAT 143 Quantitative Literacy 3

MAJOR COURSES:
ACC 120 Prin of Financial Accounting 4
BUS 110 Introduction to Business 3
BUS 139 Entrepreneurship I 3
BUS 240 Business Ethics 3
BUS 245 Entrepreneurship II 3
BUS 253 Leadership and Mgt Skills 3
CIS 110 Introduction to Computers 3
ECO 251 Prin of Microeconomics 3
ETR 215 Law for Entrepreneurs 3
ETR 220 Innovation and Creativity 3
ETR 230 Entrepreneur Marketing 3
ETR 240 Funding for Entrepreneurs 3
ETR 270 Entrepreneurship Issues 3

Entrepreneurship Electives: **9**

Entrepreneurship/Work-Based Electives: Students are required to take a minimum of 9 SHC from the following courses. Qualified student may elect to take up to 6 credit hours of Work-Based learning.

ACC 121 Prin of Managerial Accounting 4
BUS 125 Personal Finance 3
BUS 153 Human Resource Management 3
BUS 217 Employment Law and Regs 3
CTS 130 Spreadsheet 3
ECO 252 Prin of Macroeconomics 3
INT 110 International Business 3
MKT 123 Fundamentals of Selling 3
MKT 220 Advertising and Sales Promotion 3
MKT 221 Consumer Behavior 3
MKT 223 Customer Service 3
RLS 112 Broker Prelicensing 5
WBL 110 World of Work 1
WBL XXX Work-Based Learning 1-6

Total Credit Hours Required **64**

DEVELOPMENTAL COURSE REQUIREMENTS*
CTS 080 Computing Fundamentals 3
DRE 098 Integrated Reading Writing III 3
DMA DMA 010, DMA 020, DMA 030, (MAT 110)
DMA DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, (MAT 143) 5

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Entrepreneurship • A25490
Suggested Program Sequence Day

		Class	Lab	Clin/WkExp	Credit
Fall – 1st year					
BUS 110	Introduction to Business	3	0	0	3
BUS 139	Entrepreneurship I	3	0	0	3
ENG 111	Writing and Inquiry	3	0	0	3
ETR 220	Innovation and Creativity	3	0	0	3
ETR 230	Entrepreneur Marketing	3	0	0	3
	Total	15	0	0	15
Spring – 1st year					
ACC 120	Prin of Financial Accounting	3	2	0	4
BUS 245	Entrepreneurship II	3	0	0	3
CIS 110	Introduction to Computers	2	2	0	3
ETR 215	Law for Entrepreneurs	3	0	0	3
MAT 110	Math Measurement & Literacy	2	2	0	3
OR	MAT 143 Quantitative Literacy	2	2	0	3
	Total	13	6	0	16
Fall – 2nd year					
BUS 240	Business Ethics	3	0	0	3
ECO 251	Prin of Microeconomics	3	0	0	3
ENG 114	Prof Research & Reporting	3	0	0	3
	Social/Behavioral Science Elective	3	0	0	3
	Entrepreneurship Elective	3	0	0	3
	Entrepreneurship Elective	3	0	0	3
	Total	18	0	0	18
Spring – 2nd year					
BUS 253	Leadership and Mgt Skills	3	0	0	3
ETR 240	Funding For Entrepreneurs	3	0	0	3
ETR 270	Entrepreneurship Issues	3	0	0	3
	Humanities/Fine Arts Elective	3	0	0	3
	Entrepreneurship Elective	3	0	0	3
	Total	15	0	0	15
	Grand Total	61	6	0	64

Entrepreneurship - Certificate Program (C25490)

MAJOR COURSES:		SHC
BUS 139	Entrepreneurship I	3
BUS 245	Entrepreneurship II	3
ETR 220	Innovation and Creativity	3
ETR 230	Entrepreneur Marketing	3
Total Credit Hours Required:		**12**

Entrepreneurship Certificate Suggested Day Sequence (C25490)

Fall – 1st year					
BUS 139	Entrepreneurship I	3	0	0	3
ETR 220	Innovation and Creativity	3	0	0	3
ETR 230	Entrepreneur Marketing	3	0	0	3
	Total	9	0	0	9
Spring – 1st year					
BUS 245	Entrepreneurship II	3	0	0	3
	Total	3	0	0	3
	Grand Total	12	0	0	12

Entrepreneurship - Diploma Program (D25490)

GENERAL EDUCATION COURSES:			SHC
English/Communications:			
ENG	111	Writing and Inquiry	3
Social/Behavioral Sciences:			
Elective			3
MAJOR COURSES:			
ACC	120	Prin of Financial Acct	4
BUS	110	Introduction to Business	3
BUS	139	Entrepreneurship I	3
BUS	245	Entrepreneurship II	3
BUS	253	Leadership and Mgt Skills	3
ECO	251	Prin of Microeconomics	3
ETR	215	Law for Entrepreneurs	3
ETR	220	Innovation and Creativity	3
ETR	230	Entrepreneur Marketing	3
ETR	270	Entrepreneurship Issues	3
Total Credit Hours Required:			**37**

DEVELOPMENTAL COURSE REQUIREMENTS*			
CTS	080	Computing Fundamentals	3
DRE	098	Integrated Reading Writing III	3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Entrepreneurship Diploma Suggested Day Sequence (D25490)

Fall – 1st year					
BUS 110	Introduction to Business	3	0	0	3
BUS 139	Entrepreneurship I	3	0	0	3
ENG 111	Writing and Inquiry	3	0	0	3
ETR 230	Entrepreneur Marketing	3	0	0	3
	Total	12	0	0	12
Spring – 1st year					
ACC 120	Prin of Financial Accounting	3	2	0	4
BUS 245	Entrepreneurship II	3	0	0	3
ETR 215	Law for Entrepreneurs	3	0	0	3
ETR 270	Entrepreneurship Issues	3	0	0	3
	Total	12	2	0	13
Fall – 2nd year					
BUS 253	Leadership and Mgt Skills	3	0	0	3
ECO 251	Principles of Microeconomics	3	0	0	3
ETR 220	Innovation and Creativity	3	0	0	3
	Total	9	0	0	9
Spring – 2nd year					
	Social/Behavioral Science Elective	3	0	0	3
	Total	3	0	0	3
	Grand Total	36	2	0	37

FIRE PROTECTION TECHNOLOGY
A.A.S. Program (A55240)

The Fire Protection Technology curriculum is designed to provide students with knowledge and skills in the technical, managerial, and leadership areas necessary for advancement within the fire protection community and related firefighting industries, and to provide currently employed firefighters with knowledge and skills often required for promotional consideration. Coursework includes diverse fire protection subject areas, including fire prevention and safety, public education, building construction, fire ground strategies and tactics, and local government finance and laws as they apply to emergency services management. Emphasis includes understanding fire characteristics and the structural consequences of fire; risk assessment and management; and relevant research, communications, and leadership methodologies. Employment opportunities exist with fire departments, governmental agencies, industrial firms, insurance rating organizations, and educational organizations.

GENERAL EDUCATION COURSES: **SHC**

English/Communications:

ENG	111	Writing and Inquiry	3
ENG	114	Prof Research & Reporting	3
	OR	ENG 112 Writing/Research in the Disciplines	3

Humanities/Fine Arts:

Elective			3

Natural Sciences/Mathematics:

MAT	143	Quantitative Literacy	3
	OR	MAT 110 Mathematical Measurement & Literacy	3

Social/Behavioral Sciences:

PSY	150	General Psychology	3
	OR	SOC 210 Introduction to Sociology	3

MAJOR COURSES:

CIS	110	Introduction to Computers	3
EPT	140	Emergency Management	3
FIP	120	Intro to Fire Protection	3
FIP	124	Fire Prevention & Public Ed	3
FIP	132	Building Construction	3
FIP	136	Inspections & Codes	3
FIP	146	Fire Protection Systems	4
FIP	152	Fire Protection Law	3
FIP	220	Fire Fighting Strategies	3
FIP	228	Local Govt Finance	3
FIP	229	Fire Dynamics and Combust	3
FIP	240	Fire Service Supervision	3
FIP	248	Fire Svc Personnel Adm	3
FIP	276	Managing Fire Services	3

FIP Electives: 6/8

Students are required to select 6/8 credit hours from the following:

FIP	128	Detection & Investigation	3
FIP	140	Industrial Fire Protection	3
FIP	164	OSHA Standards	3
FIP	221	Adv Fire Fighting Strat	3
FIP	224	Fire Instructor I & II	4
FIP	226	Fire Officer I & II	4
FIP	230	Chem of Hazardous Mat I	5

OTHER REQUIRED HOURS:

ACA	111	College Student Success	1

Total Credit Hours Required 65/67

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
DRE	098	Integrated Reading Writing III	3
DMA	DMA 010, DMA 020, DMA 030 (MAT 110)		3
DMA	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050 (DMA 143)		5

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Fire Protection Technology • A55240
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
ACA	111	College Student Success	1	0	0	1
CIS	110	Introduction to Computers	3	0	0	3
ENG	111	Writing and Inquiry	3	0	0	3
FIP	120	Intro to Fire Protection	3	0	0	3
FIP	124	Fire Prevention & Public Ed	3	0	0	3
FIP	132	Building Construction	3	0	0	3
		Total	16	0	0	16
Spring – 1st year						
ENG	114	Prof Research & Reporting	3	0	0	3
EPT	140	Emergency Management	3	0	0	3
	OR	ENG 112 Writing/Reasearch	3	0	0	3
FIP	136	Inspection & Codes	3	0	0	3
FIP	152	Fire Protection Law	3	0	0	3
	FIP Elective		3	0	0	3
		Total	15	0	0	15
Summer – 1st year						
MAT	143	Quantitative Literacy	2	2	0	3
	OR	MAT 110 Math Meas. & Literacy	2	2	0	3
PSY	150	General Psychology	3	0	0	3
	OR	SOC 210 Introduction to Sociology	3	0	0	3
	Humanities/Fine Arts Elective		3	0	0	3
		Total	8	2	0	9
Fall – 2nd year						
FIP	146	Fire Protection Systems	3	2	0	4
FIP	220	Fire Fighting Strategies	3	0	0	3
FIP	229	Fire Dynamics and Combust	3	0	0	3
FIP	240	Fire Service Supervision	3	0	0	3
		Total	12	2	0	13
Spring – 2nd year						
FIP	228	Local Govt Finance	3	0	0	3
FIP	248	Fire Svc Personnel Adm	3	0	0	3
FIP	276	Managing Fire Services	3	0	0	3
	FIP Elective					3/5
		Total	14	0	0	12/14
		Grand Total	64	4	0	65/67

Fire Protection Management Technology Certificate Program (C5524004)

MAJOR COURSES:			SHC
FIP	120	Intro to Fire Protection	3
FIP	152	Fire Protection Law	3
FIP	220	Fire Fighting Strategies	3
FIP	228	Local Govt Finance	3
FIP	240	Fire Service Supervision	3
FIP	248	Fire Svc Personnel Adm	3

Total Credit Hours Required: 18

Fire Protection Management Certificate Sequence (C5524004)

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
FIP 120	Intro to Fire Protection		3	0	0	3
FIP 220	Fire Fighting Strategies		3	0	0	3
FIP 240	Fire Service Supervision		3	0	0	3
		Total	9	0	0	9
Spring – 1st year						
FIP 152	Fire Protection Law		3	0	0	3
FIP 228	Local Gov Finance		3	0	0	3
FIP 248	Fire Svc Personnel Adm		3	0	0	3
		Total	9	0	0	9
		Grand Total	18	0	0	18

Industrial Fire Protection Certificate Program (C5524005)

MAJOR COURSES:			SHC
FIP	120	Intro to Fire Protection	3
FIP	124	Fire Prevention & Public Ed	3
FIP	132	Building Construction	3
FIP	140	Industrial Fire Protection	3
FIP	164	OSHA Standards	3
FIP	220	Fire Fighting Strategies	3

Total Credit Hours Required: 18

Industrial Fire Protection Certificate Sequence (C5524005)

Fall – 1st year						
FIP 120	Introduction to Fire Protection		3	0	0	3
FIP 124	Fire Prevention & Public Ed		3	0	0	3
FIP 132	Building Construction		3	0	0	3
FIP 220	Fire Fighting Strategies		3	0	0	3
		Total	12	0	0	12
Spring – 1st year						
FIP 140	Industrial Fire Protection		3	0	0	3
FIP 164	OSHA Standards		3	0	0	3
		Total	6	0	0	6
		Grand Total	18	0	0	18

HEALTH AND FITNESS SCIENCE A.A.S. Program (A45630)

Courses required to meet graduation requirements in this curriculum are offered during day hours. Minimum time for completion: five semesters full-time attendance. The Associate of Applied Science degree is awarded graduates of this curriculum.

The Health and Fitness Science program is designed to provide students with the knowledge and skills necessary for employment in the fitness and exercise industry. Students will be trained in exercise science and be able to administer basic fitness tests and health risk appraisals, teach specific exercise and fitness classes and provide instruction in the proper use of exercise equipment and facilities. Graduates should qualify for employment opportunities in commercial fitness clubs, YMCAs/YWCAs, wellness programs in business and industry, parks & recreation departments and other organizations implementing exercise & fitness programs.

GENERAL EDUCATION COURSES:			SHC
English/Communications:			
COM	110	Introduction to Communication	3
ENG	111	Writing and Inquiry	3
ENG	112	Writing/Research in the Disc	3
	OR	ENG 113 Literature-Based Research	3
	OR	ENG 114 Prof Research & Reporting	3
Humanities/Fine Arts:			
Elective			3
Natural Sciences/Mathematics:			
MAT	110	Math Measurement & Literacy	3
	OR	MAT 143 Quantitative Literacy	3
	OR	MAT 152 Statistical Methods I	4
Social/Behavioral Sciences:			
PSY	150	General Psychology	3
MAJOR COURSES:			
BIO	155	Nutrition	3
BIO	168	Anatomy and Physiology I	4
BIO	169	Anatomy and Physiology II	4
HEA	112	First Aid & CPR	2
PED	110	Fit and Well for Life	2
PSF	110	Exercise Science	4
PSF	111	Fitness & Exer Testing I	4
PSF	114	Phys Fit Theory & Instr	4
PSF	116	Pvnt & Care Exer Injuries	3
PSF	118	Fitness Facility Mgmt	4
PSF	120	Group Exer Instruction	3
PSF	210	Personal Training	3
PSF	212	Exercise Programming	3
PSF	218	Lifestyle Chng & Wellness	4
PSY	275	Health Psychology	3
WBL	111	Work-Based Learning I	1

PED Electives *2*

Students are required to select 2 credit hours from the following courses.

PED	113	Aerobics I	1
PED	117	Weight Training I	1
PED	118	Weight Training II	1
PED	120	Walking for Fitness	1
PED	122	Yoga I	1

Total Credit Hours Required 71/72

DEVELOPMENTAL COURSE REQUIREMENTS*

DRE	098	Integrated Reading Writing III	3
DMA		DMA 010, DMA 020, DMA 030 (MAT 110)	3
DMA		DMA 010, DMA 020, DMA 030, DMA 040, DMA 050 (MAT 143), (MAT 152)	5

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Health and Fitness Science • A45630
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
ENG	111	Writing and Inquiry	3	0	0	3
HEA	112	First Aid & CPR	1	2	0	2
PED	110	Fit And Well For Life	1	2	0	2
PSF	110	Exercise Science	4	0	0	4
PSY	150	General Psychology	3	0	0	3
	PED Elective		1	0	0	1
		Total	13	4	0	15
Spring – 1st year						
ENG	112	Writing/Research in the Disc	3	0	0	3
	OR	ENG 113 Literature-Based Research	3	0	0	3
	OR	ENG 114 Prof Research & Reporting	3	0	0	3
BIO	168	Anatomy and Physiology I	3	3	0	4
BIO	155	Nutrition	3	0	0	3
PSF	111	Fitness & Exer Testing I	3	2	0	4
PSF	116	Pvnt & Care Exer Injuries	2	2	0	3
		Total	14	7	0	17
Summer – 1st year						
MAT	110	Math Measurement & Literacy	2	2	0	3
	OR	MAT 143 Quantitative Literacy	2	2	0	3
	OR	MAT 152 Statistical Methods I	3	2	0	4
	Humanities/Fine Arts Elective		3	0	0	3
		Total	5/6	2	0	6/7
Fall – 2nd year						
WBL	111	Work-Based Learning I	0	0	10	1
COM	110	Introduction to Communication	3	0	0	3
BIO	169	Anatomy and Physiology II	3	3	0	4
PSF	114	Phys Fit Theory & Instr	4	0	0	4
PSF	120	Group Exer Instruction	2	2	0	3
	PED Elective		1	0	0	1
		Total	13	5	10	16
Spring – 2nd year						
PSF	118	Fitness Facility Mgmt	4	0	0	4
PSF	210	Personal Training	2	2	0	3
PSF	212	Exercise Programming	2	2	0	3
PSF	218	Lifestyle Chng & Wellness	3	2	0	4
PSY	275	Health Psychology	3	0	0	3
		Total	14	6	0	17
		Grand Total	59/60	24	10	71/72

HEALTH INFORMATION TECHNOLOGY
A.A.S. Program (A45360)

Courses required to meet graduation requirements in this curriculum are offered during day hours with selected courses offered during evening hours. Minimum time for completion: five semesters full-time attendance. The Associate of Applied Science degree is awarded graduates of this curriculum. The Health Information Technology curriculum is accredited by the Commission on Accreditation for Health Informatics and Information Management Education.

The Health Information Technology curriculum prepares individuals with the knowledge and skills to process, analyze, abstract, compile, maintain, manage, and report health information. Students will supervise departmental functions; classify, code and index diagnoses and procedures; coordinate information for cost control, quality management, statistics, marketing, and planning; monitor governmental and non-governmental standards; facilitate research; and design system controls to monitor patient information security. Graduates of this program may be eligible to write the national certification examination to become a Registered Health Information Technician. Employment opportunities include hospitals, rehabilitation facilities, nursing homes, health insurance organizations, outpatient clinics, physicians' offices, hospice, and mental health facilities.

GENERAL EDUCATION COURSES:			**SHC**
English/Communications:			
ENG	111	Writing and Inquiry	3
English Elective			3
Students are required to take one (1) course from the following:			
ENG	112	Writing/Research in the Disc	3
ENG	113	Literature-Based Research	3
ENG	114	Prof Research & Reporting	3
Humanities/Fine Arts:			
Elective			3
Natural Sciences/Mathematics:			
MAT	110	Math Measurement & Literacy	3
Social/Behavioral Sciences:			
PSY	150	General Psychology	3
MAJOR COURSES:			
BIO	168	Anatomy and Physiology I	4
BIO	169	Anatomy and Physiology II	4
BUS	137	Principles of Management	3
CIS	110	Introduction to Computers	3
	OR	CIS 111 Basic PC Literacy	2
DBA	110	Database Concepts	3
HIT	110	Fundamentals of HIM	3
HIT	112	Health Law and Ethics	3
HIT	114	Health Data Sys/Standards	3
HIT	122	Prof Practice Exp I	1
HIT	210	Healthcare Statistics	3
HIT	211	ICD Coding	4
HIT	214	CPT/Other Coding Systems	2
HIT	215	Reimbursement Methodology	2
HIT	216	Quality Management	2
HIT	220	Health Informatics & EHRs	2
HIT	222	Prof Practice Exp III	2
HIT	226	Principles of Disease	3
HIT	280	Professional Issues	2
MED	121	Medical Terminology I	3
MED	122	Medical Terminology II	3
Total Credit Hours Required			**69-70**
DEVELOPMENTAL COURSE REQUIREMENTS*			
CTS	080	Computing Fundamentals	3
DRE	098	Integrated Reading Writing III	3
DMA	DMA 010, DMA 020, DMA 030, DMA 040		3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Health Information Technology • (A45360)
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
BIO	168	Anatomy and Physiology I	3	3	0	4
CIS	110	Introduction to Computers	2	2	0	3
	OR	CIS 111 Basic PC Literacy	1	2	0	2
ENG	111	Writing and Inquiry	3	0	0	3
MED	121	Medical Terminology I	3	0	0	3
HIT	110	Fundamentals of HIM	3	0	0	3
PSY	150	General Psychology	3	0	0	3
		Total	16/17	5	0	18/19
Spring – 1st year						
BIO	169	Anatomy and Physiology II	3	3	0	4
DBA	110	Database Concepts	2	3	0	3
HIT	112	Health Law and Ethics	3	0	0	3
HIT	114	Health Data Sys/Standards	2	3	0	3
MED	122	Medical Terminology II	3	0	0	3
		Total	13	9	0	16
Summer – 1st year						
ENG	112	Writing/Research in the Disc (Preferred)	3	0	0	3
	OR	ENG 113 Literature-Based Research				
	OR	ENG 114 Prof Research & Reporting				
HIT	122	Prof Practice Exp I	0	0	3	1
MAT	110	Math Measurement & Literacy	2	2	0	3
		Total	5	2	3	7
Fall – 2nd year						
HIT	210	Healthcare Statistics	2	2	0	3
HIT	211	ICD Coding	2	6	0	4
HIT	216	Quality Management	1	3	0	2
HIT	220	Health Informatics & EHRs	1	2	0	2
HIT	226	Principles of Disease	3	0	0	3
		Total	9	13	0	14
Spring – 2nd year						
BUS	137	Principles of Management	3	0	0	3
HIT	222	Prof Practice Exp III	0	0	6	2
HIT	214	CPT/Other Coding Systems	1	3	0	2
HIT	215	Reimbursement Methodology	1	2	0	2
HIT	280	Professional Issues	2	0	0	2
		Humanities Elective	3	0	0	3
		Tota	10	5	9	14
		Grand Total	53/54	34	9	69/70

HEALTH INFORMATION TECHNOLOGY
Certificate Program (C45360)

Courses required to meet graduation requirements in this curriculum are offered during day hours with selected courses offered during evening hours. Minimum time for completion: two semesters part-time attendance. A Certificate is awarded graduates of this curriculum.

MAJOR COURSES:			SHC
CIS	110	Introduction to Computers	3
	OR	CIS 111 Basic PC Literacy	2
HIT	110	Fundamentals of HIM	3
HIT	112	Health Law and Ethics	3
HIT	114	Health Data Sys/Standards	3
MED	121	Medical Terminology I	3
MED	122	Medical Terminology II	3
Total Credit Hours Required			**17-18**

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
DRE	098	Integrated Reading Writing III	3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Health Information Technology Cert. Prog. (C45360)
Suggested Sequence

			Class	Lab	Clin/WkExp	Credit
Fall – 2nd year						
CIS	110	Introduction to Computers	2	2	0	3
	OR	CIS 111 Basic PC Literacy	1	2	0	2
HIT	110	Fundamentals of HIM	3	0	0	3
MED	121	Medical Terminology I	3	0	0	3
		Total	7/8	2	0	8/9
Spring – 2nd year						
HIT	112	Health Law and Ethics	3	0	0	3
HIT	114	Health Data Sys/Standards	2	3	0	3
MED	122	Medical Terminology II	3	0	0	3
		Total	8	3	0	9
		Grand Total	15/16	5	0	17/18

HEALTHCARE MANAGEMENT TECHNOLOGY
A.A.S. Program (A25200)

Core courses, those specific to Healthcare Management Technology, are offered during day hours, as well as distance learning opportunities. Most other courses required to meet graduation requirements are offered by the above methods and evening hours. Minimum time for completion: Day – five semesters full-time attendance. The Associate in Applied Science degree is awarded graduates of this curriculum.

The Healthcare Management Technology curriculum is designed to prepare students for employment in healthcare business and financial operations. Students will gain a comprehensive understanding of the application of management principles to the healthcare environment. The curriculum places emphasis on planning, organizing, directing, and controlling tasks related to healthcare organizational objectives including the legal and ethical environment. Emphasis is placed on the development of effective communication, managerial, and supervisory skills. Graduates may find employment in healthcare settings including hospitals, medical offices, clinics, long-term care facilities, and insurance companies. Graduates are eligible to sit for several certification examinations offered by healthcare management professional organizations.

GENERAL EDUCATION COURSES:			SHC
English/Communications:			
ENG	111	Writing and Inquiry	3
ENG	114	Prof Research & Reporting	3
	OR	ENG 112 Writing/Research in the Disc	3
	OR	ENG 113 Literature-Based Research	3
Humanities/Fine Arts:			
Elective			3
Natural Sciences/Mathematics:			
MAT	143	Quantitative Literacy	3
	OR	MAT 110 Math Measurement & Literacy	3
	OR	MAT 152 Statistical Methods I	4
Social/Behavioral Sciences:			
Elective			3
MAJOR COURSES:			
ACC	120	Prin of Financial Accounting	4
ACC	121	Prin of Managerial Accounting	4
CIS	110	Introduction to Computers	3
CTS	130	Spreadsheet	3
HMT	110	Intro to Healthcare Mgt	3
HMT	210	Medical Insurance	3
HMT	211	Long-Term Care Admin	3
HMT	212	Mgt of Healthcare Org	3
HMT	220	Healthcare Financial Mgmt	4
HMT	225	Practice Mgmt Simulation	3
MED	114	Prof Interac in Heal Care	1
MED	121	Medical Terminology I	3
MED	122	Medical Terminology II	3
OST	149	Medical Legal Issues	3
OST	247	Procedure Coding	2
OST	248	Diagnostic Coding	2
OST	281	Emer Issues in Med Ofc	3
WBL	XXX	Work-Based Learning	2
OTHER REQUIRED COURSES:			
ACA	111	College Student Success	1
Total Credit Hours Required			**68/69**
DEVELOPMENTAL COURSE REQUIREMENTS*			
CTS	080	Computing Fundamentals	3
DRE	098	Integrated Reading Writing III	3
DMA	DMA 010, DMA 020, DMA 030, (MAT 110)		3
DMA	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050 (MAT 143, MAT 152)		5

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information

HealthCare Management Technology • (A25200)
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
ACA	111	College Student Success	1	0	0	1
ACC	120	Prin of Financial Accounting	3	2	0	4
HMT	110	Intro to Healthcare Mgt	3	0	0	3
MED	114	Prof Interac in Heal Care	1	0	0	1
MED	121	Medical Terminology I (1st Eight Wks)	3	0	0	3
MED	122	Medical Terminology II (2nd Eight Wks)	3	0	0	3
		Total	14	2	0	15
Spring – 1st year						
ACC	121	Prin of Managerial Accounting	3	2	0	4
CIS	110	Introduction to Computers	2	2	0	3
HMT	210	Medical Insurance	3	0	0	3
OST	149	Medical Legal Issues	3	0	0	3
OST	281	Emer Issues in Med Ofc	3	0	0	3
		Total	14	4	0	16
Summer – 1st year						
ENG	111	Writing and Inquiry	3	0	0	3
		Humanities/Fine Arts Elective	3	0	0	3
		Social/Behavioral Science Elective	3	0	0	3
		Total	9	0	0	9
Fall – 2nd year						
CTS	130	Spreadsheet	2	2	0	3
ENG	112	Writing/Research in the Disc (Preferred)	3	0	0	3
	OR	ENG 113 Literature-Based Research	3	0	0	3
	OR	ENG 114 Pro Research & Reporting	3	0	0	3
HMT	211	Long-Term Care Admin	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
	OR	MAT 110 Math Measurement & Literacy	3	0	0	3
	OR	MAT 152 Statistical Methods I	3	2	0	4
OST	247	Procedure Coding	1	2	0	2
		Total	11	6	0	14/15
Spring – 2nd year						
HMT	212	Mgt. of Healthcare Org	3	0	0	3
HMT	220	Healthcare Financial Mgmt	4	0	0	4
HMT	225	Practice Mgmt Simulation	2	2	0	3
OST	248	Diagnostic Coding	1	2	0	2
WBL	XXX	Worked-Based Learning	0	0	20	2
		Total	10	4	20	14
		Grand Total	58	16	20	68/69

HEALTHCARE MANAGEMENT TECHNOLOGY
Healthcare Management Certificate Program (C25200)

MAJOR COURSES:			SHC
HMT	110	Intro to Healthcare Mgt	3
HMT	210	Medical Insurance	3
HMT	211	Long-Term Care Admin	3
HMT	212	Mgt of Healthcare Org	3
MED	121	Medical Terminology I	3
MED	122	Medical Terminology II	3
Total Credit Hours Required			**18**
DEVELOPMENTAL COURSE REQUIREMENTS*			
DRE	097	Integrated Reading Writing II	3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions.

HealthCare Management Technology Cert. Prog. (C25200)
Suggested Sequence

Fall – 1st year						
HMT	110	Intro to Healthcare Mgt	3	0	0	3
MED	121	Medical Terminology I (1st 8 weeks)	3	0	0	3
MED	122	Medical Terminology II (2nd 8 weeks)	3	0	0	3
		Total	9	0	0	9
Spring – 1st year						
HMT	210	Medical Insurance	3	0	0	3
HMT	211	Long-Term Care Admin	3	0	0	3
HMT	212	Mgt of Healthcare Org	3	0	0	3
		Total	9	0	0	9
		Grand Total	18	0	0	18

HEALTHCARE MANAGEMENT TECHNOLOGY
Healthcare Receptionist
Certificate Program (C2520005)

MAJOR COURSES:			SHC
HMT	110	Intro to Healthcare Mgt	3
HMT	210	Medical Insurance	3
MED	114	Prof Interac in Heal Care	1
MED	121	Medical Terminology I	3
MED	122	Medical Terminology II	3
OST	149	Medical Legal Issues	3
Total Credit Hours Required			**16**

DEVELOPMENTAL COURSE REQUIREMENTS*

DRE	097	Integrated Reading Writing II	3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information

Healthcare Management Technology
Healthcare Receptionist (C2520005)
Certificate Program Suggested Sequence

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
HMT	110	Intro to Healthcare Mgt	3	0	0	3
MED	121	Medical Terminology I (1st 8 weeks)	3	0	0	3
MED	122	Medical Terminology II (2nd 8 weeks)	3	0	0	3
		Total	9	0	0	9
Spring – 1st year						
MED	114	Prof Interac in Heal Care	1	0	0	1
HMT	210	Medical Insurance	3	0	0	3
OST	149	Medical Legal Issues	3	0	0	3
		Total	7	0	0	7
		Grand Total	16	0	0	16

HEALTHCARE MANAGEMENT TECHNOLOGY
Insurance
Certificate Program (C2520004)

MAJOR COURSES:			SHC
HMT	110	Intro to Healthcare Mgt	3
HMT	210	Medical Insurance	3
MED	114	Prof Interac in Heal Care	1
MED	121	Medical Terminology I	3
MED	122	Medical Terminology II	3
OST	247	Procedure Coding	2
OST	248	Diagnostic Coding	2
Total Credit Hours Required			**17**

DEVELOPMENTAL COURSE REQUIREMENTS*

DRE	097	Integrated Reading Writing II	3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

HealthCare Management Technology Insurance (C2520004)
Certificate Program Suggested Sequence

Fall – 1st year						
HMT	110	Intro to Healthcare Mgt	3	0	0	3
MED	121	Medical Terminology I (1st 8 Wks)	3	0	0	3
MED	122	Medical Terminology II (2nd 8 Wks)	3	0	0	3
		Total	9	0	0	9
Spring – 1st year						
MED	114	Prof Interac In Heal Care	1	0	0	1
HMT	210	Medical Insurance	3	0	0	3
OST	247	Procedure Coding	1	2	0	2
OST	248	Diagnostic Coding	1	2	0	2
		Total	6	4	0	8
		Grand Total	15	4	0	17

HORTICULTURE TECHNOLOGY
A.A.S. Program (A15240)

Most courses required to meet graduation requirements in this curriculum are offered during day hours only. Selected courses are offered each semester via the Internet. Minimum time for completion: Day – five semesters full-time attendance for the full curriculum; Evening – three semesters for the certificate program option. The Associate in Applied Science degree is awarded graduates of this curriculum. A certificate is awarded graduates of the Certificate program option. Special University Articulation Agreement with North Carolina State University: NCSU may accept up to 15 semester credit hours in Horticulture from CVCC toward the Bachelor of Science in Horticulture degree. A course grade of C or higher for each course is required. For details, call Scott Crosby at extension 4755. CVCC has a 2 + 2 Articulation Agreement with NC Agricultural and Technological State University in Horticulture. These curricula are designed to prepare individuals for various careers in horticulture. Classroom instruction and practical laboratory applications of horticultural principles and practices are included in the program of study. Coursework includes plant identification, pest management, plant science and soil science. Also included are courses in sustainable plant production and management, landscaping, and the operation of horticulture businesses. Graduates should qualify for employment in a variety of positions associated with nurseries, garden centers, greenhouses, landscape operations, governmental agencies/parks, golf courses, sports complexes, highway vegetation, turf maintenance companies, and private and public gardens. Graduates should also be prepared to take the North Carolina Pesticide Applicator's Examination and/or the North Carolina Certified Plant Professional Examination. A program that focuses on the general production and management of cultivated plants, shrubs, flowers, foliage, trees, groundcovers, and related plant materials; the management of technical and business operations connected with horticultural services; and the basic scientific principles needed to understand plants and their management and care.

GENERAL EDUCATION COURSES:			SHC
English/Communications:			
ENG	111	Writing and Inquiry	3
ENG	114	Prof Research & Reporting	3
	OR	ENG 112 Writing/Research in the Disc	3
	OR	ENG 113 Literature-Based Research	3
Humanities/Fine Arts:			
Elective			3
Natural Sciences/Mathematics:			
MAT	110	Math Measurement & Literacy	3
	OR	MAT 143 Quantitative Literacy	3
Social/Behavioral Sciences:			
Elective			3
MAJOR COURSES :			
HOR	110	Intro to Landscaping	2
HOR	112	Landscape Design I	3
HOR	114	Landscape Construction	3
HOR	116	Landscape Management I	3
HOR	118	Equipment Op & Maint	2
HOR	134	Greenhouse Operations	3
HOR	160	Plant Materials I	3
HOR	162	Applied Plant Science	3
HOR	164	Hort Pest Management	3
HOR	166	Soils & Fertilizers	3
HOR	168	Plant Propagation	3
HOR	170	Hort Computer Apps	2
HOR	213	Landscape Design II	3
HOR	215	Landscape Irrigation	3
HOR	265	Adv Plant Materials	2
HOR	273	Hor Mgmt & Marketing	3
TRF	110	Intro Turfgrass Cult & ID	4
TRF	130	Native Flora ID	2
Horticulture/Turf or Work-Based Learning Elective			4
Please choose from the following:			
HOR	255	Interiorscapes	2
SPA	120	Spanish for the Workplace	3
TRF	120	Turfgrass Irrigat & Design	4
TRF	125	Turfgrass Computer App	2
TRF	140	Turfgrass Mgmt Safety	3
TRF	150	Landscape Drafting	2
TRF	151	Intro Landscape Design	3
TRF	152	Landscape Maintenance	3
TRF	210	Turfgrass Eqmt Mgmt	3
TRF	220	Turfgrass Calculations	2
TRF	230	Turfgrass Mgmt Apps	2
TRF	250	Golf /Sport Field Const	4
TRF	260	Adv Turfgrass Mgmt	4
WBL	XXX	Work-Based Learning	1-4
Total Credit Hours Required			**69**

(Con't)

DEVELOPMENTAL COURSE REQUIREMENTS*

DRE	098	Integrated Reading Writing III	3
DMA	DMA 010, DMA 020, DMA 030, (MAT 110)		3
DMA	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, (MAT 143)		5

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Horticulture Technology • A15240
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
TRF	110	Intro Turfgrass Cult & ID	3	2	0	4
HOR	118	Equipment Op & Maint	1	3	0	2
HOR	162	Applied Plant Science	2	2	0	3
HOR	166	Soils & Fertilizers	2	2	0	3
ENG	111	Writing and Inquiry	3	0	0	3
		Total	11	9	0	15
Spring – 1st year						
MAT	110	Math Measurement & Literacy	2	2	0	3
	OR	MAT 143 Quantitative Literacy	2	2	0	3
HOR	168	Plant Propagation	2	2	0	3
HOR	160	Plant Materials I	2	2	0	3
HOR	116	Landscape Management I	2	2	0	3
HOR	110	Intro To Landscaping	1	2	0	2
ENG	114	Prof Research and Reporting (Preferred)	3	0	0	3
	OR	ENG 112 Writing/Research in the Disc	3	0	0	3
	OR	ENG 113 Literature-Based Research	3	0	0	3
		Total	12	10	0	17
Summer – 1st year						
HOR	112	Landscape Design I	2	3	0	3
HOR	114	Landscape Construction	2	2	0	3
TRF	130	Native Flora ID	1	3	0	2
		Total	5	8	0	8
Fall – 2nd year						
HOR	170	Hort Computer Apps	1	3	0	2
HOR	213	Landscape Design II	2	2	0	3
HOR	215	Landscape Irrigation	2	2	0	3
HOR	134	Greenhouse Operations	2	2	0	3
HOR	273	Hort. Mgmt. & Marketing	3	0	0	3
		Hort/Turf/Work-Based Learning Elective				2
		Total	10	9	0	16
Spring – 2nd year						
HOR	164	Hort Pest Management	2	2	0	3
HOR	265	Advanced Plant Materials	1	2	0	2
		Humanities/Fine Arts Elective	3	0	0	3
		Hort/Turf/Work-Based Learning Elective	0			2
		Social/Behavioral Science Elective	3	0	0	3
		Total	9	4	0	13
		Grand Total	47	40	0	69

HORTICULTURE TECHNOLOGY Cert. Prog. (C15240)

MAJOR COURSES: ..... **SHC**

HOR	110	Intro to Landscaping	2
HOR	118	Equipment Op & Maint	2
HOR	134	Greenhouse Operations	3
HOR	164	Hort Pest Management	3
HOR	168	Plant Propagation	3
HOR	215	Landscape Irrigation	3
HOR	255	Interiorscapes	2

Total Credit Hours Required **18**

Horticulture Technology Cert. Prog. (C15240) Sug. Seq.

Fall – 1st year						
HOR	110	Intro to Landscaping	1	2	0	2
HOR	118	Equipment Op & Maint	1	3	0	2
HOR	134	Greenhouse Operations	2	2	0	3
HOR	215	Landscape Irrigation	2	2	0	3
		Total	6	9	0	10
Spring – 1st year						
HOR	164	Hort Pest Management	2	2	0	3
HOR	168	Plant Propagation	2	2	0	3
HOR	255	Interiorscapes	1	2	0	2
		Total	5	6	0	8
		Grand Total	11	15	0	18

HORTICULTURE TECHNOLOGY
Landscape Design
Diploma Program (D1524001)

GENERAL EDUCATION COURSES: **SHC**

English/Communications:

ENG	111	Writing and Inquiry	3

Natural Sciences/Mathematics:

MAT	110	Math Measurement & Literacy	3
	OR	MAT 143 Quantitative Literacy	3

MAJOR COURSES :

HOR	110	Intro to Landscaping	2
HOR	112	Landscape Design I	3
HOR	114	Landscape Construction	3
HOR	160	Plant Materials I	3
HOR	162	Applied Plant Science	3
HOR	164	Hort Pest Management	3
HOR	166	Soils & Fertilizers	3
HOR	170	Hort Computer Apps	2
HOR	213	Landscape Design II	3
HOR	215	Landscape Irrigation	3
HOR	265	Advanced Plant Materials	2
TRF	130	Native Flora ID	2

Total Credit Hours Required **38**

DEVELOPMENTAL COURSE REQUIREMENTS*

DRE	098	Integrated Reading Writing III	3
DMA	DMA 010, DMA 020, DMA 030, (MAT 110)		3
DMA	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, (MAT 143)		5

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Horticulture Technology – Landscape Design (D1524001)
Suggested Sequence

			Class	Lab	Clin/WkExp	Credit
Spring – 1st year						
MAT	110	Math Measurement & Literacy	2	2	0	3
	OR	MAT 143 Quantitative Literacy	2	2	0	3
HOR	110	Intro to Landscaping	1	2	0	2
HOR	160	Plant Materials I	2	2	0	3
HOR	164	Hort Pest Management	2	2	0	3
HOR	265	Advanced Plant Materials	1	2	0	2
		Total	8	10	0	13
Summer – 1st year						
HOR	112	Landscape Design I	2	3	0	3
HOR	114	Landscape Construction	2	2	0	3
TRF	130	Native Flora ID	1	3	0	2
		Total	5	8	0	8
Fall – 1st year						
ENG	111	Writing and Inquiry	3	0	0	3
HOR	162	Applied Plant Science	2	2	0	3
HOR	166	Soils & Fertilizers	2	2	0	3
HOR	170	Hort Computer Apps	1	3	0	2
HOR	213	Landscape Design II	2	2	0	3
HOR	215	Landscape Irrigation	2	2	0	3
		Total	12	11	0	17
		Grand Total	25	29	0	38

HORTICULTURE TECHNOLOGY
Landscape Management
Diploma Program (D1524002)

GENERAL EDUCATION COURSES: **SHC**

English/Communications:
ENG 111 Writing and Inquiry 3
Natural Sciences/Mathematics:
MAT 110 Math Measurement & Literacy 3
OR MAT 143 Quantitative Literacy....3

MAJOR COURSES:
HOR 110 Intro to Landscaping....2
HOR 114 Landscape Construction 3
HOR 116 Landscape Management I....3
HOR 118 Equipment Op & Maint....2
HOR 160 Plant Materials I 3
HOR 162 Applied Plant Science....3
HOR 164 Hort Pest Management 3
HOR 166 Soils & Fertilizers....3
HOR 215 Landscape Irrigation....3
HOR 265 Advanced Plant Materials....2
TRF 130 Native Flora ID....2
Horticulture/Turf or Work-Based Learning Elective 2

Please choose from the following:
HOR 255 Interiorscapes 2
SPA 120 Spanish for the Workplace 3
TRF 110 Intro Turfgrass Cult & ID 4
TRF 120 Turfgrass Irrigat & Design 4
TRF 125 Turfgrass Computer App 2
TRF 140 Turfgrass Mgmt Safety 3
TRF 150 Landscape Drafting 2
TRF 151 Intro Landscape Design 3
TRF 152 Landscape Maintenance 3
TRF 210 Turfgrass Eqmt Mgmt 3
TRF 220 Turfgrass Calculations 2
TRF 230 Turfgrass Mgmt Apps 2
TRF 250 Golf /Sport Field Const 4
TRF 260 Adv Turfgrass Mgmt 4
WBL XXX Work-Based Learning 1-2

Total Credit Hours Required 37

DEVELOPMENTAL COURSE REQUIREMENTS*
DRE 098 Integrated Reading Writing III....3
DMA DMA 010, DMA 020, DMA 030, (MAT 110) 3
DMA DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, (MAT 143) .5

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Horticulture Technology – Landscape Management (D1524002)
Suggested Sequence

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
ENG	111	Writing and Inquiry	3	0	0	3
HOR	118	Equipment Op & Maint	1	3	0	2
HOR	162	Applied Plant Science	2	2	0	3
HOR	166	Soils & Fertilizers	2	2	0	3
HOR	215	Landscape Irrigation	2	2	0	3
MAT	110	Math Measurement & Literacy	2	2	0	3
	OR	MAT 143 Quantitative Literacy	2	2	0	3
		Total	12	11	0	17
Spring – 1st year						
HOR	110	Intro to Landscaping	1	2	0	2
HOR	116	Landscape Management I	2	2	0	3
HOR	160	Plant Materials I	2	2	0	3
HOR	164	Hort Pest Management	2	2	0	3
HOR	265	Advanced Plant Materials	1	2	0	2
		Work-Based Learning or Hort/Turf Elective				2
		Total	8	10	0	15
Summer – 1st year						
HOR	114	Landscape Construction	2	2	0	3
TRF	130	Native Flora ID	1	3	0	2
		Total	3	5	0	5
		Grand Total	23	26	0	37

INDUSTRIAL SYSTEMS TECHNOLOGY
A.A.S. Program (A50240)

Courses required to meet graduation requirements in this curriculum are offered during day and evening hours. Minimum time for completion: Day – four semesters full-time attendance; Evening – eight semesters full-time attendance. The Associate in Applied Science Degree is awarded graduates of this curriculum. The Industrial Systems Technology curriculum is designed to prepare or upgrade individuals to safely service, maintain, repair, or install equipment. Instruction includes theory and skill training needed for inspecting, testing, troubleshooting, and diagnosing industrial systems. Students will learn multi-craft technical skills in blueprint reading, mechanical systems maintenance, electricity, hydraulics/pneumatics, welding, machining or fabrication, and includes various diagnostic and repair procedures. Practical application in these industrial systems will be emphasized and additional advanced coursework may be offered. Upon completion of this curriculum, graduates should be able to individually, or with a team, safely install, inspect, diagnose, repair, and maintain industrial process and support equipment. Students will also be encouraged to develop their skills as life-long learners.

GENERAL EDUCATION COURSES: **SHC**

English/Communications:
ENG 111 Writing and Inquiry 3
ENG 114 Prof Research & Reporting....3
OR ENG 112 Writing/Research in the Disc....3
OR ENG 113 Literatured-Based Research....3
Humanities/Fine Arts:
Elective 3
Natural Sciences/Mathematics:
MAT 121 Algebra/Trigonometry I....3
OR MAT 110 Math Measurement & Literacy 3
OR MAT 143 Quantitative Literacy....3
Social/Behavioral Sciences:
Elective 3

MAJOR COURSES:
BPR 111 Print Reading 2
CIS 110 Introduction to Computers....3
OR CIS 111 Basic PC Literacy 2
ELC 112 DC/AC Electricity 5
ELC 113 Residential Wiring 4
ELC 115 Industrial Wiring....4
ELC 117 Motors and Controls 4
ELC 118 National Electrical Code....2
ELC 119 NEC Calculations 2
HYD 110 Hydraulics/Pneumatics I....3
ISC 112 Industrial Safety....2
MAC 141 Machining Applications I 4
MAC 142 Machining Applications II 4
MNT 110 Intro to Maint Procedures....2
WLD 112 Basic Welding Processes 2
IST Program Electives 9

Students are required to take a minimum of 9 SHC from the following:
AHR 110 Intro to Refrigeration 5
AHR 112 Heating Technology 4
AHR 113 Comfort Cooling 4
ELC 128 Intro to PLC 3
ELN 260 Prog Logic Controllers....4
ELN 229 Industrial Electronics 4
MAC 122 CNC Turning....2
MAC 124 CNC Milling 2
MAC 222 Advanced CNC Turning 2
MAC 224 Advanced CNC Milling 2
WBL XXX Work-Based Learning 1-3
WLD 110 Cutting Processes 2
WLD 115 SMAW (Stick) Plate....5
OR
WLD 115AC SMAW (Stick) Plate-AC....2
WLD 115BC SMAW (Stick) Plate-BC....2
WLD 115CC SMAW (Stick) Plate-CC....1

Work-Based Learning Option: Qualified students may elect to take up to 3 credit hours of Work-Based Learning in place of 3 hours Program Elective.

Total Credit Hours Required 66-67

DEVELOPMENTAL COURSE REQUIREMENTS*
CTS 080 Computing Fundamentals....3
DRE 098 Integrated Reading Writing III 3
DMA DMA 010, DMA 020, DMA 030 (MAT 110) 3
DMA DMA 010, DMA 020, DMA 030, DMA 040, DMA 050 (MAT 143) 5
DMA DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 060 (MAT 121) 6

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Industrial Systems Technology • A50240
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
BPR	111	Print Reading	1	2	0	2
ELC	112	DC/AC Electricity	3	6	0	5
ELC	113	Residential Wiring	2	6	0	4
ELC	118	National Electrical Code	1	2	0	2
ELC	119	NEC Calculations	1	2	0	2
		Total	8	18	0	15
Spring – 1st year						
ELC	115	Industrial Wiring	2	6	0	4
ELC	117	Motors and Controls	2	6	0	4
ENG	111	Writing and Inquiry	3	0	0	3
MAT	121	Algebra/Trigonometry	2	2	0	3
	OR	MAT 110 Math Measurement & Literacy	2	2	0	3
	OR	MAT 143 Quantitative Literacy	2	2	0	3
		IST Program Elective	3	0	0	3
		Total	12	14	0	17
Summer – 1st year						
Social/Behavioral Science Elective			3	0	0	3
Humanities/Fine Arts Elective			3	0	0	3
		Total	6	0	0	6
Fall – 2nd year						
ISC	112	Industrial Safety	2	0	0	2
MAC	141	Machining Applications I	2	6	0	4
MAC	142	Machining Applications II	2	6	0	4
MNT	110	Intro to Maint Procedures	1	3	0	2
		IST Program Elective	3	0	0	3
		Total	10	15	0	15
Spring – 2nd year						
CIS	110	Introduction to Computers	2	2	0	3
	OR	CIS 111Basic PC Literacy	1	2	0	2
ENG	114	Prof Research & Reporting (Preferred)	3	0	0	3
	OR	ENG 112 Writing/Research in the Disc	3	0	0	3
	OR	ENG 113 Literature-Based Research	3	0	0	3
HYD	110	Hydraulics/Pneumatics I	2	3	0	3
WLD	112	Basic Welding Processes	1	3	0	2
		IST Program Elective	3	0	0	3
		Total	10/11	8	0	13/14
		Grand Total	46/47	55	0	66/67

Work-Based Learning Option: Qualified students may elect to take up to 3 credit hours of work-based learning in place of 3 hours of Program Elective.

Program electives: The student is required to take a minimum of 9 credits from this list.

AHR	110	Intro to Refrigeration	2	6	0	5
AHR	112	Heating Technology	2	4	0	4
AHR	113	Comfort Cooling	2	4	0	4
ELC	128	Intro to PLC	2	3	0	3
ELN	229	Industrial Electronics	2	4	0	4
ELN	260	Prog Logic Controller	3	3	0	4
MAC	122	CNC Turning	1	3	0	2
MAC	124	CNC Milling	1	3	0	2
MAC	222	Advanced CNC Turning	1	3	0	2
MAC	224	Advanced CNC Milling	1	3	0	2
WBL	XXX	Work-Based Learning	0	0	10/30	1/3
WLD	110	Cutting Processes	1	3	0	2
WLD	115	SMAW (Stick) Plate	2	9	0	5
	OR					
WLD	115AC	SMAW (Stick) Plate-AC	1	3	0	2
WLD	115BC	SMAW (Stick) Plate-BC	1	3	0	2
WLD	115CC	SMAW (Stick) Plate-CC	0	3	0	1

Industrial Systems Technology • A50240
Evening Courses Are Offered On Demand (See Your IST Advisor)

BPR	111	Print Reading	2
CIS	110	Introduction to Computers	3
	OR	CIS 111 Basic PC Literacy	2
ELC	112	DC/AC Electricity	5
ELC	113	Residential Wiring	4
ELC	115	Industrial Wiring	4
ELC	117	Motors and Controls	4
ELC	118	National Electrical Code	2
ELC	119	NEC Calculations	2
ENG	111	Writing and Inquiry	3
ENG	114	Prof Research & Reporting	3
	OR	ENG 112 Writing/Research in the Disc	3
	OR	ENG 113 Literatured-Based Research	3
HYD	110	Hydraulics/Pneumatics I	3
ISC	112	Industrial Safety	2
MAC	141	Machining Applications I	4
MAC	142	Machining Applications II	4
MAT	121	Algebra/Trigonometry I	3
	OR	MAT 110 Math Measurement & Literacy	3
	OR	MAT 143 Quantitative Literacy	3
MNT	110	Intro to Maint Procedures	2
WLD	112	Basic Welding Processes	2

Humanities/Fine Arts:
Elective 3

Social/Behavioral Sciences:
Elective 3

IST Program Electives 9

Students are required to take a minimum of 9 SHC from the following:

AHR	110	Intro to Refrigeration	5
AHR	112	Heating Technology	4
AHR	113	Comfort Cooling	4
ELC	128	Intro to PLC	3
ELN	229	Industrial Electronics	4
ELN	260	Prog Logic Controllers	4
MAC	122	CNC Turning	2
MAC	124	CNC Milling	2
MAC	222	Advanced CNC Turning	2
MAC	224	Advanced CNC Milling	2
WBL	XXX	Work-Based Learning	1/3
WLD	110	Cutting Processes	2
WLD	115	SMAW (Stick) Plate	5
	OR		
WLD	115AC	SMAW (Stick) Plate-AC	2
WLD	115BC	SMAW (Stick) Plate-BC	2
WLD	115CC	SMAW (Stick) Plate-CC	1

Work-Based Learning Option: Qualified students may elect to take up to 3 credit hours of Work-Based Learning in place of 3 hours of Program Elective.

Total Credit Hours Required 66-67

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
DRE	098	Integrated Reading Writing III	3
DMA		DMA 010, DMA 020, DMA 030, (MAT 110)	3
DMA		DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, (MAT 143)	5
DMA		DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 060 (MAT 121)	6

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

INFORMATION SYSTEMS SECURITY
A.A.S. Program (A25270)

Courses required to meet graduation requirements in this curriculum are offered during day and evening hours. The Associate in Applied Science degree is awarded graduates of this curriculum.

Information Systems Security covers a broad expanse of technology concepts. This curriculum provides individuals with the skills required to implement effective and comprehensive information security controls. Course work includes networking technologies, operating systems administration, information policy, intrusion detection, security administration, and industry best practices to protect data communications. Graduates should be prepared for employment as security administrators. Additionally, they will acquire the skills that allow them to pursue security certifications.

GENERAL EDUCATION COURSES:			**SHC**
English/Communications:			
ENG	111	Writing and Inquiry	3
ENG	114	Prof Research & Reporting	3
	OR	ENG 113 Literatured-Based Research	3
Humanities/Fine Arts:			
Elective			3
Natural Sciences/Mathematics:			
MAT	143	Quantitative Literacy	3
	OR	MAT 171 Precalculus Algebra	4
Social/Behavioral Sciences:			
Elective			3
MAJOR COURSES:			
CIS	110	Introduction to Computers	3
CIS	115	Intro to Prog & Logic	3
CTS	115	Info Sys Business Concepts	3
DBA	110	Database Concepts	3
NET	125	Networking Basics	3
NET	126	Routing Basics	3
NET	175	Wireless Technology	3
NET	225	Routing & Switching I	3
NET	226	Routing & Switching II	3
NOS	110	Operating Systems Concepts	3
NOS	120	Linux/UNIX Single User	3
NOS	130	Windows Single User	3
SEC	110	Security Concepts	3
SEC	150	Secure Communications	3
SEC	160	Secure Administration I	3
SEC	210	Intrusion Detection	3
SEC	220	Defense-In-Depth	3
SEC	240	Wireless Security	3
SEC	289	Security Capstone Project	3

Work-Based Learning Option: Qualified students may elect to take 3 credit hours of Work-Based Learning in place of SEC 240.

Total Credit Hours Required: 72/73

DEVELOPMENTAL COURSE REQUIREMENTS*			
CTS	080	Computing Fundamentals	3
DRE	098	Integrated Reading Writing III	3
DMA	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050 (MAT 143)		5
DMA	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 065 (MAT 171)		7

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Information Systems Security • A25270
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
CIS	110	Introduction to Computers	2	2	0	3
CIS	115	Intro to Prog & Logic	2	3	0	3
SEC	110	Security Concepts	2	2	0	3
NET	125	Networking Basics	1	4	0	3
DBA	110	Database Concepts	2	3	0	3
		Total	9	14	0	15
Spring – 1st year						
NET	126	Routing Basics	1	4	0	3
CTS	115	Info Sys Business Concepts	3	0	0	3
NOS	110	Operating Systems Concepts	2	3	0	3
ENG	111	Writing and Inquiry	3	0	0	3
		Humanities/Fine Arts Elective	3	0	0	3
		Total	12	7	0	15
Summer – 1st year						
ENG	114	Prof Researach & Reporting	3	0	0	3
	OR	ENG 113 Literature-Based Research	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
	OR	MAT 171 Precalculus Algebra	3	2	0	4
		Social/Behavioral Science Elective	3	0	0	3
		Total	8/9	2	0	9/10
Fall – 2nd year						
SEC	160	Secure Administration I	2	2	0	3
NET	175	Wireless Technology	2	2	0	3
NET	225	Routing & Switching I (1st eight week)	1	4	0	3
NET	226	Routing & Switching II (2nd eight week)	1	4	0	3
SEC	220	Defense-in-Depth	2	2	0	3
		Total	8	14	0	15
Spring – 2nd year						
NOS	120	Linux/UNIX Single User	2	2	0	3
NOS	130	Windows Single User	2	2	0	3
SEC	150	Secure Communications	2	2	0	3
SEC	210	Intrusion Detection	2	2	0	3
SEC	240	Wireless Security	2	2	0	3
	OR	WBL Work-Based Learning	0	0	30	3
SEC	289	Security Capstone Project	1	4	0	3
		Total	11	14	30	18
		Grand Total	48/49	51	30	72/73

INFORMATION SYSTEMS SECURITY
Network Security Certificate • Cert. Prog. (C2527001)

MAJOR COURSES:			**SHC**
NET	125	Networking Basics	3
NET	126	Routing Basics	3
SEC	110	Security Concepts	3
SEC	160	Secure Administration I	3
SEC	210	Intrusion Detection	3
SEC	220	Defense-In-Depth	3

Total Credit Hours Required: 18

Information Systems Security –
Network Security Cert. (C2527001) Suggested Sequence

Fall – 1st year						
SEC	110	Security Concepts	2	2	0	3
NET	125	Networking Basics	1	4	0	3
		Total	3	6	0	6
Spring – 1st year						
NET	126	Routing Basics	1	4	0	3
		Total	1	4	0	3
Fall – 2nd year						
SEC	160	Secure Administration I	2	2	0	3
SEC	220	Defense-In-Depth	2	2	0	3
		Total	4	4	0	6
Spring – 2nd year						
SEC	210	Intrusion Detection	2	2	0	3
		Total	2	2	0	3
		Grand Total	10	16	0	18

INFORMATION SYSTEMS SECURITY
Operating System Security Certificate
Certificate Program (C2527003)

MAJOR COURSES:			SHC
NET	125	Networking Basics	3
NOS	110	Operating Systems Concepts	3
NOS	120	Linux/UNIX Single User	3
NOS	130	Windows Single User	3
SEC	110	Security Concepts	3
SEC	150	Secure Communications	3
Total Credit Hours Required			**18**

Information Systems Security
Operating Security Certificate (C2527003) Suggested Sequence

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
SEC	110	Security Concepts	2	2	0	3
NET	125	Networking Basics	1	4	0	3
NOS	110	Operating Systems Concepts	2	3	0	3
		Total	6	7	0	9
Spring – 1st year						
SEC	150	Secure Communication	2	2	0	3
NOS	120	Linux/UNIX Single User	2	2	0	3
NOS	130	Windows Single User	2	2	0	3
		Total	6	6	0	9
		Grand Total	12	13	0	18

INFORMATION SYSTEMS SECURITY
Wireless Security Certificate
Certificate Program (C2527004)

MAJOR COURSES:			SHC
NET	125	Networking Basics	3
NET	175	Wireless Technology	3
NOS	110	Operating Systems Concepts	3
SEC	110	Security Concepts	3
SEC	150	Secure Communications	3
SEC	240	Wireless Security	3
Total Credit Hours Required			**18**

Information Systems Security
Wireless Security Certificate (C2527004) Suggested Sequence

Fall – 1st year						
SEC	110	Security Concepts	2	2	0	3
NET	125	Networking Basics	1	4	0	3
		Total	3	6	0	6
Spring – 1st year						
NOS	110	Operating Systems Concepts	2	3	0	3
SEC	150	Secure Communications	2	2	0	3
		Total	4	5	0	6
Fall – 2nd year						
NET	175	Wireless Technology	2	2	0	3
		Total	2	2	0	3
Spring – 2nd year						
SEC	240	Wireless Security	2	2	0	3
		Total	2	2	0	3
		Grand Total	11	15	0	18

MECHANICAL ENGINEERING TECHNOLOGY
A.A.S. Program (A40320)

Courses required to meet graduation requirements in this curriculum are offered during day hours only. Minimum time for completion: five semesters full-time attendance. The Associate in Applied Science degree is awarded graduates of this curriculum.

The Mechanical Engineering Technology curriculum prepares graduates to use basic engineering principles and technical skills to design, develop, test, and troubleshoot projects involving mechanical systems. Includes instruction in principles of mechanics, applications to specific engineering systems, design testing procedures, prototype and operational testing and inspection procedures, manufacturing system-testing procedures, test equipment operation and maintenance, computer applications, critical thinking, planning and problem solving, and oral and written communications. Graduates of the curriculum will find employment opportunities in the manufacturing or service sectors of engineering technology. Engineering technicians may obtain professional certification by application to organizations such as ASQC, SME, and NICET.

GENERAL EDUCATION COURSES:			**SHC**
English/Communications:			
ENG	111	Writing and Inquiry	3
ENG	114	Prof Research & Reporting	3
	OR	ENG 112 Writing/Research in the Disc	3
	OR	ENG 113 Literature-Based Research	3
Humanities/Fine Arts:			
Elective			3
Natural Sciences/Mathematics:			
MAT	171	Precalculus Algebra	4
	OR	MAT 121 Algebra/Trigonometry I	3
Social/Behavioral Sciences:			
Elective			3

MAJOR COURSES:			
CSC	134	C++ Programming	3
EGR	250	Statics/Strength of Mater	5
ELC	112	DC/AC Electricity	5
DFT	111	Technical Drafting I	2
DFT	111A	Technical Drafting I Lab	1
DFT	151	CAD I	3
DFT	153	CAD III	3
ELN	231	Industrial Controls	3
MAC	141	Machining Applications 1	4
MAT	172	Precalculus Trigonometry	4
	OR	MAT 122 Algebra/Trigonometry II	3
MEC	161	Manufacturing Processes I	3
MEC	180	Engineering Materials	3
MEC	231	Comp-Aided Manufact I	3
MEC	265	Fluid Mechanics	3
MEC	270	Machine Design	4
PHY	151	College Physics I	4
	OR	PHY 131 Physics-Mechanics	4
WLD	112	Basic Welding Processes	2

Work-Based Learning Option: Qualified students may elect to take 4 credit hours of Work-Based Learning in place of MEC 270.

Total Credit Hours Required 69/71

DEVELOPMENTAL COURSE REQUIREMENTS*			
CTS	080	Computing Fundamentals	3
DRE	098	Integrated Reading Writing III	3
DMA		DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 060 (MAT 121)	6
DMA		DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, MAT 065 (MAT 171)	7

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Mechanical Engineering Technology • A40320
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
CSC	134	C++ Programming	2	3	0	3
DFT	151	CAD I	2	3	0	3
ENG	111	Writing and Inquiry	3	0	0	3
MAT	171	Precalculus/Algebra	3	2	0	4
	OR	MAT 121 Algebra/Trigonometry I	2	2	0	3
MEC	180	Engineering Materials	2	3	0	3
		Total	11/12	11	0	15/16
Spring – 1st year						
DFT	111	Technical Drafting I	1	3	0	2
DFT	111A	Technical Drafting I Lab	0	3	0	1
ELC	112	DC/AC Electricity	3	6	0	5
MAT	172	Precalculus Trigonometry	3	2	0	4
	OR	MAT 122 Algebra/Trigonometry II	2	2	0	3
MEC	161	Manufacturing Processes I	3	0	0	3
WLD	112	Basic Welding Processes	1	3	0	2
		Total	10/11	17	0	16/17
Summer – 1st year						
ENG	114	Prof Research & Reporting (Preferred)	3	0	0	3
	OR	ENG 112 Writing/Research in the Disc	3	0	0	3
	OR	ENG 113 Literature-Based Research	3	0	0	3
		Humanities/Fine Arts Elective	3	0	0	3
		Total	6	0	0	6
Fall – 2nd year						
DFT	153	CAD III	2	3	0	3
EGR	250	Statics/Strength of Mater	4	3	0	5
ELN	231	Industrial Controls	2	3	0	3
PHY	151	College Physics I	3	2	0	4
	OR	PHY 131 Physics-Mechanics	3	2	0	4
		Total	11	11	0	15
Spring – 2nd year						
MAC	141	Machining Applications I	2	6	0	4
MEC	231	Comp-Aided Manufact I	1	4	0	3
MEC	265	Fluid Mechanics	2	2	0	3
MEC	270	Machine Design	3	3	0	4
		Social/Behavioral Science Elective	3	0	0	3
		Total	11	15	0	17
		Grand Total	49/51	54	0	69/71

Work-Based Learning Option: Qualified students may elect to take up to 4 credit hours of Work-Based Learning in place of MEC 270.

MECHATRONICS ENGINEERING TECHNOLOGY
A.A.S. Program (A40350)

Courses required to meet graduation requirements in this curriculum are offered primarily during day hours. Minimum time for completion: five semesters full-time attendance. The Associate in Applied Science degree is awarded graduates of this curriculum.

The Mechatronics Engineering Technology curriculum prepares graduates to use basic engineering principles and technical skills in developing and testing automated, servomechanical, and other electromechanical systems. Includes instruction in prototype testing, manufacturing and operational testing, systems analysis and maintenance procedures. Graduates should be qualified for employment in industrial maintenance and manufacturing including assembly, testing, startup, troubleshooting, repair, process improvement, and control systems and should qualify to sit for Packaging Machinery Manufacturers Institute (PMMI) mechatronics or similar industry examinations.

GENERAL EDUCATION COURSES:			**SHC**
English/Communications:			
ENG	111	Writing and Inquiry	3
ENG	114	Prof Research & Reporting	3
Humanities/Fine Arts:			
Elective			3
Natural Sciences/Mathematics:			
MAT	171	Precalculus Algebra	4
	OR	MAT 121 Algebra/Trigonometry I	3
Social/Behavioral Sciences:			
Elective			3

MAJOR COURSES:			
ATR	112	Intro to Automation	3
BPR	111	Blueprint Reading	2
CIS	110	Intro to Computers	3
DFT	151	CAD I	3
ELC	112	DC/AC Electricity	5
ELC	117	Motors and Controls	4
ELC	128	Intro to PLC	3
ELC	213	Instrumentation	4
ELN	229	Industrial Electronics	4
HYD	110	Hydraulics/Pneumatics	3
ISC	112	Industrial Safety	2
MEC	130	Mechanisms	3
MNT	110	Intro to Maintenance	2
PHY	151	College Physics I	4
	OR	PHY 131 Physics-Mechanics	4

Program electives: 6

Students are required to take a minimum of 6 SHC from the following:

Work-Based Learning Option: Qualified students may elect to take up to 4 credit hours of Work-Based Learning

CSC	134	C++ Programming	3
CSC	139	Visual BASIC Prog	3
ELC	111	Intro to Electricity	3
ELN	260	Prog Logic Controllers	3
MAC	141	Machining Applications I	4
MAC	142	Machining Applications II	4
MEC	180	Engineering Materials	3
NET	125	Networking Basics	3
PHY	133	Physics-Sound & Light	4
WBL	110	World of Work	1
WBL	XXX	Work-Based Learning	1-3
WLD	112	Basic Welding Processes	2

Total Credit Hours Required 66/67

DEVELOPMENTAL COURSE REQUIREMENTS*			
CTS	080	Computing Fundamentals	3
DRE	098	Integrated Reading Writing III	3
DMA		DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 060 (MAT 121)	6
DMA		DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 065 (MAT 171)	7

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Mechatronics Engineering Technology • A40350
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
BPR	111	Blueprint Reading	1	2	0	2
CIS	110	Intro to Computers	2	2	0	3
ELC	112	DC/AC Electricity	3	6	0	5
ENG	111	Writing and Inquiry	3	0	0	3
MAT	171	Precalculus Algebra	3	2	0	4
	OR	MAT 121 Algebra/Trigonometry I	2	2	0	3
		Total	11/12	12	0	16/17
Spring – 1st year						
DFT	151	CAD I	2	3	0	3
ELC	117	Motors and Controls	2	6	0	4
ELN	229	Industrial Electronics	2	4	0	4
ENG	114	Prof. Research and Reporting	3	0	0	3
MEC	130	Mechanisms	2	2	0	3
		Total	11	15	0	17
Summer – 1st year						
		Humanities/Fine Arts Elective	3	0	0	3
		Social/Behavioral Science Elective	3	0	0	3
		Total	6	0	0	6
Fall – 2nd year						
ATR	112	Intro to Automation	2	3	0	3
ISC	112	Industrial Safety	2	0	0	2
MNT	110	Intro to Maint Procedures	1	3	0	2
PHY	151	College Physics I	3	2	0	4
	OR	PHY 131 Physics-Mechanics	3	2	0	4
		Program Elective	2	3	0	3
		Total	l0	11	0	14
Spring - 2nd year						
ELC	213	Instrumentation	3	2	0	4
ELC	128	Intro to PLC	2	3	0	3
HYD	110	Hydraulics/Pneumatics	2	3	0	3
		Program Elective	2	3	0	3
		Total	9	11	0	13
		Grand Total	47/48	49	0	66/67

Mechatronics Engineering Technology
Suggested Program Sequence Day
Certificate Program (C40350)

MAJOR COURSES:			**SHC**
ATR	112	Intro to Automation	3
ELC	112	DC/AC Electricity	5
HYD	110	Hydraulics/Pneumatics	3
ISC	112	Industrial Safety	2
MEC	130	Mechanisms	3

Total Credit Hours Required 16

Mechatronics Engineering Technology Suggested Sequence

Fall – 1st year						
ATR	112	Intro to Automation	2	3	0	3
ELC	112	DC/AC Electricity	3	6	0	5
ISC	112	Industrial Safety	2	0	0	2
		Total	7	9	0	10
Spring – 1st year						
HYD	110	Hydraulics/Pneumatics	2	3	0	3
MEC	130	Mechanisms	2	2	0	3
		Total	4	5	0	6
		Grand Total	11	14	0	16

MEDICAL OFFICE ADMINISTRATION
A.A.S. Program (A25310)

This curriculum prepares individuals for employment in medical and other health-care related offices. Coursework will include medical terminology; information systems; office management; medical coding, billing and insurance; legal and ethical issues; and formatting and word processing. Students will learn administrative and support functions and develop skills applicable in medical environments. Employment opportunities are available in medical and dental offices, hospitals, insurance companies, laboratories, medical supply companies, and other health-care related organizations. Graduates will be eligible to sit for coding certification exams sponsored by the coding profession.

GENERAL EDUCATION COURSES:

English/Communications:

ENG	111	Writing and Inquiry	3
ENG	114	Prof Research & Reporting	3
	OR	ENG 112 Writing/Research in the Disc	3
	OR	ENG 113 Literature-Based Research	3

Humanities/Fine Arts
Elective: 3

Natural Science/Mathematics:

MAT	110	Math Measurement & Literacy	3
	OR	MAT 143 Quantitative Literacy	3
	OR	MAT 152 Statistical Methods I	4

Social/Behavioral Sciences
Elective: 3

MAJOR COURSES:

CIS	110	Introduction to Computers	3
HMT	110	Introduction to Healthcare Mgt	3
HMT	211	Long-Term Care Admin	3
MED	114	Prof Interac in Heal Care	1
MED	121	Medical Terminology I	3
MED	122	Medical Terminology II	3
OST	132	Keyboard Skill Building	2
OST	136	Word Processing	3
OST	140	Internet Comm/Research	2
OST	148	Med Coding Billing & Insur	3
OST	149	Medical Legal Issues	3
OST	164	Text Editing Applications	3
OST	243	Med Office Simulation	3
OST	247	Procedure Coding	2
OST	248	Diagnostic Coding	2
OST	249	CPC Certification	4
OST	281	Emerg Issues in Med Ofc	3
OST	286	Professional Development	3
WBL	XXX	Word-Based Learning	2

Total Credit Hours Required **66**

Developmental Course Requirements:

CTS	080	Computing Fundamentals	3
DMA	DMA 010, DMA 020, DMA 030 (MAT 110)		3
DMA	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050 (MAT 143, MAT 152)		5
DRE	098	Integrated Reading Writing III	3
OST	080	Keyboarding Literacy	2

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Medical Office Administration • A40350
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
CIS	110	Introduction to Computers	2	2	0	3
HMT	110	Introduction to Healthcare Mgt	3	0	0	3
OST	132	Keyboard Skill Building	1	2	0	2
OST	136	Word Processing	2	2	0	3
OST	149	Medical Legal Issues	3	0	0	3
OST	164	Text Editing Applications	3	0	0	3
		Total	14	6	0	17
Spring – 1st Year						
HMT	211	Long-Term Care Admin	3	0	0	3
MED	114	Prof Interac in Heal Care	1	0	0	1
MED	121	Medical Terminology I	3	0	0	3
MED	122	Medical Terminology II	3	0	0	3
OST	281	Emerg Issues in Med Off	3	0	0	3
		Total	13	0	0	13
Summer – 1st Year						
Social/Behavioral Science Elective			3	0	0	3
Humanities/Fine Arts Elective			3	0	0	3
ENG	111	Writing and Inquiry	3	0	0	3
		Total	9	0	0	9
Fall – 2nd Year						
OST	148	Med Coding Billing & Insurance (1st 8wks)	3	0	0	3
OST	243	Med Office Simulation (2nd 8wks)	2	2	0	3
OST	247	Prodedure Coding	1	2	0	2
OST	248	Diagnostic Coding	1	2	0	2
OST	286	Professional Development	3	0	0	3
		Total	10	6	0	13
Spring – 2nd Year						
ENG	114	Prof Research & Reporting	3	0	0	3
	OR	ENG 112 Writing/Research in the Disc	3	0	0	3
	OR	ENG 113 Literature-Based Research	3	0	0	3
MAT	110	Math Measurement & Literacy	2	2	0	3
	OR	MAT 143 Quantitative Literacy	2	2	0	3
	OR	MAT 152 Statistical Methods I	3	2	0	4
OST	140	Internet Comm/Research	1	2	0	2
OST	249	CPC Certification	3	2	0	4
WBL	XXX	Work-Based Learning	0	0	20	2
		Total	9	6	20	14
		Grand Total	55	18	20	66

MEDICAL OFFICE ADMINISTRATION
Diploma Program (D25310)

This curriculum prepares individuals for employment in medical and other health-care related offices. Coursework will include medical terminology; information systems; office management; medical coding, billing and insurance; legal and ethical issues; and formatting and word processing. Students will learn administrative and support functions and develop skills applicable in medical environments. Employment opportunities are available in medical and dental offices, hospitals, insurance companies, laboratories, medical supply companies, and other health-care related organizations.

GENERAL EDUCATION COURSES:			SHC
English/Communications:			
ENG	111	Writing and Inquiry	3
Social/Behavioral Sciences:			
Elective			3
MAJOR COURSES:			
CIS	110	Introduction to Computers	3
HMT	110	Intro to Healthcare Mgt	3
MED	114	Prof Interaction in HC	1
MED	121	Medical Terminology I	3
MED	122	Medical Terminology II	3
OST	132	Keyboard Skill Building	2
OST	136	Word Processing	3
OST	148	Med Coding Billing & Insu	3
OST	149	Medical Legal Issues	3
OST	164	Text Editing Applications	3
OST	243	Med Office Simulation	3
OST	247	Procedural Coding	2
OST	248	Diagnostic Coding	2
OST	281	Emer Issues in Med Ofc	3
Total Credit Hours Required:			**43**

DEVELOPMENTAL COURSE REQUIREMENTS

CTS	080	Computing Fundamentals	3
DRE	098	Integrated Reading Writing III	3
OST	080	Keyboarding Literacy	2

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Medical Office Administration • D25310
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
HMT	110	Intro to Healthcare Mgt	3	0	0	3
MED	121	Medical Terminology I (1st Eight Wks)	3	0	0	3
MED	122	Medical Terminology II (2nd Eight Wks)	3	0	0	3
OST	132	Keyboard Skill Building	1	2	0	2
OST	136	Word Processing	2	2	0	3
OST	164	Text Editing Applications	3	0	0	3
		Total	15	4	0	17
Spring – 1st year						
CIS	110	Introduction to Computers	2	2	0	3
MED	114	Prof Interaction in HC	1	0	0	1
OST	148	Med Coding Billing & Insu (1st 8 Wks)	3	0	0	3
OST	243	Med Office Simulation (2nd 8 Wks)	2	2	0	3
OST	247	Procedure Coding	1	2	0	2
OST	248	Diagnostic Coding	1	2	0	2
OST	281	Emer Issues in Med Ofc	3	0	0	3
		Total	13	8	0	17
Summer – 1st year						
OST	149	Medical Legal Issues	3	0	0	3
ENG	111	Writing and Inquiry	3	0	0	3
		Social/Behavioral Science Elective	3	0	0	3
		Total	9	0	0	9
		Grand Total	37	12	0	43

NETWORKING TECHNOLOGY
A.A.S. Program (A25340)

Courses required to meet graduation requirements in this curriculum are offered during the day and online. Minimum time for completion: Day – five semesters full-time attendance. The Associate in Applied Science degree is awarded graduates of tis curriculum.

The Networking Technology curriculum prepares individuals for employment supporting network infrastructure environments. Students will learn how to use technologies to provide reliable transmission and delivery of data, voice, image, and video communications in business, industry, and education. Course work includes design, installation, configuration, and management of network infrastructure technologies and network operating systems. Emphasis is placed on the implementation and management of network software and the implementation and management of hardware such as switches and routers. Graduates may find employment in entry-level jobs as local area network managers, network operators, network analysts, and network technicians. Graduates may also be qualified to take certification examinations for various network industry certifications, depending on their local program.

GENERAL EDUCATION COURSES:			SHC
English/Communications:			
ENG	111	Writing and Inquiry	3
ENG	114	Prof Research & Reporting	3
	OR	ENG 113 Literature-Based Research	3
Humanities/Fine Arts:			
Elective			3
Natural Sciences/Mathematics:			
MAT	143	Quantitative Literacy	3
	OR	MAT 171 Precalculus Algebra	4
Social/Behavioral Sciences:			
Elective			3
MAJOR COURSES:			
CIS	110	Introduction to Computers	3
CIS	115	Intro to Prog & Logic	3
CTS	115	Info Sys Business Concepts	3
CTS	120	Hardware/Software Support	3
CTS	286	Network Support	3
DBA	110	Database Concepts	3
NET	125	Networking Basics	3
NET	126	Routing Basics	3
NET	225	Routing & Switching I	3
NET	226	Routing & Switching II	3
NET	240	Network Design	3
NOS	110	Operating System Concepts	3
NOS	120	Linux/UNIX Single User	3
NOS	130	Windows Single User	3
NOS	230	Windows Administration I	3
NOS	231	Windows Administration II	3
SEC	110	Security Concepts	3
WBL	XXX	Work-Based Learning	2
Networking Elective			3
Students must select one course from the following:			
CIS	277	Network Design & Imp	3
NET	175	Wireless Technology	3
NET	270	Building Scalable Networks	3
NOS	244	Operating System - AS/400	3
SEC	150	Secure Communications	3
SEC	160	Security Administration	3
Total Credit Hours Required			**71/72**

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
DRE	098	Integrated Reading Writing III	3
DMA		DMA 010, DMA 020, DMA 030, DMA 040, DMA 050 (MAT 143)	5
DMA		DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 065 (MAT 171)	7

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Networking Technology • A25340
Suggested Program Sequence Day

		Class	Lab	Clin/WkExp	Credit
Fall – 1st year					
NOS 110	Operating System Concepts	2	3	0	3
NET 125	Networking Basics	1	4	0	3
SEC 110	Security Concepts	2	2	0	3
CIS 115	Intro to Prog & Logic	2	3	0	3
CIS 110	Introduction to Computers	2	2	0	3
	Total	9	14	0	15
Spring – 1st year					
CTS 120	Hardware/Software Support	2	3	0	3
NET 126	Routing Basics	1	4	0	3
NET 240	Network Design	3	0	0	3
NOS 120	Linux/UNIX Single User	2	2	0	3
NOS 130	Windows Single User	2	2	0	3
	Humanities/Fine Arts Elective	3	0	0	3
	Total	13	11	0	18
Summer – 1st year					
ENG 111	Writing and Inquiry	3	0	0	3
MAT 143	Quantitative Literacy	2	2	0	3
OR	MAT 171 Precalculus Algebra	3	2	0	4
	Social/Behavioral Science Elective	3	0	0	3
	Total	8/9	2	0	9/10
Fall – 2nd year					
NET 225	Routing & Switching I (First eight wks)	1	4	0	3
NET 226	Routing & Switching II (Sec eight wks)	1	4	0	3
DBA 110	Database Concepts	2	3	0	3
NOS 230	Windows Administration I	2	2	0	3
	Total	6	13	0	12
Spring – 2nd year					
CTS 286	Network Support	2	2	0	3
	Networking Elective	3	0	0	3
ENG 114	Prof Research & Reporting	3	0	0	3
OR	ENG 113 Literature-Based Research	3	0	0	3
CTS 115	Info Sys Business Concepts	3	0	0	3
NOS 231	Windows Administration II	2	2	0	3
WBL XXX	Work-Based Learning	0	0	20	2
	Total	13	4	20	17
	Grand Total	49/50	44	20	71/72

NETWORKING TECHNOLOGY
CCNA – Cisco Certified Network Associate Certificate Program (C2534001)

MAJOR COURSES:			SHC
NET	125	Networking Basics	3
NET	126	Routing Basics	3
NET	225	Routing & Switching I	3
NET	226	Routing & Switching II	3
Total Credit Hours Required			**12**

Networking Technology – CCNA Cert. (C2534001) Suggested Seq. Day

Fall – 1st year					
NET 125	Networking Basics	1	4	0	3
	Total	1	4	0	3
Spring – 1st year					
NET 126	Routing Basics	1	4	0	3
	Total	1	4	0	3
Fall – 2nd year					
NET 225	Routing & Switching I (First eight weeks)	1	4	0	3
NET 226	Routing & Switching II (Second eight weeks)	1	4	0	3
	Total	2	8	0	6
	Grand Total	4	16	0	12

Networking Technology – CCNA Cert. (C2534001) Suggested Seq. Night

Fall – 1st year					
NET 125	Networking Basics	1	4	0	3
NET 126	Routing Basics	1	4	0	3
	Total	2	8	0	6
Spring – 1st year					
NET 225	Routing & Switching I (First eight weeks)	1	4	0	3
NET 226	Routing & Switching II (Second eight weeks)	1	4	0	3
	Total	2	8	0	6
	Grand Total	4	16	0	12

NETWORKING TECHNOLOGY
Operating Systems Certificate Program (C2534004)

MAJOR COURSES:			SHC
NOS	110	Operating System Concepts	3
NOS	120	Linux/UNIX Single User	3
NOS	130	Windows Single User	3
NOS	230	Windows Administration I	3
NOS	244	Operating System – AS/400	3
Total Credit Hours Required			**15**

Operating Systems Certificate (C2534004) – Suggested Sequence

Fall – 1st year					
NOS 110	Operating Systems Concepts	2	3	0	3
	Total	2	3	0	3
Spring – 1st year					
NOS 130	Windows Single User	2	2	0	3
NOS 120	Linux/UNIX Single User	2	2	0	3
	Total	4	4	0	6
Fall – 2nd year					
NOS 230	Windows Admin I	2	2	0	3
	Total	2	2	0	3
Spring – 2nd year					
NOS 244	Operating System – AS/400	2	2	0	3
	Total	2	2	0	3
	Grand Total	10	11	0	15

OFFICE ADMINISTRATION
A.A.S. Program (A25370)

Courses required to meet graduation requirements in this curriculum are offered during the day and online. The Associate in Applied Science degree is awarded graduates of this curriculum. A Certificate is awarded graduates of the Office Administration Certificate option.

The Office Administration curriculum prepares individuals for positions in administrative support careers. It equips office professionals to respond to the demands of a dynamic computerized workplace. Students will complete courses designed to develop proficiency in the use of integrated software, oral and written communication, analysis and coordination of office duties and systems, and other support topics. Emphasis is placed on non-technical as well as technical skills. Graduates should qualify for employment in a variety of positions in business, government, and industry. Job classifications range from entry-level to supervisor to middle management.

GENERAL EDUCATION COURSES:			**SHC**
English/Communications:			
ENG	111	Writing and Inquiry	3
ENG	113	Literature-Based Research	3
OR		ENG 114 Prof Research & Reporting	3
Natural Sciences/Mathematics:			
MAT	110	Math Measurement & Literacy	3
OR		MAT 143 Quantitative Literacy	3
Humanities/Fine Arts:			
Elective			3
Social/Behavioral Sciences:			
Elective			3
MAJOR COURSES:			
ACC	120	Prin of Financial Accounting	4
BUS	115	Business Law I	3
BUS	260	Business Communication	3
CIS	110	Introduction to Computers	3
CTS	130	Spreadsheet	3
OST	132	Keyboard Skill Building	2
OST	136	Word Processing	3
OST	137	Office Software Applicat	3
OST	153	Office Finance Solutions	2
OST	164	Text Editing Applications	3
OST	165	Adv Text Editing Apps	3
OST	181	Intro to Office Systems	3
OST	184	Records Management	3
OST	284	Emerging Technologies	2
OST	286	Professional Development	3
OST	289	Administrative Office Mgt	3
WEB	110	Internet/Web Fundamentals	3
OR			
WBL	XXX	Work-Based Learning	3

Work-Based Learning Option: Qualified students may elect to take 3 credit hours of Work-Based Learning in place of WEB 110.

Total Credit Hours Required 64

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
DRE	098	Integrated Reading Writing III	3
DMA	DMA 010, DMA 020, DMA 030 (MAT 110)		3
DMA	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050 (MAT 143)		5
OST	080	Keyboarding Literacy	2

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Office Administration • A25370
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
CIS	110	Introduction to Computers	2	2	0	3
ENG	111	Writing and Inquiry	3	0	0	3
OST	132	Keyboard Skill Building	1	2	0	2
OST	164	Text Editing Applications	3	0	0	3
OST	136	Word Processing	2	2	0	3
		Total	11	6	0	14
Spring – 1st year						
OST	184	Records Management	2	2	0	3
CTS	130	Spreadsheet	2	2	0	3
ENG	113	Literature-Based Research	3	0	0	3
OR		ENG 114 Prof Research & Reporting 3	0	0	3	
OST	284	Emerging Technologies	1	2	0	2
OST	137	Office Software Applicat	2	2	0	3
OST	181	Intro to Office Systems	2	2	0	3
		Total	12	10	0	17
Fall – 2nd year						
ACC	120	Prin of Financial Accounting	3	2	0	4
BUS	260	Business Communication	3	0	0	3
MAT	110	Math Measurement & Literacy	2	2	0	3
OR		MAT 143 Quantitative Literacy	2	2	0	3
OST	165	Adv Text Editing Apps	2	2	0	3
OST	286	Professional Development	3	0	0	3
		Total	13	6	0	16
Spring – 2nd year						
OST	289	Administrative Office Mgt	2	2	0	3
WEB	110	Internet/Web Fundamentals	2	2	0	3
OR		WBL XXX Work-Based Learning	0	0	30	3
OST	153	Office Finance Solutions	1	2	0	2
BUS	115	Business Law I	3	0	0	3
		Humanities/Fine Art Elective	3	0	0	3
		Social/Behavioral Science Elective	3	0	0	3
		Total	12/14	6	0/30	17
		Grand Total	50	28	0/30	64

OFFICE ADMINISTRATION
Diploma Program (D25370)

GENERAL EDUCATION COURSES:			SHC
English/Communications:			
ENG	111	Writing and Inquiry	3
ENG	113	Literature-Based Research	3
	OR	ENG 114 Prof Research & Reporting	3
MAJOR COURSES:			
BUS	115	Business Law I	3
CIS	110	Introduction to Computers	3
CTS	130	Spreadsheet	3
OST	132	Keyboard Skill Building	2
OST	136	Word Processing	3
OST	137	Office Software Applicat	3
OST	153	Office Finance Solutions	2
OST	164	Text Editing Applications	3
OST	181	Intro to Office Systems	3
OST	184	Records Management	3
WEB	110	Internet/Web Fundamentals	3
Total Credit Hours Required:			**37**

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
DRE	098	Integrated Reading Writing III	3
OST	080	Keyboarding Literacy	3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Office Administration – Diploma (D25370) Suggested Sequence

			Class	Lab	Clin/WkExp	Credit
Fall - 1st year						
CIS	110	Introduction to Computers	2	2	0	3
OST	132	Keyboarding Skill Building	1	2	0	2
OST	136	Word Processing	2	2	0	3
OST	164	Text Editing Applications	3	0	0	3
ENG	111	Writing and Inquiry	3	0	0	3
		Total	11	6	0	14
Spring - 1st year						
OST	181	Intro to Office Systems	2	2	0	3
OST	184	Records Management	2	2	0	3
OST	137	Office Software Applicat.	2	2	0	3
OST	153	Office Finance Solutions	1	2	0	2
CTS	130	Spreadsheet	2	2	0	3
WEB	110	Internet/Web Fundamentals	2	2	0	3
		Total	11	12	0	17
Summer - 1st year						
ENG	113	Literature-Based Research	3	0	0	3
	OR	ENG 114 Prof Research & Reporting	3	0	0	3
BUS	115	Business Law I	3	0	0	3
		Total	6	0	0	6
		Grand Total	28	18	0	37

OFFICE ADMINISTRATION
Certificate Program (C25370)

MAJOR COURSES:			SHC
CIS	110	Introduction to Computers	3
OST	132	Keyboard Skill Building	2
OST	136	Word Processing	3
OST	164	Text Editing Applications	3
OST	181	Intro to Office Systems	3
OST	184	Records Management	3
Total Credit Hours Required:			**17**

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
DRE	098	Integrated Reading Writing III	3
OST	080	Keyboarding Literacy	3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Office Administration – Certificate (C25370) Suggested Sequence

Fall – 1st year						
CIS	110	Introduction to Computers	2	2	0	3
OST	132	Keyboarding Skill Building	1	2	0	2
OST	136	Word Processing	2	2	0	3
OST	164	Text Editing Applications	3	0	0	3
		Total	8	6	0	11
Spring – 1st year						
OST	181	Intro to Office Systems	2	2	0	3
OST	184	Records Management	2	2	0	3
		Total	4	4	0	6
		Grand Total	12	10	0	17

OFFICE ADMINISTRATION
Microsoft Office Specialist Certificate (MOS) Certificate Program (C2537001)

MAJOR COURSES:			SHC
CIS	110	Introduction to Computers	3
CTS	130	Spreadsheet	3
OST	136	Word Processing	3
OST	137	Office Software Applicat	3
Total Credit Hours Required:			**12**

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
DRE	098	Integrated Reading Writing III	3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Office Administration – Microsoft Office Specialist Certificate (C2537001) Suggested Sequence

Fall – 1st year						
CIS	110	Introduction to Computers	2	2	0	3
OST	136	Word Processing	2	2	0	3
		Total	4	4	0	6
Spring – 1st year						
CTS	130	Spreadsheet	2	2	0	3
OST	137	Office Software Applicat	2	2	0	3
		Total	4	4	0	6
		Grand Total	8	8	0	12

PHOTOGRAPHIC TECHNOLOGY
A.A.S. Program (A30280)

Courses required to meet graduation requirements in this curriculum are offered during day hours only. Minimum time for completion: five semesters full-time attendance. The Associate in Applied Science degree is awarded graduates of this curriculum.

The Photographic Technology curriculum offers training in photographic techniques and their application in professional photographic disciplines. Where offered, students will receive comprehensive course work in four areas of concentration: biomedical photography, photojournalism, commercial photography and portrait studio management. Special emphasis is placed on developing skills in the following areas: fundamentals of camera systems, lighting, photographic process, digital imaging, design, and business practices. Graduates should qualify for entry level jobs in the diverse photographic industry. Employment opportunities exist in the following areas: commercial photography, photojournalism, biomedical photography, portrait photography, equipment sales, photographic laboratories, and imaging technologies, depending upon courses offered and completed.

GENERAL EDUCATION COURSES: **SHC**

English/Communications:
ENG 111 Writing and Inquiry 3
ENG 113 Literature-Based Research....3
OR ENG 114 Prof Research & Reporting 3

Humanities/Fine Arts:
Elective 3

Natural Sciences/Mathematics:
MAT 143 Quantitative Literacy....3
OR MAT 152 Statistical Methods I 4
OR MAT 171 Precalculus Algebra....4

Social/Behavioral Sciences:
Elective 3

MAJOR COURSES:
PHO 110 Fund of Photography 5
PHO 113 History of Photography 3
PHO 115 Basic Studio Lighting 4
PHO 120 Intermediate Photography 4
PHO 139 Intro to Digital Imaging....2
PHO 150 Portfolio Development I....4
PHO 216 Documentary Photography....4
PHO 217 Photojournalism I 4
PHO 219 Digital Applications....2
PHO 220 Business of Photography 3
PHO 224 Multimedia Production....3
PHO 226 Portraiture....4
PHO 235 Commercial Photography....4
PHO 250 Portfolio Development II....4
WBL 110 World of Work 1
PHO Program Electives 1/4

Students are required to take a minimum of 1 SHC from the following:
BUS 110 Introduction to Business....3
BUS 125 Personal Finance....3
BUS 137 Principles of Management....3
BUS 139 Entrepreneurship I 3
CIS 110 Introduction to Computers....3
PHO 131 View Camera 4
PHO 180 Creative Problem Solving 3
PHO 275 Travel/Outdoor Photo 3

OTHER REQUIRED COURSES:
ACA 111 College Student Success....1

Total Credit Hours Required 70/72

DEVELOPMENTAL COURSE REQUIREMENTS*
CTS 080 Computing Fundamentals....3
DRE 098 Integrated Reading Writing III 3
DMA DMA 010, DMA 020, DMA 030, DMA 040, DMA 050 (MAT 143/MAT 152)...5
DMA DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 065 (MAT 171) .7

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Photographic Technology • A30280
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
ACA	111	College Student Success	1	0	0	1
ENG	111	Writing and Inquiry	3	0	0	3
PHO	110	Fund of Photography	3	6	0	5
PHO	113	History of Photography	3	0	0	3
PHO	139	Intro to Digital Imaging	1	3	0	2
		Total	11	9	0	14
Spring – 1st year						
PHO	115	Basic Studio Lighting	2	6	0	4
PHO	120	Intermediate Photography	2	4	0	4
PHO	219	Digital Applications	1	3	0	2
PHO	220	Business of Photography	3	0	0	3
PHO	224	Multimedia Production	2	3	0	3
		Total	10	16	0	16
Summer – 1st year						
ENG	113	Literature-Based Research	3	0	0	3
	OR	ENG 114 Prof Research and Reporting	3	0	0	3
		Humanities/Fine Arts Elective	3	0	0	3
		Social/Behavioral Science Elective	3	0	0	3
		Total	9	0	0	9
Fall – 2nd year						
PHO	150	Portfolio Development I	3	3	0	4
PHO	217	Photojournalism I	1	6	0	4
PHO	226	Portraiture	3	3	0	4
PHO	235	Commercial Photography	2	4	0	4
		Total	9	16	0	16
Spring – 2nd year						
MAT	143	Quantitative Literacy	2	2	0	3
	OR	MAT 152 Statistical Methods I	3	2	0	4
	OR	MAT 171 Precalculus Algebra	3	2	0	4
PHO	216	Documentary Photography	2	4	0	4
PHO	250	Portfolio Development II	2	4	0	4
		Program Elective				3/4
WBL	110	World of Work	1	0	0	1
		Total	7/8	10	0	15/17
		Grand Total	46/47	51	0	70/72

Photographic Technology Certificate • (C30280)

MAJOR COURSES:.... SHC
PHO 110 Fund of Photography 5
PHO 115 Basic Studio Lighting 4
PHO 139 Intro to Digital Imaging....2
PHO 219 Digital Applications....2
PHO 224 Multimedia Production....3

Total Credit Hours Required 16

Photographic Technology Certificate • (C30280)
Suggested Program Sequence

Fall – 1st year						
PHO	110	Fund of Photography	3	6	0	5
PHO	139	Intro to Digital Imaging	1	3	0	2
		Total	4	9	0	7
Spring – 1st year						
PHO	219	Digital Applications	1	3	0	2
		Total	1	3	0	2
Fall – 2nd year						
PHO	115	Basic Studio Lighting	2	6	0	4
		Total	2	6	0	4
Spring – 2nd year						
PHO	224	Multimedia Production	2	3	0	3
		Total	2	3	0	3
		Grand Total	9	21	0	16

POLYSOMNOGRAPHY
A.A.S. Program (A45670)

Courses required to meet graduation requirements in this curriculum are offered during day hours only with clinicals in the evenings. Minimum time for completion: four semesters full-time attendance. The Associate of Applied Science degree is awarded graduates of this curriculum. The Polysomnography curriculum prepares individuals, working in conjunction with a physician, to perform and interpret sleep studies and to provide comprehensive clinical evaluations that are required for the diagnosis of sleep related disorders. Students will acquire the knowledge and skills necessary to perform sleep studies, including recording and interpreting events observed during sleep. Treatment of sleep related disorders and patient education focused on healthy sleep habits will also be discussed. Graduates of accredited programs may be eligible to apply to take the examination offered by the Board of Registered Polysomnographic Technologists. Employment opportunities may be found in hospitals and freestanding sleep centers.

GENERAL EDUCATION COURSES:			**SHC**
English/Communications:			
ENG	111	Writing and Inquiry	3
ENG	114	Prof Research & Reporting	3
	OR	ENG 112 Writing/Research in the Disc	3
	OR	ENG 113 Literature-Based Research	3
Humanities/Fine Arts:			
Elective			3
Natural Sciences/Mathematics:			
MAT	143	Quantitative Literacy	3
Social/Behavioral Sciences:			
Elective			3
MAJOR COURSES:			
BIO	163	Basic Anat & Physiology	5
CIS	110	Introduction to Computers	3
ELC	111	Intro to Electricity	3
MED	118	Medical Law and Ethics	2
MED	121	Medical Terminology I	3
MED	122	Medical Terminology II	3
PSG	110	Intro to Polysomnography	4
PSG	111	Neuro/Cardiopulmonary A&P	4
PSG	112	PSG Fundamentals	3
PSG	210	Polysomnography I	7
PSG	211	Polysomnography II	7
PSG	212	Infant/Pediatric PSG	4
PSG	213	Case Study/Exam Review	1
PSG	214	PSG Clinical Apps I	1
OTHER REQUIRED COURSES:			
ACA	111	College Student Success	1
Total Credit Hours Required			**66**
DEVELOPMENTAL COURSE REQUIREMENTS*			
CTS	080	Computing Fundamentals	3
DRE	098	Integrated Reading Writing III	3
DMA	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050		5

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

POLYSOMNOGRAPHY • Certificate Program (C45650)

Courses required to meet graduation requirements in this curriculum are offered during day hours, clinicals are offered in the evening hours. Minimum time for completion: three semesters part-time attendance. A certificate is awarded graduates of this curriculum.

MAJOR COURSES:			**SHC**
*PSG	189	PSG Transition	3
PSG	210	Polysomnography I	7
PSG	211	Polysomnography II	7

*Credit for course may be earned by successfully completing the Polysomnography Entrance Test.

Total Credit Hours Required **17**

Polysomnography Certificate • C45650 Suggested Seq.

Summer – 1st year						
*PSG 189	PSG Transition		1	3	3	3
		Total	1	3	3	3
Fall – 1st year						
PSG 210	Polysomnography I		3	2	9	7
		Total	3	2	9	7
Spring – 1st year						
PSG 211	Polysomnography II		2	6	9	7
		Total	2	6	9	7
		Grand Total	6	11	21	17

Polysomnography • A45670
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
ACA	111	College Student Success	1	0	0	1
ELC	111	Intro to Electricity	3	0	0	3
ENG	111	Writing and Inquiry	3	0	0	3
MED	121	Medical Terminology I	3	0	0	3
PSG	110	Intro to Polysomnography	3	2	0	4
		Total	13	2	0	14
Spring – 1st year						
CIS	110	Introduction to Computers	2	2	0	3
MAT	143	Quantitataive Literacy	2	2	0	3
MED	122	Medical Terminology II	3	0	0	3
PSG	111	Neuro/Cardiopulmonary A&P	4	0	0	4
PSG	112	PSG Fundamentals	3	0	0	3
		Total	14	4	0	16
Summer – 1st year						
MED	118	Medical Law and Ethics	2	0	0	2
ENG	114	Prof Research & Reporting	3	0	0	3
	OR	ENG 112 Writing/Research in the Disc	3	0	0	3
	OR	ENG 113 Literature-Based Research	3	0	0	3
		Humanities/Fine Arts Elective	3	0	0	3
		Total	8	0	0	8
Fall – 2nd year						
PSG	210	Polysomnography I	3	2	9	7
PSG	214	PSG Clinical Apps I	0	2	0	1
		Social Behavioral/Science Elective	3	0	0	3
		Total	6	4	9	11
Spring – 2nd year						
PSG	211	Polysomnography II	2	6	9	7
PSG	212	Infant/Pediatric PSG	3	2	0	4
PSG	213	Case Study/Exam Review	0	3	0	1
		Total	5	11	9	12
		Grand Total	46	23	18	66

Note: Students must complete BIO 163, Basic Anat & Physiology 5 SHC, prior to admission into the program.

Polysomnography Associate Degree
Completion Program (A4567009)

This will be an ongoing program to offer an Associate in Applied Science to individuals who already hold the national registry credential offered by the Board of Registered Polysomnography Technologists (BRPT) and are currently in good standing with the Board at the time of acceptance. Good standing with the BRPT will be a requirement throughout the duration of the program. These individuals will have to meet the following criteria prior to acceptance:

a. Meet all College requirements regarding basic admission and receipt of prior scholarly transcripts
b. Provide official documentation of current Basic Life Support certification
c. Provide a letter from current employer stating they are actively working in the field of Polysomnography for at least one year.

Student services and the Director of Polysomnography Technology will confirm admission requirements have been met prior to acceptance into the program. After being accepted to the program, these individuals will be required to:

a. Maintain current working status in the field of Polysomnography and provide documentation to the Director of the program as requested
b. Adhere to the rules of the Polysomnography Technology program, Catawba Valley Community College, and the BRPT standards of conduct
c. Complete all required general education requirements of the Polysomnography Technology curriculum
d. Register and complete PSG 112 Fundamentals and PSG 212 Infant/Pediatric PSG classes
e. Students accepted will receive AP credit for the following PSG curriculum classes because competency objectives have been met by possession of current registry status with the Board of Registered Polysomnographic Technologists: PSG 110 Intro to Polysomnography; PSG 111 Neuro/CP A & P; PSG 210 Polysomnography I; PSG 211 Polysomnography II; PSG213 Exam Review/Case Studies; PSG 214 PSG Clinical Apps I.

All classes will be provided in a distant education online format for convenience of these individuals. Grading, transcript evaluation, transfer policies, curriculum and graduation requirements will follow current CVCC policy. Program completion will vary according to progression of required classes for each student accepted.

RADIOGRAPHY
A.A.S. Program (A45700)

Courses required to meet graduation requirements in this curriculum are offered during day hours only. Minimum time for completion: five semesters full-time attendance. The Associate in Applied Science degree is awarded graduates of this curriculum.

The Radiography curriculum prepares the graduate to be a radiographer, a skilled health care professional who uses radiation to produce images of the human body. Course work includes clinical rotations to area health care facilities, radiographic exposure, image processing, radiographic procedures, physics, pathology, patient care and management, radiation protection, quality assurance, anatomy and physiology, and radiobiology. Graduates of accredited programs are eligible to apply to take the American Registry of Radiologic Technologists' national examination for certification and registration as medical radiographers. Graduates may be employed in hospitals, clinics, physicians' offices, medical laboratories, government agencies, and industry.

GENERAL EDUCATION COURSES:			**SHC**
English/Communications:			
ENG	111	Writing and Inquiry	3
English Elective			3
Students are required to take one (1) course from the following:			
ENG	112	Writing/Research in the Disc	3
ENG	113	Literature-Based Research	3
ENG	114	Prof Research & Reporting	3
Humanities/Fine Arts:			
Elective			3
Natural Sciences/Mathematics:			
BIO	168	Anatomy and Physiology I	4
BIO	169	Anatomy and Physiology II	4
MAT	143	Quantitative Literacy	3
Social/Behavioral Sciences:			
PSY	150	General Psychology	3
MAJOR COURSES:			
RAD	110	Rad Intro & Patient Care	3
RAD	111	RAD Procedures I	4
RAD	112	RAD Procedures II	4
RAD	121	Radiographic Imaging I	3
RAD	122	Radiographic Imaging II	2
RAD	131	Radiographic Physics I	2
RAD	151	RAD Clinical Ed I	2
RAD	161	RAD Clinical Ed II	5
RAD	171	RAD Clinical Ed III	4
RAD	211	RAD Procedures III	3
RAD	231	Radiographic Physics II	2
RAD	241	Radiobiology/Protection	2
RAD	245	Image Analysis	2
RAD	251	RAD Clinical Ed IV	7
RAD	261	RAD Clinical Ed V	7
RAD	271	Radiography Capstone	1
Total Credit Hours Required			**76**
DEVELOPMENTAL COURSE REQUIREMENTS*			
DRE	098	Integrated Reading Writing III	3
DMA	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050		5

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Radiography Program • A45700
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
BIO	168	Anatomy and Physiology I	3	3	0	4
ENG	111	Writing and Inquiry	3	0	0	3
PSY	150	General Psychology	3	0	0	3
		Total	9	3	0	10
Spring – 1st year						
BIO	169	Anatomy and Physiology II	3	3	0	4
ENG	112	Writing/Research in the Disc (Preferred)	3	0	0	3
OR		ENG 113 Literature-Based Research	3	0	0	3
OR		ENG 114 Prof Research & Reporting	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
		Humanities/Fine Arts Elective	3	0	0	3
		Total	11	5	0	13
Fall – 2nd year						
RAD	110	Rad Intro & Patient Care	2	3	0	3
RAD	111	RAD Procedures I	3	3	0	4
RAD	151	RAD Clinical Ed. I	0	0	6	2
		Total	5	6	6	9
Spring – 2nd year						
RAD	112	RAD Procedures II	3	3	0	4
RAD	121	Radiographic Imaging I	2	3	0	3
RAD	161	RAD Clinical Ed II	0	0	15	5
		Total	5	6	15	12
Summer – 2nd year						
RAD	131	Radiographic Physics I	1	3	0	2
RAD	122	Radiographic Imaging II	1	3	0	2
RAD	171	RAD Clinical Ed III	0	0	12	4
		Total	2	6	12	8
Fall – 3rd year						
RAD	211	RAD Procedures III	2	3	0	3
RAD	231	Radiographic Physics II	1	3	0	2
RAD	241	Radiobiology/Protection	2	0	0	2
RAD	251	RAD Clinical Ed IV	0	0	21	7
		Total	5	6	21	14
Spring – 3rd year						
RAD	245	Image Analysis	1	3	0	2
RAD	261	RAD Clinical Ed V	0	0	21	7
RAD	271	Radiography Capstone	0	3	0	1
		Total	1	6	21	10
		Grand Total	38	38	75	76

Note: Students must complete BIO 168, BIO 169, ENG 111, ENG 112 or ENG 113 or ENG 114, MAT 143 or higher, PSY 150, and a Humanities/Fine Arts elective, prior to the program application deadline and prior to admission to the program. Students must also be accepted into the Radiography program prior to taking RAD courses.

RESPIRATORY THERAPY
A.A.S. Program (A45720)

Courses required to meet graduation requirements in this curriculum are offered during day hours only. Minimum time for completion: five semesters full-time attendance. The Associate of Applied Science degree is awarded graduates of this curriculum.

The Respiratory Therapy curriculum prepares individuals to function as respiratory therapists. In these roles, individuals perform diagnostic testing, treatments, and management of patients with heart and lung diseases. Students will master skills in patient assessment and treatment of cardiopulmonary diseases. These skills include life support, monitoring, drug administration, and treatment of patients of all ages in a variety of settings. Graduates of accredited programs may be eligible to take entry-level examinations from the National Board of Respiratory Care. Therapy graduates may also take the Advanced Practitioner examination. Graduates may be employed in hospitals, clinics, nursing homes, education, industry, and home care.

GENERAL EDUCATION COURSES:			**SHC**
English/Communications:			
ENG	111	Writing and Inquiry	3
ENG	112	Writing/Research in the Disc	3
	OR	ENG 113 Literature-Based Research	3
	OR	ENG 114 Prof Research & Reporting	3
Humanities/Fine Arts:			
Elective			3
Natural Sciences/Mathematics:			
BIO	168	Anatomy and Physiology I	4
BIO	169	Anatomy and Physiology II	4
Social/Behavioral Sciences:			
Elective			3

MAJOR COURSES:			
BIO	275	Microbiology	4
RCP	110	Intro to Respiratory Care	4
RCP	111	Therapeutics/Diagnostics	5
RCP	113	RCP Pharmacology	2
RCP	114	C-P Anatomy & Physiology	3
RCP	115	C-P Pathophysiology	2
RCP	122	Special Practice Lab	1
RCP	123	Special Practice Lab	1
RCP	145	RCP Clinical Practice II	5
RCP	152	RCP Clinical Practice III	2
RCP	210	Critical Care Concepts	4
RCP	211	Adv Monitoring/Procedures	4
RCP	214	Neonatal/Peds RC	2
RCP	215	Career Prep-Adv Level	1
RCP	236	RCP Clinical Practice IV	6
RCP	246	RCP Clinical Practice V	6
Total Credit Hours Required			**72**

DEVELOPMENTAL COURSE REQUIREMENTS*			
DRE	098	Integrated Reading Writing III	3
DMA	DMA 010, DMA 020, DMA 030, DMA 040		4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Respiratory Therapy • A45720
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
RCP	110	Intro to Respiratory Care	3	3	0	4
RCP	113	RCP Pharmacology	2	0	0	2
RCP	122	Special Practice Lab	0	2	0	1
RCP	114	C-P Anatomy & Physiology	3	0	0	3
BIO	168	Anatomy and Physiology I	3	3	0	4
ENG	111	Writing and Inquiry	3	0	0	3
		Total	14	8	0	17
Spring – 1st year						
RCP	111	Therapeutics/Diagnostics	4	3	0	5
RCP	145	RCP Clinical Practice II	0	0	15	5
RCP	115	C-P Pathophysiology	2	0	0	2
BIO	169	Anatomy and Physiology II	3	3	0	4
ENG	112	Writing/Research in the Disc	3	0	0	3
	OR	ENG 113 Literature-Based Research	3	0	0	3
	OR	ENG 114 Professional Writing	3	0	0	3
(Students are recommended to take ENG 114)						
		Total	12	6	15	19
Summer – 1st year						
RCP	152	RCP Clinical Practice III	0	0	6	2
RCP	123	Special Practice Lab	0	3	0	1
		Total	0	3	6	3
Fall – 2nd year						
BIO	275	Microbiology	3	3	0	4
RCP	210	Critical Care Concepts	3	3	0	4
RCP	236	RCP Clinical Practice IV	0	0	18	6
RCP	214	Neonatal/Peds RC	1	3	0	2
		Humanities/Fine Arts Elective	3	0	0	3
		Total	10	9	18	19
Spring – 2nd year						
RCP	211	Adv Monitoring/Procedures	3	3	0	4
RCP	246	RCP Clinical Practice V	0	0	18	6
RCP	215	Career Prep-Adv Level	0	3	0	1
		Social/Behavioral Science Elective	3	0	0	3
		Total	6	6	18	14
		Grand Total	42	32	57	72

Note: Students must complete college level chemistry, 4 credit hours, prior to admission into the program. CHM 100 or greater.

SURGICAL TECHNOLOGY
Diploma Program (D45740)

Courses required to meet graduation requirements in this curriculum are offered during day hours only. Minimum time for completion: three semesters full-time attendance. The Diploma is awarded graduates of the surgical technology curriculum.

The Surgical Technology curriculum prepares individuals to assist in the care of the surgical patient in the operating room and to function as a member of the surgical team. Students will apply theoretical knowledge to the care of patients undergoing surgery and develop skills necessary to prepare supplies, equipment, and instruments; maintain aseptic conditions; prepare patients for surgery; and assist surgeons during operations. Employment opportunities include labor/delivery/emergency departments, inpatient/outpatient surgery centers, dialysis units/facilities, physicians' offices, and central processing units. Students of Commission on Accreditation of Allied Health Education Programs (CAAHEP) accredited programs are required to take the national certification exam administered by the National Board on Certification in Surgical Technology and Surgical Assisting (NBSTSA) within a four-week period prior to or after graduation.

GENERAL EDUCATION COURSES:			SHC
English/Communications:			
ENG	111	Writing and Inquiry	3
Social/Behavioral Sciences:			
PSY	150	General Psychology	3
MAJOR COURSES:			
BIO	163	Basic Anat & Physiology	5
BIO	175	General Microbiology	3
SUR	110	Intro to Surg Tech	3
SUR	111	Periop Patient Care	7
SUR	122	Surgical Procedures I	6
SUR	123	SUR Clinical Practice I	7
SUR	134	Surgical Procedures II	5
SUR	135	SUR Clinical Practice II	4
SUR	137	Prof Success Prep	1
OTHER REQUIRED COURSES:			
ACA	111	College Student Success	1
Total Credit Hours Required			**48**
DEVELOPMENTAL COURSE REQUIREMENTS*			
CTS	080	Computing Fundamentals	3
DRE	098	Integrated Reading Writing III	3
DMA	DMA 010, DMA 020, DMA 030, DMA 040		4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Surgical Technology • (D45740)
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
ENG	111	Writing and Inquiry	3	0	0	3
ACA	111	College Student Success	1	0	0	1
BIO	163	Basic Anat & Physiology	4	2	0	5
SUR	110	Intro to Surg Tech	3	0	0	3
SUR	111	Periop Patient Care	5	6	0	7
		Total	16	8	0	19
Spring – 1st year						
BIO	175	General Microbiology	2	2	0	3
PSY	150	General Psychology	3	0	0	3
SUR	122	Surgical Procedures I	5	3	0	6
SUR	123	SUR Clinical Practice I	0	0	21	7
		Total	10	5	21	19
Summer – 1st year						
SUR	135	SUR Clinical Practice II	0	0	12	4
SUR	134	Surgical Procedures II	5	0	0	5
SUR	137	Prof Success Prep	1	0	0	1
		Total	6	0	12	10
		Grand Total	32	13	33	48

TURFGRASS MANAGEMENT TECHNOLOGY
A.A.S. Program (A15420)

Most courses required to meet graduation requirements in this curriculum are offered during day hours only. Minimum time for completion: five semesters full-time attendance. The Associate in Applied Science Degree is awarded graduates of this curriculum. CVCC has a 2 + 2 Articulation Agreement with NC Agricultural and Technological State University in Horticulture. CVCC has a 2+2 Online Articulation Agreement with Pennsylvania State University for the B.S. Degree in Turfgrass Management.

The Turfgrass Management Technology curriculum is designed to provide skills necessary to perform duties related to management of golf courses, sports fields, lawn care, irrigation design, and sod production. Coursework includes turfgrass management, irrigation, ornamental horticulture, soil science, entomology, plant pathology, as well as courses in communications, computers, and the social sciences. Graduates should qualify for employment at golf courses, local, state, and national parks, sports complexes, highway vegetation, and turf maintenance companies. Graduates should also be prepared to take the North Carolina Pesticide Applicator's examination.

GENERAL EDUCATION COURSES:			SHC
English/Communications:			
ENG	111	Writing and Inquiry	3
ENG	114	Prof Research & Reporting	3
	OR	ENG 112 Writing/Research in the Disc	3
	OR	ENG 113 Literature-Based Research	3
Humanities/Fine Arts:			
Elective			3
Natural Sciences/Mathematics:			
MAT	110	Math Measurement & Literacy	3
	OR	MAT 143 Quantitive Literacy	3
Social/Behavioral Sciences:			
Elective			3
MAJOR COURSES:			
HOR	162	Applied Plant Science	3
HOR	166	Soils & Fertilizers	3
TRF	110	Intro Turfgrass Cult & ID	4
TRF	120	Turfgrass Irrigat & Design	4
TRF	125	Turfgrass Computer App	2
TRF	130	Native Flora ID	2
TRF	140	Turfgrass Mgmt Safety	3
TRF	150	Landscape Drafting	2
TRF	151	Intro Landscape Design	3
TRF	152	Landscape Maintenance	3
TRF	210	Turfgrass Eqmt Mgmt	3
TRF	220	Turfgrass Calculations	2
TRF	230	Turfgrass Mgmt Apps	2
TRF	240	Turfgrass Pest Control	3
TRF	250	Golf/Sport Field Const	4
TRF	260	Adv Turfgrass Mgmt	4
WBL	XXX	Work-Based Learning	5
OTHER REQUIRED COURSES:			
SPA	120	Spanish for the Workplace	3
Total Credit Hours Required			**70**
DEVELOPMENTAL COURSE REQUIREMENTS*			
DRE	098	Integrated Reading Writing III	3
DMA	DMA 010, DMA 020, DMA 030, (MAT 110)		3
DMA	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050 (MAT 143)		5

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Turfgrass Management Technology • A15420

Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
ENG	111	Writing and Inquiry	3	0	0	3
MAT	110	Math Measurement & Literacy	2	2	0	3
	OR	MAT 143 Quantitative Literacy	2	2	0	3
TRF	110	Intro to Turfgrass Cult & ID	3	2	0	4
HOR	166	Soils & Fertilizers	2	2	0	3
TRF	150	Landscape Drafting	1	3	0	2
HOR	162	Applied Plant Science	2	2	0	3
		Total	13	11	0	18
Spring – 1st year						
TRF	220	Turfgrass Calculations	2	0	0	2
TRF	210	Turfgrass Eqmt Mgmt	1	4	0	3
TRF	120	Turfgrass Irrigat & Design	2	4	0	4
ENG	114	Prof Research & Reporting (Preferred)	3	0	0	3
	OR	ENG 112 Writing/Research in the Disc	3	0	0	3
	OR	ENG 113 Literature-Based Research	3	0	0	3
TRF	151	Intro Landscape Design	2	2	0	3
		Total	10	10	0	15
Summer – 1st year						
WBL	XXX	Work-Based Learning	0	0	20	2
		Total	0	0	20	2
Fall – 2nd year						
TRF	240	Turfgrass Pest Control	2	2	0	3
TRF	140	Turfgrass Mgmt Safety	2	2	0	3
TRF	125	Turfgrass Computer App	1	3	0	2
TRF	130	Native Flora ID	1	3	0	2
TRF	152	Landscape Maintenance	2	2	0	3
WBL	XXX	Work-Based Learning	0	0	10	1
		Humanities/Fine Arts Elective	3	0	0	3
		Total	11	12	10	17
Spring – 2nd year						
TRF	260	Adv Turfgrass Mgmt	3	2	0	4
TRF	230	Turfgrass Mgmt Apps	1	2	0	2
TRF	250	Golf/Sport Field Const	2	4	0	4
WBL	XXX	Work-Based Learning	0	0	20	2
SPA	120	Spanish for the Workplace	3	0	0	3
		Social/Behavioral Science Elective	3	0	0	3
		Total	12	8	20	18
		Grand Total	46	41	50	70

TURFGRASS MANAGEMENT TECHNOLOGY
Diploma Program (D15420)

GENERAL EDUCATION COURSES:			SHC
ENG	111	Writing amd Inquiry	3
MAT	110	Math Measurement & Literacy	3
	OR	MAT 143 Quantitative Literacy	3
MAJOR COURSES:			
HOR	166	Soils & Fertilizers	3
TRF	110	Intro Turfgrass Cult & ID	4
TRF	120	Turfgrass Irrigat & Design	4
TRF	130	Native Flora ID	2
TRF	140	Turfgrass Mgmt Safety	3
TRF	151	Intro Landscape Design	3
TRF	210	Turfgrass Eqmt Mgmt	3
TRF	220	Turfgrass Calculations	2
TRF	240	Turfgrass Pest Control	3
TRF	250	Golf/Sport Field Const	4
WBL	XXX	Work-Based Learning	4
Total Credit Hours Required			**41**

DEVELOPMENTAL COURSE REQUIREMENTS*

DRE	098	Integrated Reading Writing III	3
MAT	DMA 010, DMA 020, DMA 030, (MAT 110)		3
MAT	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, (MAT 143)		5

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Fall – 1st year						
ENG	111	Writing and Inquiry	3	0	0	3
MAT	110	Math Measurement & Literacy	2	2	0	3
	OR	MAT 143 Quantitative Literacy	2	2	0	3
HOR	166	Soils & Fertilizers	2	2	0	3
TRF	110	Intro to Turfgrass Cult & ID	3	2	0	4
TRF	130	Native Flora ID	1	3	0	2
TRF	140	Turfgrass Mgmt Safety	2	2	0	3
TRF	240	Turfgrass Pest Control	2	2	0	3
		Total	15	13	0	21
Spring – 1st year						
TRF	120	Turfgrass Irrigat & Design	2	4	0	4
TRF	151	Intro Landscape Design	2	2	0	3
TRF	210	Turfgrass Eqmt Mgmt	1	4	0	3
TRF	220	Turfgrass Calculations	2	0	0	2
TRF	250	Golf/Sport Field Const	2	4	0	4
WBL	XXX	Work-Based Learning	0	0	20	2
		Total	9	14	20	18
Summer – 1st year						
WBL	XXX	Work-Based Learning	0	0	20	2
		Total	0	0	20	2
		Grand Total	24	27	40	41

TURFGRASS MANAGEMENT TECHNOLOGY
Certificate Program (C15420)

MAJOR COURSES:			SHC
TRF	110	Intro Turfgrass Cult & ID	4
TRF	120	Turfgrass Irrigat & Design	4
TRF	140	Turfgrass Mgmt Safety	3
TRF	220	Turfgrass Calculations	2
TRF	240	Turfgrass Pest Control	3
Total Credit Hours Required			**16**

Fall – 1st year						
TRF	110	Intro to Turfgrass Cult & ID	3	2	0	4
TRF	140	Turfgrass Mgmt Safety	2	2	0	3
TRF	240	Turfgrass Pest Control	2	2	0	3
		Total	7	6	0	10
Spring – 1st year						
TRF	120	Turfgrass Irrigat & Design	2	4	0	4
TRF	220	Turfgrass Calculations	2	0	0	2
		Total	4	4	0	6
		Grand Total	11	10	0	16

WEB TECHNOLOGIES
A.A.S. Program (A25290)

Courses required to meet graduation requirements in this curriculum are offered during the day and online. Minimum time for completion: Day – five semesters full-time attendance. The Associate in Applied Science degree is awarded graduates of this curriculum.

The Web Technologies curriculum prepares graduates for careers in the information technology arena using computers and distributed computing to disseminate and collect information via the web. Coursework in this program covers the terminology and use of computers, network devices, networks, servers, databases, applications, programming languages, as well as web applications, site development, and design. Studies will provide opportunity for students to learn related industry standards. Graduates should qualify for career opportunities as designers, administrators, or developers in the areas of web applications, websites, web services, and related areas of distributed computing.

GENERAL EDUCATION COURSES: **SHC**

English/Communications:

ENG	111	Writing and Inquiry	3
ENG	114	Prof Research & Reporting	3
	OR	ENG 113 Literature-Based Research	3

Humanities/Fine Arts:

Elective 3

Natural Sciences/Mathematics:

MAT	143	Quantitative Literacy	3

Social/Behavioral Sciences:

Elective 3

MAJOR COURSES:

CIS	110	Introduction to Computers	3
CIS	115	Intro to Prog & Logic	3
CTS	115	Info Sys Business Concept	3
DBA	110	Database Concepts	3
NET	125	Networking Basics	3
NOS	110	Operating Systems Concepts	3
SEC	110	Security Concepts	3
WEB	110	Internet/Web Fundamentals	3
WEB	115	Web Markup and Scripting	3
WEB	120	Intro Internet Multimedia	3
WEB	140	Web Development Tools	3
WEB	210	Web Design	3
WEB	230	Implementing Web Serv	3
WEB	250	Database Driven Websites	3
WEB	289	Internet Technologies Project	3
WBL	XXX	Work-Based Learning	2

Program/WEB Industry Elective 3

Students are required to take one (1) course from the following:

BUS	230	Small Business Management	3
CSC	151	JAVA Programming	3
MKT	120	Principles of Marketing	3
MKT	223	Customer Service	3
SGD	111	Introduction to SGD	3
SGD	112	SGD Design	3
SGD	114	3D Modeling	3
WEB	180	Active Server Pages	3
WEB	186	XML Technology	3
WEB	260	E-Commerce Infrastructure	3

WEB Technologies Elective 3

Students are required to take one (1) course from the following:

WEB	111	Intro to Web Graphics	3
WEB	151	Mobile Application Dev 1	3
WEB	220	Advanced Multimedia	3
WEB	240	Internet Security	3

OTHER REQUIRED COURSES:

ACA	111	College Student Success	1

Total Credit Hours Required 69

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
DRE	098	Integrated Reading Writing III	3
DMA	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050		5

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Web Technologies • A25290
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
ACA	111	College Student Success	1	0	0	1
CIS	110	Introduction to Computers	2	2	0	3
CIS	115	Intro to Prog & Logic	2	3	0	3
DBA	110	Database Concepts	2	3	0	3
WEB	110	Internet/Web Fundamentals	2	2	0	3
MAT	143	Quantitative Literacy	2	2	0	3
		Total	11	12	0	16
Spring – 1st year						
WEB	140	Web Development Tools	2	2	0	3
CTS	115	Info Sys Business Concepts	3	0	0	3
ENG	111	Writing and Inquiry	3	0	0	3
NET	125	Networking Basics	1	4	0	3
WEB	120	Intro Internet Multimedia	2	2	0	3
		WEB Technology Program Elective				3
		Total	11	8	0	18
Summer – 1st year						
ENG	114	Prof Research & Reporting	3	0	0	3
	OR	ENG 113 Literature-Based Research	3	0	0	3
		Humanities/Fine Arts Elective	3	0	0	3
		Total	6	0	0	6
Fall – 2nd year						
SEC	110	Security Concepts	2	2	0	3
WEB	250	Database Driven Websites	2	2	0	3
WEB	115	Web Markup and Scripting	2	2	0	3
WEB	230	Implementing Web Serv	2	2	0	3
		WEB Technology Program Elective				3
		Total	8	8	0	15
Spring – 2nd year						
WEB	210	Web Design	2	2	0	3
WEB	289	Internet Technologies Project	1	4	0	3
NOS	110	Operating Systems Concepts	2	3	0	3
WBL	XXX	Work-Based Learning	0	0	20	2
		Social/Behavioral Science Elective	3	0	0	3
		Total	8	9	20	14
		Grand Total	44	37	20	69

WEB TECHNOLOGIES
Basic Web Developer • Certificate Program (C25290)

MAJOR COURSES:			SHC
CSC	151	JAVA Programming	3
WEB	110	Internet/Web Fundamentals	3
WEB	120	Intro Internet Multimedia	3
WEB	140	Web Development Tools	3
Total Credit Hours Required			**12**

Basic Web Developer Certificate • C25290 Suggested Sequence

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
CSC	151	JAVA Programming	2	3	0	3
WEB	110	Internet/Web Fundamentals	2	2	0	3
		Total	4	5	0	6
Spring – 1st year						
WEB	140	Web Development Tools	2	2	0	3
WEB	120	Intro Internet Multimedia	2	2	0	3
		Total	4	4	0	6
		Grand Total	8	9	0	12

WEB TECHNOLOGIES
Webmaster • Certificate Program (C2529001)

MAJOR COURSES:			SHC
CTS	115	Info Sys Business Concepts	3
SEC	110	Security Concepts	3
WEB	115	Web Markup and Scripting	3
WEB	210	Web Design	3
Total Credit Hours Required			**12**

Web Technologies • Webmaster Certificate • C2529001 Suggested Sequence

			Class	Lab	Clin/WkExp	Credit
Fall – 1st year						
SEC	110	Security Concepts	2	2	0	3
WEB	115	Web Markup and Scripting	2	2	0	3
		Total	4	4	0	6
Spring – 1st year						
CTS	115	Info Sys Business Concepts	3	0	0	3
WEB	210	Web Design	2	2	0	3
		Total	5	2	0	6
		Grand Total	9	6	0	12

WELDING TECHNOLOGY
Diploma Program (D50420)

Courses required to meet graduation requirements in this curriculum are offered during day, afternoon, and evening hours. Minimum time for completion: five semesters full-time attendance. Students may begin any semester. The Diploma is awarded graduates of this curriculum. A Certificate is awarded graduates who complete the certificate program option.

The Welding Technology curriculum provides students with a sound understanding of the science, technology, and applications essential for successful employment in the welding and metal industry. Instruction includes consumable and non-consumable electrode welding and cutting processes. Courses in math, blueprint reading, metallurgy, welding inspection, and destructive and non-destructive testing provide the student with industry-standard skills developed through classroom training and practical application. Successful graduates of the Welding Technology curriculum may be employed as entry-level technicians in welding and metalworking industries. Career opportunities also exist in construction, manufacturing, fabrication, sales, quality control, supervision, and welding-related self-employment.

GENERAL EDUCATION COURSES:			SHC
English/Communications:			
ENG	102	Applied Communications II	3
	OR	ENG 111 Writing and Inquiry	3
Natural Sciences/Mathematics:			
MAT	110	Math Measurement & Literacy	3
	OR	MAT 121 Quantitative Literacy	3
MAJOR COURSES:			
WLD	110	Cutting Processes	2
WLD	115	SMAW (Stick) Plate	5
OR			
WLD	115AB	SMAW (Stick) Plate-AB	3
WLD	115BB	SMAW (Stick) Plate-BB	2
WLD	116	SMAW (Stick) Plate/Pipe	4
OR			
WLD	116AB	SMAW (Stick) Plate/Pipe-AB	2
WLD	116BB	SMAW (Stick) Plate/Pipe-BB	2
WLD	121	GMAW (MIG) FCAW/Plate	4
WLD	131	GTAW (TIG) Plate	4
WLD	141	Symbols & Specifications	3
WLD	143	Welding Metallurgy	2
WLD	215	SMAW (Stick) Pipe	4
OR			
WLD	215AB	SMAW (Stick) Pipe-AB	2
WLD	215BB	SMAW (Stick) Pipe-BB	2
WLD	261	Certification Practices	2
WLD	262	Inspection & Testing	3
WBL	110	World of Work	1
Total Credit Hours Required			**40**

DEVELOPMENTAL COURSE REQUIREMENTS*			
DRE	098	Integrated Reading Writing II	3
DMA		DMA 010, DMA 020, DMA 030 (MAT 110)	3
DMA		DMA 010, DMA 020, DMA 030, DMA 040, DMA 050 DMA 060, (MAT 121)	6

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Welding Technology Diploma • D50420
Suggested Program Sequence Day/Evening

		Class	Lab	Clin/WkExp	Credit
Fall – 1st year					
WLD 110	Cutting Processes	1	3	0	2
WLD 115AB	SMAW (Stick) Plate-AB	2	4	0	3
WLD 115BB	SMAW (Stick) Plate-BB	0	5	0	2
WLD 143	Welding Metallurgy	1	2	0	2
WLD 262	Inspection & Testing	2	2	0	3
	Total	6	16	0	12
Spring – 1st year					
WLD 116AB	SMAW (Stick) Plate/Pipe-AB	1	4	0	2
WLD 116BB	SMAW (Stick) Plate/Pipe-BB	0	5	0	2
WLD 121	GMAW (MIG) FCAW/Plate	2	6	0	4
WLD 141	Symbols & Specifications	2	2	0	3
	Total	5	17	0	11
Summer – 1st year					
ENG 102	Applied Communications II	3	0	0	3
OR	ENG 111 Writing and Inquiry	3	0	0	3
MAT 110	Math Measurement & Literacy	2	2	0	3
OR	MAT 143 Quantitative Literacy	2	2	0	3
	Total	5	2	0	6
Fall – 2nd year					
WBL 110	World of Work	1	0	0	1
WLD 131	GTAW (TIG) Plate	2	6	0	4
WLD 215AB	SMAW (Stick) Pipe-AB	1	4	0	2
WLD 215BB	SMAW (Stick) Pipe-BB	0	5	0	2
WLD 261	Certification Practices	1	3	0	2
	Total	5	18	0	11
	Grand Total	21	53	0	40

WELDING TECHNOLOGY Certificate Program (C50420)

MAJOR COURSES:			SHC
WLD	110	Cutting Processes	2
WLD	115	SMAW (Stick) Plate	5
OR			
WLD	115AB	SMAW (Stick) Plate-AB	3
WLD	115BB	SMAW (Stick) Plate-BB	2
WLD	121	GMAW (MIG) FCAW/Plate	4
WLD	131	GTAW (TIG) Plate	4
WLD	141	Symbols & Specifications	3
Total Credit Hours Required			**18**

Welding Technology Certificate • C50420 Suggested Sequence

Fall – 1st year					
WLD 110	Cutting Processes	1	3	0	2
WLD 115AB	SMAW (Stick) Plate-AB	2	4	0	3
WLD 115BB	SMAW (Stick) Plate-BB	0	5	0	2
	Total	3	12	0	7
Spring – 1st year					
WLD 121	GMAW (MIG) FCAW/Plate	2	6	0	4
WLD 131	GTAW (TIG) Plate	2	6	0	4
WLD 141	Symbols & Specifications	2	2	0	3
	Total	6	14	0	11
	Grand Total	9	26	0	18

SPECIAL PROGRAMS

Associate in Applied Science Degree Curricula:

• Cyber Crime Technology
• Funeral Service Education

Diploma Curriculum:

• NC Funeral Director

Special programs are offered on demand in conjunction with other institutions when justified by employment needs and student interest. Details concerning current special programs are included on the following pages. Additional information may be obtained from the college website.

CYBER CRIME TECHNOLOGY

A.A.S. Program (A55210) Collaborative Program
Catawba Valley Community College/
Stanly Community College

Cyber Crime Technology A.A.S. Program (A55210) Collaborative Program Catawba Valley Community College/ Stanly Community College. Cyber Crime Technology is an associate degree program offered in conjunction with Stanly Community College. For details, please contact Sherry Herman at extension 4050. This curriculum will prepare students to enter the field of computer crime investigations and private security. Students completing this curriculum will be capable of investigating computer crimes, properly seize and recover computer evidence and aid in the prosecution of cyber criminals.

FUNERAL SERVICE EDUCATION

A.A.S. Program (A55260) Collaborative Program
Catawba Valley Community College/
Fayetteville Technical Community College

Funeral Service Education is an associate degree program offered at CVCC by Fayetteville Technical Community College. The Funeral Service Education courses are offered by FTCC via a live interactive video feed in one of the NC Information Highway classrooms at CVCC, with the general education courses being offered by CVCC. For details, please contact CVCC's Advising Center 828-327-7000, Ext. 4687. The Funeral Service Education curriculum provides students with the opportunity to become proficient in basic funeral service skills. In addition to the general education courses offered in the curriculum, technical courses such as human anatomy, embalming theory and practice, embalming chemistry, restorative arts, funeral law, and funeral home operations are taught. Students in the FTCC Funeral Service Education program are also required to take the National Board Exam for Funeral Service as a condition of graduation. Graduates of the curriculum, upon passing the state or national exam and completing an internship in a funeral home, will be qualified for employment as embalmers and/or funeral directors.The Associate in Applied Science degree in Funeral Service Education at Fayetteville Technical Community College is accredited by:

American Board of Funeral Service Education
3432 Ashland Avenue, Suite U • St. Joseph, MO 64506
Telephone: 816-223-3747

NC FUNERAL DIRECTOR

Diploma Program (D55260) • Collaborative Program
Catawba Valley Community College/
Fayetteville Technical Community College

Funeral Service Education – NC Funeral Director is a diploma program offered at CVCC by Fayetteville Technical Community College. The Funeral Service Education courses are offered by FTCC via a live interactive video feed in one of the NC Information Highway classrooms at CVCC, with the general education courses being offered by CVCC. For details, please contact CVCC's Advising Center 828-327-7000, Ext. 4687. The Funeral Service Education curriculum provides students with the opportunity to acquire the funeral service education necessary to become proficient in basic funeral directing skills. Students completing the diploma are eligible to sit for the NC Board of Funeral Service Funeral Director state exam. This academic program is designed to meet specific state or professional needs. It is not accredited by the American Board of Funeral Service Education owing to the fact that it does not include instruction in the following areas: anatomy, chemistry, embalming, microbiology and restorative arts. Students graduating from this program are not eligible to take the National Board Examination or any state examination for which graduation from an ABFSE accredited program is required.

CAREER AND COLLEGE PROMISE
(High School Students)

The Career and College Promise program is established by the State Board of Education and the State Board of Community Colleges.

Career and College Promise provides seamless dual enrollment educational opportunities for eligible North Carolina high school students in order to accelerate completion of college certificates, diplomas, and associate degrees that lead to college transfer or provide entry-level job skills. North Carolina community colleges may offer the following Career and College Promise pathways aligned with the K-12 curriculum and career and college ready standards adopted by the State Board of Education:

1. College Transfer Pathway leading to a minimum of 30 hours of college transfer credit.
2. A Career and Technical Education Pathway leading to a certificate, diploma or degree.
3. A Cooperative Innovative High School Pathway approved under Part 9 of Article 16 of Chapter 115D of the General Statutes.

College Transfer Pathway

1. The Career and College Promise College Transfer Pathway requires the completion of at least thirty semester hours of transfer courses, including English and mathematics, and ACA 122 College Transfer Success.

2. To be eligible for enrollment, a high school student must meet the following criteria:
   a. be a high school junior or senior;
   b. have a weighted GPA of 3.0 on high school courses; and
   c. demonstrate college readiness on an assessment or placement test. A student must demonstrate college readiness in English, reading and mathematics to be eligible for enrollment in a College Transfer Pathway.

3. A high school junior or senior who does not demonstrate college-readiness on an approved assessment or placement test may be provisionally enrolled in a College Transfer Pathway. To qualify for Provisional Status, a student must meet the following criteria:
   a. have a cumulative weighted GPA of 3.5;
   b. have completed two years of high school English with a grade of C or higher;
   c. have completed high school Algebra II (or a higher level math class) with a grade of C or higher;
   d. obtain the written approval of the high school principal or his/her designee; and,
   e. obtain the written approval of the community college president or his/her designee.

A Provisional Status student may register only for college mathematics (MAT) and college English (ENG) courses within the chosen Pathway. To be eligible to register for other courses in the Pathway, the student must first successfully complete mathematics and English courses with a grade of C or higher.

4. To maintain eligibility for continued enrollment, a student must
   a. continue to make progress toward high school graduation, and
   b. maintain a 2.0 GPA in college coursework after completing two courses.
   c. a student who falls below a 2.0 GPA after completing two college courses will be subject to the college's policy for satisfactory academic progress.

5. A student must enroll in one College Transfer Pathway program of study and may not substitute courses in one program for courses in another.

6. A student may change his or her program of study major with approval of the high school principal or his/her designee and the college's chief student development administrator.

7. With approval of the high school principal or his/her designee and the college's chief student development administrator, a student who completes a College Transfer Pathway while still enrolled in high school may continue to earn college transfer credits leading to the completion of the Associate in Arts or Associate in Science.

8. With approval of the high school principal or his/her designee and the college's chief student development administrator, a student may enroll in both a College Transfer Pathway program of study and up to two (2) Career Techncal Education program of study (for a total of three (3).

Career Technical Education Pathway

1. The Career and College Promise Career Technical Education Pathway for juniors and seniors leads to a certificate or diploma aligned with a high school Career Cluster.

2. To be eligible for enrollment, a high school student must meet the following criteria:
   a. be a high school junior or senior;
   b. have a weighted GPA of 3.0 on high school courses or have the recommendation of the high school principal or his/her designee; and
   c. meet the prerequisites for the career pathway.

3. High school counselors should consider students' PLAN scores in making pathway recommendations.

4. College Career Technical Education courses may be used to provide partial or full fulfillment of a four-unit career cluster. Where possible, students should be granted articulated credit based on the local or state North Carolina High School to Community College articulation agreement.

5. To maintain eligibility for continued enrollment, a student must
   a. continue to make progress toward high school graduation, and
   b. maintain a 2.0 in college coursework after completing two courses.
   c. a student who falls below a 2.0 GPA after completing two college courses will be subject to the college's policy for satisfactory academic progress.

6. A student may enroll in two programs of study but may not substitute courses in one program for courses in an other. The student may change his or her program of study major with approval of the high school principal or his/her designee and the college's chief student development administrator. A student may concurrently enroll in two CTE programs of study provided the exception has been approved by the college's Chief Academic Officer or his/her designee.

CAREER & COLLEGE PROMISE
COLLEGE TRANSFER PATHWAY
Leading to the Associate in Arts (P1012C)

The CCP College Transfer Pathway Leading to the Associate in Arts is designed for high school juniors and seniors who wish to begin study toward the Associate in Arts degree and a baccalaureate degree in a non-STEM major.

GENERAL EDUCATION (31/32 SHC)
The general education requirement includes study in courses selected from the Universal General Education Transfer Component (UGETC) component of the Comprehensive Articulation Agreement.

English Composition (6 SHC)
The following two English composition courses are required.

ENG	111	Writing & Inquiry	3
ENG	112	Writing/Research in the Disciplines	3

Select three courses from the following from at least two different disciplines (9 SHC)

Communication

COM	231	Public Speaking	3

Humanities/Fine Arts

ART	111	Art Appreciation	3
ART	114	Art History Survey I	3
ART	115	Art History Survey II	3
ENG	231	American Literature I	3
ENG	232	American Literature II	3
MUS	110	Music Appreciation	3
MUS	112	Introduction to Jazz	3
PHI	215	Philosophical Issues	3
PHI	240	Introduction to Ethics	3

Social/Behavioral Sciences (9 SHC)
Select three courses from the following from at least two different disciplines:

ECO	251	Principles of Microeconomics	3
ECO	252	Principles of Macroeconomics	3
HIS	111	World Civilizations I	3
HIS	112	World Civilizations II	3
HIS	131	American History I	3
HIS	132	American History II	3
POL	120	American Government	3
PSY	150	General Psychology	3
SOC	210	Introduction to Sociology	3

Math (3/4 SHC)
Select one course from the following:

MAT	143	Quantitative Literacy	3
MAT	152	Statistical Methods I	4
MAT	171	Precalculus Algebra	4

Natural Sciences (4 SHC)
Select 4 SHC from the following course(s):

AST	151	General Astronomy I	3
	and	AST 151A General Astronomy Lab I	1
BIO	111	General Biology I	4
CHM	151	General Chemistry I	4
GEL	111	Introductory Geology	4
PHY	110	Conceptual Physics	3
	and	PHY 110A Conceptual Physics Lab	1

Academic Transition (1 SHC)
The following course is required:

ACA	122	College Transfer Success	(1 SHC)

Total Semester Hours Credit (SHC) in Pathway.....32/33

Optional General Education Hours (0-8 SHC)

A student may take up to 8 SHC of foreign language courses and accompanying labs, in a single language, designated as General Education in the CAA as a part of this pathway. These courses are not a part of the Universal General Education Transfer Component. Students who complete these courses with a grade of C or better will receive transfer credit. The receiving university will determine whether the courses will count as general education, pre-major, or elective credit.

Chinese	111/CHI 181	4
Chinese	112/CHI 182	4
French	111/FRE 181	4
French	112/FRE 182	4
Spanish	111/SPA 181	4
Spanish	112/SPA 182	4

Total Semester Hours Credit (SHC) in Pathway: .....32 – 41*

High school students in the CCP College Transfer Pathway leading to the Associate in Arts must complete the entire pathway before taking additional courses in the Associate in Arts degree.

CAREER & COLLEGE PROMISE
COLLEGE TRANSFER PATHWAY
Leading to the Associate in Science (P1042C)

The CCP College Transfer Pathway Leading to the Associate in Science is designed for high school juniors and seniors who wish to begin study toward the Associate in Science degree and a baccalaureate degree in a STEM or technical major.

GENERAL EDUCATION (34 SHC)
The general education requirement includes study in courses selected from the Universal General Education Transfer Component (UGETC).

English Composition (6 SHC)
The following two English composition courses are required.

ENG	111	Writing & Inquiry	3
ENG	112	Writing/Research in the Disciplines	3

Select two courses from the following from at least two different disciplines (6 SHC)

Communications

COM	231	Public Speaking	3

Humanities/Fine Arts

ART	111	Art Appreciation	3
ART	114	Art History Survey I	3
ART	115	Art History Survey II	3
ENG	231	American Literature I	3
ENG	232	American Literature II	3
MUS	110	Music Appreciation	3
MUS	112	Introduction to Jazz	3
PHI	215	Philosophical Issues	3
PHI	240	Introduction to Ethics	3

Social/Behavioral Sciences (6 SHC)
Select two courses from the following from at least two different disciplines:

ECO	251	Principles of Microeconomics	3
ECO	252	Principles of Macroeconomics	3
HIS	111	World Civilizations I	3
HIS	112	World Civilizations II	3
HIS	131	American History I	3
HIS	132	American History II	3
POL	120	American Government	3
PSY	150	General Psychology	3
SOC	210	Introduction to Sociology	3

Math (8 SHC)
Select two courses from the following:

MAT	171	Precalculus Algebra	4
MAT	172	Pre-calculus Trigonometry	4
MAT	263	Brief Calculus	4
MAT	271	Calculus I	4

Natural Sciences (8 SHC)
Select 8 SHC from the following course(s):

AST	151	General Astronomy I	3
	and	AST 151A General Astronomy Lab I	1
BIO	111	General Biology I	4
	and	BIO 112 General Biology II	4
CHM	151	General Chemistry I	4
	and	CHM 152 General Chemistry II	4
GEL	111	Introductory Geology	4
PHY	110	Conceptual Physics	3
	and	PHY 110A Conceptual Physics Lab	1
PHY	151	College Physics I	4
	and	PHY 152 College Physics II	4
PHY	251	General Physics I	4
	and	PHY 252 General Physics II	4

Academic Transition (1SHC)
The following course is required:

ACA	122	College Transfer Success	1

Total Semester Hours Credit (SHC) in Pathway.....35

Optional General Education Hours (0-8 SHC)

A student may take up to 8 SHC of foreign language courses and accompanying labs, in a single language, designated as General Education in the CAA as a part of this pathway. These courses are not a part of the Universal General Education Transfer Component. Students who complete these courses with a grade of C or better will receive transfer credit. The receiving university will determine whether the courses will count as general education, pre-major, or elective credit.

Chinese	111/CHI 181	4
Chinese	112/CHI 182	4
French	111/FRE 181	4
French	112/FRE 182	4
Spanish	111/SPA 181	4
Spanish	112/SPA 182	4

Total Semester Hours Credit (SHC) in Pathway: .....35 – 43*

High school students in the CCP College Transfer Pathway Leading to the Associate in Science must complete the entire pathway before taking additional courses in the Associate in Science degree.

CAREER TECHNICAL EDUCATION PATHWAY

Advertising and Graphic Design • Pathway (C30100P)

CORE COURSES (12 SHC):			SHC
GRA	151	Computer Graphics I	2
GRA	152	Computer Graphics II	2
GRD	110	Typography I	3
GRD	121	Drawing Fundamentals I	2
GRD	141	Graphic Design I	4
GRD	142	Graphic Design II	4
Total Credit Hours Required			17

Air Conditioning, Heating, and Refrigeration Technology Pathway (D35100P)

GENERAL EDUCATION COURSES (6 SHC)			SHC
ENG	102	Applied Communications II	3
MAT	110	Mathematical Measurement and Literacy	3
CORE COURSES (20 SHC)			
AHR	110	Intro to Refrigeration	5
AHR	111	HVACR Electricity	3
AHR	112	Heating Technology	4
AHR	113	Comfort Cooling	4
AHR	114	Heat Pump Technology	4
OTHER MAJOR COURSES (10 SHC)			
AHR	130	HVAC Controls	3
AHR	160	Refrigerant Certification	1
AHR	180	HVACR Customer Relations	1
AHR	210	Residential Building Code	2
AHR	211	Residential System Design	3
Total Credit Hours Required			36
DEVELOPMENTAL COURSE REQUIREMENTS*			
CTS	080	Computing Fundamentals	3
DRE	097	Integrated Reading Writing II	3
DMA	DMA 010, DMA 020, DMA 030		3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Air Conditioning, Heating, and Refrigeration Technology Pathway (C35100P)

CORE COURSES (17 SHC)			SHC
AHR	110	Intro to Refrigeration	5
AHR	112	Heating Technology	4
AHR	113	Comfort Cooling	4
AHR	114	Heat Pump Technology	4
Total Credit Hours Required			17
DEVELOPMENTAL COURSE REQUIREMENTS*			
CTS	080	Computing Fundamentals	3
DRE	097	Integrated Reading Writing II	3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Automotive Systems Technology Pathway (D60160P)

GENERAL EDUCATION COURSES (6 SHC)			SHC
English/Communication:			
ENG	111	Writing and Inquiry	3
Natural Science/Mathematics:			
MAT	110	Mathematical Measurement and Literacy	3
CORE COURSES (18 SHC)			
AUT	141	Suspension & Steering Sys	3
AUT	151	Brake Systems	3
AUT	181	Engine Performance 1	3
TRN	110	Intro to Transport Tech	2
TRN	120	Basic Trasp Electricity	5
TRN	140	Transp Climate Control	2
OTHER MAJOR COURSES (21 SHC)			
AUT	141A	Suspension & Steering Lab	1
AUT	151A	Brake Systems Lab	1
AUT	116	Engine Repair	3
AUT	116A	Engine Repair Lab	1
AUT	163	Adv Auto Electricity	3
AUT	181A	Engine Performance 1 Lab	1
AUT	183	Engine Performance 2	4
AUT	221	Auto Transm/Transaxles	3
AUT	221A	Auto Transm/Transax Lab	1
AUT	231	Man Trans/Axles/Drtrains	3
OTHER REQUIRED COURSES (3 SHC)			
AUT	231A	Man Trans/Ax/Drtrains Lab	1
TRN	140A	Transp Climate Cont Lab	2
Total Credit Hours Required			48
DEVELOPMENTAL COURSE REQUIREMENTS*			
CTS	080	Computing Fundamentals	3
DRE	098	Integrated Reading Writing III	3
DMA	DMA 010, DMA 020, DMA 030		3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Automotive Systems Technology Pathway (C60160P)

CORE COURSES (13 SHC)			
AUT	141	Suspension & Steering Sys	3
AUT	151	Brake Systems	3
TRN	110	Intro to Transport Tech	2
TRN	120	Basic Trasp Electricity	5
OTHER MAJOR COURSES (2 SHC)			
AUT	141A	Suspension & Steering Lab	1
AUT	151A	Brake Systems Lab	1
Total Credit Hours Required			15
DEVELOPMENTAL COURSE REQUIREMENTS*			
CTS	080	Computing Fundamentals	3
DRE	097	Integrated Reading Writing II	3
DMA	DMA 010, DMA 020, DMA 030		3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Computer-Integrated Machining Technology Pathway (D50210P)

GENERAL EDUCATION COURSES (6 SHC)			SHC
ENG	111	Writing and Inquiry	3
MAT	121	Algebra/Trigonometry I	3
CORE COURSES (12 SHC)			
MAC	122	CNC Turning	2
MAC	124	CNC Milling	2
MAC	131	Blueprint Reading/Mach I	2
MAC	141	Machining Applications I	4
MAC	142	Machining Applications II	4
MEC	110	Intro to CAD/CAM	2
OTHER MAJOR COURSES (18 SHC)			
MAC	132	Blueprint Reading/Mach II	2
MAC	151	Machining Calculations	2
MAC	222	Advanced CNC Turning	2
MAC	224	Advanced CNC Milling	2
MAC	231	CAM: CNC Turning	3
MAC	232	CAM: CNC Milling	3
OTHER REQUIRED COURSES (2 SHC)			
CIS	111	Basic PC Literacy	2
Total Credit Hours Required			38

DEVELOPMENTAL COURSE REQUIREMENTS*			
CTS	080	Computing Fundamentals	3
DRE	098	Integrated Reading Writing III	3
DMA	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 060		3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Computer-Integrated Machining Technology Pathway (C50210P)

CORE COURSES (12 SHC)			
MAC	131	Blueprint Reading/Mach. I	2
MAC	141	Machining Applications I	4
MAC	142	Machining Applications II	4
MEC	110	Intro to CAD/CAM	2
OTHER MAJOR COURSES (6 SHC)			
MAC	122	CNC Turning	2
MAC	124	CNC Milling	2
MAC	151	Machining Calculations	2
Total Credit Hours Required			18

DEVELOPMENTAL COURSE REQUIREMENTS*			
CTS	080	Computing Fundamentals	3
DRE	097	Integrated Reading Writing II	3
DMA	DMA 010, DMA 020, DMA 030		3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Cosmetology • Pathway (D55140P)

GENERAL EDUCATION COURSES (6 SHC)			SHC
ENG	102	Applied Communications II	3
PSY	150	General Psychology	3
CORE COURSES (32 SHC)			
COS	111	Cosmetology Concepts I	4
	OR		
COS	111AB	Cosmetology Concepts I-AB	2
COS	111BB	Cosmetology Concepts I-BB	2
COS	112	Salon I	8
	OR		
COS	112AB	Salon I-AB	4
COS	112BB	Salon I-BB	4
COS	113	Cosmetology Concepts II	4
	OR		
COS	113AB	Cosmetology Concepts II-AB	2
COS	113BB	Cosmetology Concepts II-BB	2
COS	114	Salon II	8
	OR		
COS	114AB	Salon II-AB	4
COS	114BB	Salon II-BB	4
COS	115	Cosmetology Concepts III	4
	OR		
COS	115AB	Cosmetology Concepts III-AB	2
COS	115BB	Cosmetology Concepts III-BB	2
COS	116	Salon III	4
	OR		
COS	116AB	Salon III-AB	2
COS	116BB	Salon III-BB	2
OTHER MAJOR COURSES (9 SHC)			
COS	117	Cosmetology Concepts IV	2
	OR		
COS	117AB	Cosmetology Concepts IV-AB	1
COS	117BB	Cosmetology Concepts IV-BB	1
COS	118	Salon IV	7
Total Credit Hours Required			47

DEVELOPMENTAL COURSE REQUIREMENTS*			
DRE	098	Integrated Reading Writing III	3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers.Please refer to the Course Descriptions section for prerequisite course information.

Criminal Justice Technology Law Enforcement Pathway (C55180P)

CORE COURSES (12 SHC)			SHC
CJC	111	Intro to Criminal Justice	3
CJC	113	Juvenile Justice	3
CJC	131	Criminal Law	3
CJC	212	Ethics & Comm Relations	3
OTHER REQUIRED COURSES (3 SHC)			
CJC	121	Law Enforcement Operations	3
Total Credit Hours Required			15

Criminal Justice Technology-Latent Evidence Concentration Crime Scene Pathway (C5518AP)

CORE COURSES (16 SHC)			SHC
CJC	111	Intro to Criminal Justice	3
CJC	144	Crime Scene Processing	3
CJC	146	Trace Evidence	3
CJC	221	Investigative Principles	4
CJC	245	Friction Ridge Analysis	3
OTHER REQUIRED COURSES (2 SHC)			
CJC	114	Investigative Photography	2
Total Credit Hours Required			18

Electrical Systems Technology Pathway (C35130P1)

CORE COURSES (13 SHC)			SHC
ELC	112	DC/AC Electricity	5
ELC	113	Basic Wiring I	4
ELC	117	Motors and Controls	4
OTHER MAJOR COURSES (4 SHC)			
BPR	111	Blueprint Reading	2
ELC	118	National Electrical Code	2
Total Credit Hours Required			17

Electrical Systems Technology Pathway (C35130P2)

CORE COURSES (13 SHC)			SHC
ELC	112	DC/AC Electricity	5
ELC	113	Basic Wiring I	4
ELC	117	Motors and Controls	4
OTHER MAJOR COURSES (4 SHC)			
ELC	115	Industrial Wiring	4
Total Credit Hours Required			17

Fire Protection Management Pathway (C55240P)

CORE COURSES (12 SHC)			
FIP	120C	Introduction to Fire Protection	3
FIP	152C	Fire Protection Law	3
FIP	220C	Fire Fighting Strategies	3
FIP	228C	Local Government Finance	3
OTHER MAJOR COURSES (6SHC)			
FIP	240	Fire Service Supervision	3
FIP	248	Fire Personnel Administration	3
Total Credit Hours Required			18

Health Information Technology Pathway (C45360P)

CORE COURSES (12 SHC)			SHC
HIT	110	Fundamentals of HIM	3
HIT	112	Health Law and Ethics	3
MED	121	Medical Terminology I	3
MED	122	Medical Terminology II	3
OTHER REQUIRED COURSES (3 SHC)			
CIS	110	Introduction to Computers	3
Total Credit Hours Required			15

Healthcare Management Technology Receptionist Pathway (C25200P)

CORE COURSES (15 SHC)			SHC
HMT	110	Intro to Healthcare Mgt	3
HMT	210	Medical Insurance	3
MED	121	Medical Terminology I (1st 8 weeks)	3
MED	122	Medical Terminology II (2nd 8 weeks)	3
OST	149	Medical Legal Issues	3
OTHER REQUIRED COURSES (1 SHC)			
MED	114	Prof Interac in Heal Care	1
Total Credit Hours Required			16
DEVELOPMENTAL COURSE REQUIREMENTS*			
DRE	097	Integrated Reading Writing II	3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Horticulture Technology Pathway (C15240P1)

CORE COURSES (12 SHC)			SHC
HOR	112	Landscape Design I	3
HOR	134	Greenhouse Operations	3
HOR	160	Plant Materials I	3
HOR	164	Hort Pest Management	3
OTHER MAJOR COURSES (3SHC)			
HOR	215	Landscape Irrigation	3
Total Credit Hours Required			15

Horticulture Technology Pathway (C15240P2)

CORE COURSES (12 SHC)			SHC
HOR	112	Landscape Design I	3
HOR	160	Plant Materials I	3
HOR	164	Hort Pest Management	3
HOR	166	Soils & Fertilizers	3
OTHER MAJOR COURSES (3SHC)			
HOR	170	Hort Computer Apps	2
Total Credit Hours Required			14

Horticulture Technology Pathway (C15240P3)

CORE COURSES (12 SHC)			SHC
HOR	112	Landscape Design I	3
HOR	160	Plant Materials I	3
HOR	164	Hort Pest Management	3
HOR	168	Plant Propagation	3
OTHER MAJOR COURSES (3SHC)			
HOR	110	Intro to Landscaping	2
Total Credit Hours Required			14

Infant/Toddler Care Certificate Pathway (C55290P)

CORE COURSES (16)			SHC
EDU	119	Introduction to Early Childhood Education	4
EDU	131	Child, Family, and Community	3
EDU	144	Child Development I	3
EDU	153	Health, Safety, & Nutrit	3
EDU	234	Infants, Toddlers, & Twos	3
OTHER REQUIRED COURSES (1)			
ACA	111	College Student Success	1
Total Credit Hours Rerequired			17
DEVELOPMENTAL COURSE REQUIREMENTS*			
DRE	098	Integrated Reading Writing III	3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Information Systems Security Networking Security Certificate Pathway (C25270P1)

CORE COURSES (18 SHC)			SHC
NET	125	Networking Basics	3
NET	126	Routing Basics	3
SEC	110	Security Concepts	3
SEC	160	Secure Admin I	3
SEC	210	Intrusion Detection	3
SEC	220	Defense-In-Depth	3
Total Credit Hours Required			18

Information Systems Security Operating Systems Security Certificate Pathway (C25270P3)

CORE COURSES (18 SHC)			SHC
NET	125	Networking Basics	3
NOS	110	Operating Systems Concepts	3
NOS	120	Linux/UNIX Single User	3
NOS	130	Windows Single User	3
SEC	110	Security Concepts	3
SEC	150	Secure Communication	3
Total Credit Hours Required			18

Information Systems Security Wireless Security Certificate Pathway (C25270P4)

CORE COURSES (18 SHC)			SHC
NET	125	Networking Basics	3
NET	126	Routing Basics	3
NET	175	Wireless Technology	3
SEC	110	Security Concepts	3
SEC	150	Secure Communication	3
OTHER MAJOR COURSES (3 SHC)			
SEC	240	Wireless Security	3
Total Credit Hours Required			18

Mechatronics Engineering Technology Pathway (C40350P)

CORE COURSES (16 SHC)			SHC
ATR	112	Intro to Automation	3
ELC	112	DC/AC Electricity	5
HYD	110	Hydraulics/Pneumatics	3
ISC	112	Industrial Safety	2
MEC	130	Mechanisms	3
Total Credit Hours Required			16

Networking Technology
Cisco Certified Network Certificate Pathway (C25340P1)

CORE COURSES (12 SHC)			SHC
NET	125	Networking Basics	3
NET	126	Routing Basics	3
NET	225	Routing & Switching I	3
NET	226	Routing & Switching II	3
Total Credit Hours Required			12

Networking Technology
Operating Systems Certificate Pathway (C25340P4)

CORE COURSES (12 SHC)			SHC
NOS	110	Operating System Concepts	3
NOS	120	Linux/UNIX Single User	3
NOS	130	Windows Single User	3
NOS	230	Windows Admin I	3
OTHER MAJOR COURSES (3 SHC)			
NOS	244	Operating System - AS/400	3
Total Credit Hours Required			15

Office Administration Pathway (D25370P)

GENERAL EDUCATION COURSES (6 SHC)			SHC
English/Communication:			
ENG	111	Writing and Inquiry	3
ENG	113	Literature-Based Research	3
CORE COURSES (12 SHC)			
OST	136	Word Processing	3
OST	164	Text Editing Applications	3
OST	181	Introduction to Office Systems	3
OST	184	Records Management	3
OTHER MAJOR COURSES (19 SHC)			
BUS	115	Business Law	3
CIS	110	Introduction to Computers	3
CTS	130	Spreadsheet Software	3
OST	132	Keyboard Skill Building	2
OST	137	Office Software Applications	3
OST	153	Office Finance Solutions	2
WEB	110	Internet/Web Fundamentals	3
Total Credit Hours Required			37
DEVELOPMENTAL COURSE REQUIREMENTS*			
CTS	080	Computing Fundamentals	3
DRE	098	Integrated Reading Writing III	3
OST	080	Keyboarding Literacy	3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Office Administration Certificate Pathway (C25370P)

CORE COURSES (12 SHC)			
OST	136	Word Processing	3
OST	164	Text Editing Applications	3
OST	181	Introduction to Office Systems	3
OST	184	Records Management	3
OTHER MAJOR COURSES (5 SHC)			
CIS	110	Introduction to Computers	3
OST	132	Keyboard Skill Building	2
Total Credit Hours Required			17
DEVELOPMENTAL COURSE REQUIREMENTS*			
CTS	080	Computing Fundamentals	3
DRE	098	Integrated Reading Writing III	3
OST	080	Keyboarding Literacy	3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Photographic Technology Pathway (C30280P)

CORE COURSES (14 SHC)			SHC
PHO	110	Fund of Photography	5
PHO	115	Basic Studio Lighting	4
PHO	139	Intro to Digital Imaging	2
PHO	224	Multimedia Production	3
Total Credit Hours Required			14
DEVELOPMENTAL COURSE REQUIREMENTS*			
DRE	098	Integrated Reading Writing III	3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Photographic Technology Pathway (C30280P2)

CORE COURSES (14 SHC)			SHC
PHO	110	Fund of Photography	5
PHO	115	Basic Studio Lighting	4
PHO	139	Intro to Digital Imaging	2
PHO	224	Multimedia Production	3
OTHER MAJOR COURSES (4 SHC)			
PHO	120	Intermediate Photography	4
Total Credit Hours Required			18
DEVELOPMENTAL COURSE REQUIREMENTS*			
DRE	098	Integrated Reading Writing III	3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Photographic Technology Pathway (C30280P3)

CORE COURSES (14 SHC)			SHC
PHO	110	Fund of Photography	5
PHO	115	Basic Studio Lighting	4
PHO	139	Intro to Digital Imaging	2
PHO	224	Multimedia Production	3
OTHER MAJOR COURSES (2 SHC)			
PHO	219	Digital Applications	2
Total Credit Hours Required			16
DEVELOPMENTAL COURSE REQUIREMENTS*			
DRE	098	Integrated Reading Writing III	3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Welding Technology Pathway (D50420P)

GENERAL EDUCATION COURSES (6 SHC)

SHC			
ENG	102	Applied Communications II	3
MAT	110	Mathematical Measurement and Literacy	3

CORE COURSES (18 SHC)

WLD	110	Cutting Processes	2
WLD	115	SMAW (Stick) Plate	5
OR	WLD 115AC	SMAW (Stick) Plate-AC	2
	WLD 115BC	SMAW (Stick) Plate-BC	2
	WLD 115CC	SMAW (Stick) Plate-CC	1
WLD	121	GMAW (MIG) FCAW/Plate	4
WLD	131	GTAW (TIG) Plate	4
WLD	141	Symbols & Specifications	3

OTHER MAJOR COURSES (16 SHC)

ELC	111	Intro to Electricity	3
WLD	116	SMAW (Stick) Plate/Pipe	4
OR	WLD 116AB	SMAW (Stick) Plate/Pipe-AB	2
	WLD 116BB	SMAW (Stick) Plate/Pipe-BB	2
WLD	143	Welding Metallurgy	2
WLD	215	SMAW (Stick) Pipe	4
OR	WLD 215AB	SMAW (Stick) Pipe-AB	2
	WLD 215BB	SMAW (Stick) Pipe-BB	2
WLD	261	Certification Practices	2
WLD	262	Inspection & Testing	3

Total Credit Hours Required 42

DEVELOPMENTAL COURSE REQUIREMENTS*

DMA	DMA 010, DMA 020, DMA 030 (MAT 110)		3
DMA	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050 (MAT 143)		5
DRE	097	Integrated Reading Writing II	3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Welding Technology Certificate Pathway (C50420P)

CORE COURSES (18 SHC) 2

WLD	110	Cutting Processes	2
WLD	115	SMAW (Stick) Plate	5
	OR		
WLD	115AC	SMAW (Stick) Plate-AC	2
WLD	115BC	SMAW (Stick) Plate-BC	2
WLD	115CC	SMAW (Stick) Plate-CC	1
WLD	121	GMAW (MIG) FCAW/Plate	4
WLD	131	GTAW (TIG) Plate	4
WLD	141	Symbols & Specifications	3

Total Credit Hours Required 18

Course Descriptions

Area of Study

Course Number

Course Title

ACADEMIC RELATED

Class hours | Lab hours | Clinical/Work Exp. hours | Credit hours

ACA 111 College Student Success **1 0 0 1**

This course introduces the college's physical, academic, and social environment and promotes the personal development essential for success. Topics include campus facilities and resources; policies, procedures, and programs; study skills; and life management issues such as health, self-esteem, motivation, goal-setting, diversity, and communication. Upon completion, students should be able to function effectively within the college environment to meet their educational objectives.

Prerequisites: None. Corequisites: None. (F, S, SU, On demand)

Prerequisites Corequisites *Semester(s) Offered Course Description

Prerequisites and Corequisites are based on minimum course requirements listed in the NCCCS Common Course Library and/or other course and program requirements established by Catawba Valley Community College.

*Coding System:

F – Fall S – Spring SU – Summer

On Demand – Course will be offered when sufficient students are available as well as an instructor.

(Coll/Tran) – Denotes College Transfer course.

ACADEMIC RELATED

ACA 111 College Student Success **1 0 0 1**

This course introduces the college's physical, academic, and social environment and promotes the personal development essential for success. Topics include campus facilities and resources; policies, procedures, and programs; study skills; and life management issues such as health, self-esteem, motivation, goal-setting, diversity, and communication. Upon completion, students should be able to function effectively within the college environment to meet their educational objectives.

Prerequisites: None. Corequisites: None. (F, S, SU)

ACA 122 College Transfer Success (Coll/Tran) **0 2 0 1**

This course provides information and strategies necessary to develop clear academic and professional goals beyond the community college experience. Topics include the CAA, college policies and culture, career exploration, gathering information on senior institutions, strategic planning, critical thinking, and communications skills for a successful academic transition. Upon completion, students should be able to develop an academic plan to transition successfully to senior institutions.

Prerequisites: None. Corequisites: None. (F, S)

ACCOUNTING

ACC 120 Prin of Financial Accounting (Coll/Tran) **3 2 0 4**

This course introduces business decision-making using accounting information systems. Emphasis is placed on analyzing, summarizing, reporting, and interpreting financial information. Upon completion, students should be able to prepare financial statements, understand the role of financial information in decision-making, and address ethical considerations.

Prerequisites: None. Corequisites: CTS 080. (F, S)

ACC 121 Prin of Managerial Accounting (Coll/Tran) **3 2 0 4**

This course includes a greater emphasis on managerial and cost accounting skills. Emphasis is placed on managerial accounting concepts for external and internal analysis, reporting, and decision-making. Upon completion, students should be able to analyze and interpret transactions relating to managerial concepts including product-costing systems.

Prerequisites: ACC 120. Corequisites: None. (S)

ACC 129 Individual Income Taxes **2 2 0 3**

This course introduces the relevant laws governing individual income taxation. Topics include tax law, electronic research and methodologies, and the use of technology for preparation of individual tax returns. Upon completion, students should be able to analyze basic tax scenarios, research applicable tax law, and complete various individual tax forms.

Prerequisites: None. Corequisites: None. (F)

ACC 130 Business Income Taxes **2 2 0 3**

This course introduces the relevant laws governing business and fiduciary income taxes. Topics include tax law relating to business organizations, electronic research and methodologies, and the use of technology for the preparation of business tax returns. Upon completion, students should be able to analyze basic tax scenarios, research applicable tax law, and complete various business tax forms.

Prerequisites: None. Corequisites: None.

ACC 140 Payroll Accounting **1 2 0 2**

This course covers federal and state laws pertaining to wages, payroll taxes, payroll tax forms, and journal and general ledger transactions. Emphasis is placed on computing wages; calculating social security, income, and unemployment taxes; preparing appropriate payroll tax forms; and journalizing/posting transactions. Upon completion, students should be able to analyze data, make appropriate computations, complete forms, and prepare accounting entries using appropriate technology.

Prerequisites: ACC 120. Corequisites: None. (S)

ACC 150 Acct Software Appl **1 2 0 2**

This course introduces microcomputer applications related to accounting systems. Topics include general ledger, accounts receivable, accounts payable, inventory, payroll, and correcting, adjusting, and closing entries. Upon completion, students should be able to use a computer accounting package to solve accounting problems. This course is offered only in a distant format (Internet).

Prerequisites: ACC 120. Corequisites: None. (S)

ACC 220 Intermediate Accounting I **3 2 0 4**

This course is a continuation of the study of accounting principles with in-depth coverage of theoretical concepts and financial statements. Topics include generally accepted accounting principles and an extensive analyses of financial statements. Upon completion, students should be able to demonstrate competence in the conceptual framework underlying financial accounting, including the application of financial standards.

Prerequisites: ACC 120. Corequisites: None. (F)

ACC 221 Intermediate Acct II 3 2 0 4
This course is a continuation of ACC 220. Emphasis is placed on special problems which may include leases, bonds, investments, ratio analyses, present value applications, accounting changes, and corrections. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered.
Prerequisites: ACC 220. Corequisites: None. (S)

ACC 225 Cost Accounting 3 0 0 3
This course introduces the nature and purposes of cost accounting as an information system for planning and control. Topics include direct materials, direct labor, factory overhead, process, job order, and standard cost systems. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered.
Prerequisites: ACC 121. Corequisites: None. (F)

ACC 240 Gov & Not-for-Profit Acct 3 0 0 3
This course introduces principles and procedures applicable to governmental and not-for-profit organizations. Emphasis is placed on various budgetary accounting procedures and fund accounting. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered.
Prerequisites: ACC 121. Corequisites: None. (S)

ACC 269 Audit & Assurance Servcs 3 0 0 3
This course introduces selected topics pertaining to the objectives, theory and practices in engagements providing auditing and other assurance services. Topics will include planning, conducting and reporting, with emphasis on the related professional ethics and standards. Upon completion, students should be able to demonstrate an understanding of the types of professional services, the related professional standards, and engagement methodology.
Prerequisites: ACC 220. Corequisites: None. (S)

AIR CONDITIONING, HEATING & REFRIGERATION

AHR 110 Intro to Refrigeration 2 6 0 5
This course introduces the basic refrigeration process used in mechanical refrigeration and air conditioning systems. Topics include terminology, safety, and identification and function of components; refrigeration cycle; and tools and instrumentation used in mechanical refrigeration systems. Upon completion, students should be able to identify refrigeration systems and components, explain the refrigeration process, and use the tools and instrumentation of the trade.
Prerequisites: DRE 097 **or** appropriate placement test score.
Corequisites: CTS 080 **or** appropriate test score. (F)

AHR 111 HVACR Electricity 2 2 0 3
This course introduces electricity as it applies to HVACR equipment. Emphasis is placed on power sources, interaction of electrical components, wiring of simple circuits, and the use of electrical test equipment. Upon completion, students should be able to demonstrate good wiring practices and the ability to read simple wiring diagrams.
Prerequisites: DRE 097 **or** appropriate placement test score.
Corequisites: CTS 080 **or** appropriate test score. (F)

AHR 112 Heating Technology 2 4 0 4
This course covers the fundamentals of heating including oil, gas, and electric heating systems. Topics include safety, tools and instrumentation, system operating characteristics, installation techniques, efficiency testing, electrical power, and control systems. Upon completion, students should be able to explain the basic oil, gas, and electrical heating systems and describe the major components of a heating system.
Prerequisites: DRE 097 **or** appropriate placement test score.
Corequisites: CTS 080 **or** appropriate test score. (F)

AHR 113 Comfort Cooling 2 4 0 4
This course covers the installation procedures, system operations, and maintenance of residential and light commercial comfort cooling systems. Topics include terminology, component operation, and testing and repair of equipment used to control and produce assured comfort levels. Upon completion, students should be able to use psychometrics, manufacturer specifications, and test instruments to determine proper system operation.
Prerequisites: DRE 097 **or** appropriate placement test score.
Corequisites: None. (S)

AHR 114 Heat Pump Technology 2 4 0 4
This course covers the principles of air source and water source heat pumps. Emphasis is placed on safety, modes of operation, defrost systems, refrigerant charging, and system performance. Upon completion, students should be able to understand and analyze system performance and perform routine service procedures.
Prerequisites: AHR 110 **or** AHR 113. Corequisites: None. (S)

AHR 130 HVAC Controls 2 2 0 3
This course covers the types of controls found in residential and commercial comfort systems. Topics include electrical and electronic controls, control schematics and diagrams, test instruments, and analysis and troubleshooting of electrical systems. Upon completion, students should be able to diagnose and repair common residential and commercial comfort system controls.
Prerequisites: AHR 111 **or** ELC 111. Corequisites: None. (S)

AHR 151 HVAC Duct Systems I 1 3 0 2
This course introduces the techniques used to lay out and fabricate duct work commonly found in HVAC systems. Emphasis is placed on the skills required to fabricate duct work. Upon completion, students should be able to lay out and fabricate simple duct work.
Prerequisites: None. Corequisites: None. (F)

AHR 160 Refrigerant Certification 1 0 0 1
This course covers the requirements for the EPA certification examinations. Topics include small appliances, high pressure systems, and low pressure systems. Upon completion, students should be able to demonstrate knowledge of refrigerants and be prepared for the EPA certification examinations.
Prerequisites: None. Corequisites: None. (S)

AHR 180 HVACR Customer Relations 1 0 0 1
This course introduces common business and customer relation practices that may be encountered in HVACR. Topics include business practices, appearance of self and vehicle, ways of handling customer complaints, invoices, telephone communications, and warranties. Upon completion, students should be able to present themselves to customers in a professional manner, understand how the business operates, complete invoices, and handle complaints.
Prerequisites: None. Corequisites: None. (F, S)

AHR 210 Residential Building Code 1 2 0 2
This course covers the residential building codes that are applicable to the design and installation of HVAC systems. Topics include current residential codes as applied to HVAC design, service, and installation. Upon completion, students should be able to demonstrate the correct usage of residential building codes that apply to specific areas of the HVAC trade.
Prerequisites: DRE 097 **or** appropriate placement test score.
Corequisites: None. (S)

AHR 211 Residential System Design 2 2 0 3
This course introduces the principles and concepts of conventional residential heating and cooling system design. Topics include heating and cooling load estimating, basic psychometrics, equipment selection, duct system selection, and system design. Upon completion, students should be able to design a basic residential heating and cooling system.
Prerequisites: DRE 097 **or** appropriate placement test score.
Corequisites: CTS 080 **or** appropriate test score. (F)

ANTHROPOLOGY

ANT 220 Cultural Anthropology (Coll/Tran) **3 0 0 3**
This course introduces the nature of human culture. Emphasis is placed on cultural theory, methods of fieldwork, and cross-cultural comparisons in the areas of ethnology, language, and the cultural past. Upon completion, students should be able to demonstrate an understanding of basic cultural processes and how cultural data are collected and analyzed.
Prerequisites: DRE 098 **or** appropriate placement test score.
Corequisites: None. (On demand)

ANT 221 Comparative Cultures (Coll/Tran) **3 0 0 3**
This course provides an ethnographic survey of societies around the world covering their distinctive cultural characteristics and how these relate to cultural change. Emphasis is placed on the similarities and differences in social institutions such as family, economics, politics, education, and religion. Upon completion, students should be able to demonstrate knowledge of a variety of cultural adaptive strategies.
Prerequisites: DRE 098 **or** appropriate placement test score.
Corequisites: None (F, S)

ANT 230 Physical Anthropology (Coll/Tran) **3 0 0 3**
This course introduces the scientific study of human evolution and adaptation. Emphasis is placed on evolutionary theory, population genetics, biocultural adaptation and human variation, as well as non-human primate evolution, morphology, and behavior. Upon completion, students should be able to demonstrate an understanding of the biological and cultural processes which have resulted in the formation of the human species.
Prerequisites: DRE 098 **or** appropriate placement test score.
Corequisites: None. (On demand)

ARABIC

ARA 111 Elementary Arabic I (Coll/Tran) **3 0 0 3**
This course introduces the fundamental elements of the modern standard Arabic language within the cultural context of Arabic-speaking people. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Arabic and demonstrate cultural awareness. This course has been approved for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement.
Prerequisites: None. Corequisites: ARA 181. (On demand)

ARA 112 Elementary Arabic II (Coll/Tran) **3 0 0 3**
This course includes the basic fundamental elements of the modern standard Arabic language within the cultural context of Arabic-speaking people. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Arabic and demonstrate further cultural awareness. This course has been approved for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement.
Prerequisites: ARA 111 must pass with a grade of C or higher.
Corequisites: ARA 182. (On demand)

ARA 181 Arabic Lab I (Coll/Tran) **0 2 0 1**
This course provides an opportunity to enhance acquisition of the fundamental elements of the modern standard Arabic language. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills through the use of supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Arabic and to demonstrate cultural awareness. This course has been approved for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement.
Prerequisites: None. Corequisites: ARA 111. (On demand)

ARA 182 Arabic Lab II (Coll/Tran) **0 2 0 1**
This course provides an opportunity to enhance acquisition of the fundamental elements of the modern standard Arabic language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Arabic and demonstrate cultural awareness. This course has been approved for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement.
Prerequisites: ARA 181 must pass with a grade of C or higher.
Corequisites: ARA 112. (On demand)

ART

ART 111 Art Appreciation (Coll/Tran) **3 0 0 3**
This course introduces the origins and historical development of art. Emphasis is placed on the relationship of design principles to various art forms, including but not limited to, sculpture, painting, and architecture. Upon completion, students should be able to identify and analyze a variety of artistic styles, periods, and media.
Prerequisites: None. Corequisites: None. (F, S, Su)

ART 114 Art History Survey I (Coll/Tran) **3 0 0 3**
This course covers the development of art forms from ancient times to the Renaissance. Emphasis is placed on content, terminology, design, and style. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of human social development.
Prerequisites: None. Corequisites: None. (On demand)

ART 115 Art History Survey II (Coll/Tran) **3 0 0 3**
This course covers the development of art forms from the Renaissance to the present. Emphasis is placed on content, terminology, design, and style. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of human social development.
Prerequisites: None. Corequisite: None. (On demand)

ART 130 Basic Drawing (Coll/Tran) **0 4 0 2**
This course introduces basic drawing techniques and is designed to increase observation skills. Emphasis is placed on the fundamentals of drawing. Upon completion, students should be able to demonstrate various methods and their application to representational imagery.
Prerequisites: None. Corequisites: None. (On demand)

ART 131 Drawing I (Coll/Tran) **0 6 0 3**
This course introduces the language of drawing and the use of various drawing materials. Emphasis is placed on drawing techniques, media, and graphic principles. Upon completion, students should be able to demonstrate competence in the use of graphic form and various drawing processes.
Prerequisites: None. Corequisites: None. (On demand)

ART 132 Drawing II (Coll/Tran) **0 6 0 3**
This course continues instruction in the language of drawing and the use of various materials. Emphasis is placed on experimentation in the use of drawing techniques, media, and graphic materials. Upon completion, students should be able to demonstrate increased competence in the expressive use of graphic form and techniques.
Prerequisites: ART 131. Corequisites: None. (On demand)

ART 140 Basic Painting (Coll/Tran) **0 4 0 2**
This course introduces the mechanics of painting. Emphasis is placed on the exploration of painting media through fundamental techniques. Upon completion, students should be able to demonstrate a basic understanding and application of painting.
Prerequisites: None. Corequisites: None. (On demand)

ART 171 Computer Art I (Coll/Tran) **0 6 0 3**
This course introduces the use of the computer as a tool for solving visual problems. Emphasis is placed on fundamentals of computer literacy and design through bit-mapped image manipulation. Upon completion, students should be able to demonstrate an understanding of paint programs, printers, and scanners to capture, manipulate, and output images.
Prerequisites: None. Corequisites: None. (On demand)

ART 231 Printmaking I (Coll/Tran) **0 6 0 3**
This course introduces printmaking: its history, development techniques, and processes. Emphasis is placed on basic applications with investigation into image source and development. Upon completion, students should be able to produce printed images utilizing a variety of methods.
Prerequisites: None. Corequisites: None. (On demand)

ART 232 Printmaking II (Coll/Tran) **0 6 0 3**
This course includes additional methods and printmaking processes. Emphasis is placed on the printed image as related to method, source, and concept. Upon completion, students should be able to produce expressive images utilizing both traditional and innovative methods.
Prerequisites: ART 231. Corequisites: None. (On demand)

ART 240 Painting I (Coll/Tran) **0 6 0 3**
This course introduces the language of painting and the use of various painting materials. Emphasis is placed on the understanding and use of various painting techniques, media, and color principles. Upon completion, students should be able to demonstrate competence in the use of creative processes directed toward the development of expressive form.
Prerequisites: None. Corequisites: None. (On demand)

ART 241 Painting II (Coll/Tran) **0 6 0 3**
This course provides a continuing investigation of the materials, processes, and techniques of painting. Emphasis is placed on the exploration of expressive content using a variety of creative processes. Upon completion, students should be able to demonstrate competence in the expanded use of form and variety.
Prerequisites: ART 240. Corequisites: None. (On demand)

ART 264 Digital Photography I (Coll/Tran) **1 4 0 3**
This course introduces digital photographic equipment, theory and processes. Emphasis is placed on camera operation, composition, computer photo manipulation and creative expression. Upon completion, students should be able to successfully expose, digitally manipulate, and print a well-conceived composition.
Prerequisites: None. Corequisites: None. (Su)

ART 271 Computer Art II (Coll/Tran) **0 6 0 3**
This course includes advanced computer imaging techniques. Emphasis is placed on creative applications of digital technology. Upon completion, students should be able to demonstrate command of computer systems and applications to express their personal vision.
Prerequisites: ART 171 Corequisites: None. (On demand)

ART 281 Sculpture I (Coll/Tran) **0 6 0 3**
This course provides an exploration of the creative and technical methods of sculpture with focus on the traditional processes. Emphasis is placed on developing basic skills as they pertain to three-dimensional expression in various media. Upon completion, students should be able to show competence in a variety of sculptural approaches.
Prerequisites: None. Corequisites: None. (On demand)

ART 282 Sculpture II (Coll/Tran) **0 6 0 3**
This course builds on the visual and technical skills learned in ART 281. Emphasis is placed on developing original solutions to sculptural problems in a variety of media. Upon completion, students should be able to express individual ideas using the techniques and materials of sculpture.
Prerequisites: ART 281. Corequisites: None. (On demand)

ART 283 Ceramics I (Coll/Tran) **0 6 0 3**
This course provides an introduction to three-dimensional design principles using the medium of clay. Emphasis is placed on fundamentals of forming, surface design, glaze application, and firing. Upon completion, students should be able to demonstrate skills in slab and coil construction, simple wheel forms, glaze technique, and creative expression.
Prerequisites: None. Corequisites: None. (On demand)

ART 284 Ceramics II (Coll/Tran) **0 6 0 3**
This course covers advanced hand building and wheel techniques. Emphasis is placed on creative expression, surface design, sculptural quality, and glaze effect. Upon completion, students should be able to demonstrate a high level of technical competence in forming and glazing with a development of three-dimensional awareness.
Prerequisites: ART 283. Corequisites: None. (On demand)

ASTRONOMY

AST 151 General Astronomy I (Coll/Tran) **3 0 0 3**
This course introduces the science of modern astronomy with a concentration on the solar system. Emphasis is placed on the history and physics of astronomy and an introduction to the solar system, including the planets, comets, and meteors. Upon completion, students should be able to demonstrate a general understanding of the solar system. As astronomy is a branch of physics, an emphasis will be placed on the physics concepts underlying topics covered in this course.
Prerequisites: DMA 010, DMA 020, DMA 030, DMA 040, DMA 050; DRE 098 **or** appropriate placement test scores. Corequisites: AST 151A. (F, S)

AST 151A General Astronomy I Lab (Coll/Tran) **0 2 0 1**
The course is a laboratory to accompany AST 151. Emphasis is placed on laboratory experiences which enhance the materials presented in AST 151 and which provide practical experience. Upon completion, students should be able to demonstrate a general understanding of the solar system. Some day and evening observations will be required.
Prerequisites: DMA 010, DMA 020, DMA 030, DMA 040, DMA 050; **or** appropriate placement test score; DRE 098 **or** appropriate placement test scores. Corequisites: AST 151. (F, S)

AST 152 General Astronomy II (Coll/Tran) **3 0 0 3**
This course is a continuation of AST 151 with primary emphasis beyond the solar system. Topics include the sun, stars, galaxies, and the larger universe, including cosmology. Upon completion, students should be able to demonstrate a working knowledge of astronomy. As astronomy is a branch of physics, an emphasis will be placed on the physics concepts underlying topics covered in this course.
Prerequisites: AST 151 must pass with a grade of C or higher, DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 065, **or** appropriate placement test score. Corequisites: AST 152A. (S)

AST 152A General Astronomy II Lab (Coll/Tran) **0 2 0 1**
The course is a laboratory to accompany AST 152. Emphasis is placed on laboratory experiences which enhance the materials presented in AST 152 and which provide practical experience. Upon completion, students should be able to demonstrate a working knowledge of astronomy. Some day and evening observations will be required.
Prerequisites: AST 151 must pass with a grade of C or higher; DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 065; **or** appropriate placement test score. Corequisites: AST 152. (S)

AUTOMATION & ROBOTICS

ATR 112 Intro to Automation **2 3 0 3**
This course introduces the basic principles of automated systems and describes the tasks that technicians perform on the job. Topics include the history, development, and current applications of robots and automated systems including their configuration, operation, components, and controls. Upon completion, students should be able to understand the basic concepts of automation and robotic systems.
Prerequisites: DRE 097, DMA 010, DMA 020, DMA 030.
Corequisites: ELC 112. (On demand)

AUTOMOTIVE

AUT 116 Engine Repair **2 3 0 3**
This course covers the theory, construction, inspection, diagnosis, and repair of internal combustion engines and related systems. Topics include fundamental operating principles of engines and diagnosis, inspection, adjustment, and repair of automotive engines using appropriate service information. Upon completion, students should be able to perform basic diagnosis, measurement, and repair of automotive engines using appropriate tools, equipment, procedures, and service information.
Prerequisites: DRE 097 **or** appropriate placement test score. Corequisites: AUT 116A, TRN 110. (F)

AUT 116A Engine Repair Lab 0 3 0 1
This course is an optional lab to be used as an alternative to co-op placement in meeting the NATEF standards for total hours. Topics include diagnosis, inspection, adjustment, and repair of automotive engines using appropriate service information. Upon completion, students should be able to perform basic diagnosis, measurement, and repair of automotive engines using appropriate tools, equipment, procedures, and service information.
Prerequisites: None. Corequisites: AUT 116. (F)

AUT 141 Suspension & Steering Sys 2 3 0 3
This course covers principles of operation, types, and diagnosis/repair of suspension and steering systems to include steering geometry. Topics include manual and power steering systems and standard and electronically controlled suspension and steering systems. Upon completion, students should be able to service and repair steering and suspension components, check and adjust alignment angles, repair tires, and balance wheels.
Prerequisites: DRE 097 **or** appropriate placement test score.
Corequisites: AUT 141A, TRN 110. (F)

AUT 141A Suspension & Steering Lab 0 3 0 1
This course is an optional lab to be used as an alternative to co-op placement in meeting the NATEF standards for total hours. Topics include manual and power steering systems and standard and electronically controlled suspension and steering systems. Upon completion, students should be able to service and repair steering and suspension components, check and adjust alignment angles, repair tires, and balance wheels.
Prerequisites: None. Corequisites: AUT 141. (F)

AUT 151 Brake Systems 2 3 0 3
This course covers principles of operation and types, diagnosis, service, and repair of brake systems. Topics include drum and disc brakes involving hydraulic, vacuum boost, hydra-boost, electrically powered boost, and anti-lock and parking brake systems. Upon completion, students should be able to diagnose, service, and repair various automotive braking systems.
Prerequisites: DRE 097 **or** appropriate placement test score.
Corequisites: AUT 151A, TRN 110. (S)

AUT 151A Brake Systems Lab 0 3 0 1
This course is an optional lab to be used as an alternative to co-op placement in meeting the NATEF standards for total hours. Topics include drum and disc brakes involving hydraulic, vacuum-boost, hydra-boost, electrically powered boost, and anti-lock, parking brake systems and emerging brake systems technologies. Upon completion, students should be able to diagnose, service, and repair various automotive braking systems.
Prerequisites: None. Corequisites: AUT 151. (S)

AUT 163 Adv Auto Electricity 2 3 0 3
This course covers electronic theory, wiring diagrams, test equipment, and diagnosis, repair, and replacement of electronics, lighting, gauges, horn, wiper, accessories, and body modules. Topics include networking and module communication, circuit construction, wiring diagrams, circuit testing, and troubleshooting. Upon completion, students should be able to properly use wiring diagrams, diagnose, test, and repair wiring, lighting, gauges, accessories, modules, and electronic concerns.
Prerequisites: TRN 120. Corequisites: None. (S)

AUT 163A Adv Auto Electricity Lab 0 3 0 1
This course is an optional lab to be used as an alternative to co-op placement in meeting the NATEF standards for total hours. Topics include networking and module communication, circuit construction, wiring diagrams, circuit testing, troubleshooting and emerging electrical/electronic systems technologies. Upon completion, students should be able to properly use wiring diagrams, diagnose, test, and repair wiring, lighting, gauges, accessories, modules, and electronic concerns.
Prerequisites: None. Corequisites: None. (S)

AUT 181 Engine Performance 1 2 3 0 3
This course covers the introduction, theory of operation, and basic diagnostic procedures required to restore engine performance to vehicles equipped with complex engine control systems. Topics include an overview of engine operation, ignition components and systems, fuel delivery, injection components and systems and emission control devices. Upon completion, students should be able to describe operation and diagnose/repair basic ignition, fuel and emission related driveability problems using appropriate test equipment/service information.
Prerequisites: None. Corequisites: AUT 181A, TRN 110. (F)

AUT 181A Engine Performance 1 Lab 0 3 0 1
This course is an optional lab to be used as an alternative to co-op placement in meeting the NATEF standards for total hours. Topics include overviews of engine operation, ignition components and systems, fuel delivery, injection components and systems and emission control devices and emerging engine performance technologies. Upon completion, students should be able to describe operation and diagnose/repair basic ignition, fuel and emission related driveability problems using appropriate test equipment/service information.
Prerequisites: None. Corequisites: AUT 181. (F)

AUT 183 Engine Performance 2 2 6 0 4
This course covers study of the electronic engine control systems, the diagnostic process used to locate engine performance concerns and procedures used to restore normal operation. Topics will include currently used fuels and fuel systems, exhaust gas analysis, emission control components and systems, OBD II (on-board diagnostics) and inter-related electrical/electronic systems. Upon completion, students should be able to diagnose and repair complex engine performance concerns using appropriate test equipment and service information.
Prerequisites: AUT 181. Corequisites: None. (S)

AUT 212 Auto Shop Management 3 0 0 3
This course covers the principles of management essential to decision-making, communication, authority, and leadership. Topics include shop supervision, shop organization, customer relations, cost effectiveness and work place ethics. Upon completion, students should be able to describe basic automotive shop operation from a management standpoint.
Prerequisites: CTS 080, DRE 097 **or** appropriate placement test score. Corequisites: None. (F)

AUT 221 Auto Transm/Transaxles 2 3 0 3
This course covers operation, diagnosis, service, and repair of automatic transmissions/transaxles. Topics include hydraulic, pneumatic, mechanical, and electrical/electronic operation of automatic drive trains and the use of appropriate service tools and equipment. Upon completion, students should be able to explain operational theory, diagnose and repair automatic drive trains.
Prerequisites: DRE 097 **or** appropriate placement test score.
Corequisites: AUT 221A, TRN 110. (S)

AUT 221A Auto Transm/Transax Lab 0 3 0 1
This course is an optional lab to be used as an alternative to co-op placement in meeting the NATEF standards for total hours. Topics include hydraulic, pneumatic, mechanical, and electrical/electronic operation of automatic drive trains and the use of appropriate service tools and equipment. Upon completion, students should be able to diagnose and repair automatic drive trains.
Prerequisites: None. Corequisites: AUT 221. (S)

AUT 231 Man Trans/Axles/Drtrains 2 3 0 3
This course covers the operation, diagnosis, and repair of manual transmissions/transaxles, clutches, driveshafts, axles, and final drives. Topics include theory of torque, power flow, and manual drive train service and repair using appropriate service information, tools, and equipment. Upon completion, students should be able to explain operational theory, diagnose and repair manual drive trains.
Prerequisites: DRE 097 **or** appropriate placement test score.
Corequisites: AUT 231A, TRN 110. (S)

AUT 231A Man Trans/Ax/Drtrains Lab 0 3 0 1
This course is an optional lab for the program that needs to meet NATEF hour standards but does not have a co-op component in the program. Topics include manual drive train diagnosis, service and repair using appropriate service information, tools, and equipment. Upon completion, students should be able to diagnose and repair manual drive trains.
Prerequisites: None. Corequisites: AUT 231. (F, S)

AUT 281 Adv Engine Performance 2 2 0 3
This course utilizes service information and specialized test equipment to diagnose and repair power train control systems. Topics include computerized ignition, fuel and emission systems, related diagnostic tools and equipment, data communication networks, and service information. Upon completion, students should be able to perform diagnosis and repair.
Prerequisites: AUT 163, AUT 183. Corequisites: None. (F)

BIOLOGY

BIO 111 General Biology I (Coll/Tran) **3 3 0 4**
This course introduces the principles and concepts of biology. Emphasis is placed on basic biological chemistry, cell structure and function, metabolism and energy transformation, genetics, evolution, classification, and other related topics. Upon completion, students should be able to demonstrate understanding of life at the molecular and cellular levels.
Prerequisites: DMA 010, DMA 020, DMA 030, DMA 040, DMA 050 **or** appropriate placement test score; DRE 098 **or** appropriate placement test score.
Corequisites: None. (F, S, On demand)

BIO 112 General Biology II (Coll/Tran) **3 3 0 4**
This course is a continuation of BIO 111. Emphasis is placed on organisms, biodiversity, plant and animal systems, ecology, and other related topics. Upon completion, students should be able to demonstrate comprehension of life at the organismal and ecological levels.
Prerequisites: BIO 111 must pass with a grade of C or higher.
Corequisites: None. (F, S, On demand)

BIO 120 Introductory Botany (Coll/Tran) **3 3 0 4**
This course provides an introduction to the classification, relationships, structure, and function of plants. Topics include reproduction and development of seed and non-seed plants, levels of organization, form and function of systems, and a survey of major taxa. Upon completion, students should be able to demonstrate comprehension of plant form and function, including selected taxa of both seed and non-seed plants.
Prerequisites: BIO 110 **or** BIO 111 (must pass with a grade of C or higher).
Corequisites: None. (S)

BIO 130 Introductory Zoology (Coll/Tran) **3 3 0 4**
This course provides an introduction to the classification, relationships, structure, and function of major animal phyla. Emphasis is placed on levels of organization, reproduction and development, comparative systems, and a survey of selected phyla. Upon completion, students should be able to demonstrate comprehension of animal form and function including comparative systems of selected groups.
Prerequisites: BIO 110 **or** BIO 111 (must pass with a grade of C or higher).
Corequisites: None. (F)

BIO 140 Environmental Biology (Coll/Tran) **3 0 0 3**
This course introduces environmental processes and the influence of human activities upon them. Topics include ecological concepts, population growth, natural resources, and a focus on current environmental problems from scientific, social, political, and economic perspectives. Upon completion, students should be able to demonstrate an understanding of environmental interrelationships and of contemporary environmental issues.
Prerequisites: BIO 111 must pass with a grade of C or higher.
Corequisites: BIO 140A. (On demand)

BIO 140A Environmental Biology Lab (Coll/Tran) **0 3 0 1**
This course provides a laboratory component to complement BIO 140. Emphasis is placed on laboratory and field experience. Upon completion, students should be able to demonstrate a practical understanding of environmental interrelationships and of contemporary environmental issues.
Prerequisites: None. Corequisites: BIO 140. (On demand)

BIO 143 Field Biology Minicourse (Coll/Tran) **1 2 0 2**
This course introduces the biological and physical components of a field environment. Emphasis is placed on a local field environment with extended field trips to other areas. Upon completion, students should be able to demonstrate an understanding of the biological and physical components of the specific biological environment.
Prerequisites: None. Corequisites: None. (On demand)

BIO 145 Ecology (Coll/Tran) **3 3 0 4**
This course provides an introduction to ecological concepts using an ecosystems approach. Topics include energy flow, nutrient cycling, succession, population dynamics, community structure, and other related topics. Upon completion, students should be able to demonstrate comprehension of basic ecosystem structure and dynamics.
Prerequisites: None. Corequisites: None. (On demand)

BIO 146 Regional Natural History (Coll/Tran) **3 3 0 4**
This course is an interdisciplinary and historical analysis of the natural resources of the region. Emphasis is placed on geology, climate, forest systems, watersheds, water resources, and fish and wildlife resources of the region. Upon completion, students should be able to demonstrate comprehension of the natural history and the integration of the natural resources of the region.
Prerequisites: None. Corequisites: None. (On demand)

BIO 155 Nutrition (Coll/Tran) **3 0 0 3**
This course covers the biochemistry of foods and nutrients with consideration of the physiological effects of specialized diets for specific biological needs. Topics include cultural, religious, and economic factors that influence a person's acceptance of food, as well as nutrient requirements of the various life stages. Upon completion, students should be able to identify the functions and sources of nutrients, the mechanisms of digestion, and the nutritional requirements of all age groups.
Prerequisites: None. Corequisites: None. (On demand)

BIO 163 Basic Anat & Physiology (Coll/Tran) **4 2 0 5**
This course provides a basic study of the structure and function of the human body. Topics include a basic study of the body systems as well as an introduction to homeostasis, cells, tissues, nutrition, acid-base balance, and electrolytes. Upon completion, students should be able to demonstrate a basic understanding of the fundamental principles of anatomy and physiology and their interrelationships.
Prerequisites: DMA 010, DMA 020, DMA 030, DMA 040; DRE 098 **or** appropriate placement test scores. Corequisites: None. (F, S, On demand)

BIO 168 Anatomy and Physiology I (Coll/Tran) **3 3 0 4**
This course provides a comprehensive study of the anatomy and physiology of the human body. Topics include body organization, homeostasis, cytology, histology, and the integumentary, skeletal, muscular, and nervous systems and special senses. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships. Successful completion of high school chemistry (C), or a higher level chemistry course is recommended prior to taking BIO 168.
Prerequisites: DMA 010, DMA 020, DMA 030, DMA 040; DRE 098 **or** appropriate placement test scores. Corequisites: None. (F, S, On demand)

BIO 169 Anatomy and Physiology II (Coll/Tran) **3 3 0 4**
This course provides a continuation of the comprehensive study of the anatomy and physiology of the human body. Topics include the endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems as well as metabolism, nutrition, acid-base balance, and fluid and electrolyte balance. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships.
Prerequisites: BIO 168 must pass with a grade of C or higher.
Corequisites: None. (F, S, On demand)

BIO 175 General Microbiology (Coll/Tran) **2 2 0 3**
This course covers principles of microbiology with emphasis on microorganisms and human disease. Topics include an overview of microbiology and aspects of medical microbiology, identification and control of pathogens, disease transmission, host resistance, and immunity. Upon completion, students should be able to demonstrate knowledge of microorganisms and the disease process as well as aseptic and sterile techniques.
Prerequisites: BIO 110 **or** BIO 111 **or** BIO 163 **or** BIO 168 (must pass with a grade of C or higher). Corequisites: None. (F, S, On demand)

BIO 224 Local Flora Spring (Coll/Tran) **1 2 0 2**
This course provides an introduction to the identification of native plants. Emphasis is placed on spring wild flowers. Upon completion, students should be able to identify a variety of spring wild flowers and native plants.
Prerequisites: None. Corequisites: None. (On demand)

BIO 230 Entomology (Coll/Tran) **3 3 0 4**
This course covers the biology of insects. Topics include harmful and beneficial insects, their identification, classification, life cycles, behavior, distribution, economic importance, and the methods involved in collection and preservation. Upon completion, students should be able to identify common insects and describe their biology and ecology.
Prerequisites: BIO 112 must pass with a grade of C or higher.
Corequisites: None. (On demand)

BIO 250 Genetics (Coll/Tran) **3 3 0 4**
This course covers principles of prokaryotic and eukaryotic cell genetics. Emphasis is placed on the molecular basis of heredity, chromosome structure, patterns of Mendelian and non-Mendelian inheritance, evolution, and biotechnological applications. Upon completion, students should be able to recognize and describe genetic phenomena and demonstrate knowledge of important genetic principles.
Prerequisites: BIO 112. Corequisites: None. (On demand)

BIO 275 Microbiology (Coll/Tran) **3 3 0 4**
This course covers principles of microbiology and the impact these organisms have on man and the environment. Topics include the various groups of microorganisms, their structure, physiology, genetics, microbial pathogenicity, infectious diseases, immunology, and selected practical applications. Upon completion, students should be able to demonstrate knowledge and skills including microscopy, aseptic technique, staining, culture methods, and identification of microorganisms.
Prerequisites: BIO 110 **or** BIO 112 **or** BIO 163 **or** BIO 168 (must pass with a grade of C or higher). Corequisites: None. (F, S, On demand)

BIO 280 Biotechnology (Coll/Tran) **2 3 0 3**
This course provides experience in selected laboratory procedures. Topics include proper laboratory techniques in biology and chemistry. Upon completion, students should be able to identify laboratory techniques and instrumentation in basic biotechnology.
Prerequisites: BIO 111 **or** CHM 151 (must pass with a grade of C or higher). Corequisites: None. (On demand)

BLUEPRINT READING

BPR 111 Print Reading **1 2 0 2**
This course introduces the basic principles of print reading. Topics include line types, orthographic projections, dimensioning methods, and notes. Upon completion, students should be able to interpret basic prints and visualize the features of a part or system.
Prerequisites: DRE 097 or appropriate placement test score.
Corequisites: None. (F, S)

BUSINESS

BUS 110 Introduction to Business (Coll/Tran) **3 0 0 3**
This course provides a survey of the business world. Topics include the basic principles and practices of contemporary business. Upon completion, students should be able to demonstrate an understanding of business concepts as a foundation for studying other business subjects.
Prerequisites: None. Corequisites: None. (F)

BUS 115 Business Law I (Coll/Tran) **3 0 0 3**
This course introduces the ethics and legal framework of business. Emphasis is placed on contracts, negotiable instruments, Uniform Commercial Code, and the working of the court systems. Upon completion, students should be able to apply ethical issues and laws covered to selected business decision-making situations.
Prerequisites: None. Corequisites: None. (S)

BUS 116 Business Law II **3 0 0 3**
This course continues the study of ethics and business law. Emphasis is placed on bailments, sales, risk-bearing, forms of business ownership, and copyrights. Upon completion, students should be able to apply ethical issues and laws covered to selected business decision-making situations.
Prerequisites: BUS 115. Corequisites: None. (On demand)

BUS 125 Personal Finance **3 0 0 3**
This course provides a study of individual and family financial decisions. Emphasis is placed on building useful skills in buying, managing finances, increasing resources, and coping with current economic conditions. Upon completion, students should be able to develop a personal financial plan.
Prerequisites: None. Corequisites: None. (On demand)

BUS 137 Principles of Management (Coll/Tran) **3 0 0 3**
This course is designed to be an overview of the major functions of management. Emphasis is placed on planning, organizing, controlling, directing, and communicating. Upon completion, students should be able to work as contributing members of a team utilizing these functions of management.
Prerequisites: None. Corequisites: None. (F)

BUS 139 Entrepreneurship I **3 0 0 3**
This course provides an introduction to the principles of entrepreneurship. Topics include self-analysis of entrepreneurship readiness, the role of entrepreneur in economic development, legal problems, organizational structure, sources of financing, budgeting, and cash flow. Upon completion, students should have an understanding of the entrepreneurial process and issues faced by entrepreneurs.
Prerequisites: None. Corequisites: None. (F)

BUS 153 Human Resource Management **3 0 0 3**
This course introduces the functions of personnel/human resource management within an organization. Topics include equal opportunity and the legal environment, recruitment and selection, performance appraisal, employee development, compensation planning, and employee relations. Upon completion, students should be able to anticipate and resolve human resource concerns.
Prerequisites: None. Corequisites: None. (On demand)

BUS 217 Employment Law and Regs **3 0 0 3**
This course introduces the principle laws and regulations affecting public and private organizations and their employees or prospective employees. Topics include fair employment practices, EEO, affirmative action, and employee rights and protections. Upon completion, students should be able to evaluate organization policy for compliance and assure that decisions are not contrary to law.
Prerequisites: None. Corequisites: None.

BUS 230 Small Business Management **3 0 0 3**
This course introduces the challenges of entrepreneurship including the startup and operation of a small business. Topics include market research techniques, feasibility studies, site analysis, financing alternatives, and managerial decision making. Upon completion, students should be able to develop a small business plan.
Prerequisites: None. Corequisites: None. (On demand)

BUS 240 Business Ethics **3 0 0 3**
This course introduces contemporary and controversial ethical issues that face the business community. Topics include moral reasoning, moral dilemmas, law and morality, equity, justice and fairness, ethical standards, and moral development. Upon completion, students should be able to demonstrate an understanding of their moral responsibilities and obligations as members of the workforce and society.
Prerequisites: None. Corequisites: None. (S)

BUS 245 Entrepreneurship II **3 0 0 3**
This course is designed to allow the student to develop a business plan. Topics include the need for a business plan, sections of the plan, writing the plan, and how to find assistance in preparing the plan. Upon completion, students should be able to design and implement a business plan based on sound entrepreneurship principles.
Prerequisites: BUS 139. Corequisites: None. (S)

BUS 253 Leadership and Mgt Skills **3 0 0 3**
This course includes a study of the qualities, behaviors, and personal styles exhibited by leaders. Emphasis is placed on coaching, counseling, team building, and employee involvement. Upon completion, students should be able to identify and exhibit the behaviors needed for organizational effectiveness.
Prerequisites: None. Corequisites: None. (S)

BUS 260 Business Communication **3 0 0 3**
This course is designed to develop skills in writing business communications. Emphasis is placed on business reports, correspondence, and professional presentations. Upon completion, students should be able to communicate effectively in the work place.
Prerequisites: ENG 111. Corequisites: None. (F)

BUS 285 Business Management Issues **2 2 0 3**
This course covers contemporary issues that affect successful businesses and their managers and employees. Emphasis is placed on using case studies and exercises to develop analytical and problem-solving skills, ethics, quality management concepts, team skills, and effective communication. Upon completion, students should be able to apply the specific knowledge and skills covered to become more effective managers and employees.
Prerequisites: BUS 137. Corequisites: None. (S)

CYBER CRIME

CCT 110 Intro to Cyber Crime 3 0 0 3
This course introduces and explains the various types of offenses that qualify as cyber crime activity. Emphasis is placed on identifying cyber crime activity and the response to these problems from both the private and public domains. Upon completion, students should be able to accurately describe and define cyber crime activities and select an appropriate response to deal with the problem. Students will demonstrate their proficiency with the use of computer technology and applications, such as Microsoft Word, Excel, and Power point.
Prerequisites: None. Corequisites: None. (F)

CCT 112 Ethics & High Technology 3 0 0 3
This course covers ethical considerations and accepted standard practices applicable to technological investigations and computer privacy issues relative to the cyber crime investigator. Topics include illegal and unethical investigative activities, end-justifying-the-means issues, and privacy issues of massive personal database information gathered by governmental sources. Upon completion, students should be able to examine their own value system and apply ethical considerations in identifiable cyber crime investigations.
Prerequisites: None. Corequisites: None. (F)

CCT 121 Computer Crime Invest 3 2 0 4
This course introduces the fundamental principles of computer crime investigation processes. Topics include crime scene/incident processing, information gathering techniques, data retrieval, collection and preservation of evidence, preparation of reports and court presentations. Upon completion, students should be able to identify cyber crime activity and demonstrate proper investigative techniques to process the scene and assist in case prosecution.
Prerequisites: None. Corequisites: None. (S)

CCT 231 Technology Crimes & Law 3 0 0 3
This course covers the applicable technological laws dealing with the regulation of cyber security and criminal activity. Topics include an examination of state, federal and international laws regarding cyber crime with an emphasis on both general and North Carolina statutes. Upon completion, students should be able to identify the elements of cyber crime activity and discuss the trends of evolving laws.
Prerequisites: None. Corequisites: None. (F)

CCT 240 Data Recovery Techniques 2 3 0 3
This course introduces the unique skills and methodologies necessary to assist in the investigation and prosecution of cyber crimes. Topics include hardware and software issues, recovering erased files, overcoming encryption, advanced imaging, transient data, Internet issues and testimony considerations. Upon completion, students should be able to recover digital evidence, extract information for criminal investigation and legally seize criminal evidence.
Prerequisites: CCT 121, NOS 110. Corequisites: None. (F)

CCT 250 Netwk Vulnerabilities I 2 2 0 3
This course introduces students to penetration testing, network vulnerabilities, and hacking. Topics include an overview of traditional network security, system hardening, and known weaknesses. Upon completion, students should be able to evaluate weaknesses of traditional and wireless networks for the purpose of incident response, reconstruction, and forensic investigation. Additionally, students will be able to assess and secure common network vulnerabilities.
Prerequisites: NET 125. Corequisites: None. (F)

CCT 251 Network Vulnerabilities II 2 2 0 3
This course advances students146 knowledge of penetration testing, network vulnerabilities, and hacking. Topics include analyzing advanced techniques for circumventing network security hardware and software. Upon completion, students should be able to assemble test kits for multiple operating systems, scan and footprint networks, and perform advanced forensic investigation.
Prerequisites: CCT 250. Corequisites: None.

CCT 260 Mobile Phone Examination 1 4 0 3
This course introduces the unique skills and methodologies necessary to assist in the investigation and prosecution of cyber crimes involving mobile phones. Topics include the basics of the cellular networks as well as data extraction from GSM, iDEN and CDMA handsets. Upon completion, students should be able to use the course processes and methodologies to obtain forensic evidence from GSM, iDEN and CDMA handsets.
Prerequisites: None. Corequisites: None.

CCT 271 Mac Digital Forensics 1 4 0 3
This course provides students with the unique knowledge and skills necessary to analyze Macintosh operating system artifacts and file system mechanics. Topics include Macintosh architecture, HFS (+) based file systems, Macintosh decryption, address book and chat archives, Internet artifacts related to Safari and Firefox. Upon completion, students will be able to use the course processes and methodologies to forensically analyze a Mac computer.
Prerequisites: None. Corequisites: None.

CCT 285 Trends in Cyber Crime 2 2 0 3
This course covers and explores advances and developments in cyber crime technologies. Emphasis is placed on computer forensics tools, information protection and security, threat response, and professional development. Upon completion, students should be able to articulate understanding of the current state of the industry as well as emerging technologies for cyber crime technology. Students will be able to identify the regulatory and legal environment encountered in common business environments and develop risk assessments based on those regulations.
Prerequisites: CCT 110. Corequisites: CCT 289. (S)

CCT 289 Capstone Project 1 6 0 3
This course provides experience in cyber crime investigations or technology security audits in either the public or private domain. Emphasis is placed on student involvement with businesses or agencies dealing with technology security issues or computer crime activities. Upon completion, students should be able to successfully analyze, retrieve erased evidence and testify in mock proceedings against these criminal entrepreneurs. Students will be able to evaluate and identify risk mitigation strategies and prepare plans for business security and/or continuity.
Prerequisites: CCT 231 **or** CCT 220. Corequisites: CCT 285. (S)

COMPUTER ENGINEERING TECHNOLOGY

CET 111 Computer Upgrade/Repair I 2 3 0 3
This course covers repairing, servicing, and upgrading computers and peripherals in preparation for industry certification. Topics include CPU/memory/bus identification, disk subsystems, hardware/software installation/configuration, common device drivers, data recovery, system maintenance, and other related topics. Upon completion, students should be able to safely repair and/or upgrade computer systems to perform within specifications.
Prerequisites: CIS 110 must pass with a grade of C or higher;
DRE 097 **or** appropriate placement test score. Corequisites: None. (On demand)

CET 211 Computer Upgrade/Repair II 2 3 0 3
This course covers concepts of repair, service, and upgrade of computers and peripherals in preparation for industry certification. Topics may include resolving resource conflicts and system bus specifications, configuration and troubleshooting peripherals, operating system configuration and optimization, and other related topics. Upon completion, students should be able to identify and resolve system conflicts and optimize system performance.
Prerequisites: CET 111 **or** CTS 120 must pass with a grade of C or higher; DRE 097 **or** appropriate placement test score. Corequisites: None. (On demand)

CHINESE

CHI 111 Elementary Chinese I (Coll/Tran) **3 0 0 3**
This course introduces the fundamental elements of the Chinese language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Chinese and demonstrate cultural awareness.
Prerequisites: None. Corequisites: CHI 181. (On demand)

CHI 112 Elementary Chinese II (Coll/Tran) **3 0 0 3**
This course includes the basic fundamentals of the Chinese language within a cultural context of the Chinese people and its history. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Chinese and demonstrate further cultural awareness.
Prerequisites: CHI 111 must pass with a grade of C or higher.
Corequisites: CHI 182. (On demand)

CHI 181 Chinese Lab I (Coll/Tran) **0 2 0 1**
This course provides an opportunity to enhance acquisition of the fundamental elements of the Chinese language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of various supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Chinese and demonstrate cultural awareness.
Prerequisites: None. Corequisites: CHI 111. (On demand)

CHI 182 Chinese Lab II (Coll/Tran) **0 2 0 1**
This course provides an opportunity to enhance acquisition of the fundamental elements of the Chinese language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of various supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Chinese and demonstrate cultural awareness.
Prerequisites: CHI 181 must pass with a grade of C or higher.
Corequisites: CHI 112. (On demand)

CHEMISTRY

CHM 130 Gen, Org, & Biochemistry (Coll/Tran) **3 0 0 3**
This course provides a survey of basic facts and principles of general, organic, and biochemistry. Topics include measurement, molecular structure, nuclear chemistry, solutions, acid-base chemistry, gas laws, and the structure, properties, and reactions of major organic and biological groups. Upon completion, students should be able to demonstrate an understanding of fundamental chemical concepts.
Prerequisites: DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, **or** appropriate placement test scores; DRE 098 **or** appropriate placement test scores. Corequisites: CHM 130A. (F, S, On demand)

CHM 130A Gen, Org, & Biochemistry Lab (Coll/Tran) **0 2 0 1**
This course is a laboratory for CHM 130. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 130. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical principles presented in CHM 130.
Prerequisites: DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, **or** appropriate placement test scores; DRE 098 **or** appropriate placement test scores. Corequisites: CHM 130. (F ,S, On demand)

CHM 131 Introduction to Chemistry (Coll/Tran) **3 0 0 3**
This course introduces the fundamental concepts of inorganic chemistry. Topics include measurement, matter and energy, atomic and molecular structure, nuclear chemistry, stoichiometry, chemical formulas and reactions, chemical bonding, gas laws, solutions, and acids and bases. Upon completion, students should be able to demonstrate a basic understanding of chemistry as it applies to other fields.
Prerequisites: DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, **or** appropriate placement test scores; DRE 098 **or** appropriate placement test scores. Corequisites: CHM 131A. (F, S, On demand)

CHM 131A Introduction to Chemistry Lab (Coll/Tran) **0 3 0 1**
This course is a laboratory to accompany CHM 131. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 131. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical principles presented in CHM 131.
Prerequisites: DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, **or** appropriate placement test scores; DRE 098 **or** appropriate placement test scores. Corequisites: CHM 131. (F, S, On demand)

CHM 132 Organic and Biochemistry (Coll/Tran) **3 3 0 4**
This course provides a survey of major functional classes of compounds in organic and biochemistry. Topics include structure, properties, and reactions of the major organic and biological molecules and basic principles of metabolism. Upon completion, students should be able to demonstrate an understanding of fundamental chemical concepts needed to pursue studies in related professional fields.
Prerequisites: CHM 131 **and** CHM 131A must pass with a grade of C or higher; **or** CHM 151 must pass with a grade of C or higher. Corequisites: None. (S)

CHM 151 General Chemistry I (Coll/Tran) **3 3 0 4**
This course covers fundamental principles and laws of chemistry. Topics include measurement, atomic and molecular structure, periodicity, chemical reactions, chemical bonding, stoichiometry, thermochemistry, gas laws, and solutions. Upon completion, students should be able to demonstrate an understanding of fundamental chemical laws and concepts as needed in CHM 152. Successful completion of high school chemistry (C), or a higher level chemistry course is recommended prior to taking CHM 151.
Prerequisites: DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 065; **or** appropriate placement test scores; DRE 098 **or** appropriate placement test scores. Corequisites: None. (F, S, On demand)

CHM 152 General Chemistry II (Coll/Tran) **3 3 0 4**
This course provides a continuation of the study of the fundamental principles and laws of chemistry. Topics include kinetics, equilibrium, ionic and redox equations, acid-base theory, electrochemistry, thermodynamics, introduction to nuclear and organic chemistry, and complex ions. Upon completion, students should be able to demonstrate an understanding of chemical concepts as needed to pursue further study in chemistry and related professional fields.
Prerequisites: CHM 151 must pass with a grade of C or higher.
Corequisites: MAT 171 **or** MAT 271 (S, On demand)

CHM 251 Organic Chemistry I (Coll/Tran) **3 3 0 4**
This course provides a systematic study of the theories, principles, and techniques of organic chemistry. Topics include nomenclature, structure, properties, reactions, and mechanisms of hydrocarbons, alkyl halides, alcohols, and ethers; further topics include isomerization, stereochemistry, and spectroscopy. Upon completion, students should be able to demonstrate an understanding of the fundamental concepts of covered organic topics as needed in CHM 252.
Prerequisites: CHM 152 must pass with a grade of C or higher.
Corequisites: None. (F)

CHM 252 Organic Chemistry II (Coll/Tran) **3 3 0 4**
This course provides continuation of the systematic study of the theories, principles, and techniques of organic chemistry. Topics include nomenclature, structure, properties, reactions, and mechanisms of aromatics, aldehydes, ketones, carboxylic acids and derivatives, amines and heterocyclics; multi-step synthesis will be emphasized. Upon completion, students should be able to demonstrate an understanding of organic concepts as needed to pursue further study in chemistry and related professional fields.
Prerequisites: CHM 251 must pass with a grade of C or higher.
Corequisites: None. (S)

CHM 263 Analytical Chemistry (Coll/Tran) **3 4 0 5**
This course covers the knowledge and laboratory skills needed to perform chemical analysis. Emphasis is placed on developing laboratory techniques used in the separation, identification, and quantification of selected substances. Upon completion, students should be able to perform laboratory techniques employed in substance identification and volumetric analysis and interpret the results.
Prerequisites: CHM 132. Corequisites: None. (On demand)

CHM 271 Biochemical Principles (Coll/Tran) **3 0 0 3**
The course covers fundamental principles of biochemistry. Topics include structures, properties, reactions, and mechanisms of biomacromolecules including amino acids, peptides, proteins, carbohydrates and nucleic acids, enzymatic metabolic pathways, and biochemical genetics. Upon completion, students should be able to demonstrate an understanding of fundamental biochemical processes.
Prerequisites: CHM 252. Corequisites: None. (On demand)

CHM 271A Biochemical Principles Laboratory (Coll/Tran) **0 3 0 1**
This course is a laboratory for CHM 271. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 271. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical principles presented in CHM 271.
Prerequisites: CHM 252. Corequisites: CHM 271. (On demand)

INFORMATION SYSTEMS

CIS 110 Introduction to Computers (Coll/Tran) **2 2 0 3**
This course introduces computer concepts, including fundamental functions and operations of the computer. Topics include identification of hardware components, basic computer operations, security issues, and use of software applications. Upon completion, students should be able to demonstrate an understanding of the role and function of computers and use the computer to solve problems.
Prerequisites: CTS 080; DRE 097 **or** appropriate placement test score.
Corequisites: None. (F, S, SU)

CIS 111 Basic PC Literacy **1 2 0 2**
This course provides an overview of computer concepts. Emphasis is placed on the use of personal computers and software applications for personal and fundamental workplace use. Upon completion, students should be able to demonstrate basic personal computer skills.
Prerequisites: CTS 080; DRE 097 **or** appropriate test scores.
Corequisites: None. (F, S)

CIS 115 Intro to Prog & Logic (Coll/Tran) **2 3 0 3**
This course introduces computer programming and problem solving in a structured program logic environment. Topics include language syntax, data types, program organization, problem solving methods, algorithm design, and logic control structures. Upon completion, students should be able to manage files with operating system commands, use top-down algorithm design, and implement algorithmic solutions in a programming language.
Prerequisites: DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, **or** MAT 121 **or** MAT 171 **or** appropriate placement test score.
Corequisites: None. (F)

CIS 277 Network Design & Imp **2 2 0 3**
This course focuses on the design, analysis, and integration of network operating system. Topics include determination of a directory tree structure and object placement, creation of time synchronization strategy, security, and routing services. Upon completion, students should be able to implement a network design strategy, develop a migration strategy, and create a network implementation schedule.
Prerequisites: None. Corequisites: None. (S)

CRIMINAL JUSTICE

CJC 100 Basic Law Enforcement Training **9 30 0 19**
This course covers the basic skills and knowledge needed for entry-level employment as a law enforcement officer in North Carolina. Topics are divided into general units of study: legal, patrol duties, law enforcement communications, investigations, practical application and sheriff-specifc. Upon successful completion, the student will be able to demonstrate competence in topics and areas required for the state comprehensive certification examination. This is a certificate-level course.
Prerequisites: Completion of admission process for BLET.
Corequisites: None. (F, S)

CJC 111 Intro to Criminal Justice (Coll/Tran) **3 0 0 3**
This course introduces the components and processes of the criminal justice system. Topics include history, structure, functions, and philosophy of the criminal justice system and their relationship to life in our society. Upon completion, students should be able to define and describe the major system components and their interrelationships and evaluate career options.
Prerequisites: None. Corequisites: None. (F)

CJC 112 Criminology **3 0 0 3**
This course introduces deviant behavior as it relates to criminal activity. Topics include theories of crime causation; statistical analysis of criminal behavior; past, present, and future social control initiatives; and other related topics. Upon completion, students should be able to explain and discuss various theories of crime causation and societal response.
Prerequisites: None. Corequisites: None. (S)

CJC 113 Juvenile Justice **3 0 0 3**
This course covers the juvenile justice system and related juvenile issues. Topics include an overview of the juvenile justice system, treatment and prevention programs, special areas and laws unique to juveniles, and other related topics. Upon completion, students should be able to identify/discuss juvenile court structure/procedures, function and jurisdiction of juvenile agencies, processing/detention of juveniles, and case disposition.
Prerequisites: None. Corequisites: None. (F)

CJC 114 Investigative Photography **1 2 0 2**
This course covers the operation of digital photographic equipment and its application to criminal justice. Topics include the use of digital cameras, storage of digital images, the retrieval of digital images and preparation of digital images as evidence. Upon completion, students should be able to demonstrate and explain the role and use of digital photography, image storage and retrieval in criminal investigations.
Prerequisites: None. Corequisites: None. (F)

CJC 121 Law Enforcement Operations (Coll/Tran) **3 0 0 3**
This course introduces fundamental law enforcement operations. Topics include the contemporary evolution of law enforcement operations and related issues. Upon completion, students should be able to explain theories, practices, and issues related to law enforcement operations.
Prerequisites: None. Corequisites: None. (S)

CJC 131 Criminal Law **3 0 0 3**
This course covers the history/evolution/principles and contemporary applications of criminal law. Topics include sources of substantive law, classification of crimes, parties to crime, elements of crimes, matters of criminal responsibility, and other related topics. Upon completion, students should be able to discuss the sources of law and identify, interpret, and apply the appropriate statutes/elements.
Prerequisites: None. Corequisites: None. (F)

CJC 132 Court Procedure & Evidence **3 0 0 3**
This course covers judicial structure/process/procedure from incident to disposition, kinds and degrees of evidence, and the rules governing admissibility of evidence in court. Topics include consideration of state and federal courts, arrest, search and seizure laws, exclusionary and statutory rules of evidence, and other related issues. Upon completion, students should be able to identify and discuss procedures necessary to establish a lawful arrest/search, proper judicial procedures, and the admissibility of evidence.
Prerequisites: None. Corequisites: None. (F)

CJC 141 Corrections (Coll/Tran) **3 0 0 3**
This course covers the history, major philosophies, components, and current practices and problems of the field of corrections. Topics include historical evolution, functions of the various components, alternatives to incarceration, treatment programs, inmate control, and other related topics. Upon completion, students should be able to explain the various components, processes, and functions of the correctional system.
Prerequisites: None. Corequisites: None. (S)

CJC 144 Crime Scene Processing **2 3 0 3**
This course introduces the theories and practices of crime scene processing and investigating. Topics include legal considerations at the crime scene, processing indoor and outdoor scenes, recording, note taking, collection and preservation of evidence and submission to the crime laboratory. Upon completion, the student should be able to evaluate and search various crime scenes and demonstrate the appropriate techniques.
Prerequisites: None. Corequisites: None. (S)

CJC 146 Trace Evidence **2 3 0 3**
This course provides a study of trace evidence as it relates to forensic science. Topics include collection, packaging, and preservation of trace evidence from crime scenes such as bombings, fires and other scenes. Upon completion, students should be able to demonstrate the fundamental concepts of trace evidence collection, preservation and submission to the crime laboratory.
Prerequisites: None. Corequisites: None. (F)

CJC 151 Intro to Loss Prevention **3 0 0 3**
This course introduces the concepts and methods related to commercial and private security systems. Topics include the historical, philosophical, and legal basis of security, with emphasis on security surveys, risk analysis, and associated functions. Upon completion, students should be able to demonstrate and understand security systems, risk management, and the laws relative to loss prevention.
Prerequisites: None. Corequisites: None. (S)

CJC 160 Terrorism: Underlying Issues 3 0 0 3
This course identifies the fundamental reasons why America is a target for terrorists, covering various domestic/international terrorist groups and ideologies from a historical aspect. Emphasis is placed upon recognition of terrorist crime scene; weapons of mass destruction; chemical, biological, and nuclear terrorism; and planning consideration involving threat assessments. Upon completion, the student should be able to identify and discuss the methods used in terrorists' activities and complete a threat assessment for terrorists' incidents.
Prerequisites: None. Corequisites: None. (F)

CJC 212 Ethics & Comm Relations 3 0 0 3
This course covers ethical considerations and accepted standards applicable to criminal justice organizations and professionals. Topics include ethical systems; social change, values, and norms; cultural diversity; citizen involvement in criminal justice issues; and other related topics. Upon completion, students should be able to apply ethical considerations to the decision-making process in identifiable criminal justice situations.
Prerequisites: None. Corequisites: None. (S)

CJC 215 Organization & Administration 3 0 0 3
This course introduces the components and functions of organization and administration as it applies to the agencies of the criminal justice system. Topics include operations/functions of organizations; recruiting, training, and retention of personnel; funding and budgeting; communications; span of control and discretion; and other related topics. Upon completion, students should be able to identify and discuss the basic components and functions of a criminal justice organization and its administrative operations.
Prerequisites: None. Corequisites: None. (F)

CJC 221 Investigative Principles 3 2 0 4
This course introduces the theories and fundamentals of the investigative process. Topics include crime scene/incident processing, information gathering techniques, collection/preservation of evidence, preparation of appropriate reports, court presentations, and other related topics. Upon completion, students should be able to identify, explain, and demonstrate the techniques of the investigative process, report preparation, and courtroom presentation.
Prerequisites: None. Corequisites: None. (S)

CJC 222 Criminalistics 3 0 0 3
This course covers the functions of the forensic laboratory and its relationship to successful criminal investigations and prosecutions. Topics include advanced crime scene processing, investigative techniques, current forensic technologies, and other related topics. Upon completion, students should be able to identify and collect relevant evidence at simulated crime scenes and request appropriate laboratory analysis of submitted evidence.
Prerequisites: None. Corequisites: None. (S)

CJC 225 Crisis Intervention 3 0 0 3
This course introduces critical incident intervention and management techniques as they apply to operational criminal justice practitioners. Emphasis is placed on the victim/offender situation as well as job-related high stress, dangerous, or problem-solving citizen contacts. Upon completion, students should be able to provide insightful analysis of emotional, violent, drug-induced, and other critical and/or stressful incidents that require field analysis and/or resolution.
Prerequisites: None. Corequisites: None. (S)

CJC 231 Constitutional Law 3 0 0 3
The course covers the impact of the Constitution of the United States and its amendments on the criminal justice system. Topics include the structure of the Constitution and its amendments, court decisions pertinent to contemporary criminal justice issues, and other related topics. Upon completion, students should be able to identify/discuss the basic structure of the United States Constitution and the rights/procedures as interpreted by the courts.
Prerequisites: None. Corequisites: None. (F)

CJC 245 Friction Ridge Analysis 2 3 0 3
This course introduces the basic elements of fingerprint technology and techniques applicable to the criminal justice field. Topics include the history and meaning of fingerprints, pattern types and classification, filing sequence, searching and referencing. Upon completion, students should be able to discuss and demonstrate the fundamental techniques of basic fingerprint technology.
Prerequisites: None. Corequisites: None. (F)

CJC 246 Adv Friction Ridge Analys 2 3 0 3
This course introduces the theories and processes of advanced friction ridge analysis. Topics include evaluation of friction ridges, chart preparation, comparative analysis for valued determination rendering proper identification, chemical enhancement and AFIS preparation and usage. Upon completion, students must show an understanding of proper procedures for friction ridge analysis through written testing and practical exercises.
Prerequisites: CJC 245. Corequisites: None. (S)

CJC 250 Forensic Biology I 2 2 0 3
This course covers important biological principles that are applied in the crime laboratory. Topics include forensic toxicology, forensic serology, microscopy, and DNA typing analysis, with an overview of organic and inorganic analysis. Upon completion, students should be able to articulate how a crime laboratory processes physical evidence submitted by law enforcement agencies.
Prerequisites: None. Corequisites: None. (S)

CJC 251 Forensic Chemistry I 3 2 0 4
This course provides a study of the fundamental concepts of chemistry as it relates to forensic science. Topics include physical and chemical properties of substances, metric measurements, chemical changes, elements, compounds, gases, and atomic structure. Upon completion, students should be able to demonstrate an understanding of the fundamental concepts of forensic chemistry.
Prerequisites: None. Corequisites: None. (S)

COMMUNICATION

COM 110 Introduction to Communication (Coll/Tran) **3 0 0 3**
This course provides an overview of the basic concepts of communication and the skills necessary to communicate in various contexts. Emphasis is placed on communication theories and techniques used in interpersonal group, public, intercultural, and mass communication situations. Upon completion, students should be able to explain and illustrate the forms and purposes of human communication in a variety of contexts.
Prerequisites: None. Corequisites: ENG 111. (F, S, SU)

COM 120 Intro Interpersonal Com (Coll/Tran) **3 0 0 3**
This course introduces the practices and principles of interpersonal communication in both dyadic and group settings. Emphasis is placed on the communication process, perception, listening, self-disclosure, speech apprehension, ethics, nonverbal communication, conflict, power, and dysfunctional communication relationships. Upon completion, students should be able to demonstrate interpersonal communication skills, apply basic principles of group discussion, and manage conflict in interpersonal communication situations.
Prerequisites: None. Corequisites: None. (On demand)

COM 231 Public Speaking (Coll/Tran) **3 0 0 3**
This course provides instruction and experience in preparation and delivery of speeches within a public setting and group discussion. Emphasis is placed on research, preparation, delivery, and evaluation of informative, persuasive, and special occasion public speaking. Upon completion, students should be able to prepare and deliver well-organized speeches and participate in group discussion with appropriate audiovisual support.
Prerequisites: None. Corequisites: ENG 111. (F, S, SU)

COM 251 Debate I (Coll/Tran) **3 0 0 3**
This course introduces the principles of debate. Emphasis is placed on argument, refutation, research, and logic. Upon completion, students should be able to use research skills and logic in the presentation of ideas within the context of formal debate.
Prerequisites: None. Corequisites: None. (On demand)

COSMETOLOGY

COS 111 Cosmetology Concepts I 4 0 0 4
This course introduces basic cosmetology concepts. Topics include safety, first aid, sanitation, bacteriology, anatomy, diseases and disorders, hygiene, product knowledge, chemistry, ethics, manicures, and other related topics. Upon completion, students should be able to safely and competently apply cosmetology concepts in the salon setting.
Prerequisite: None. Corequisite: COS 112. (F)

COS 111AB Cosmetology Concepts I-AB 2 0 0 2
This course introduces basic cosmetology concepts. Topics include safety, first aid, sanitation, bacteriology, anatomy, diseases and disorders, hygiene, product knowledge, chemistry, ethics, manicures, and other related topics. Upon completion, students should be able to safely and competently apply cosmetology concepts in the salon setting.
Prerequisite: None. Corequisite: COS 112AB. (F)

COS 111BB Cosmetology Concepts I-BB 2 0 0 2
This course introduces basic cosmetology concepts. Topics include safety, first aid, sanitation, bacteriology, anatomy, diseases and disorders, hygiene, product knowledge, chemistry, ethics, manicures, and other related topics. Upon completion, students should be able to safely and competently apply cosmetology concepts in the salon setting.
Prerequisites: None. Corequisities: COS 112BB. (S)

COS 112 Salon I 0 24 0 8
This course introduces basic salon services. Topics include scalp treatments, shampooing, rinsing, hair color, design, haircutting, permanent waving, pressing, relaxing, wigs, and other related topics. Upon completion, students should be able to safely and competently demonstrate salon services.
Prerequisites: None. Corequisites: COS 111. (S)

COS 112AB Salon I-AB 0 12 0 4
This course introduces basic salon services. Topics include scalp treatments, shampooing, rinsing, hair color, design, haircutting, permanent waving, pressing, relaxing, wigs, and other related topics. Upon completion, students should be able to safely and competently demonstrate salon services.
Prerequisites: None. Corequisites: COS 111AB. (F)

COS 112BB Salon I-BB 0 12 0 4
This course introduces basic salon services. Topics include scalp treatments, shampooing, rinsing, hair color, design, haircutting, permanent waving, pressing, relaxing, wigs, and other related topics. Upon completion, students should be able to safely and competently demonstrate salon services.
Prerequisites: None. Corequisites: COS 111BB. (S)

COS 113 Cosmetology Concepts II 4 0 0 4
This course covers more comprehensive cosmetology concepts. Topics include safety, product knowledge, chemistry, manicuring, chemical restructuring, and hair coloring. Upon completion, students should be able to safely and competently apply these cosmetology concepts in the salon setting.
Prerequisites: None. Corequisites: COS 114, ENG 102. (S)

COS 113AB Cosmetology Concepts II-AB 2 0 0 2
This course covers more comprehensive cosmetology concepts. Topics include safety, product knowledge, chemistry, manicuring, chemical restructuring, and hair coloring. Upon completion, students should be able to safely and competently apply these cosmetology concepts in the salon setting.
Prerequisites: ENG 102, PSY 150. Corequisites: COS 114AB. (F)

COS 113BB Cosmetology Concepts II-BB 2 0 0 2
This course covers more comprehensive cosmetology concepts. Topics include safety, product knowledge, chemistry, manicuring, chemical restructuring, and hair coloring. Upon completion, students should be able to safely and competently apply these cosmetology concepts in the salon setting.
Prerequisites: None. Corequisites: COS 114BB. (S)

COS 114 Salon II 0 24 0 8
This course provides experience in a simulated salon setting. Topics include basic skin care, manicuring, nail application, scalp treatments, shampooing, rinsing, hair color, design, haircutting, chemical restructuring, pressing, wigs, and other related topics. Upon completion, students should be able to safely and competently demonstrate these salon services.
Prerequisites: None. Corequisites: COS 113, ENG 102. (S)

COS 114AB Salon II-AB 0 12 0 4
This course provides experience in a simulated salon setting. Topics include basic skin care, manicuring, nail application, scalp treatments, shampooing, rinsing, hair color, design, haircutting, chemical restructuring, pressing, wigs, and other related topics. Upon completion, students should be able to safely and competently demonstrate these salon services.
Prerequisites: ENG 102, PSY 150. Corequisites: COS 113AB. (F)

COS 114BB Salon II-BB 0 12 0 4
This course provides experience in a simulated salon setting. Topics include basic skin care, manicuring, nail application, scalp treatments, shampooing, rinsing, hair color, design, haircutting, chemical restructuring, pressing, wigs, and other related topics. Upon completion, students should be able to safely and competently demonstrate these salon services.
Prerequisites: None. Corequisites: COS 113BB. (S)

COS 115 Cosmetology Concepts III 4 0 0 4
This course covers more comprehensive cosmetology concepts. Topics include safety, product knowledge, salon management, salesmanship, skin care, electricity/light therapy, wigs, thermal hair styling, lash and brow tinting, superfluous hair removal, and other related topics. Upon completion, students should be able to safely and competently apply these cosmetology concepts in the salon setting.
Prerequisites: None. Corequisites: COS 116. (SU)

COS 115AB Cosmetology Concepts III-AB 2 0 0 2
This course covers more comprehensive cosmetology concepts. Topics include safety, product knowledge, salon management, salesmanship, skin care, electricity/light therapy, wigs, thermal hair styling, lash and brow tinting, superfluous hair removal, and other related topics. Upon completion, students should be able to safely and competently apply these cosmetology concepts in the salon setting.
Prerequisites: None. Corequisites: COS 116AB. (F)

COS 115BB Cosmetology Concepts III-BB 2 0 0 2
This course covers more comprehensive cosmetology concepts. Topics include safety, product knowledge, salon management, salesmanship, skin care, electricity/light therapy, wigs, thermal hair styling, lash and brow tinting, superfluous hair removal, and other related topics. Upon completion, students should be able to safely and competently apply these cosmetology concepts in the salon setting.
Prerequisites: None. Corequisites: COS 116BB. (S)

COS 116 Salon III 012 0 4
This course provides comprehensive experience in a simulated salon setting. Emphasis is placed on intermediate-level of skin care, manicuring, scalp treatments, shampooing, hair color, design, haircutting, chemical restructuring, pressing, and other related topics. Upon completion, students should be able to safely and competently demonstrate these salon services.
Prerequisites: None. Corequisites: COS 115. (SU)

COS 116AB Salon III-AB 0 6 0 2
This course provides comprehensive experience in a simulated salon setting. Emphasis is placed on intermediate-level of skin care, manicuring, scalp treatments, shampooing, hair color, design, haircutting, chemical restructuring, pressing, and other related topics. Upon completion, students should be able to safely and competently demonstrate these salon servcies.
Prerequisites: None. Corequisites: COS 115AB. (F)

COS 116BB Salon III-BB 0 6 0 2
This course provides comprehensive experience in a simulated salon setting. Emphasis is placed on intermediate-level of skin care, manicuring scalp treatments, shampooing, hair color, design, haircutting, chemical restructuring, pressing, and other related topis. Upon completion, students should be able to safely and competently demonstrate these salon services.
Prerequisites: None. Corequisites: COS 115BB. (S)

COS 117 Cosmetology Concepts IV 2 0 0 2
This course covers advanced cosmetology concepts. Topics include chemistry and hair structure, advanced cutting and design, and an overview of all cosmetology concepts in preparation for the licensing examination. Upon completion, students should be able to demonstrate an understanding of these cosmetology concepts and meet program completion requirements.
Prerequisites: None. Corequisites: COS 118 and PSY 150. (F)

COS 117AB Cosmetology Concepts IV-AB 1 0 0 1
This course covers advanced cosmetology concepts. Topics include chemistry and hair structure, advanced cutting and design, and an overview of all cosmetology concepts in preparation for the licensing examination. Upon completion, students should be able to demonstrate an understanding of these cosmetology concepts and meet program completion requirements.
Prerequisites: None. Corequisites: COS 118AB. (F)

COS 117BB Cosmetology Concepts IV-BB 1 0 0 1
This course covers advanced cosmetology concepts. Topics include chemistry and hair structure, advanced cutting and design, and an overview of all cosmetology concepts in preparation for the licensing examination. Upon completion, students should be able to demonstrate an understanding of these cosmetology concepts and meet program completion requirements.
Prerequisites: None. Corequisites: COS 118BB. (S)

COS 118 Salon IV 0 21 0 7
This course provides advanced experience in a simulated salon setting. Emphasis is placed on efficient and competent delivery of all salon services in preparation for the licensing examination and employment. Upon completion, students should be able to demonstrate competence in program requirements and the areas covered on the Cosmetology Licensing Examination and meet entry-level employment requirements.
Prerequisites: COS 114, COS 116. Corequisites: COS 117. (F)

COS 118AB Salon IV-AB 0 12 0 4
This course provides advanced experience in a simulated salon setting. Emphasis is placed on efficient and competent delivery of all salon services in preparation for the licensing examination and employment. Upon completion, students should be able to demonstrate competence in program requirements and the areas covered on the Cosmetology Licensing Examination and meet entry-level employment requirements.
Prerequisites: None. Corequisites: COS 117AB. (F)

COS 118BB Salon IV-BB 0 9 0 3
This course provides advanced experience in a simulated salon setting. Emphasis is placed on efficient and competent delivery of all salon services in preparation for the licensing examination and employment. Upon completion, students should be able to demonstrate competence in program requirements and the areas covered on the Cosmetology Licensing Examination and meet entry-level employment requirements.
Prerequisites: None. Corequisites: COS 117BB. (S)

COMPUTER SCIENCE

CSC 120 Computing Fundamentals I (Coll/Tran) **3 2 0 4**
This course provides the essential foundation for the discipline of computing and a program of study in computer science, including the role of the professional. Topics include algorithm design, data abstraction, searching and sorting algorithms, and procedural programming techniques. Upon completion, students should be able to solve problems, develop algorithms, specify data types, perform sorts and searches, and use an operating system.
Prerequisites: DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 060, DMA 070, DMA 080, **or** MAT 121 **or** MAT 161 **or** MAT 171 **or** MAT 175 **or** appropriate placement test score. Corequisites: None. (F, S)

CSC 130 Computing Fundamentals II (Coll/Tran) **3 2 0 4**
This course provides in-depth coverage of the discipline of computing and the role of the professional. Topics include software design methodologies, analysis of algorithm and data structures, searching and sorting algorithms, and file organization methods. Upon completion, students should be able to use software design methodologies and choice of data structures and understand social/ethical responsibilities of the computing professional.
Prerequisites: CSC 120. Corequisites: None. (S)

CSC 134 C++ Programming (Coll/Tran) **2 3 0 3**
This course introduces computer programming using the C++ programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test and debug at a beginning level.
Prerequisites: DMA 010, DMA 020, DMA 030, DMA 040, DMA 050 **or** appropriate placement test score. Corequisites: None. (F, S)

CSC 138 RPG Programming 2 3 0 3
This course introduces computer programming using the RPG programming language with structured programming principles. Topics include input/output operations, iteration, arithmetic operations, arrays, pointers, filters, and other related topics. Upon completion, students should be able to design, code, test and debug at a beginning level.
Prerequisites: None. Corequisites: None. (F)

CSC 139 Visual BASIC Prog (Coll/Tran) **2 3 0 3**
This course introduces computer programming using the Visual BASIC programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test and debug at a beginning level.
Prerequisites: None. Corequisites: None. (S)

CSC 141 Visual C++ Prog 2 3 0 3
This course introduces computer programming using the Visual C++ programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test, debug, and implement objects using the appropriate environment at a beginning level.
Prerequisites: None. Corequisites: None. (S)

CSC 151 JAVA Programming (Coll/Tran) **2 3 0 3**
This course introduces computer programming using the JAVA programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger.
Prerequisites: DMA 010, DMA 020, DMA 030, DMA 040, DMA 050 **or** appropriate placement test score. Corequisites: None. (On demand)

CSC 220 Machine Implem of Algor (Coll/Tran) **3 2 0 4**
This course covers the organization and operation of real computer systems at the assembly language level. Topics include mapping of statements and constructs onto machine instruction sequences, internal data types and structures representation, numerical computation, and iterative approximation methods. Upon completion, students should be able to analyze computer system organization, implement procedural language elements, and describe the programming language translation process.
Prerequisites: CSC 120. Corequisites: MAT 271. (On demand)

CSC 234 Adv C++ Programming 2 3 0 3
This course is a continuation of CSC 134 using the C++ programming language with standard programming principles. Emphasis is placed on advanced arrays/tables, file management/processing techniques, data structures, sub-programs, interactive processing, sort/merge routines, and libraries. Upon completion, students should be able to design, code, test, debug and document programming solutions.
Prerequisites: CSC 134. Corequisites: None. (On demand)

CSC 238 Adv RPG Programming 2 3 0 3
This course is a continuation of CSC 138 using the RPG programming language with structured programming principles. Emphasis is placed on advanced arrays/tables, file management/processing techniques, data structures, sub-programs, interactive processing, sort/merge routines, and libraries. Upon completion, students should be able to design, code, test, debug and document programming solutions.
Prerequisites: CSC 138. Corequisites: None. (S)

CSC 239 Adv Visual BASIC Prog (Coll/Tran) **2 3 0 3**
This course is a continuation of CSC 139 using the Visual BASIC programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test, debug, and implement objects using the appropriate environment.
Prerequisites: CSC 139. Corequisites: None. (S)

CSC 289 Programming Capstone Project 1 4 0 3
This course provides an opportunity to complete a significant programming project from the design phase through implementation with minimal instructor support. Emphasis is placed on project definition, testing, presentation, and implementation. Upon completion, students should be able to complete a project from the definition phase through implementation.
Prerequisites: CTS 285. Corequisites: None. (S)

CONSTRUCTION

CST 241 Planning/Estimating I 2 2 0 3
This course covers the procedures involved in planning and estimating a construction/building project. Topics include performing quantity take-offs of materials necessary for a building project. Upon completion, students should be able to accurately complete a take-off of materials and equipment needs involved in a construction project.
Prerequisites: ARC 111; CIS 110 or CIS 111; MAT 121; must pass with a grade of C or higher. Corequisites: None. (F)

COMPUTER INFORMATION TECHNOLOGY

CTS 080 Computing Fundamentals 2 3 0 3
This course covers fundamental functions and operations of the computer. Topics include identification of components and basic computer operations including introduction to operating systems, the Internet, web browsers, and communication using World Wide Web. Upon completion, students should be able to operate computers, access files, print documents and perform basic applications operations.
Prerequisites: None. Corequisites: None. (F, S)

CTS 115 Info Sys Business Concept 3 0 0 3
This course introduces the role of IT in managing business processes and the need for business process and IT alignment. Emphasis is placed on industry need for understanding business challenges and developing/managing information systems to contribute to the decision making process based on these challenges. Upon completion, students should be able to demonstrate knowledge of the 'hybrid business manager' and the potential offered by new technology and systems.
Prerequisites: None. Corequisites: None. (S)

CTS 120 Hardware/Software Support 2 3 0 3
This course covers the basic hardware of a personal computer, including installation, operations and interactions with software. Topics include component identification, memory-system, peripheral installation and configuration, preventive maintenance, hardware diagnostics/repair, installation and optimization of system software, commercial programs, system configuration, and device-drivers. Upon completion, students should be able to select appropriate computer equipment and software, upgrade/maintain existing equipment and software, and troubleshoot/repair non-functioning personal computers.
Prerequisites: CIS 110 **or** CIS 111; must pass with a grade of C or higher.
Corequisites: None. (F, S)

CTS 130 Spreadsheet 2 2 0 3
This course introduces basic spreadsheet design and development. Topics include writing formulas, using functions, enhancing spreadsheets, creating charts, and printing. Upon completion, students should be able to design and print basic spreadsheets and charts.
Prerequisites: CIS 110 **or** CIS 111 **or** OST 137. Corequisites: None. (F)

CTS 285 Systems Analysis & Design 3 0 0 3
This course introduces established and evolving methodologies for the analysis, design, and development of an information system. Emphasis is placed on system characteristics, managing projects, prototyping, CASE/OOM tools, and systems development life cycle phases. Upon completion, students should be able to analyze a problem and design an appropriate solution using a combination of tools and techniques.
Prerequisites: CIS 115. Corequisites: None. (F)

CTS 286 Network Support 2 2 0 3
This course provides experience using CD ROM and online research tools and hands-on experience for advanced hardware support and troubleshooting. Emphasis is placed on troubleshooting network adapter cards and cabling, network storage devices, the DOS workstation, and network printing. Upon completion, students should be able to analyze, diagnose, research, and fix network hardware problems.
Prerequisites: NOS 230 **or** NOS 231. Corequisites: None. (S)

CTS 289 System Support Project 1 4 0 3
This course provides an opportunity to complete a significant support project with minimal instructor assistance. Emphasis is placed on written and oral communication skills, project definition, documentation, installation, testing, presentation, and user training. Upon completion, students should be able to complete a project from the definition phase through implementation.
Prerequisites: CTS 285. Corequisites: None. (S)

DANCE

DAN 110 Dance Appreciation (Coll/Tran) **3 0 0 3**
This course for non-dance majors surveys diverse dance forms and the religious and cultural values that shape them. Topics include dances from Europe, Africa, Asia, and America. Upon completion, students should be able to demonstrate an understanding of the diverse forms and values that dance embraces.
Prerequisites: None. Corequisites: None. (On demand)

DATABASE MANAGEMENT TECHNOLOGY

DBA 110 Database Concepts 2 3 0 3
This course introduces database design and creation using a DBMS product. Emphasis is placed on data dictionaries, normalization, data integrity, data modeling, and creation of simple tables, queries, reports, and forms. Upon completion, students should be able to design and implement normalized database structures by creating simple database tables , queries, reports, and forms.
Prerequisites: None. Corequisites: None. (F)

DBA 115 Database Applications 2 2 0 3
This course applies concepts learned in DBA 110 to a specific DBMS. Topics include manipulating multiple tables, advanced queries, screens and reports, linking, and command files. Upon completion, students should be able to create multiple table systems that demonstrate updates, screens, and reports representative of industry requirements.
Prerequisites: DBA 110. Corequisites: None. (S)

DBA 120 Database Programming I 2 2 0 3
This course is designed to develop SQL programming proficiency. Emphasis is placed on data definition, data manipulation, and data control statements as well as on report generation. Upon completion, students should be able to write programs which create, update, and produce reports.
Prerequisites: DBA 115. Corequisites: None. (F)

DBA 220 Oracle DB Programming II 2 2 0 3
This course is designed to enhance programming skills developed in DBA 120. Topics include application development with GUI front-ends and embedded programming. Upon completion, students should be able to develop an Oracle DBMS application which includes a GUI front-end and report generation.
Prerequisites: DBA 120. Corequisites: None. (On demand)

DENTAL HYGIENE

DEN 110 Orofacial Anatomy 2 2 0 3
This course introduces the structures of the head, neck, and oral cavity. Topics include tooth morphology, head and neck anatomy, histology, and embryology. Upon completion, students should be able to relate the identification of normal structures and development to the practice of dental assisting and dental hygiene.
Prerequisites: Enrollment in the Dental Hygiene program. Corequisites: None. (F)

DEN 111 Infection/Hazard Control 2 0 0 2
This course introduces the infection and hazard control procedures necessary for the safe practice of dentistry. Topics include microbiology, practical infection control, sterilization and monitoring, chemical disinfectants, aseptic technique, infectious diseases, OSHA standards, and applicable North Carolina laws. Upon completion, students should be able to understand infectious diseases, disease transmission, infection control procedures, biohazard management, OSHA standards, and applicable North Carolina laws.
Prerequisites: Enrollment in the Dental Hygiene program. Corequisites: None. (F)

DEN 112 Dental Radiography 2 3 0 3
This course provides a comprehensive view of the principles and procedures of radiology as they apply to dentistry. Topics include techniques in exposing, processing, and evaluating radiographs, as well as radiation safety, quality assurance, and legal issues. Upon completion, students should be able to demonstrate proficiency in the production of diagnostically acceptable radiographs using appropriate safety precautions.
Prerequisites: DEN 110. Corequisites: None. (S)

DEN 120 Dental Hyg Preclinic Lec 2 0 0 2
This course introduces preoperative and clinical dental hygiene concepts. Emphasis is placed on the assessment phase of patient care as well as the theory of basic dental hygiene instrumentation. Upon completion, students should be able to collect and evaluate patient data at a basic level and demonstrate basic knowledge of dental hygiene instrumentation.
Prerequisites: Enrollment in the Dental Hygiene program. Corequisites: DEN 121. (F)

DEN 121 Dental Hygiene Precl Lab 0 6 0 2
This course provides the opportunity to perform clinical dental hygiene procedures discussed in DEN 120. Emphasis is placed on clinical skills in patient assessment and instrumentation techniques. Upon completion, students should be able to demonstrate the ability to perform specific preclinical procedures.
Prerequisites: Enrollment in the Dental Hygiene program.
Corequisites: DEN 120. (F)

DEN 123 Nutrition/Dental Health 2 0 0 2
This course introduces basic principles of nutrition with emphasis on nutritional requirements and their application to individual patient needs. Topics include the study of the food pyramid, nutrient functions, Recommended Daily Allowances, and related psychological principles. Upon completion, students should be able to recommend and counsel individuals on their food intake as related to their dental health.
Prerequisites: Enrollment in the Dental Hygiene program.
Corequisites: None. (S)

DEN 124 Periodontology 2 0 0 2
This course provides an in-depth study of the periodontium, periodontal pathology, periodontal monitoring, and the principles of periodontal therapy. Topics include periodontal anatomy and a study of the etiology, classification, and treatment modalities of periodontal diseases. Upon completion, students should be able to describe, compare, and contrast techniques involved in periodontal/maintenance therapy, as well as patient care management.
Prerequisites: DEN 110. Corequisites: None. (SU)

DEN 130 Dental Hygiene Theory I 2 0 0 2
This course is a continuation of the didactic dental hygiene concepts necessary for providing an oral prophylaxis. Topics include deposits/removal, instrument sharpening, patient education, fluorides, planning for dental hygiene treatment, charting, and clinical records and procedures. Upon completion, students should be able to demonstrate knowledge needed to complete a thorough oral prophylaxis.
Prerequisites: DEN 120. Corequisites: DEN 131. (S)

DEN 131 Dental Hygiene Clinic I 0 0 9 3
This course continues skill development in providing an oral prophylaxis. Emphasis is placed on treatment of the recall patients with gingivitis or light deposits. Upon completion, students should be able to assess these patients' needs and complete the necessary dental hygiene treatment.
Prerequisites: DEN 121. Corequisites: DEN 130. (S)

DEN 140 Dental Hygiene Theory II 1 0 0 1
This course provides a continuation of the development, theory, and practice of patient care. Topics include modification of treatment for special needs patients, advanced radiographic interpretation, and ergonomics. Upon completion, students should be able to differentiate necessary treatment modifications, effective ergonomic principles, and radiographic abnormalities.
Prerequisites: DEN 130. Corequisites: DEN 141. (SU)

DEN 141 Dental Hygiene Clinic II 0 0 6 2
This course continues skill development in providing an oral prophylaxis. Emphasis is placed on treatment of patients with early periodontal disease and subgingival deposits. Upon completion, students should be able to assess these patients' needs and complete the necessary dental hygiene treatment.
Prerequisites: DEN 131. Corequisites: DEN 140. (SU)

DEN 220 Dental Hygiene Theory III 2 0 0 2
This course provides a continuation in developing the theories and practices of patient care. Topics include periodontal debridement, pain control, subgingival irrigation, air polishing, and case presentations. Upon completion, students should be able to demonstrate knowledge of methods of treatment and management of periodontally compromised patients.
Prerequisites: DEN 140. Corequisites: DEN 221. (F)

DEN 221 Dental Hygiene Clinic III 0 0 12 4
This course continues skill development in providing an oral prophylaxis. Emphasis is placed on treatment of patients with moderate to advanced periodontal involvement and moderate deposits. Upon completion, students should be able to assess these patients' needs and complete the necessary dental hygiene treatment.
Prerequisites: DEN 141. Corequisites: DEN 220. (F)

DEN 222 General & Oral Pathology 2 0 0 2
This course provides a general knowledge of oral pathological manifestations associated with selected systemic and oral diseases. Topics include developmental and degenerative diseases, selected microbial diseases, specific and nonspecific immune and inflammatory responses with emphasis on recognizing abnormalities. Upon completion, students should be able to differentiate between normal and abnormal tissues and refer unusual findings to the dentist for diagnosis.
Prerequisites: BIO 163 **or** BIO 168. Corequisites: None. (S)

DEN 223 Dental Pharmacology 2 0 0 2
This course provides basic drug terminology, general principles of drug actions, dosages, routes of administration, adverse reactions, and basic principles of anesthesiology. Emphasis is placed on knowledge of drugs in overall understanding of patient histories and health status. Upon completion, students should be able to recognize that each patient's general health or drug usage may require modification of the treatment procedures.
Prerequisites: Enrollment in the Dental Hygiene program.
Corequisites: BIO 163 **or** BIO 168. (F)

DEN 224 Materials and Procedures 1 3 0 2
This course introduces the physical properties of materials and related procedures used in dentistry. Topics include restorative and preventive materials, fabrication of casts and appliances, and chairside functions of the dental hygienist. Upon completion, students should be able to demonstrate proficiency in the laboratory and/or clinical application of routinely used dental materials and chairside functions.
Prerequisites: DEN 111. Corequisites: None. (S)

DEN 230 Dental Hygiene Theory IV 1 0 0 1
This course provides an opportunity to increase knowledge of the profession. Emphasis is placed on dental specialties and completion of a case presentation. Upon completion, students should be able to demonstrate knowledge of various disciplines of dentistry and principles of case presentations.
Prerequisites: DEN 220. Corequisites: DEN 231. (S)

DEN 231 Dental Hygiene Clinic IV 0 0 12 4
This course continues skill development in providing an oral prophylaxis. Emphasis is placed on periodontal maintenance and on treating patients with moderate to advanced/refractory periodontal disease. Upon completion, students should be able to assess these patients' needs and complete the necessary dental hygiene treatment.
Prerequisites: DEN 221. Corequisites: DEN 230. (S)

DEN 232 Community Dental Health 2 3 0 3
This course provides a study of the principles and methods used in assessing, planning, implementing, and evaluating community dental health programs. Topics include epidemiology, research methodology, biostatistics, preventive dental care, dental health education, program planning, and financing and utilization of dental services. Upon completion, students should be able to assess, plan, implement, and evaluate a community dental health program.
Prerequisites: Enrollment in the Dental Hygiene program.
Corequisites: None. (F)

DEN 233 Professional Development 2 0 0 2
This course includes professional development, ethics, and jurisprudence with applications to practice management. Topics include conflict management, state laws, résumés, interviews, and legal liabilities as health care professionals. Upon completion, students should be able to demonstrate the ability to practice dental hygiene within established ethical standards and state laws.
Prerequisites: Enrollment in the Dental Hygiene program.
Corequisites: None. (S)

DRAFTING

DFT 111 Technical Drafting I 1 3 0 2
This course introduces basic drafting skills, equipment, and applications. Topics include sketching, measurements, lettering, dimensioning, geometric construction, orthographic projections and pictorial drawings, sections, and auxiliary views. Upon completion, students should be able to understand and apply basic drawing principles and practices.
Prerequisites: DRE 097 **or** appropriate placement test score.
Corequisites: DFT 111A. (S)

DFT 111A Technical Drafting I Lab 0 3 0 1
This course provides a laboratory setting to enhance basic drafting skills. Emphasis is placed on practical experiences that enhance the topics presented in DFT 111. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in DFT 111.
Prerequisites: DRE 097 **or** appropriate placement test score.
Corequisites: DFT 111. (S)

DFT 117 Technical Drafting 1 2 0 2
This course introduces basic drafting practices for non-drafting majors. Emphasis is placed on instrument use and care, shape and size description, sketching, and pictorials. Upon completion, students should be able to produce drawings of assigned parts.
Prerequisites: DRE 097 **or** appropriate placement test score.
Corequisites: None. (F)

DFT 151 CAD I 2 3 0 3
This course introduces CAD software as a drawing tool. Topics include drawing, editing, file management, and plotting. Upon completion, students should be able to produce and plot a CAD drawing.
Prerequisites: DRE 097 **or** appropriate placement test score.
Corequisites: None. (F, S)

DFT 153 CAD III 2 3 0 3
This course introduces advanced CAD applications. Emphasis is placed upon advanced applications of CAD skills. Upon completion, students should be able to use advanced CAD applications to generate and manage data.
Prerequisites: DRE 097 **or** appropriate placement test score.
Corequisites: None. (F)

DFT 170 Engineering Graphics (Coll/Tran) **2 2 0 3**
This course introduces basic engineering graphics skills and applications. Topics include sketching, selection and use of current methods and tools, and the use of engineering graphics applications. Upon completion, students should be able to demonstrate an understanding of basic engineering graphics principles and practices.
Prerequisites: DRE 097 **or** appropriate placement test score.
Corequisites: None. (S)

DRAMA/THEATRE

DRA 111 Theatre Appreciation (Coll/Tran) **3 0 0 3**
This course provides a study of the art, craft, and business of the theatre. Emphasis is placed on the audience's appreciation of the work of the playwright, director, actor, designer, producer, and critic. Upon completion, students should be able to demonstrate a vocabulary of theatre terms and to recognize the contributions of various theatre artists.
Prerequisites: None. Corequisites: None. (F, S, SU)

DRA 112 Literature of the Theatre (Coll/Tran) **3 0 0 3**
This course provides a survey of dramatic works from the classical Greek through the present. Emphasis is placed on the language of drama, critical theory, and background as well as on play reading and analysis. Upon completion, students should be able to articulate, orally and in writing, their appreciation and understanding of dramatic works.
Prerequisites: None. Corequisites: None. (On demand)

DRA 115 Theatre Criticism (Coll/Tran) **3 0 0 3**
This course is designed to develop a critical appreciation of the theatre from the viewpoint of the audience/consumer. Emphasis is placed on viewing, discussing, and evaluating selected theatre performance, either live or on film/video. Upon completion, students should be able to express their critical judgments both orally and in writing.
Prerequisites: DRA 111. Corequisites: None. (On demand)

DRA 120 Voice for Performance (Coll/Tran) **3 0 0 3**
This course provides guided practice in the proper production of speech for the theatre. Emphasis is placed on improving speech, including breathing, articulation, pronunciation, and other vocal variables. Upon completion, students should be able to demonstrate effective theatrical speech.
Prerequisites: None Corequisites: None. (F)

DRA 122 Oral Interpretation (Coll/Tran) **3 0 0 3**
This course introduces the dramatistic study of literature through performance. Emphasis is placed on analysis and performance of poetry, drama, and prose fiction. Upon completion, students should be able to embody and discuss critically the speakers inherent in literature.
Prerequisites: None. Corequisites: None. (On demand)

DRA 124 Readers Theatre (Coll/Tran) **3 0 0 3**
This course provides a theoretical and applied introduction to the medium of readers theatre. Emphasis is placed on the group performance considerations posed by various genres of literature. Upon completion, students should be able to adapt and present a literary script following the conventions of readers theatre.
Prerequisites:None. Corequisites: None. (On demand)

DRA 126 Storytelling (Coll/Tran) **3 0 0 3**
This course introduces the art of storytelling and the oral traditions of folk literature. Topics include the history of storytelling, its value and purpose, techniques of the storyteller, and methods of collecting verbal art. Upon completion, students should be able to present and discuss critically stories from the world's repertory of traditional lore.
Prerequisites: None. Corequisites: None. (On demand)

DRA 128 Children's Theatre (Coll/Tran) **3 0 0 3**
This course introduces the philosophy and practice involved in producing plays for young audiences. Topics include the selection of age-appropriate scripts and the special demands placed on directors, actors, designers, and educators in meeting the needs of young audiences. Upon completion, students should be able to present and critically discuss productions for children.
Prerequisites: None. Corequisites: None. (On demand)

DRA 130 Acting I (Coll/Tran) **0 6 0 3**
This course provides an applied study of the actor's craft. Topics include role analysis, training the voice, and body concentration, discipline, and self-evaluation. Upon completion, students should be able to explore their creativity in an acting ensemble.
Prerequisites: None. Corequisites: None. (F)

DRA 131 Acting II (Coll/Tran) **0 6 0 3**
This course provides additional hands-on practice in the actor's craft. Emphasis is placed on further analysis, characterization, growth, and training for acting competence. Upon completion, students should be able to explore their creativity in an acting ensemble.
Prerequisites: DRA 130. Corequisites: None. (S)

DRA 132 Stage Movement (Coll/Tran) **2 2 0 3**
This course provides an applied study of selected principles of stage movement for actors. Topics include improvisation, mime, stage combat, clowning, choreography, and masks. Upon completion, students should be able to focus properly on stage, to create characters, and to improvise scenes, perform mimes, fight, clown, juggle, and waltz.
Prerequisites: None. Corequisites: DRA 111. (On demand)

DRA 135 Acting for the Camera I (Coll/Tran) **1 4 0 3**
This course provides an applied study of the camera actor's craft. Topics include commercial, dramatic, and print performance styles. Upon completion, students should be able to explore their creativity in on-camera performance.
Prerequisites: None. Corequisites: None. (On demand)

DRA 136 Acting for the Camera II (Coll/Tran) **1 4 0 3**
This course provides additional hands-on study of the camera actor's craft. Emphasis is placed on more advanced camera acting theories, auditioning techniques, daytime drama, feature film, and print advertisement performance styles. Upon completion, students should be able to explore their creativity in on-camera performance.
Prerequisites: DRA 135. Corequisites: None. (On demand)

DRA 140 Stagecraft I (Coll/Tran) **0 6 0 3**
This course introduces the theory and basic construction of stage scenery and properties. Topics include stage carpentry, scene painting, stage electrics, properties, and backstage organization. Upon completion, students should be able to pursue vocational and avocational roles in technical theatre.
Prerequisites: None. Corequisites: None. (F)

DRA 141 Stagecraft II (Coll/Tran) **0 6 0 3**
This course provides additional hands-on practice in the elements of stagecraft. Emphasis is placed on the design and implementation of the arts and crafts of technical theatre. Upon completion, students should be able to pursue vocational or avocational roles in technical theatre.
Prerequisites: DRA 140. Corequisites: None. (On demand)

DRA 142 Costuming (Coll/Tran) **2 2 0 3**
This course covers the techniques of costume construction and crafts processes. Emphasis is placed on learning costuming techniques, using equipment and materials, and finishing production-appropriate costumes. Upon completion, students should be able to demonstrate an understanding of pattern drafting, construction techniques, and costume fitting procedures.
Prerequisites: None. Corequisites: None. (On demand)

DRA 145 Stage Make-up (Coll/Tran) **1 2 0 2**
This course covers the research, design, selection of materials, and application of stage make-up, prosthetics, wigs, and hairpieces. Emphasis is placed on the development of techniques, style, and presentation of the finished make-up. Upon completion, students should be able to create and apply make-up, prosthetics, and hairpieces.
Prerequisites: None. Corequisites: None. (S)

DRA 170 Play Production I (Coll/Tran) **0 9 0 3**
This course provides an applied laboratory study of the processes involved in the production of a play. Topics include fundamental practices, principles, and techniques associated with producing plays of various periods and styles. Upon completion, students should be able to participate in an assigned position with a college theatre production.
Prerequisites: None. Corequisites: None. (F, S)

DRA 171 Play Production II (Coll/Tran) **0 9 0 3**
This course provides an applied laboratory study of the processes involved in the production of a play. Topics include fundamental practices, principles, and techniques associated with producing plays of various periods and styles. Upon completion, students should be able to participate in an assigned position with a college theatre production.
Prerequisites: DRA 170. Corequisites: None. (F, S)

DRA 211 Theatre History I (Coll/Tran) **3 0 0 3**
This course covers the development of theatre from its origin to the closing of the British theatre in 1642. Topics include the history, aesthetics, and representative dramatic literature of the period. Upon completion, students should be able to trace the evolution of theatre and recognize the styles and types of world drama.
Prerequisites: None. Corequisites: None. (F)

DRA 212 Theatre History II (Coll/Tran) **3 0 0 3**
This course covers the development of theatre from 1660 through the diverse influences which shaped the theatre of the twentieth century. Topics include the history, aesthetics, and representative dramatic literature of the period. Upon completion, students should be able to trace the evolution of theatre and recognize the styles and types of world drama.
Prerequisites: None. Corequisites: None. (S)

DRA 240 Lighting for the Theatre (Coll/Tran) **2 2 0 3**
This course is an applied study of theatre lighting and is designed to train theatre technicians. Emphasis is placed on lighting technology including the mechanics of lighting and light control equipment by practical work with lighting equipment. Upon completion, students should be able to demonstrate competence with lighting equipment.
Prerequisites: None. Corequisites: None. (On demand)

DRA 260 Directing (Coll/Tran) **0 6 0 3**
This course provides an analysis and application of the techniques of theatrical directing. Topics include script selection, analysis, casting, rehearsal planning, blocking, stage business, tempo, and technical considerations. Upon completion, students should be able to plan, execute, and critically discuss a student-directed production.
Prerequisites: DRA 130. Corequisites: DRA 140. (F)

DRA 270 Play Production III (Coll/Tran) **0 9 0 3**
This course provides an applied laboratory study of the processes involved in the production of a play. Topics include fundamental practices, principles, and techniques associated with producing plays of various periods and styles. Upon completion, students should be able to participate in an assigned position with a college theatre production.
Prerequisites: DRA 171. Corequisites: None. (F, S)

DRA 271 Play Production IV (Coll/Tran) **0 9 0 3**
This course provides an applied laboratory study of the processes involved in the production of a play. Topics include fundamental practices, principles, and techniques associated with producing plays of various periods and styles. Upon completion, students should be able to participate in an assigned position with a college theatre production.
Prerequisites: DRA 270. Corequisites: None. (F, S)

ECONOMICS

ECO 251 Prin of Microeconomics (Coll/Tran) **3 0 0 3**
This course introduces economic analysis of individual, business, and industry in the market economy. Topics include the price mechanism, supply and demand, optimizing economic behavior, costs and revenue, market structures, factor markets, income distribution, market failure, and government intervention. Upon completion, students should be able to identify and evaluate consumer and business alternatives in order to efficiently achieve economic objectives.
Prerequisites: None. Corequisites: None. (F)

ECO 252 Prin of Macroeconomics (Coll/Tran) **3 0 0 3**
This course introduces economic analysis of aggregate employment, income, and prices. Topics include major schools of economic thought; aggregate supply and demand; economic measures, fluctuations, and growth; money and banking; stabilization techniques; and international trade. Upon completion, students should be able to evaluate national economic components, conditions, and alternatives for achieving socioeconomic goals.
Prerequisites: None. Corequisites: None. (On demand)

ELECTRONEURODIAGNOSTIC TECHNOLOGY

EDT 110 Neuroscience/Pathol Cond 4 0 0 4
This course covers the anatomy and physiology of the nervous system as well as those disease processes which affect nervous system components. Topics include anatomy, physiology, and pathology of the neuron, brain, spinal cord, peripheral nerves, and the special senses. Upon completion, students should be able to understand the structure and function of the nervous system and how this structure/function is affected by specific diseases.
Prerequisites: None. Corequisites: None. (F)

EDT 111 Laboratory Management 1 0 0 1
This course provides the skills and knowledge necessary to effectively manage and/or function as a team player in an electroneurodiagnostics department. Topics include the role of an effective manager, the role of a team player, techniques for scheduling, record keeping/storage, and creation/implementation of department policies. Upon completion, students should be able to understand those skills necessary to manage an electroneurodiagnostics department, both independently and as a team worker.
Prerequisites: None. Corequisites: None. (F)

EDT 111A EDT Laboratory Basics 0 2 0 1
This course is designed to be offered as a supplemental lab for the EDT 111 course. Emphasis is placed on interview skills, system of electrode placement, and the role of effective communication in the EDT department. Upon completion, students should be able to demonstrate basic competencies in preparation for performing electroneurodiagnostic testing.
Prerequisites: None. Corequisites: EDT 111. (F)

EDT 112 Instrument/Record Methods 3 0 0 3
This course covers theories of electrode placement, various instrumentation components used in neurological testing, and optimal recording techniques based on patient status. Topics include the International 10-20 System of electrode placement, electrode types/applications, electronics applicable to neurological testing, instrument controls, montages, and polarity/localization. Upon completion, students should be able to understand the theories underlying optimal utilization of electrodes and instrumentation for neurological testing.
Prerequisites: None. Corequisites: None. (S)

EDT 113 Clinical Correlates 2 0 0 2
This course covers normal and abnormal neurological test findings associated with the anatomy/physiology/pathology covered in EDT 100. Topics include normal and abnormal neurological test results, artifacts, and activation procedures utilizing teaching records from affiliated laboratories. Upon completion, students should be able to identify patterns and artifacts on neurological tests in order that optimal recording strategies may be utilized.
Prerequisites: None. Corequisites: None. (S)

EDT 114 Special Procedures 3 0 0 3
This course provides a basic understanding of special testing procedures used in neurological diagnosis. Topics include foundations of evoked potentials, nerve conduction studies, operating room monitoring, ambulatory EEGs, long-term video monitoring, polysomnography, and various radiological procedures. Upon completion, students should be able to demonstrate an understanding of the principles of various special procedures used in neurological diagnosis.
Prerequisites: EDT 112. Corequisites: None. (F)

EDT 115 EDT Laboratory Practice 0 6 0 2
This course provides a practical application of theories covered in previous EDT courses. Emphasis is placed on practical skill development in neurological testing, appropriate patient rapport, infection control, and electrical safety guidelines, using mock situations. Upon completion, students should be able to conduct optimal neurological testing in mock situations.
Prerequisites: None. Corequisites: None. (S)

EDT 116 EDT Clinical Experience 0 0 36 12
This course provides clinical experience in a hospital neurology department under the supervision of a qualified technologist. Emphasis is placed on qualified interaction between patients/families and hospital personnel and optimal skill level development in neurological testing. Upon completion, students should be able to conduct themselves professionally in a hospital setting and conduct optimal neurological studies as ordered by physicians.
Prerequisites: None. Corequisites: None. (S)

EDT 118 EDT Laboratory Practice II 0 9 0 3
This course is a continuation of EDT 115. Emphasis is placed on practical skills developed in neurological testing, to include the basic EEG along with special testing procedures. Upon completion, students should be able to conduct neurological testing in mock situations.
Prerequisites: EDT 115. Corequisites: EDT 114. (F)

EDUCATION

EDU 119 Intro to Early Child Educ 4 0 0 4
This course covers the foundations of the education profession, the diverse educational settings for young children, professionalism and planning developmentally appropriate programs for children. Topics include historical foundations, program types, career options, professionalism, and creating inclusive environments and curriculum that are responsive to the needs of children and families. Upon completion, students should be able to design career plans and develop appropriate schedules, environments and activity plans appropriate for all children.
Prerequisites: None. Corequisites: None. (F, S)

EDU 131 Child, Family, & Commun 3 0 0 3
This course covers the development of partnerships between families, inclusive programs for children/schools that serve young children with and without disabilities, and the community. Emphasis is placed on requisite skills and benefits for successfully establishing, supporting, and maintaining respectful collaborative relationships between today's diverse families, centers/schools, and community resources. Upon completion, students should be able to describe appropriate relationships with parents/caretakers, center/school colleagues, and community agencies that enhance the educational experiences/well-being of all children.
Prerequisites: None.
Corequisites: DRE 097 **or** appropriate placement test score. (F)

EDU 144 Child Development I 3 0 0 3
This course covers the theories of child development, developmental sequences, and factors that influence children's development, from conception through pre-school for all children. Emphasis is placed on sequences in physical/motor, social, emotional, cognitive, and language development and the multiple influences on development and learning of the whole child. Upon completion, students should be able to identify typical and atypical developmental characteristics, plan experiences to enhance development, and describe appropriate interaction techniques and environments.
Prerequisites: None.
Corequisites: DRE 097 **or** appropriate placement test score. (F)

EDU 145 Child Development II 3 0 0 3
This course includes the theories of child development, needs, milestones, and factors that influence development, from preschool through middle childhood. Emphasis is placed on developmental sequences in physical/motor, emotional/social, cognitive, and language domains and the impact of multiple influences on development and learning. Upon completion, students should be able to compare/contrast typical/atypical developmental characteristics, explain environmental factors that impact development, and identify strategies for enhancing development.
Prerequisites: None.
Corequisites: DRE 097 **or** appropriate placement test score. (S)

EDU 146 Child Guidance 3 0 0 3
This course introduces principles and practical techniques including the design of learning environments for providing developmentally appropriate guidance for all children, including those at risk. Emphasis is placed on observation skills, cultural influences, underlying causes of behavior, appropriate expectations, development of self control and the role of communication and guidance. Upon completion, students should be able to demonstrate direct/indirect strategies for preventing problem behaviors, teaching appropriate/acceptable behaviors, negotiation, setting limits and recognizing at risk behaviors.
Prerequisites: None.
Corequisites: DRE 097 **or** appropriate placement test score. (S)

EDU 151 Creative Activities 3 0 0 3
This course covers planning, creation and adaptation of developmentally supportive learning environments with attention to curriculum, interactions, teaching practices and learning materials. Emphasis is placed on creating and adapting integrated, meaningful, challenging and engaging developmentally supportive learning experiences in art, music, movement, and dramatics for all children. Upon completion, students should be able to create, manage, adapt implement and evaluate developmentally supportive learning materials, experiences and environments.
Prerequisites: None.
Corequisites: DRE 097 **or** appropriate placement test score. (F)

EDU 153 Health, Safety, & Nutrit 3 0 0 3
This course covers promoting and maintaining the health and well-being of all children. Topics include health and nutritional guidelines, common childhood illnesses, maintaining safe and healthy learning environments, recognition and reporting of abuse and neglect and state regulations. Upon completion, students should be able to demonstrate knowledge of health, safety, and nutritional needs, safe learning environments, and adhere to state regulations.
Prerequisites: None.
Corequisites: DRE 097 **or** appropriate placement test score. (S)

EDU 216 Foundations of Education 4 0 0 4
This course introduces the American educational system and the teaching profession. Topics include historical and philosophical foundations of education, contemporary educational, structural, legal, and financial issues, and experiences in public school classrooms. Upon completion, students should be able to relate classroom observations to the roles of teachers and schools and the process of teacher education.
Prerequisites: None.
Corequisites: DRE 098 **or** appropriate placement test score. (On Demand)

EDU 221 Children with Exceptional 3 0 0 3
This course introduces children with exceptionalities, their families, support services, inclusive/diverse settings, and educational/family plans based on the foundations of child development. Emphasis is placed on the characteristics of exceptionalities, observation and assessment of children, strategies for adapting the learning environment, and identification of community resources. Upon completion, students should be able to recognize diverse abilities, describe the referral process, and depict collaboration with families/professionals to plan/implement, and promote best practice.
Prerequisites: EDU 144 **and** EDU 145, **or** PSY 244 **and** PSY 245.
Corequisites: DRE 098 **or** appropriate placement test score. (F)

EDU 234 Infants, Toddlers, & Twos 3 0 0 3
This course covers the unique needs and rapid changes that occur in the first three years of life and the inter-related factors that influence development. Emphasis is placed on recognizing and supporting developmental milestones through purposeful strategies, responsive care routines and identifying elements of quality, inclusive early care and education. Upon completion, students should be able to demonstrate respectful relationships that provide a foundation for healthy infant/toddler/twos development, plan/select activities/materials, and partner with diverse families.
Prerequisites: EDU 119.
Corequisites: DRE 098 **or** appropriate placement test score. (S)

EDU 235 School-Age Dev & Program 3 0 0 3
This course includes developmentally appropriate practices in group settings for school-age children. Emphasis is placed on principles of development, environmental planning, and positive guidance techniques. Upon completion, students should be able to discuss developmental principles for all children ages five to twelve and plan and implement developmentally-appropriate activities.
Prerequisites: None.
Corequisites: DRE 098 **or** appropriate placement test score. (On demand)

EDU 251 Exploration Activities 3 0 0 3
This course covers discovery experiences in science, math, and social studies. Emphasis is placed on developing concepts for each area and encouraging young children to explore, discover, and construct concepts. Upon completion, students should be able to discuss the discovery approach to teaching, explain major concepts in each area, and plan appropriate experiences for children.
Prerequisites: None.
Corequisites: DRE 098 **or** appropriate placement test score (S)

EDU 259 Curriculum Planning 3 0 0 3
This course is designed to focus on curriculum planning for three to five year olds. Topics include philosophy, curriculum models, indoor and outdoor environments, scheduling, authentic assessment, and planning developmentally appropriate experiences. Upon completion, students should be able to evaluate children's development, critique curriculum, plan for individual and group needs, and assess and create quality environments.
Prerequisites: EDU 119.
Corequisites: DRE 098 **or** appropriate placement test score. (F)

EDU 261 Early Childhood Admin I 3 0 0 3
This course introduces principles of basic programming and staffing, budgeting/financial management and marketing, and rules and regulations of diverse early childhood programs. Topics include program structure and philosophy, standards of NC child care programs, finance, funding resources, and staff and organizational management. Upon completion, students should be able to develop components of program/personnel handbooks, a program budget, and demonstrate knowledge of fundamental marketing strategies and NC standards.
Prerequisites: None.
Corequisites: DRE 098 **or** appropriate placement test score, EDU 119. (F)

EDU 262 Early Childhood Admin II 3 0 0 3
This course focuses on advocacy/leadership, public relations/community outreach and program quality/evaluation for diverse early childhood programs. Topics include program evaluation/accreditation, involvement in early childhood professional organizations, leadership/mentoring, family, volunteer and community involvement and early childhood advocacy. Upon completion, students should be able to define and evaluate all components of early childhood programs, develop strategies for advocacy and integrate community into programs.
Prerequisites: EDU 261.
Corequisites: DRE 098 **or** appropriate placement test score, EDU 119. (S)

EDU 271 Educational Technology 2 2 0 3
This course introduces the use of technology to enhance teaching and learning in all educational settings. Topics include technology concepts, instructional strategies, materials and adaptive technology for children with exceptionalities, facilitation of assessment/evaluation, and ethical issues surrounding the use of technology. Upon completion, students should be able to apply technology enhanced instructional strategies, use a variety of technology resources and demonstrate appropriate technology skills in educational environments.
Prerequisites: CTS 080.
Corequisites: DRE 098 **or** appropriate placement test score (F)

EDU 275 Effective Teach Train 2 0 0 2
This course provides specialized training using an experienced-based approach to learning. Topics include instructional preparation and presentation, student interaction, time management, learning expectations, evaluation, and curriculum principles and planning. Upon completion, students should be able to prepare and present a six-step lesson plan and demonstrate ways to improve students' time-on-task.
Prerequisites: None.
Corequisites: DRE 098 **or** appropriate placement test score. (On demand)

EDU 280 Language & Literacy Exp 3 0 0 3
This course explores the continuum of children's communication development, including verbal and written language acquisition and other forms of communication. Topics include selection of literature and other media, the integration of literacy concepts throughout the classroom environment, inclusive practices and appropriate assessments. Upon completion, students should be able to select, plan, implement and evaluate developmentally appropriate literacy experiences.
Prerequisites: None.
Corequisites: DRE 098 **or** appropriate placement test score. (S)

EDU 284 Early Child Capstone Prac 1 9 0 4
This course is designed to allow students to apply skills in a three star (minimum) or NAEYC accredited or equivalent, quality early childhood environment. Emphasis is placed on designing, implementing and evaluating developmentally appropriate activities and environments for all children; supporting/involving families; and modeling reflective and professional practices. Upon completion, students should be able to demonstrate developmentally appropriate plans/assessments, appropriate guidance techniques and ethical/professional behaviors as indicated by assignments and on-site faculty visits.
Prerequisites: EDU 119, EDU 144, EDU 145, EDU 146, EDU 151.
Corequisites: DRE 098 **or** appropriate placement test score. (F, S)

ENGINEERING

EGR 110 Intro to Engineering Tech 1 2 0 2
This course introduces general topics relevant to engineering technology. Topics include career assessment, professional ethics, critical thinking and problem solving, usage of college resources for study and research, and using tools for engineering computations. Upon completion, students should be able to choose a career option in engineering technology and utilize college resources to meet their educational goals.
Prerequisites: DRE 098 **or** appropriate placement test score.
Corequisites: ELC 138. (F)

EGR 150 Intro to Engineering 1 2 0 2
This course is an overview of the engineering profession. Topics include goal setting and career assessment, ethics, public safety, the engineering method and design process, written and oral communication, interpersonal skills and team building, and computer applications. Upon completion, students should be able to understand the engineering process, the engineering profession, and utilize college resources to meet their educational goals.
Prerequisites: None. Corequisites: None. (On demand)

EGR 210 Intro to Elec/Com Eng Lab (Coll/Tran) **1 3 0 2**
This course provides an overview of electrical and computer engineering, through a lecture and laboratory setting. Topics include fundamental concepts, electronic circuits, digital circuits, communication systems, and signal processing. Upon completion, students should be able to discuss the wide range of fields available to the electrical or computer engineer.
Prerequisites: MAT 271, PHY 251. Corequisites: None. (On demand)

EGR 212 Logic System Design I (Coll/Tran) **3 0 0 3**
This course provides an introduction to digital circuits and analysis. Topics include Boolean Algebra; mixed logic; design of combinational circuits; introduction to sequential systems; and MSI building blocks. Upon completion, students should be able to analyze and design digital circuits and systems.
Prerequisites: MAT 271 and PHY 251. Corequisites: None.

EGR 215 Network Theory I (Coll/Tran) **3 0 0 3**
This course provides an introduction to Kirchoff's laws and terminal equations, circuit analysis techniques and network theorems, transient and natural response, and state variable analysis. Topics include Kirchoff's laws, Ohm's law, circuit analysis techniques, Network theorems, singularity functions, transient and natural responses, power, and state variable analysis. Upon completion, students should be able to analyze electric circuits involving capacitors, inductors, and resistors to determine required parameters.
Prerequisites: MAT 272 and PHY 251. Corequisites: PHY 252 and MAT 273.

EGR 216 Logic and Network Lab (Coll/Tran) **0 3 0 1**
This course provides laboratory experiments in network measurements and logic design and laboratory equipment and techniques. Topics include network measurement and applications, experimental logic design and introduction to laboratory equipment and techniques. Upon completion, students should be able to complete network measurement logic design and be able to use laboratory equipment with proper techniques.
Prerequisites: MAT 272 and PHY 251. Corequisites: EGR 212 and EGR 215.

EGR 220 Engineering Statics (Coll/Tran) **3 0 0 3**
This course introduces the concepts of engineering based on forces in equilibrium. Topics include concentrated forces, distributed forces, forces due to friction, and inertia as they apply to machines, structures, and systems. Upon completion, students should be able to solve problems which require the ability to analyze systems of forces in static equilibrium.
Prerequisites: PHY 251. Corequisites: MAT 272. (On demand)

EGR 225 Engineering Dynamics (Coll/Tran) **3 0 0 3**
This course introduces the concepts of engineering based on the analysis of motion in Cartesian, cylindrical, and spherical coordinate systems. Topics include the two and three dimensional motion of particles and rigid bodies, the forces associated with that motion, and relative motion between two coordinate systems. Upon completion, students should be able to solve problems which require the ability to analyze the motion and forces involved in a dynamic system.
Prerequisites: EGR 220. Corequisites : MAT 273.

EGR 228 Intro to Solid Mechanics (Coll/Tran) **3 0 0 3**
This course provides an introduction to engineering theory of deformable solids and applications. Topics include stress and deformation resulting from axial, torsion, and bending loads; shear and moment diagrams; Mohr's circle of stress; and strain and buckling of columns. Upon completion, students should be able to analyze solids subject to various forces and design systems using a variety of materials.
Prerequisites: EGR 220. Corequisites: None.

EGR 250 Statics/Strength of Mater 4 3 0 5
This course includes vector analysis, equilibrium of force systems, friction, sectional properties, stress/strain, and deformation. Topics include resultants and components of forces, moments and couples, free-body diagrams, shear and moment diagrams, trusses, frames, beams, columns, and combined stresses. Upon completion, students should be able to analyze simple structures.
Prerequisites: MAT 121 **or** MAT 171 must pass with a grade of C or higher.
Corequisites: None. (F)

ELECTRICITY

ELC 111 Intro to Electricity 2 2 0 3
This course introduces the fundamental concepts of electricity and test equipment to non-electrical/electronics majors. Topics include basic DC and AC principles (voltage, resistance, current, impedance); components (resistors, inductors, and capacitors); power; and operation of test equipment. Upon completion, students should be able to construct and analyze simple DC and AC circuits using electrical test equipment.
Prerequisites: DMA 030 **or** appropriate placement test score; DRE 097 or appropriate placement test score. Corequisites: None. (F)

ELC 112 DC/AC Electricity 3 6 0 5
This course introduces the fundamental concepts of and computations related to DC/AC electricity. Emphasis is placed on DC/AC circuits, components, operation of test equipment; and other related topics. Upon completion, students should be able to construct, verify, and analyze simple DC/AC circuits.
Prerequisites: DRE 097 **or** appropriate placement test score. Corequisites: DMA 010, DMA 020, DMA 030 **or** appropriate placement test score. (F, S)

ELC 113 Residential Wiring 2 6 0 4
This course introduces the care/usage of tools and materials used in residential electrical installations and the requirements of the National Electrical Code. Topics include NEC, electrical safety, and electrical print reading; planning, layout; and installation of electrical distribution equipment; lighting; overcurrent protection; conductors; branch circuits; and conduits. Upon completion, students should be able to properly install conduits, wiring, and electrical distribution equipment associated with residential electrical installations.
Prerequisites: DRE 097 **or** appropriate placement test score. Corequisites: None. (F)

ELC 115 Industrial Wiring 2 6 0 4
This course covers layout, planning, and installation of wiring systems in industrial facilities. Emphasis is placed on industrial wiring methods and materials. Upon completion, students should be able to install industrial systems and equipment.
Prerequisites: ELC 113 must pass with a grade of C or higher; DRE 097 **or** appropriate placement test score. Corequisites: None. (S)

ELC 117 Motors and Controls 2 6 0 4
This course introduces the fundamental concepts of motors and motor controls. Topics include ladder diagrams, pilot devices, contractors, motor starters, motors, and other control devices. Upon completion, students should be able to properly select, connect, and troubleshoot motors and control circuits.
Prerequisites: ELC112; ELC 132 **or** BPR 111; must pass with a grade of C or higher; DRE 097 **or** appropriate placement test score. Corequisites: None. (F,S)

ELC 118 National Electrical Code 1 2 0 2
This course covers the use of the current National Electrical Code. Topics include the NEC history, wiring methods, overcurrent protection, materials, and other related topics. Upon completion, students should be able to effectively use the NEC.
Prerequisites: DRE 097 **or** appropriate placement test score. Corequisites: None. (F)

ELC 119 NEC Calculations 1 2 0 2
This course covers branch circuit, feeder, and service calculations. Emphasis is placed on sections of the National Electrical Code related to calculations. Upon completion, students should be able to use appropriate code sections to size wire, conduit, and overcurrent devices for branch circuits, feeders, and service.
Prerequisites: DRE 097 **or** appropriate placement test score.
Corequisites: ELC 118. (F, S)

ELC 128 Intro to PLC 2 3 0 3
This course introduces the programmable logic controller (PLC) and its associated applications. Topics include ladder logic diagrams, input/output modules, power supplies, surge protection, selection/installation of controllers, and interfacing of controllers with equipment. Upon completion, students should be able to install PLCs and create simple programs.
Prerequisites: DRE 097, CTS 080 **or** appropriate placement test score.
Corequisites: ELC 117. (S)

ELC 135 Electrical Machines I 2 2 0 3
This course covers magnetic circuits, transformers, DC/AC machines, and the three-phase circuit fundamentals including power factor. Topics include magnetic terms and calculations, transformer calculations based on primary or secondary equivalent circuits, and regulation and efficiency calculations. Upon completion, students should be able to perform regulation and efficiency calculations for DC/AC machine circuits.
Prerequisites: ELC 139 must pass with a grade of C or higher;
DRE 097 **or** appropriate placement test score. Corequisites: None. (On demand)

ELC 136 Electrical Machines II 3 3 0 4
This course covers DC/AC machine fundamentals including applications and control. Topics include control devices and induction single and polyphase AC motors, DC motors, stepper, and special purpose motors. Upon completion, students should be able to perform regulation and efficiency calculations and apply motor theory to practical control applications.
Prerequisites: ELC 135 must pass with a grade of C or higher;
DRE 097 **or** appropriate placement test score. Corequisites: None. (On demand)

ELC 138 DC Circuit Analysis 3 3 0 4
This course introduces DC electricity with an emphasis on circuit analysis, measurements, and operation of test equipment. Topics include DC principles, circuit analysis laws and theorems, components, test equipment operation, circuit simulation, and other related topics. Upon completion, students should be able to interpret circuit schematics; design, construct, and analyze DC circuits; and properly use test equipment.
Prerequisites: DRE 098 **or** appropriate placement test score.
Corequisites: EGR 110; MAT 121 **or** MAT 171. (F)

ELC 139 AC Circuit Analysis 3 3 0 4
This course introduces AC electricity with an emphasis on circuit analysis, measurements, and operation of test equipment. Topics include AC voltages, circuit analysis laws and theorems, reactive components and circuits, transformers, test equipment operation, circuit simulation, and other related topics. Upon completion, students should be able to interpret AC circuit schematics; analyze and troubleshoot AC circuits; and properly use test equipment.
Prerequisites: ELC 138 must pass with a grade of C or higher.
Corequisites: MAT 122 **or** MAT 172. (S)

ELC 213 Instrumentation 3 2 0 4
This course covers the fundamentals of instrumentation used in industry. Emphasis is placed on electric, electronic, and other instruments. Upon completion, students should be able to install, maintain, and calibrate instrumentation.
Prerequisites: DRE 097, ELC 112, ELN 229, must pass with a grade of C or higher. Corequisites: None. (On demand)

ELC 229 Applications Project 1 3 0 2
This course provides an individual and/or integrated team approach to a practical project as approved by the instructor. Topics include project selection and planning, implementation and testing, and a final presentation. Upon completion, students should be able to plan and implement an applications-oriented project.
Prerequisites: ELN 132, ELN 133, must pass with a grade of C or higher. Corequisites: None. (S)

ELECTRONICS

ELN 131 Analog Electronics I 3 3 0 4
This course introduces the characteristics and applications of semiconductor devices and circuits. Emphasis is placed on analysis, selection, biasing, and applications. Upon completion, students should be able to construct, analyze, verify, and troubleshoot analog circuits using appropriate techniques and test equipment.
Prerequisites: ELC 138 must pass with a grade of C or higher.
Corequisites: None (F, S)

ELN 132 Analog Electronics II 3 3 0 4
This course covers additional applications of analog electronic circuits with an emphasis on analog and mixed signal integrated circuits (IC). Topics include amplification, filtering, oscillation, voltage regulation, and other analog circuits. Upon completion, students should be able to construct, analyze, verify, and troubleshoot analog electronic circuits using appropriate techniques and test equipment.
Prerequisites: ELN 131 must pass with a grade of C or higher.
Corequisites: None. (F, S)

ELN 133 Digital Electronics 3 3 0 4
This course covers combinational and sequential logic circuits. Topics include number systems, Boolean algebra, logic families, medium scale integration (MSI) and large scale integration (LSI) circuits, analog to digital (A/D), and digital to analog (D/A) conversion, and other related topics. Upon completion, students should be able to construct, analyze, verify, and troubleshoot digital circuits using appropriate techniques and test equipment.
Prerequisites: ELN 131 must pass with a grade of C or higher.
Corequisites: None. (F, S)

ELN 229 Industrial Electronics 3 3 0 4
This course covers semiconductor devices used in industrial applications. Topics include the basic theory, application, and operating characteristics of semiconductor devices. Upon completion, students should be able to construct and/or troubleshoot these devices for proper operation in an industrial electronic circuit.
Prerequisites: ELC 112 must pass with a grade of C or higher.
Corequisites: None. (F, S)

ELN 231 Industrial Controls 2 3 0 3
This course introduces the fundamental concepts of control of rotating machinery and associated peripheral devices. Topics include rotating machine theory, ladder logic, electromechanical and solid state relays, motor controls, pilot devices, three-phase power systems, and other related topics. Upon completion, students should be able to interpret schematics and demonstrate an understanding of electromechanical and electronic control of rotating machinery.
Prerequisites: DRE 097 **or** appropriate placement test score.
Corequisites: None. (F)

ELN 233 Microprocessor Systems 3 3 0 4
This course covers the application and design of microprocessor control systems. Topics include control and interfacing of systems using AD/DA, serial/parallel I/O, communication protocols, and other related applications. Upon completion, students should be able to design, construct, program, verify, analyze, and troubleshoot fundamental microprocessor interface and control circuits using related equipment.
Prerequisites: ELN 133, CSC 134, must pass with a grade of C or higher. Corequisites: None. (S)

ELN 234 Communication Systems 3 3 0 4
This course introduces the fundamentals of electronic communication systems. Topics include the frequency spectrum, electrical noise, modulation techniques, characteristics of transmitters and receivers, and digital communications. Upon completion, students should be able to interpret analog and digital communication circuit diagrams, analyze transmitter and receiver circuits, and use appropriate communication test equipment.
Prerequisites: ELN 132 must pass with a grade of C or higher.
Corequisites: None. (S)

ELN 235 Data Communication Sys 3 3 0 4
This course covers data communication systems and the transmission of digital information from source to destination. Topics include data transmission systems, interfaces and modems, protocols, networks, and other related topics. Upon completion, students should be able to demonstrate knowledge of the concepts associated with data communication systems.
Prerequisites: ELN 133 must pass with a grade of C or higher.
Corequisites: None. (On demand)

ELN 260 Prog Logic Controllers 3 3 0 4
This course provides a detailed study of PLC applications, with a focus on design of industrial controls using the PLC. Topics include PLC components, memory organization, math instructions, documentation, input/output devices, and applying PLCs in industrial control systems. Upon completion, students should be able to select and program a PLC system to perform a wide variety of industrial control functions.
Prerequisites: ELN 133 or ELC 128, must pass with a grade of C or higher .
Corequisites: None. (S)

EMERGENCY MEDICAL SCIENCE

EMS 110 EMT 6 6 0 8
This course introduces basic emergency medical care. Topics include preparatory, airway, patient assessment, medical emergencies, trauma, infants and children, and operations. Upon completion, students should be able to demonstrate the knowledge and skills necessary to achieve North Carolina State or National Registry EMT-Basic certification.
Prerequisites: None. Corequisites: None. (F)

EMS 120 Advanced EMT 4 6 0 6
This course is designed to provide the essential information on interventions/treatments appropriate to the Advanced EMT and is required for Advanced EMT certification. Topics include airway management, automatic external defibrillation, cardiac electrophysiology, vascular access, acid-base balance, pharmacology, medical emergencies, traumatic injuries, and fluids and electrolytes. Upon completion, students should be able to properly obtain vascular access, manage medical and trauma patients, utilize simple and advanced airways, and correctly interpret arterial blood gases.
Prerequisites: EMS 110. Corequisites: EMS 121.

EMS 121 AEMT Clinical Practicum 0 0 6 2
This course provides the hospital and field internship/clinical experiences required in preparation for the Advanced EMT certification. Emphasis is placed on performing patient assessments, treatments, and interactions appropriate at the Advanced EMT level of care. Upon completion, students should be able to demonstrate competence at the Advanced EMT skill level.
Prerequisites: EMS 110. Corequisites: EMS 120

EMS 122 EMS Clinical Practicum I 0 0 3 1
This course provides the introductory hospital clinical experience for the paramedic student. Emphasis is placed on mastering fundamental paramedic skills. Upon completion, students should be able to demonstrate competence with fundamental paramedic level skills.
Prerequisites: EMS 110. Corequisites: EMS 130. (S)

EMS 130 Pharmacology 3 3 0 4
This course introduces the fundamental principles of pharmacology and medication administration and is required for paramedic certification. Topics include medical terminology, pharmacological concepts, weights, measures, drug calculations, vascular access for fluids and medication administration and legislation. Upon completion, students should be able to accurately calculate drug dosages, properly administer medications, and demonstrate general knowledge of pharmacology.
Prerequisites: EMS 110; DMA 010, DMA 020, DMA 030, DMA 040 **or** appropriate placement test score. Corequisites: EMS 122. (S)

EMS 131 Adv Airway Management 1 2 0 2
This course is designed to provide advanced airway management techniques and is required for paramedic certification. Topics include respiratory anatomy and physiology, airway/ventilation, adjuncts, surgical intervention, and rapid sequence intubation. Upon completion, students should be able to properly utilize all airway adjuncts and pharmacology associated with airway control and maintenance.
Prerequisites: EMS 110. Corequisites: None. (S)

EMS 140 Rescue Scene Management 1 3 0 2
This course introduces rescue scene management. Topics include response to hazardous material conditions, incident command, and extrication of patients from a variety of situations. Upon completion, students should be able to recognize and manage rescue operations based upon initial and follow-up scene assessment. Students are expected to participate in hands-on training and simulated incidents.
Prerequisites: Enrollment in EMS program. Corequisites: None. (SU)

EMS 160 Cardiology I 1 3 0 2
This course introduces the study of cardiovascular emergencies and is required for paramedic certification. Topics include anatomy and physiology, pathophysiology, electrophysiology, and basic rhythm interpretation in the monitoring leads. Upon completion, students should be able to recognize and interpret basic rhythms.
Prerequisites: EMS 110, and Enrollment in EMS program.
Corequisites:None. (S)

EMS 220 Cardiology II 2 3 0 3
This course provides an in-depth study of cardiovascular emergencies and is required for paramedic certification. Topics include assessment and treatment of cardiac emergencies, application and interpretation of advanced electrocardiography utilizing the twelve-lead ECG, cardiac pharmacology, and patient care. Upon completion, students should be able to assess and treat patients utilizing American Heart Association guidelines.
Prerequisites: EMS 122, EMS 130, EMS 160. Corequisites: None. (SU)

EMS 221 EMS Clinical Practicum II 0 0 6 2
This course provides clinical experiences in the hospital and/or field. Emphasis is placed on increasing the proficiency of students' skills and abilities in patient assessments and the delivery of care. Upon completion, students should be able to demonstrate continued progress in advanced-level patient care.
Prerequisites: EMS 122, EMS 130. Corequisites: None. (SU)

EMS 231 EMS Clinical Pract III 0 0 9 3
This course provides clinical experiences in the hospital and/or field. Emphasis is placed on enhancing the students' skills and abilities in providing advanced-level care. Upon completion, students should be able to demonstrate continued progress in advanced-level patient care.
Prerequisites: EMS 130, EMS 221. Corequisites: None. (F)

EMS 235 EMS Management 2 0 0 2
This course stresses the principles of managing a modern emergency medical service system. Topics include structure and function of municipal governments, EMS grantsmanship, finance, regulatory agencies, system management, legal issues, and other topics relevant to the EMS manager. Upon completion, students should be able to understand the principles of managing emergency medical service delivery systems.
Prerequisites: Enrollment in EMS program. Corequisites: None. (F)

EMS 240 Patients W/Special Challenges 1 2 0 2
This course includes concepts of crisis intervention and techniques of interacting with patients with special challenges and is required for paramedic certification. Topics include appropriate intervention and interaction for neglected, abused, terminally ill, chronically ill, technology assisted, bariatric, physically challenged, mentally challenged, or assaulted patients as well as behavioral emergencies. Upon completion, students should be able to recognize and manage the care of patients with special challenges.
Prerequisites: EMS 122, EMS130. Corequisites: None. (SU)

EMS 241 EMS Clinical Practicum IV 0 0 12 4
This course provides clinical experiences in the hospital and/or field. Emphasis is placed on mastering the skills/competencies required of the paramedic providing advanced-level care. Upon completion, students should be able to provide advanced-level patient care as an entry-level paramedic.
Prerequisites: EMS 130, EMS 231. Corequisites: EMS 285. (S)

EMS 250 Medical Emergencies 3 3 0 4
This course provides an in-depth study of medical conditions frequently encountered in the prehospital setting and is required for paramedic certification. Topics include appropriate interventions/treatments for disorders/diseases/injuries affecting the following systems: respiratory, neurological, abdominal/gastrointestinal, endocrine, genitourinary, musculoskeletal, and immunological as well as toxicology, infectious diseases and diseases of the eyes, ears, nose and throat. Upon completion, students should be able to recognize, assess and manage the care of frequently encountered medical conditions based upon initial patient assessment.
Prerequisites: EMS 122, EMS 130. Corequisites: None. (F)

EMS 260 Trauma Emergencies 1 3 0 2
This course provides in-depth study of trauma including pharmacological interventions for conditions frequently encountered in the prehospital setting and is required for paramedic certification. Topics include an overview of thoracic, abdominal, genitourinary, orthopedic, neurological, and multi-system trauma, soft tissue trauma of the head, neck, and face as well as environmental emergencies. Upon completion, students should be able to recognize and manage trauma situations based upon patient assessment and should adhere to standards of care.
Prerequisites: EMS 122, EMS 130. Corequisites: None. (S)

EMS 270 Life Span Emergencies 2 3 0 3
This course covers medical/ethical/legal issues and the spectrum of age-specific emergencies from conception through death required for paramedic certification. Topics include gynecological, obstetrical, neonatal, pediatric, and geriatric emergencies and pharmacological therapeutics. Upon completion, students should be able to recognize and treat age-specific emergencies.
Prerequisites: BIO 169, EMS 122, EMS 130. Corequisites: None. (F)

EMS 285 EMS Capstone 1 3 0 2
This course provides an opportunity to demonstrate problem-solving skills as a team leader in simulated patient scenarios and is required for paramedic certification. Emphasis is placed on critical thinking, integration of didactic and psychomotor skills, and effective performance in simulated emergency situations. Upon completion, students should be able to recognize and appropriately respond to a variety of EMS-related events. Students will be challenged to perform under adverse conditions which may include but are not limited to inclement weather, faulty equipment, non-cooperative patients and insufficient help.
Prerequisites: EMS 220, EMS 250, EMS 260. Corequisites: None. (S)

EMERGENCY PREPAREDNESS

EPT 140 Emergency Management 3 0 0 3
This course covers the four phases of emergency management: mitigation, preparedness, response, and recovery. Topics include organizing for emergency management, coordinating for community resources, public sector liability, and the roles of government agencies at all levels. Upon completion, students should be able to demonstrate an understanding of comprehensive emergency management and the integrated emergency management system.
Prerequisites: None. Corequisites: None. (S)

ENGLISH

(Developmental English)

DRE 096 Integrated Reading and Writing 2.50 1.00 0 3
This course is designed to develop proficiency in specific integrated and contextualized reading and writing skills and strategies. Topics include reading and writing processes, critical thinking strategies, and recognition and composition of well-developed, coherent, and unified texts; these topics are primarily taught at the introductory level using texts primarily in a Lexile® range of 960 to 1115. Upon completion, students should be able to apply those skills toward understanding a variety of academic and career-related texts and composing effective paragraphs.
Prerequisites: Appropriate placement test score **or** successful completion of English Foundations . Corequisites: None. (F, S, SU)

DRE 097 Integrated Reading Writing II 2.50 1.00 0 3
This course is designed to develop proficiency in integrated and contextualized reading and writing skills and strategies. Topics include reading and writing processes, critical thinking strategies, and recognition and composition of well-developed, coherent, and unified texts; except where noted, these topics are taught at a reinforcement level using texts primarily in a Lexile® range of 1070 to 1220. Upon completion, students should be able to demonstrate and apply those skills toward understanding a variety of complex academic and career texts and composing essays incorporating relevant, valid evidence.
Prerequisites: DRE 096. Corequisites: None. (F, S, SU)

DRE 098 Integrated Reading Writing III 2.50 1.00 0 3
This course is designed to develop proficiency in integrated and contextualized reading and writing skills and strategies. Topics include reading and writing processes, critical thinking strategies, and recognition and composition of well-developed, coherent, and unified texts; these topics are taught using texts primarily in the Lexile® range of 1185 to 1385. Upon completion, students should be able to apply those skills toward understanding a variety of texts at the career and college ready level and toward composing a documented essay.
Prerequisites: DRE 097. Corequisites: None. (F, S, SU)

DRE 099 Integrated Reading Writing III 2.00 0 0 2
This course is designed to develop proficiency in integrated and contextualized reading and writing skills and strategies by complementing, supporting and reinforcing material covered in ENG 111. Topics include reading and writing processes, critical thinking strategies, and recognition and composition of well-developed, coherent, and unified texts; except where noted, these topics are taught using texts primarily in the Lexile® range of 1185 to 1385. Upon completion, students should be able to apply those skills toward understanding a variety of texts at the career and college ready level and toward composing a documented essay.
Prerequisites: DRE 097. Corequisites: ENG 111. (F, S, SU)

(Curriculum English)

ENG 102 Applied Communications II 3 0 0 3
This course is designed to enhance writing and speaking skills for the workplace. Emphasis is placed on generating short writings such as job application documents, memoranda, and reports and developing interpersonal communication skills with employees and the public. Upon completion, students should be able to prepare effective, short, and job-related written and oral communications.
Prerequisites: DRE 097 **or** appropriate placement test score.
Corequisites: None. (F, S, SU)

ENG 111 Writing and Inquiry (Coll/Tran) **3 0 0 3**
This course is designed to develop the ability to produce clear writing in a variety of genres and formats using a recursive process. Emphasis includes inquiry, analysis, effective use of rhetorical strategies, thesis development, audience awareness, and revision. Upon completion, students should be able to produce unified, coherent, well-developed essays using standard written English.
Prerequisites:DRE-098 **or** appropriate placement test score.
Corequisites: None. (F, S, SU)

ENG 112 Writing/Research in the Disciplines 3 0 0 3
This course, the second in a series of two, introduces research techniques, documentation styles, and writing strategies. Emphasis is placed on analyzing information and ideas and incorporating research findings into documented writing and research projects. Upon completion, students should be able to evaluate and synthesize information from primary and secondary sources using documentation appropriate to various disciplines.
Prerequisites: ENG 111 must pass with a grade of C or higher.
Corequisites: None. (F, S, SU)

ENG 113 Literature-Based Research (Coll/Tran) **3 0 0 3**
This course, the second in a series of two, expands the concepts developed in ENG 111 by focusing on writing that involves literature-based research and documentation. Emphasis is placed on critical reading and thinking and the analysis and interpretation of prose, poetry, and drama: plot, characterization, theme, cultural context, etc. Upon completion, students should be able to construct mechanically-sound, documented essays and research papers that analyze and respond to literary works.
Prerequisites: ENG 111 must pass with a grade of C or higher.
Corequisites: None. (F, S, SU)

ENG 114 Prof Research & Reporting (Coll/Tran) **3 0 0 3**
This course, the second in a series of two, is designed to teach professional communication skills. Emphasis is placed on research, listening, critical reading and thinking, analysis, interpretation, and design used in oral and written presentations. Upon completion, students should be able to work individually and collaboratively to produce well-designed business and professional written and oral presentations.
Prerequisites: ENG 111 must pass with a grade of C or higher.
Corequisites: None. (F, S, SU)

ENG 125 Creative Writing I (Coll/Tran) **3 0 0 3**
This course is designed to provide students with the opportunity to practice the art of creative writing. Emphasis is placed on writing, fiction, poetry, and sketches. Upon completion, students should be able to craft and critique their own writing and critique the writing of others.
Prerequisites: ENG 111 must pass with a grade of C or higher.
Corequisites: None. (F, S)

ENG 126 Creative Writing II (Coll/Tran) **3 0 0 3**
This course is designed as a workshop approach for advancing imaginative and literary skills. Emphasis is placed on the discussion of style, techniques, and challenges for first publications. Upon completion, students should be able to submit a piece of their writing for publication.
Prerequisites: ENG 125 must pass with a grade of C or higher.
Corequisites: None. (F, S)

ENG 131 Introduction to Literature (Coll/Tran) **3 0 0 3**
This course introduces the principal genres of literature. Emphasis is placed on literary terminology, devices, structure, and interpretation. Upon completion, students should be able to analyze and respond to literature.
Prerequisites: ENG 111.
Corequisites : ENG 112 **or** ENG 113 **or** ENG 114. (F, S)

ENG 231 American Literature I (Coll/Tran) **3 0 0 3**
This course covers selected works in American literature from its beginnings to 1865. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts.
Prerequisites: ENG 112 **or** ENG 113 **or** ENG 114 must pass with a grade of C or higher. Corequisites: None. (F, S, SU)

ENG 232 American Literature II (Coll/Tran) **3 0 0 3**
This course covers selected works in American literature from 1865 to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts.
Prerequisites: ENG 112 **or** ENG 113 **or** ENG 114 must pass with a grade of C or higher. Corequisites: None. (F, S, SU)

ENG 235 Survey of Film as Lit **3 0 0 3**
This course provides a study of the medium of film with a focus on the historical impact and the various literary genres of movies. Emphasis is placed on an appreciation of film as a form of literature which demonstrates various elements of fiction (character, setting, theme, etc.). Upon completion, students should be able to analyze film critically in various literary contexts.
Prerequisites: ENG 113 must pass with a grade of C or higher.
Corequisites: None. (S)

ENG 241 British Literature I (Coll/Tran) **3 0 0 3**
This course covers selected works in British literature from its beginnings to the Romantic Period. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts.
Prerequisites: ENG 112 **or** ENG 113 **or** ENG 114 must pass with a grade of C or higher. Corequisites: None. (F, S, SU)

ENG 242 British Literature II (Coll/Tran) **3 0 0 3**
This course covers selected works in British literature from the Romantic Period to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts.
Prerequisites: ENG 112 **or** ENG 113 **or** ENG 114 must pass with a grade of C or higher. Corequisites: None. (F, S, SU)

ENG 251 Western World Literature I (Coll/Tran) **3 0 0 3**
This course provides a survey of selected European works from the Classical period through the Renaissance. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to selected works.
Prerequisites: ENG 112 **or** ENG 113 **or** ENG 114 must pass with a grade of C or higher. Corequisites: None. (F)

ENG 252 Western World Literature II (Coll/Tran) **3 0 0 3**
This course provides a survey of selected European works from the Neoclassical period to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to selected works.
Prerequisites: ENG 112 **or** ENG 113 **or** ENG 114 must pass with a grade of C or higher. Corequisites: None. (S)

ENG 273 African-American Literature (Coll/Tran) **3 0 0 3**
This course provides a survey of the development of African-American literature from its beginnings to the present. Emphasis is placed on historical and cultural context, themes, literary traditions, and backgrounds of the authors. Upon completion, students should be able to interpret, analyze, and respond to selected texts.
Prerequisites: ENG 112 **or** ENG 113 **or** ENG 114 must pass with a grade of C or higher. Corequisites: None. (F)

ENG 275 Science Fiction (Coll/Tran) **3 0 0 3**
This course covers the relationships between science and literature through analysis of short stories and novels. Emphasis is placed on scientific discoveries that shaped Western culture and our changing view of the universe as reflected in science fiction literature. Upon completion, students should be able to trace major themes and ideas and illustrate relationships between science, worldview, and science fiction literature.
Prerequisites: ENG 112 **or** ENG 113 **or** ENG 114 must pass with a grade of C or higher. Corequisites: None. (S)

ENTREPRENEURSHIP

ETR 215 Law for Entrepreneurs **3 0 0 3**
This course introduces students to basic legal concepts specifically relevant to a business start-up venture. Topics include bailments and documents of title, nature and form of sales, risk and property rights, obligations and performance, business organizations, and agency and employment. Upon completion, students should be able to assess the legal responsibilities of a business start-up.
Prerequisites: None. Corequisites: None. (S)

ETR 220 Innovation and Creativity **3 0 0 3**
This course provides a study of developing and enhancing individual and organizational creativity and innovation. Topics include that innovation needs to be applied to products, services, and processes to increase competitive advantages and add value to businesses. Upon completion, students should be able to apply innovation and creativity principles in the work place.
Prerequisites: None. Corequisites: None. (F)

ETR 230 Entrepreneur Marketing 3 0 0 3
This course covers the techniques to correctly research and define the target market to increase sales for start-up businesses or to expand current businesses. Topics include how to target market and meet customers' needs with a limited budget in the early stages of the life of a start-up business. Upon completion, students should be able to demonstrate an understanding of how to correctly target market for a start-up business with limited resources.
Prerequisites: None. Corequisites: None. (F)

ETR 240 Funding for Entrepreneurs 3 0 0 3
This course provides a focus on the financial issues and needs confronting entrepreneurs attempting to grow their businesses by attracting start-up and growth capital. Topics include sources of funding including: angel investors, venture capital, IPO's, private placement, banks, suppliers, buyers, partners, and the government. Upon completion, students should be able to demonstrate an understanding of how to effectively finance a business venture.
Prerequisites: ACC 120. Corequisites: None. (S)

ETR 270 Entrepreneurship Issues 3 0 0 3
This course introduces current and emerging entrepreneurship issues and opportunities. Topics include franchising, import/export, small business taxes, legal structures, negotiations, contract management, and time management. Upon completion, students should be able to apply a variety of analytical and decision-making requirements to start a new business.
Prerequisites: None. Corequisites: None. (S)

FIRE PROTECTION

FIP 120 Intro to Fire Protection 3 0 0 3
This course provides an overview of the history, development, methods, systems, and regulations that apply to the fire protection field. Topics include history, evolution, statistics, suppression, organizations, careers, curriculum, and other related topics. Upon completion, students should be able to demonstrate a broad understanding of the fire protection field.
Prerequisites: None. Corequisites: None. (F)

FIP 124 Fire Prevention & Public Ed 3 0 0 3
This course introduces fire prevention concepts as they relate to community and industrial operations referenced in NFPA standard 101. Topics include the development and maintenance of fire prevention programs, educational programs, and inspection programs. Upon completion, students should be able to research, develop, and present a fire safety program to a citizens or industrial group.
Prerequisites: None. Corequisites: None. (F)

FIP 128 Detection & Investigation 3 0 0 3
This course covers procedures for determining the origin and cause of accidental and incendiary fires referenced in NFPA standard. Topics include collection and preservation of evidence, detection and determination of accelerants, courtroom procedure and testimony, and documentation of the fire scene. Upon completion, students should be able to conduct a competent fire investigation and present those findings to appropriate officials or equivalent.
Prerequisites: None. Corequisites: None. (On demand)

FIP 132 Building Construction 3 0 0 3
This course covers the principles and practices referenced in NFPA standard 220 related to various types of building construction, including residential and commercial, as impacted by fire conditions. Topics include types of construction and related elements, fire resistive aspects of construction materials, building codes, collapse, and other related topics. Upon completion, students should be able to understand and recognize various types of construction as related to fire conditions.
Prerequisites: None. Corequisites: None. (F)

FIP 136 Inspections & Codes 3 0 0 3
This course covers the fundamentals of fire and building codes and procedures to conduct an inspection referenced in NFPA standard 1730. Topics include review of fire and building codes, writing inspection reports, identifying hazards, plan reviews, site sketches, and other related topics. Upon completion, students should be able to conduct a fire code compliance inspection and produce a written report.
Prerequisites: None. Corequisites: None. (S)

FIP 140 Industrial Fire Protection 3 0 0 3
This course covers fire protection systems in industrial facilities referenced in NFPA standard 1. Topics include applicable health and safety standards, insurance carrier regulations, other regulatory agencies, hazards of local industries, fire brigade operation, and loss prevention programs. Upon completion, students should be able to plan and evaluate an industrial facility's fire protection program.
Prerequisites: None. Corequisites: None. (On demand)

FIP 146 Fire Protection Systems 3 2 0 4
This course introduces various types of automatic sprinklers, standpipes, fire alarm systems, and fixed and portable extinguishing systems referenced in NFPA standard 25, including their operation, installation, and maintenance. Topics include wet and dry systems, testing and maintenance, water supply requirements, fire detection and alarm systems, including application, testing, and maintenance of Halon, carbon dioxide, dry chemical, and special extinguishing agents utilized in fixed and portable systems. Upon completion, students should be able to demonstrate a working knowledge of sprinkler and alarm systems, both fixed and portable, including appropriate application, operation, inspection, and maintenance requirements.
Prerequisites: None. Corequisites: None. (F)

FIP 152 Fire Protection Law 3 0 0 3
This course covers fire protection law as referenced in NFPA standard 1. Topics include torts, legal terms, contracts, liability, review of case histories, and other related topics. Upon completion, students should be able to discuss laws, codes, and ordinances as they relate to fire protection.
Prerequisites: None. Corequisites: None. (S)

FIP 164 OSHA Standards 3 0 0 3
This course covers public and private sector OSHA work site requirements referenced in NFPA standard 1250. Emphasis is placed on accident prevention and reporting, personal safety, machine operations, and hazardous material handling. Upon completion, students should be able to analyze and interpret specific OSHA regulations and write workplace policies designed to achieve compliance.
Prerequisites:None. Corequisites: None. (On demand)

FIP 220 Fire Fighting Strategies 3 0 0 3
This course provides preparation for command of initial incident operations involving emergencies within both the public and private sector referenced in NFPA standards 1561, 1710, and 1720. Topics include incident management, fire-ground tactics and strategies, incident safety, and command/control of emergency operations. Upon completion, students should be able to describe the initial incident system related to operations involving various emergencies in fire/non-fire situations.
Prerequisites: None. Corequisites: None. (F)

FIP 221 Adv Fire Fighting Strat 3 0 0 3
This course covers command-level operations for multi-company/agency operations involving fire and non-fire emergencies. Topics include advanced use of the Incident Command System (ICS), advanced incident analysis, command-level fire operations, and control of both man-made and natural major disasters. Upon completion, students should be able to describe proper and accepted systems for the mitigation of emergencies at the level of overall scene command.
Prerequisites: FIP 220. Corequisites: None. (On demand)

FIP 224 Fire Instructor I & II 4 0 0 4
This course covers the knowledge, skills, and abilities needed to train others in fire service operations. Topics include planning, presenting, and evaluating lesson plans, learning styles, use of media, communication, and other related topics. Upon completion, students should be able to meet all requirements of the Fire Instructor I and II objectives from National Fire Protection Association (NFPA) 1041.
Prerequisites: None. Corequisites: None. (On demand)

FIP 226 Fire Officer I & II 4 0 0 4
This course covers the knowledge, skills, and requirements referenced in the National Fire Protection Association (NFPA) Standard 1021 for Fire Officer I and II training. Topics include officer roles and responsibilities, budgets, fire cause determination, inspections, education, leadership, management, public relations, and other requirements included in the NFPA standard. Upon completion, students should be able to demonstrate an understanding of relevant NFPA standards as required for state Fire Officer I and II certification.
Prerequisites: None. Corequisites: None. (On demand)

FIP 228 Local Govt Finance 3 0 0 3
This course introduces local governmental financial principles and practices. Topics include budget preparation and justification, revenue policies, statutory requirements, taxation, audits, and the economic climate. Upon completion, students should be able to comprehend the importance of finance as it applies to the operation of a department.
Prerequisites: None. Corequisites: None. (S)

FIP 229 Fire Dynamics and Combust 3 0 0 3
This course covers the theories and fundamentals of how and why fires start and spread, and how they are safely controlled referenced in NFPA standard 1001. Topics include components of fire, fire sources, fire behavior, properties of combustible solids, classification of hazards, and the use of fire extinguishing agents. Upon completion, students should be able to describe the properties of matter and dynamics of fire, identify fuel sources, and compare suppressants and extinguishment techniques.
Prerequisites: None. Corequisites: None. (On demand)

FIP 230 Chem of Hazardous Mat I 5 0 0 5
This course covers the evaluation of hazardous materials referenced in NFPA standard 1072. Topics include use of the periodic table, hydrocarbon derivatives, placards and labels, parameters of combustion, and spill and leak mitigation. Upon completion, students should be able to demonstrate knowledge of the chemical behavior of hazardous materials.
Prerequisites: None. Corequisites: None. (On demand)

FIP 240 Fire Service Supervision 3 0 0 3
This course covers supervisory skills and practices in the fire protection field. Topics include the supervisor's job, supervision skills, the changing work environment, managing change, organizing for results, discipline and grievances, and safety. Upon completion, students should be able to demonstrate an understanding of the roles and responsibilities of effective fire service supervision, meeting elements of NFPA 1021.
Prerequisites: None. Corequisites: None. (S)

FIP 248 Fire Svc Personnel Adm 3 0 0 3
This course covers the basics of setting up and administering the personnel functions of fire protection organizations referenced in NFPA standard 1021. Emphasis is placed on human resource planning, classification and job analysis, equal opportunity employment, affirmative action, recruitment, retention, development, performance evaluation, and assessment centers. Upon completion, students should be able to demonstrate knowledge of the personnel function as it relates to managing fire protection.
Prerequisites: None. Corequisites: None. (S)

FIP 276 Managing Fire Services 3 0 0 3
This course provides an overview of fire department operative services referenced in NFPA standard 1021. Topics include finance, staffing, equipment, code enforcement, management information, specialized services, legal issues, planning, and other related topics. Upon completion, students should be able to understand concepts and apply fire department management and operations principles.
Prerequisites: ENG 111, FIP 152, and FIP 240. Corequisites: None. (F)

FRENCH

FRE 111 Elementary French I (Coll/Tran) **3 0 0 3**
This course introduces the fundamental elements of the French language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written French and demonstrate cultural awareness.
Prerequisites: None. Corequisites: FRE 181. (F)

FRE 112 Elementary French II (Coll/Tran) **3 0 0 3**
This course is a continuation of FRE 111 focusing on the fundamental elements of the French language within a cultural context. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written French and demonstrate further cultural awareness.
Prerequisites: FRE 111 must pass with a grade of C or higher.
Corequisites: FRE 182. (S)

FRE 181 French Lab 1 (Coll/Tran) **0 2 0 1**
This course provides an opportunity to enhance acquisition of the fundamental elements of the French language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written French and demonstrate cultural awareness.
Prerequisites: None. Corequisites: FRE 111. (F)

FRE 182 French Lab 2 (Coll/Tran) **0 2 0 1**
This course provides an opportunity to enhance acquisition of the fundamental elements of the French language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written French and demonstrate cultural awareness.
Prerequisites: FRE 181 must pass with a grade of C or higher.
Corequisites: FRE 112. (S)

FRE 211 Intermediate French I (Coll/Tran) **3 0 0 3**
This course provides a review and expansion of the essential skills of the French language. Emphasis is placed on the study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future.
Prerequisites: FRE 112 must pass with a grade of C or higher.
Corequisites: FRE 281. (On demand)

FRE 212 Intermediate French II (Coll/Tran) **3 0 0 3**
This course is a continuation of FRE 211. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication.
Prerequisites: FRE 211 must pass with a grade of C or higher.
Corequisites: FRE 282. (On demand)

FRE 281 French Lab 3 (Coll/Tran) **0 2 0 1**
This course provides an opportunity to enhance the review and expansion of the essential skills of the French language. Emphasis is placed on the study of authentic and representative literary and cultural texts through the use of supplementary learning media and materials. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future.
Prerequisites: FRE 182 must pass with a grade of C or higher.
Corequisites: FRE 211. (On demand)

FRE 282 French Lab 4 (Coll/Tran) **0 2 0 1**
This course provides an opportunity to enhance the review and expansion of the essential skills of the French language. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts through the use of supplementary learning media and materials. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication.
Prerequisites: FRE 281 must pass with a grade of C or higher.
Corequisites: FRE 212. (On demand)

GEOLOGY

GEL 111 Introductory Geology (Coll/Tran) **3 2 0 4**
This course introduces basic landforms and geological processes. Topics include rocks, minerals, volcanoes, fluvial processes, geological history, plate tectonics, glaciers, and coastal dynamics. Upon completion, students should be able to describe basic geological processes that shape the earth.
Prerequisites: DMA 010, DMA 020, DMA 030, DMA 040, DMA 050 **or** appropriate placement test scores. Corequisites: DRE 098 **or** appropriate placement test scores. (F, S, On demand)

GEL 113 Historical Geology **3 2 0 4**
This course covers the geological history of the earth and its life forms. Emphasis is placed on the study of rock strata, fossil groups, and geological time. Upon completion, students should be able to identify major fossil groups and associated rock strata and approximate ages of geological formations.
Prerequisites: GEL 111 **or** GEL 120 must pass with a grade of C or higher.
Corequisites: None. (On demand)

GEL 220 Marine Geology (Coll/Tran) **3 2 0 4**
This course presents a detailed examination of coastal and sea floor geology. Emphasis is placed on coastal and sea floor landforms and processes that shape these features. Upon completion, students should be able to describe the origin and evolution of both coastal and sea floor landforms.
Prerequisites: GEL 111 **or** GEL 120. Corequisites: None. (On demand)

GEL 230 Environmental Geology (Coll/Tran) **3 2 0 4**
This course provides insights into geologic forces that cause environmental changes influencing man's activities. Emphasis is placed on natural hazards and disasters caused by geologic forces. Upon completion, students should be able to relate major hazards and disasters to the geologic forces responsible for their occurrence.
Prerequisites: GEL 111 **or** GEL 120 **or** PHS 130 must pass with a grade of C or higher; DRE 098 **or** appropriate placement test score.
Corequisites: None. (On demand)

GEOGRAPHY

GEO 111 World Regional Geography (Coll/Tran) **3 0 0 3**
This course introduces the regional concept which emphasizes the spatial association of people and their environment. Emphasis is placed on the physical, cultural, and economic systems that interact to produce the distinct regions of the earth. Upon completion, students should be able to describe variations in physical and cultural features of a region and demonstrate an understanding of their functional relationships.
Prerequisites: DRE 098 **or** appropriate placement test score.
Corequisites: None. (F, On demand)

GEO 112 Cultural Geography (Coll/Tran) **3 0 0 3**
This course is designed to explore the diversity of human cultures and to describe their shared characteristics. Emphasis is placed on the characteristics, distribution, and complexity of earth's cultural patterns. Upon completion, students should be able to demonstrate an understanding of the differences and similarities in human cultural groups.
Prerequisites: DRE 098 **or** appropriate placement test score.
Corequisites: None. (On demand)

GEO 113 Economic Geography (Coll/Tran) **3 0 0 3**
This course covers the patterns and networks of economic interdependence and how they affect human populations. Emphasis is placed on the economic aspects of the production and distribution of goods and services and their impact on the quality of human life. Upon completion, students should be able to describe different economic systems and demonstrate an understanding of the variables that influence economic development
Prerequisites: DRE 098 **or** appropriate placement test score; DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, **or** appropriate placement test score.
Corequisites: None. (On demand)

GEO 121 North Carolina Geography (Coll/Tran) **3 0 0 3**
This course is a survey of the physical and cultural landscapes of North Carolina. Topics include physical characteristics of North Carolina, settlement patterns, resource use, and cultural variations. Upon completion, students should be able to demonstrate knowledge of the distinct physical and cultural features of North Carolina.
Prerequisites: None. Corequisites: None. (On demand)

GEO 130 General Physical Geography (Coll/Tran) **3 0 0 3**
This course introduces both the basic physical components that help shape the earth and the study of minerals, rocks, and evolution of landforms. Emphasis is placed on the geographic grid, cartography, weather, climate, mineral composition, fluvial processes, and erosion and deposition. Upon completion, students should be able to identify these components and processes and explain how they interact.
Prerequisites: DRE 098 **or** appropriate placement test score.
Corequisites: None. (S, On demand)

GERMAN

GER 111 Elementary German I (Coll/Tran) **3 0 0 3**
This course introduces the fundamental elements of the German language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written German and demonstrate cultural awareness.
Prerequisites: None. Corequisites: GER 181. (On demand)

GER 112 Elementary German II (Coll/Tran) **3 0 0 3**
This course is a continuation of GER 111 focusing on the fundamental elements of the German language within a cultural context. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written German and demonstrate further cultural awareness.
Prerequisites: GER 111 must pass with a grade of C or higher.
Corequisites: GER 182. (On demand)

GER 181 German Lab 1 (Coll/Tran) **0 2 0 1**
This course provides an opportunity to enhance acquisition of the fundamental elements of the German language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written German and demonstrate cultural awareness.
Prerequisites: None. Corequisites: GER 111. (On demand)

GER 182 German Lab 2 (Coll/Tran) **0 2 0 1**
This course provides an opportunity to enhance acquisition of the fundamental elements of the German language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written German and demonstrate cultural awareness.
Prerequisites: GER 181 must pass with a grade of C or higher.
Corequisites: GER 112. (On demand)

GRAPHIC ARTS

GRA 121 Graphic Arts I **2 4 0 4**
This course introduces terminology, tools and materials, procedures, and equipment used in graphic arts production. Topics include copy preparation and pre-press production relative to printing. Upon completion, students should be able to demonstrate an understanding of graphic arts production.
Prerequisites: None. Corequisites: None. (F)

GRA 151 Computer Graphics I **1 3 0 2**
This course introduces the use of hardware and software for production and design in graphic arts. Topics include graphical user interface and current industry uses such as design, layout, typography, illustration, and imaging for production. Upon completion, students should be able to understand and use the computer as a fundamental design and production tool.
Prerequisites: None. Corequisites: None. (F)

GRA 152 Computer Graphics II 1 3 0 2
This course covers advanced design and layout concepts utilizing illustration, page layout, and imaging software in graphic arts. Emphasis is placed on enhancing and developing the skills that were introduced in GRA 151. Upon completion, students should be able to select and utilize appropriate software for design and layout solutions.
Prerequisites: GRA 151, GRD 110, GRD 121, GRD 141.
Corequisites: None. (S)

GRA 153 Computer Graphics III 1 3 0 2
This course is a continuation of GRA 152. Emphasis is placed on advanced computer graphics hardware and software applications. Upon completion, students should be able to demonstrate competence in selection and utilization of appropriate software for specialized applications.
Prerequisites: GRA 152. Corequisites: None. (F)

GRA 255 Image Manipulation I 1 3 0 2
This course covers applications associated with electronic image manipulation, including color correction, color separation, special effects, and image conversion. Topics include image-capturing hardware, image-processing software, and output options. Upon completion, students should be able to utilize hardware and software to acquire, manipulate, and output images to satisfy design and production.
Prerequisites: GRA 151, GRD 110, GRD 121, GRD 141.
Corequisites: None. (S)

GRA 256 Image Manipulation II 1 3 0 2
This course covers electronic color separation and its relationship to multi-color printing. Topics include color theory, separation, color matching, proofing, and output of process and spot color images. Upon completion, students should be able to use hardware and image processing software to produce color separations and proofs for various printing processes.
Prerequisites: GRA 255. Corequisites: None. (F)

GRAPHIC DESIGN

GRD 110 Typography I 2 2 0 3
This course introduces the history and mechanics of type and its application to layout and design. Topics include typographic fundamentals, anatomy, measurements, composition, identification, and terminology. Upon completion, students should be able to demonstrate proficiency in design application, analysis, specification, and creation of typographic elements.
Prerequisites: None. Corequisites: None. (F)

GRD 121 Drawing Fundamentals I 1 3 0 2
This course increases observation skills using basic drawing techniques and media in graphic design. Emphasis is placed on developing the use of graphic design principles, media applications, spatial considerations, drawing styles, and approaches. Upon completion, students should be able to show competence and proficiency in finished works.
Prerequisites: None. Corequisites: None. (F)

GRD 131 Illustration I 1 3 0 2
This course introduces the application of rendering techniques to create illustrations. Emphasis is placed on controlling various media, methods, surfaces, design problems, and the appropriate media selection process. Upon completion, students should be able to produce quality illustrations from conception through finished artwork. The course will concentrate on technique, and subject matter will include product, architecture and fashion.
Prerequisites: GRD 121 or ART 131; GRA 151, GRD 110, GRD 121, GRD 141.
Corequisites: None. (S)

GRD 141 Graphic Design I 2 4 0 4
This course introduces the conceptualization process used in visual problem solving. Emphasis is placed on learning the principles of design and on the manipulation and organization of elements. Upon completion, students should be able to apply design principles and visual elements to projects.
Prerequisites: None. Corequisites: None. (F)

GRD 142 Graphic Design II 2 4 0 4
This course covers the application of visual elements and design principles in advertising and graphic design. Topics include creation of various designs, such as logos, advertisements, posters, outdoor advertising, and publication design. Upon completion, students should be able to effectively apply design principles and visual elements to projects.
Prerequisites: GRD 110, GRD 121, GRD 141. Corequisites: None. (S)

GRD 180 Interactive Design 1 4 0 3
This course covers skills and techniques used in designing interactive presentations. Emphasis is placed on design, including interface design, color, illustration, scripting, audio, typography, and animated elements. Upon completion, students should be able to design and produce interactive presentations.
Prerequisites: GRD 151 **or** GRA 151. Corequisites: None. (S)

GRD 241 Graphic Design III 2 4 0 4
This course is an advanced exploration of various techniques and media for advertising and graphic design. Emphasis is placed on advanced concepts and solutions to complex and challenging graphic design problems. Upon completion, students should be able to demonstrate competence and professionalism in visual problem solving.
Prerequisites: GRD 142. Corequisites: None. (F)

GRD 249 Advanced Design Practice 1 9 0 4
This course covers advanced techniques used in graphic design. Emphasis is placed on providing solutions to complex design problems. Upon completion, students should be able to demonstrate advanced levels of competence and professionalism in visual problem solving.
Prerequisites: GRD 241. Corequisites: None. (S)

GRD 265 Digital Print Production 1 4 0 3
This course covers preparation of digital files for output and reproduction. Emphasis is placed on output options, separations, color proofing, and cost and design considerations. Upon completion, students should be able to prepare files and select appropriate output methods for design solutions.
Prerequisites: GRA 151, GRA 152. Corequisites: None. (F)

GRD 271 Multimedia Design I 1 3 0 2
This course introduces the fundamentals of multimedia design and production for computer-related presentations. Topics include interface design, typography, storyboarding, scripting, simple animation, graphics, digital audiovideo, and copyright issues. Upon completion, students should be able to design and produce multimedia presentations.
Prerequisites: GRA 151 **or** GRD 151. Corequisites: None. (F)

GRD 280 Portfolio Design 2 4 0 4
This course covers the organization and presentation of a design/advertising or graphic art portfolio and appropriate related materials. Emphasis is placed on development and evaluation of the portfolio, design and production of a resume and self-promotional materials, and interview techniques. Upon completion, students should be able to prepare and professionally present an effective portfolio and related self-promotional materials.
Prerequisites: GRA 152, GRD 142, **and** permission of instructor.
Corequisites: None. (S)

HEALTH

HEA 110 Personal Health/Wellness (Coll/Tran) **3 0 0 3**
This course provides an introduction to basic personal health and wellness. Emphasis is placed on current health issues such as nutrition, mental health, and fitness. Upon completion, students should be able to demonstrate an understanding of the factors necessary to the maintenance of health and wellness.
Prerequisites: None. Corequisites: None. (F, S)

HEA 112 First Aid & CPR (Coll/Tran) **1 2 0 2**
This course introduces the basics of emergency first aid treatment. Topics include rescue breathing, CPR, first aid for choking and bleeding, and other first aid procedures. Upon completion, students should be able to demonstrate skills in providing emergency care for the sick and injured until medical help can be obtained.
Prerequisites: None. Corequisites: None. (F, On demand)

HEA 120 Community Health (Coll/Tran) **3 0 0 3**
This course provides information about contemporary community health and school hygiene issues. Topics include health education and current information about health trends. Upon completion, students should be able to recognize and devise strategies to prevent today's community health problems.
Prerequisites: None. Corequisites: None. (F, S)

HISTORY

HIS 111 World Civilizations I (Coll/Tran) **3 0 0 3**
This course introduces world history from the dawn of civilization to the early modern era. Topics include Eurasian, African, American, and Greco-Roman civilizations and Christian, Islamic and Byzantine cultures. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in pre-modern world civilizations.
Prerequisites: DRE 098 **or** appropriate placement test score.
Corequisites: None. (F, S, SU)

HIS 112 World Civilizations II (Coll/Tran) **3 0 0 3**
This course introduces world history from the early modern era to the present. Topics include the cultures of Africa, Europe, India, China, Japan, and the Americas. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in modern world civilizations.
Prerequisites: DRE 098 **or** appropriate placement test score.
Corequisites: None. (F, S, SU)

HIS 121 Western Civilization I (Coll/Tran) **3 0 0 3**
This course introduces western civilization from pre-history to the early modern era. Topics include ancient Greece, Rome, and Christian institutions of the Middle Ages and the emergence of national monarchies in western Europe. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in early western civilization.
Prerequisites: DRE 098 **or** appropriate placement test score.
Corequisites: None. (On demand)

HIS 122 Western Civilization II (Coll/Tran) **3 0 0 3**
This course introduces western civilization from the early modern era to the present. Topics include the religious wars, the Industrial Revolution, World Wars I and II, and the Cold War. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in modern western civilization.
Prerequisites: DRE 098 **or** appropriate placement test score.
Corequisites: None. (On demand)

HIS 131 American History I (Coll/Tran) **3 0 0 3**
This course is a survey of American history from pre-history through the Civil War era. Topics include the migrations to the Americas, the colonial and revolutionary periods, the development of the Republic, and the Civil War. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in early American history.
Prerequisites: DRE 098 **or** appropriate placement test score.
Corequisites: None. (F, S, SU)

HIS 132 American History II (Coll/Tran) **3 0 0 3**
This course is a survey of American history from the Civil War era to the present. Topics include industrialization, immigration, the Great Depression, the major American wars, the Cold War, and social conflict. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in American history since the Civil War.
Prerequisites: DRE 098 **or** appropriate placement test score.
Corequisites: None. (F, S, SU)

HIS 141 Genealogy & Local History (Coll/Tran) **3 0 0 3**
This course explores the role of the local or family historian. Emphasis is placed on historical or genealogical research techniques including a survey of local, state, and national archival resources. Upon completion, students should be able to conduct genealogical research and do a major research project on local or family history.
Prerequisites: None. Corequisites: None. (On demand)

HIS 145 The Second World War (Coll/Tran) **3 0 0 3**
This course covers the period of the Second World War from 1919 to 1945. Topics include the Treaty of Versailles, the rise of totalitarian regimes, the origins of the war, the major military campaigns in Europe and the Pacific, and the aftermath. Upon completion, students should be able to analyze significant political, military, socioeconomic, and cultural developments that influenced the Second World War.
Prerequisites: None. Corequisites: None. (On demand)

HIS 151 Hispanic Civilization (Coll/Tran) **3 0 0 3**
This course surveys the cultural history of Spain and its impact on the New World. Topics include Spanish and Latin American culture, literature, religion, and the arts. Upon completion, students should be able to analyze the cultural history of Spain and Latin America.
Prerequisites: None. Corequisites: None. (On demand)

HIS 162 Women and History (Coll/Tran) **3 0 0 3**
This course surveys the experience of women in historical perspective. Topics include the experiences and contributions of women in culture, politics, economics, science, and religion. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural contributions of women in history.
Prerequisites: None. Corequisites: None. (On demand)

HIS 211 Ancient History (Coll/Tran) **3 0 0 3**
This course traces the development of the cultural, intellectual, and political foundations of western civilization. Topics include the civilizations of the Near East, the classical Greek and Hellenistic eras, the Roman world, Judaism, and Christianity. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in the ancient world.
Prerequisites: None. Corequisites: None. (On demand)

HIS 221 African-American History (Coll/Tran) **3 0 0 3**
This course covers African-American history from the Colonial period to the present. Topics include African origins, the slave trade, the Civil War, Reconstruction, the Jim Crow era, the civil rights movement, and contributions of African Americans. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in the history of African Americans.
Prerequisites: None. Corequisites: None. (On demand)

HIS 226 The Civil War (Coll/Tran) **3 0 0 3**
This course examines the social, political, economic, and ideological forces that led to the Civil War and Reconstruction. Topics include regional conflicts and sectionalism, dissolution of the Union, military campaigns, and the War's socioeconomic impact, aftermath, and consequences. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in the United States during the era of the Civil War.
Prerequisites: None. Corequisites: None. (S)

HIS 227 Native American History (Coll/Tran) **3 0 0 3**
This course surveys the history and cultures of Native Americans from pre-history to the present. Topics include Native American civilizations, relations with Europeans, and the continuing evolution of Native American cultures. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments among Native Americans.
Prerequisites: None. Corequisites: None. (On demand)

HIS 228 History of the South (Coll/Tran) **3 0 0 3**
This course covers the origin and development of the South as a distinct region of the United States. Emphasis is placed on Southern identity and its basis in cultural, social, economic, and political developments during the 19th and 20th centuries. Upon completion, students should be able to identify and analyze the major cultural, social, economic, and political developments in the South.
Prerequisites: None. Corequisites: None. (On demand)

HIS 232 History of the Old West (Coll/Tran) **3 0 0 3**
This course surveys the development of the western United States. Emphasis is placed on Native American cultures, Manifest Destiny, conflicts on the frontier, and subsequent developments. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in the western United States.
Prerequisites: None. Corequisites: None. (On demand)

HIS 236 North Carolina History (Coll/Tran) **3 0 0 3**
This course is a study of geographical, political, economic, and social conditions existing in North Carolina from America's discovery to the present. Topics include native and immigrant backgrounds; colonial, antebellum, and Reconstruction periods; party politics; race relations; and the transition from an agrarian to an industrial economy. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in North Carolina.
Prerequisites: None. Corequisites: None. (F)

HIS 261 East Asian History (Coll/Tran) **3 0 0 3**
This course surveys the history of China and Japan from the development of civilization in Asia to the present. Emphasis is placed on the evaluation of social, political, economic, and governmental structures in China and Japan. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in east Asia.
Prerequisites: None. Corequisites: None. (On demand)

HEALTH INFORMATION TECHNOLOGY

HIT 110 Fundamentals of HIM **3 0 0 3**
This course introduces Health Information Management (HIM) and its role in healthcare delivery systems. Topics include standards, regulations, and initiatives; payment and reimbursement systems, healthcare providers and disciplines, and EHRs. Upon completion, the student should be able to demonstrate an understanding of health information management and healthcare organizations, professions, and trends.
Prerequisites: None. Corequisites: None. (F)

HIT 112 Health Law and Ethics **3 0 0 3**
This course covers legislative and regulatory processes, legal terminology, and professional-related and practice-related ethical issues. Topics include confidentiality; privacy and security policies, procedures and monitoring; release of information policies and procedures; and professional-related and practice-related ethical issues. Upon completion, students should be able to apply policies and procedures for access and disclosure of Protected Health Information and apply and promote ethical standards.
Prerequisites: None. Corequisites: None. (F, S)

HIT 114 Health Data Sys/Standards **2 3 0 3**
This course covers concepts and techniques for managing and maintaining manual and electronic health records (EHR). Topics include structure and use of health information including data collection and analysis, data sources and sets, archival systems, quality and integrity of healthcare data. Upon completion, students should be able to monitor and apply system-wide clinical documentation guidelines and comply with regulatory standards.
Prerequisites: None. Corequisites: None. (S)

HIT 122 Prof Practice Exp I **0 0 3 1**
This course provides supervised clinical experience in healthcare settings. Emphasis is placed on practical application of curriculum concepts to the healthcare setting. Upon completion, students should be able to apply health information theory to healthcare facility practices.
Prerequisites: HIT 112, HIT 114. Corequisites: None. (SU)

HIT 210 Healthcare Statistics **2 2 0 3**
This course covers maintenance, compilation, analysis, and presentation of healthcare statistics and research protocols and techniques. Topics include basic statistical principles, indices, databases, registries, vital statistics, descriptive statistics, research protocol monitoring, Institutional Review Board processes, and knowledge-based research techniques. Upon completion, students should be able to apply, interpret, and present healthcare statistics and utilize research techniques to gather and interpret healthcare data.
Prerequisites: MAT 110. Corequisites: None. (F)

HIT 211 ICD Coding **2 6 0 4**
This course covers ICD diagnostic and procedural coding conventions and guidelines for inpatient, outpatient and ambulatory care. Emphasis is placed on a comprehensive application of anatomy, physiology and interrelationships among organ systems. Upon completion, students should be able to accurately assign and sequence diagnostic and procedural codes for patient outcomes, statistical, and reimbursement purposes.
Prerequisites: BIO 165 & BIO 166, **or** BIO 168 & BIO 169; MED 121, MED 122. Corequisites: None. (F)

HIT 214 CPT/Other Coding Systems **1 3 0 2**
This course covers application of principles and guidelines of CPT/HCPCS coding. Topics include clinical classification/nomenclature systems such as SNOMED, DSM, ICD-O and the use of encoders. Upon completion, students should be able to apply coding principles to correctly assign CPT/HCPCS codes.
Prerequisites: HIT 211. Corequisites: None. (S)

HIT 215 Reimbursement Methodology **1 2 0 2**
This course covers reimbursement methodologies used in all healthcare settings as they relate to national billing, compliance, and reporting requirements. Topics include prospective payment systems, billing process and procedures, chargemaster maintenance, regulatory guidelines, reimbursement monitoring, and compliance strategies and reporting. Upon completion, students should be able to perform data quality reviews to validate code assignment and comply with reimbursement and reporting requirements.
Prerequisites: HIT 211. Corequisites: None. (S)

HIT 216 Quality Management **1 3 0 2**
This course introduces principles of quality assessment and improvement, and utilization, risk, and case management, in healthcare. Topics include Continuous Quality Improvement, and case management processes, data analysis/reporting techniques, credentialing, regulatory quality monitoring requirements, and outcome measures and monitoring. Upon completion, students should be able to abstract, analyze, and report clinical data for facility-wide quality management/performance improvement programs and monitor compliance measures.
Prerequisites: HIT 114. Corequisites: None. (F)

HIT 220 Health Informatics & EHRs **1 2 0 2**
This course covers electronic health information (EHR) systems design, implementation, and application. Topics include EHR, informatics, speech & imaging technology, information/network security & integrity, data dictionaries, modeling and warehousing. Upon completion, students should be able to facilitate usage of electronic health record systems and other technologies.
Prerequisites: HIT 114; CIS 110 **or** CIS 111. Corequisites: None. (F)

HIT 222 Prof Practice Exp III **0 0 6 2**
This course provides supervised clinical experience in healthcare settings. Emphasis is placed on practical application of curriculum concepts to the healthcare setting. Upon completion, students should be able to apply health information theory to healthcare facility practices.
Prerequisites: HIT 122. Corequisites: None. (S)

HIT 226 Principles of Disease **3 0 0 3**
This course covers disease etiology and organ system involvement, including physical signs and symptoms, prognoses, and common complications and their management. Topics include basic microbiology, basic pharmacology, and principles of disease. Upon completion, students should be able to relate disease processes to etiology, physical signs and symptoms, prognosis, and common complications and their management.
Prerequisites: BIO 169. Corequisites: None. (F)

HIT 280 Professional Issues **2 0 0 2**
This course provides a comprehensive discussion of topics common to the health information profession. Emphasis is placed on application of professional competencies, job search tools, and preparation for the certification examination. Upon completion, students should be able to demonstrate competence in entry-level domains and subdomains for health information technologies.
Prerequisites: HIT 211. Corequisites: HIT 214. (S)

HEALTHCARE MANAGEMENT

HMT 110 Intro to Healthcare Mgt 3 0 0 3
This course introduces the functions, practices, organizational structures, and professional issues in healthcare management. Emphasis is placed on planning, controlling, directing, and communicating within health and human services organizations. Upon completion, students should be able to apply the concepts of management within a healthcare service environment.
Prerequisites: None. Corequisites: None. (F, S)

HMT 210 Medical Insurance 3 0 0 3
This course introduces the concepts of medical insurance. Topics include types and characteristics of third-party payers, coding concepts, payment systems, and manual/electronic claims form preparation. Upon completion, students should be able to process third-party claims forms.
Prerequisites: MED 122 must pass with a grade of C or higher; **or** OST 142.
Corequisites: None. (S)

HMT 211 Long-Term Care Admin 3 0 0 3
This course introduces the administration of long-term care facilities and services. Emphasis is placed on nursing home care, home health care, hospice, skilled nursing facilities, and other long-term care services. Upon completion, students should be able to administer state and national standards and regulations as they apply to long-term care.
Prerequisites: HMT 110 must pass with a grade of C or higher.
Corequisites: None. (F)

HMT 212 Mgt of Healthcare Org 3 0 0 3
This course examines current issues affecting the management of healthcare delivery systems. Topics include current problems, changes, and challenges in the healthcare environment. Upon completion, students should be able to identify current healthcare issues and their impact on healthcare management.
Prerequisites: HMT 110 must pass with a grade of C or higher.
Corequisites: None. (S)

HMT 220 Healthcare Financial Mgmt 4 0 0 4
This course covers the methods and techniques utilized in the financial management of healthcare programs. Topics include cost determination, pricing of services, financial statement analysis, forecasting/projections, third-party billing, reimbursement, Medicare, Medicaid, and budgeting. Upon completion, students should be able to interpret and apply the principles of financial management in a healthcare environment.
Prerequisites: HMT 110 & ACC 121 must pass with a grade of C or higher.
Corequisites: None. (S)

HMT 225 Practice Mgmt. Simulation 2 2 0 3
This course introduces medical systems used to process and analyze information in the automated office. Emphasis is placed on daily processing of patient services, management reporting used to monitor productivity, and interactive database reporting and analysis. Upon completion, students should be able to process daily services, generate and interpret management reports and utilize key indicators for monitoring practice productivity.
Prerequisites : HMT 210 must pass with a grade of C or higher.
Corequisites : HMT 220. (S)

HORTICULTURE

HOR 110 Intro to Landscaping 1 2 0 2
This course introduces the basic skills and concepts of drafting and surveying necessary to complete landscape site analysis and topographical drawings. Emphasis is placed on proper use of drafting and survey equipment. Upon completion, students should be able to draw a site analysis drawing with topographical lines.
Prerequisites: None. Corequisites: None. (F, S)

HOR 112 Landscape Design I 2 3 0 3
This course covers landscape principles and practices for residential and commercial sites. Emphasis is placed on drafting, site analysis, and common elements of good design, plant material selection, and proper plant utilization (encouraged use of native plants and discouraged use of invasive species). Upon completion, students should be able to read, plan, and draft a landscape design according to sustainable practices.
Prerequisites: None. Corequisites: None. (SU)

HOR 114 Landscape Construction 2 2 0 3
This course introduces the design and fabrication of landscape structures/features. Emphasis is placed on safety, tool identification and use, material selection, construction techniques, and fabrication. Upon completion, students should be able to design and construct common landscape structures/features.
Prerequisites: None. Corequisites: None. (SU)

HOR 116 Landscape Management I 2 2 0 3
This course covers information and skills necessary to analyze a property and develop a management schedule. Emphasis is placed on property measurement, plant condition, analysis of client needs, and plant culture needs. Upon completion, students should be able to analyze a property, develop management schedules, and implement practices based on client needs.
Prerequisites: None. Corequisites: None. (S)

HOR 118 Equipment Op & Maint 1 3 0 2
This course covers the proper operation and maintenance of selected equipment used in horticulture. Emphasis is placed on the maintenance, minor repairs, safety devices, and actual operation of selected equipment. Upon completion, students should be able to design a maintenance schedule, service equipment, and demonstrate safe operation of selected equipment.
Prerequisites: None. Corequisites: None. (F, S)

HOR 134 Greenhouse Operations 2 2 0 3
This course covers the principles and procedures involved in the operation and maintenance of greenhouse facilities. Emphasis is placed on the operation of greenhouse systems, including the environmental control, record keeping, scheduling, and production practices. Upon completion, students should be able to demonstrate the ability to operate greenhouse systems and facilities to produce greenhouse crops.
Prerequisites: None. Corequisites: None. (F)

HOR 160 Plant Materials I 2 2 0 3
This course covers identification, culture, characteristics, and use of plants. Emphasis is placed on nomenclature, identification, growth requirements, cultural requirements, soil preferences, and landscape applications. Upon completion, students should be able to demonstrate knowledge of the proper selection and utilization of plant materials, including natives and invasive plants.
Prerequisites: None. Corequisites: None. (S)

HOR 162 Applied Plant Science 2 2 0 3
This course introduces the basic concepts of botany as they apply to horticulture. Topics include nomenclature, physiology, morphology, and anatomy as they apply to plant culture. Upon completion, students should be able to apply the basic principles of botany to horticulture.
Prerequisites: None. Corequisites: None. (F)

HOR 164 Hort Pest Management 2 2 0 3
This course covers the identification and management of plant pests including insects, diseases, and weeds. Topics include pest identification and beneficial organisms, pesticide application safety and use of least toxic methods of management. Upon completion, students should be able to manage common landscape pests using least toxic methods of control and be prepared to sit for North Carolina Commercial Pesticide Ground Applicators license.
Prerequisites: None. Corequisites: None. (S, SU)

HOR 166 Soils & Fertilizers 2 2 0 3
This course covers the physical and chemical properties of soils and soil fertility and management. Topics include soil formation; classification; physical, chemical, and biological properties (including microorganisms); testing; and fertilizer application. Upon completion, students should be able to analyze, evaluate, and properly amend soils/media according to sustainable practices.
Prerequisites: None. Corequisites: None. (F)

HOR 168 Plant Propagation 2 2 0 3
This course is a study of sexual and asexual reproduction of plants. Emphasis is placed on seed propagation, grafting, stem and root propagation, micro-propagation, and other propagation techniques. Upon completion, students should be able to successfully propagate ornamental plants.
Prerequisites: None. Corequisites: None. (S)

HOR 170 Hort Computer Apps 1 3 0 2
This course introduces computer programs as they apply to the horticulture industry. Emphasis is placed on applications of software for plant identification, design, and irrigation. Upon completion, students should be able to use computer programs in horticultural situations.
Prerequisites: None. Corequisites: None. (F)

HOR 213 Landscape Design II 2 2 0 3
This course covers residential and commercial landscape design, cost analysis, and installation. Emphasis is placed on job cost estimates, installation of the landscape design, and maintenance techniques. Upon completion, students should be able to read landscape design blueprints, develop cost estimates, and implement the design.
Prerequisites: HOR 112. Corequisites: None. (F)

HOR 215 Landscape Irrigation 2 2 0 3
This course introduces basic irrigation design, layout, and installation. Topics include site analysis, components of irrigation systems, safety, types of irrigation systems, and installation techniques. Upon completion, students should be able to design and install basic landscape irrigation systems.
Prerequisites: None. Corequisites: None. (F, SU)

HOR 255 Interiorscapes 1 2 0 2
This course covers plant selection, design, and management for interior settings. Topics include tropical plant identification, cultural requirements, insect and disease identification and control, and design and management requirements for interior plants. Upon completion, students should be able to design, install, and manage plants in interior settings.
Prerequisites: None. Corequisites: None. (On demand)

HOR 265 Adv Plant Materials 1 2 0 2
This course covers important landscape plants. Emphasis is placed on identification, plant nomenclature, growth characteristics, cultural requirements, and landscape uses. Upon completion, students should be able to correctly select plants for specific landscape uses.
Prerequisites: None. Corequisites: None. (S)

HOR 273 Hor Mgmt & Marketing 3 0 0 3
This course covers the steps involved in starting or managing a horticultural business. Topics include financing, regulations, market analysis, employer/employee relations, formulation of business plans, and operational procedures in a horticultural business. Upon completion, students should be able to assume ownership or management of a horticultural business.
Prerequisites: None. Corequisites: None. (F)

HUMANITIES

HUM 110 Technology and Society (Coll/Tran) **3 0 0 3**
This course considers technological change from historical, artistic, and philosophical perspectives and its effect on human needs and concerns. Emphasis is placed on the causes and consequences of technological change. Upon completion, students should be able to critically evaluate the implications of technology.
Prerequisites: None. Corequisites: None. (On demand)

HUM 115 Critical Thinking 3 0 0 3
This course introduces the use of critical thinking skills in the context of human conflict. Emphasis is placed on evaluating information, problem solving, approaching cross-cultural perspectives, and resolving controversies and dilemmas. Upon completion, students should be able to demonstrate orally and in writing the use of critical thinking skills in the analysis of appropriate texts.
Prerequisite: DRE-098. Corequisite: None. (On Demand)

HUM 120 Cultural Studies (Coll/Tran) **3 0 0 3**
This course introduces the distinctive features of a particular culture. Topics include art, history, music, literature, politics, philosophy, and religion. Upon completion, students should be able to appreciate the unique character of the study culture.
Prerequisites: None. Corequisites: None. (On demand)

HUM 211 Humanities I (Coll/Tran) **3 0 0 3**
This course introduces the humanities as a record in literature, music, art, history, religion, and philosophy of humankind's answers to the fundamental questions of existence. Emphasis is placed on the interconnectedness of various aspects of cultures from ancient through early modern times. Upon completion, students should be able to identify significant figures and cultural contributions of the periods studied.
Prerequisites: ENG 111. Corequisites: None. (S)

HUM 220 Human Values and Meaning (Coll/Tran) **3 0 0 3**
This course presents some major dimensions of human experience as reflected in art, music, literature, philosophy, and history. Topics include the search for identity, the quest for knowledge, the need for love, the individual and society, and the meaning of life. Upon completion, students should be able to recognize interdisciplinary connections and distinguish between open and closed questions and between narrative and scientific models of understanding.
Prerequisites: ENG 111. Corequisites: None. (On demand)

HYDRAULICS AND PNEUMATICS

HYD 110 Hydraulics/Pneumatics I 2 3 0 3
This course introduces the basic components and functions of hydraulic and pneumatic systems. Topics include standard symbols, pumps, control valves, control assemblies, actuators, FRL, maintenance procedures, and switching and control devices. Upon completion, students should be able to understand the operation of a fluid power system, including design, application, and troubleshooting.
Prerequisites: DRE 097 **or** appropriate placement test score.
Corequisities: None. (On demand)

INDUSTRIAL SCIENCE

ISC 112 Industrial Safety 2 0 0 2
This course introduces the principles of industrial safety. Emphasis is placed on industrial safety, and OSHA regulations. Upon completion, students should be able to demonstrate knowledge of a safe working environment and OSHA compliance.
Prerequisites: DRE 097 **or** appropriate placement test score.
Corequisites: None. (F)

INTERNATIONAL BUSINESS

INT 110 International Business 3 0 0 3
This course provides an overview of the environment, concepts, and basic differences involved in international business. Topics include forms of foreign involvement, international trade theory, governmental influences on trade and strategies, international organizations, multinational corporations, personnel management, and international marketing. Upon completion, students should be able to describe the foundation of international business.
Prerequisites: None. Corequisites: None.

JOURNALISM

JOU 110 Intro to Journalism (Coll/Tran) **3 0 0 3**
This course presents a study of journalistic news, feature, and sports writing. Emphasis is placed on basic news writing techniques and on related legal and ethical issues. Upon completion, students should be able to gather, write, and edit news, feature, and sports articles.
Prerequisites: None. Corequisites: None. (On demand)

MACHINING

MAC 122 CNC Turning 1 3 0 2
This course introduces the programming, setup, and operation of CNC turning centers. Topics include programming formats, control functions, program editing, part production, and inspection. Upon completion, students should be able to manufacture simple parts using CNC turning centers.
Prerequisites: MAC 141, DRE 097**or** appropriate placement test score.
Corequisites: None. (S)

MAC 124 CNC Milling 1 3 0 2
This course introduces the manual programming, setup, and operation of CNC machining centers. Topics include programming formats, control functions, program editing, part production, and inspection. Upon completion, students should be able to manufacture simple parts using CNC machining centers.
Prerequisites: MAC 141, DRE 097 **or** appropriate placement test score. Corequisites: None. (S)

MAC 131 Blueprint Reading/Mach I 1 2 0 2
This course covers the basic principles of blueprint reading and sketching. Topics include multi-view drawings; interpretation of conventional lines; and dimensions, notes, and thread notations. Upon completion, students should be able to interpret basic drawings, visualize parts, and make pictorial sketches.
Prerequisites: CTS 080, DMA 010, DMA 020, DMA 030; DRE 097 **or** appropriate placement test score. Corequisites: None. (F)

MAC 132 Blueprint Reading/Mach II 1 2 0 2
This course introduces more complex industrial blueprints. Emphasis is placed on auxiliary views, section views, violations of true project, special views, applications of GD & T, and interpretation of complex parts. Upon completion, students should be able to read and interpret complex industrial blueprints.
Prerequisites: MAC 131. Corequisites: None. (S)

MAC 141 Machining Applications I 2 6 0 4
This course provides an introduction to a variety of material-working processes that are common to the machining industry. Topics include safety, process-specific machining equipment, measurement devices, set-up and layout instruments, and common shop practices. Upon completion, students should be able to safely demonstrate basic machining operations, accurately measure components, and effectively use layout instruments.
Prerequisites: CTS 080, DMA 010, DMA 020, DMA 030; DRE 097 **or** appropriate placement test score. Corequisites: None.

MAC 142 Machining Applications II 2 6 0 4
This course provides instruction in the wide variety of processes associated with machining. Topics include safety, equipment set-up, holding fixtures, tooling, cutting speeds and depths, metal properties, and proper finishes. Upon completion, students should be able to safely demonstrate advanced machining operations, accurately measure components, and produce accurate components with a proper finish.
Prerequisites: MAC 141. Corequisites: None.

MAC 143 Machining Appl III 2 6 0 4
This course provides instruction in the field of advanced machining. Emphasis is placed on creating complex components, close-tolerance machining, precise measurement, and proper equipment usage. Upon completion, students should be able to demonstrate the ability to produce an accurately machined component with a quality finish using the proper machining process.
Prerequisites: MAC 142. Corequisites: None.

MAC 151 Machining Calculations 1 2 0 2
This course introduces basic calculations as they relate to machining occupations. Emphasis is placed on basic calculations and their applications in the machine shop. Upon completion, students should be able to perform basic shop calculations.
Prerequisites: CTS 080, DMA 010, DMA 020, DMA 030; DRE 097 **or** appropriate placement test score. Corequisites: None

MAC 222 Advanced CNC Turning 1 3 0 2
This course covers advanced methods in setup and operation of CNC turning centers. Emphasis is placed on programming and production of complex parts. Upon completion, students should be able to demonstrate skills in programming, operations, and setup of CNC turning centers.
Prerequisites: MAC 122. Corequisites: None. (S)

MAC 224 Advanced CNC Milling 1 3 0 2
This course covers advanced methods in setup and operation of CNC machining centers. Emphasis is placed on programming and production of complex parts. Upon completion, students should be able to demonstrate skills in programming, operations, and setup of CNC machining centers.
Prerequisites: MAC 124. Corequisites: None. (S)

MAC 231 CAM: CNC Turning 1 4 0 3
This course introduces Computer Numerical Control graphics programming and concepts for turning center applications. Emphasis is placed on the interaction of menus to develop a shape file in a graphics CAM system and to develop tool path geometry and part geometry. Upon completion, students should be able to develop a job plan using CAM software, including machine selection, tool selection, operational sequence, speed, feed, and cutting depth.
Prerequisites: MEC 110. Corequisites: None. (F)

MAC 232 CAM: CNC Milling 1 4 0 3
This course introduces Computer Numerical Control graphics programming and concepts for machining center applications. Emphasis is placed on developing a shape file in a graphics CAM system and transferring coded information from CAM graphics to the CNC milling center. Upon completion, students should be able to develop a complete job plan using CAM software to create a multi-axis CNC program.
Prerequisites: MEC 110. Corequisites: None. (F)

MAC 233 Appl in CNC Machining 2 12 0 6
This capstone course provides students the opportunity to apply skills learned throughout the curriculum. Emphasis is placed on production of parts and assemblies using modern CNC machine tools. Upon completion, students should be able to manufacture complex parts using a variety of CNC machine tools.
Prerequisites: MAC 234. Corequisites: None. (S)

MAC 234 Adv Multi-Axis Machin 2 3 0 3
This course includes multi-axis machining using machining centers with multi-axis capabilities. Emphasis is placed on generation of machining center input with a CAM system and setup of pallet changer and rotary system for multi-axis machining fixtures. Upon completion, students should be able to convert CAD to output for multi-axis machining centers, including tooling, setup, and debugging processes.
Prerequisites: MAC 222, MAC 224. Corequisites: None. (S)

MAC 241 Jigs & Fixtures I 2 6 0 4
This course introduces the application and use of jigs and fixtures. Emphasis is placed on design and manufacture of simple jigs and fixtures. Upon completion, students should be able to design and build simple jigs and fixtures.
Prerequisites: MAC 142, MAC 222, MAC 224. Corequisites: None. (F)

MAC 242 Jigs & Fixtures II 1 9 0 4
This course provides continued study in the application of jigs and fixtures. Emphasis is placed on design and manufacture of complex jigs and fixtures. Upon completion, students should be able to design and build complex jigs and fixtures.
Prerequisites: MAC 241. Corequisites: None. (S)

MATHEMATICS

(Developmental Mathematics)

DMA 010 Operations With Integers .75 .50 0 1
This course provides a conceptual study of integers and integer operations. Topics include integers, absolute value, exponents, square roots, perimeter and area of basic geometric figures, Pythagorean theorem, and use of the correct order of operations. Upon completion, students should be able to demonstrate an understanding of pertinent concepts and principles and apply this knowledge in the evaluation of expressions.
Prerequisites: DRE 096. Corequisites: None. (F, S, SU)

DMA 020 Fractions and Decimals .75 .50 0 1
This course provides a conceptual study of the relationship between fractions and decimals and covers related problems. Topics include application of operations and solving contextual application problems, including determining the circumference and area of circles with the concept of pi. Upon completion, students should be able to demonstrate an understanding of the connections between fractions and decimals.
Prerequisites: DMA 010 and DRE 096, **or** by placement testing.
Corequisites: None. (F, S, SU)

DMA 030 Propor/Ratio/Rate/Percent .75 .50 0 1
This course provides a conceptual study of the problems that are represented by rates, ratios, percent, and proportions. Topics include rates, ratios, percent, proportion, conversion of English and metric units, and applications of the geometry of similar triangles. Upon completion, students should be able to use their understanding to solve conceptual application problems.
Prerequisites: DMA 010, DMA 020, and DRE 096, **or** by placement testing.
Corequisites: None. (F, S, SU).

DMA 040 Express/Lin Equat/Inequal .75 .50 0 1
This course provides a conceptual study of problems involving linear expressions, equations, and inequalities. Emphasis is placed on solving contextual application problems. Upon completion, students should be able to distinguish between simplifying expressions and solving equations and apply this knowledge to problems involving linear expressions, equations, and inequalities.
Prerequisites: DMA 010, DMA 020, DMA 030, and DRE 097, **or** by placement testing. Corequisites: None. (F, S, SU)

DMA 050 Graphs/Equations of Lines .75 .50 0 1
This course provides a conceptual study of problems involving graphic and algebraic representations of lines. Topics include slope, equations of lines, interpretation of basic graphs, and linear modeling. Upon completion, students should be able to solve contextual application problems and represent real-world situations as linear equations in two variables.
Prerequisites: DMA 010, DMA 020, DMA 030, DMA 040, and DRE 097, **or** by placement testing. Corequisites: None. (F, S, SU)

DMA 060 Polynomial/Quadratic Appl .75 .50 0 1
This course provides a study of problems involving algebraic representations of quadratic equations. Topics include basic polynomial operations, factoring polynomials, and solving polynomial equations by means of factoring. Upon completion, students should be able to find algebraic solutions to contextual problems with quadratic applications.
Prerequisites: DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, and DRE 097, **or** by placement testing. Corequisites: None. (F, S, SU).

DMA 065 Algebra for Precalculus 1.5 1 0 2
This course provides a study of problems involving algebraic representations of quadratic, rational, and radical equations. Topics include simplifying polynomial, rational, and radical expressions and solving quadratic, rational, and radical equations. Upon completion, students should be able to find algebraic solutions to contextual problems with quadratic and rational applications.
Prerequisites: DMA 010 ,DMA 020, DMA 030, DMA 040, DMA 050, and DRE 097, **or** by placement testing. Corequisites: None. (F, S, SU).

(Curriculum Mathematics)

MAT 110 Mathematical Measurement and Literacy 2 2 0 3
This course provides an activity-based approach that develops measurement skills and mathematical literacy using technology to solve problems for non-math intensive programs. Topics include unit conversions and estimation within a variety of measurement systems; ratio and proportion; basic geometric concepts; financial literacy; and statistics including measures of central tendency, dispersion, and charting of data. Upon completion, students will demonstrate the use of mathematics and technology to solve practical problems, and to analyze and communicate results.
Prerequisites: DMA 010, DMA 020, DMA 030. Corequisites: DRE 097. (F, S)

MAT 121 Algebra/Trigonometry I 2 2 0 3
This course provides an integrated approach to technology and the skills required to manipulate, display, and interpret mathematical functions and formulas used in problem solving. Topics include simplification, evaluation, and solving of algebraic and radical functions; complex numbers; right triangle trigonometry; systems of equations; and the use of technology. Upon completion, students should be able to demonstrate an understanding of the use of mathematics and technology to solve problems and analyze and communicate results.
Prerequisites: DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 060, **or** by placement testing; DRE 098 **or** by placement testing.
Corequisites: None. (F, S)

MAT 122 Algebra/Trigonometry II 2 2 0 3
This course extends the concepts covered in MAT 121 to include additional topics in algebra, function analysis, and trigonometry. Topics include exponential and logarithmic functions, translation and scaling of functions, Sine Law, Cosine Law, vectors, and statistics. Upon completion, students should be able to demonstrate an understanding of the use of technology to solve problems and to analyze and communicate results.
Prerequisites: MAT 121 must pass with a grade of C or higher.
MAT 171. Corequisites: None. (S)

MAT 143 Quantitative Literacy (Coll/Tran) **2 2 0 3**
This course is designed to engage students in complex and realistic situations involving the mathematical phenomena of quantity, change and relationship, and uncertainty through project- and activity-based assessment. Emphasis is placed on authentic contexts which will introduce the concepts of numeracy, proportional reasoning, dimensional analysis, rates of growth, personal finance, consumer statistics, practical probabilities, and mathematics for citizenship. Upon completion, students will be informed consumers of quantitative information with the ability to use data to make personal, professional, and civic decisions by decoding, interpreting, using, and communicating quantitative information found in modern media and encountered in every day life.
Prerequisites: DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DRE 098 **or** by placement testing. Corequisites: None. (F, S, SU)

MAT 152 Statistical Methods I (Coll/Tran) **3 2 0 4**
This course provides a project-based approach to introductory statistics with an emphasis on using real-world data and statistical literacy. Topics include descriptive statistics, correlation and regression, basic probability, discrete and continuous probability distributions, confidence intervals and hypothesis testing. Upon completion, students will be able to use appropriate technology to describe important characteristics of a data set, draw inferences about a population from sample data, and interpret and communicate results.
Prerequisites: DMA 010, DMA 020, DMA 030, DMA 040, DMA 050; DRE 098 **or** by placement testing. Corerequisite: None. (F, S, SU)

MAT 171 Precalculus Algebra (Coll/Tran) **3 2 0 4**
This is the first of two courses designed to emphasize topics which are fundamental to the study of calculus. Emphasis is placed on equations and inequalities, functions (linear, polynomial, rational), systems of equations and inequalities, and parametric equations. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and predictions.
Prerequisites: DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 065 **or** MAT 121 **or** by placement testing; DRE 098 **or** by placement testing.
Corequisites: None. (F, S)

MAT 172 Precalculus Trigonometry (Coll/Tran) **3 2 0 4**
This is the second of two courses designed to emphasize topics which are fundamental to the study of calculus. Emphasis is placed on properties and applications of transcendental functions and their graphs, right and oblique triangle trigonometry, conic sections, vectors, and polar coordinates. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and prediction.
Prerequisites: MAT 171 must pass with a grade of C or higher; DRE 098 **or** by placement testing. Corequisites: None. (F, S)

MAT 263 Brief Calculus (Coll/Tran) **3 2 0 4**
This course is designed for students needing only one semester of calculus. Topics include functions, graphing, differentiation, and integration with emphasis on applications drawn from business, economics, and biological and behavioral sciences. Upon completion, students should be able to demonstrate an understanding of the use of basic calculus and technology to solve problems and to analyze and communicate results.
Prerequisites: MAT 171 must pass with a grade of C or higher; and DRE 098 **or** by placement testing. Corequisites: None. (S)

MAT 271 Calculus I (Coll/Tran) **3 2 0 4**
This course covers in depth the differential calculus portion of a three-course calculus sequence. Topics include limits, continuity, derivatives, and integrals of algebraic and transcendental functions of one variable, with applications. Upon completion, students should be able to apply differentiation and integration techniques to algebraic and transcendental functions.
Prerequisites: MAT 172 must pass with a grade of C or higher; DRE 098 **or** by placement testing. Corequisites: None. (F, S, SU)

MAT 272 Calculus II (Coll/Tran) **3 2 0 4**
This course provides a rigorous treatment of integration and is the second calculus course in a three-course sequence. Topics include applications of definite integrals, techniques of integration, indeterminate forms, improper integrals, infinite series, conic sections, parametric equations, polar coordinates, and differential equations. Upon completion, students should be able to use integration and approximation techniques to solve application problems.
Prerequisites: MAT 271 must pass with a grade of C or higher; DRE 098 **or** by placement testing. Corequisites: None. (F, S)

MAT 273 Calculus III (Coll/Tran) **3 2 0 4**
This course covers the calculus of several variables and is the third calculus course in a three-course sequence. Topics include functions of several variables, partial derivatives, multiple integrals, solid analytical geometry, vector-valued functions, and line and surface integrals. Upon completion, students should be able to solve problems involving vectors and functions of several variables.
Prerequisites: MAT 272 must pass with a grade of C or higher; DRE 098 **or** by placement testing. Corequisites: None. (S)

MAT 285 Differential Equations (Coll/Tran) **2 2 0 3**
This course provides an introduction to ordinary differential equations with an emphasis on applications. Topics include first order, linear higher-order, and systems of differential equations; numerical methods; series solutions; eigenvalues and eigenvectors; Laplace transforms; and Fourier series. Upon completion, students should be able to use differential equations to model physical phenomena, solve the equations, and use the solutions to analyze the phenomena.
Prerequisites: MAT 272 must pass with a grade of C or higher; DRE 098 **or** by placement testing. Corequisites: None. (S)

MECHANICAL

MEC 110 Intro to CAD/CAM **1 2 0 2**
This course introduces CAD/CAM. Emphasis is placed on transferring part geometry from CAD to CAM for the development of a CNC-ready program. Upon completion, students should be able to use CAD/CAM software to produce a CNC program.
Prerequisites: None . Corequisites: MAC 122, MAC 124. (SU)

MEC 130 Mechanisms **2 2 0 3**
This course introduces the purpose and action of various mechanical devices. Topics include cams, cables, gear trains, differentials, screws, belts, pulleys, shafts, levers, lubricants, and other devices. Upon completion, students should be able to analyze, maintain, and troubleshoot the components of mechanical systems.
Prerequisites: DRE 097 **or** appropriate placement test score; DMA 010, DMA 020, DMA 030. Corequisites: None. (On demand)

MEC 142 Physical Metallurgy **1 2 0 2**
This course covers the heat treating of metals. Emphasis is placed on the effects of hardening, tempering, and annealing on the structure and physical properties of metals. Upon completion, students should be able to heat treat materials.
Prerequisites: DRE 097 **or** appropriate placement test score. Corequisites: None. (F)

MEC 161 Manufacturing Processes I **3 0 0 3**
This course provides the fundamental principles of value-added processing of materials into usable forms for the customer. Topics include material properties and traditional and non-traditional manufacturing processes. Upon completion, students should be able to specify appropriate manufacturing processing for common engineering materials.
Prerequisites: DRE 097. Corequisites: None. (S)

MEC 180 Engineering Materials **2 3 0 3**
This course introduces the physical and mechanical properties of materials. Topics include materials testing, pre- and post-manufacturing processes, and material selection of ferrous and non-ferrous metals, plastics, composites, and non-conventional materials. Upon completion, students should be able to utilize basic material property tests and select appropriate materials for applications.
Prerequisites: DRE 097 **or** appropriate placement test score.
Corequisites: None. (F)

MEC 231 Comp-Aided Manufact I **1 4 0 3**
This course introduces computer-aided design/manufacturing (CAD/CAM) applications and concepts. Topics include software, programming, data transfer and verification, and equipment setup. Upon completion, students should be able to produce parts using CAD/CAM applications.
Prerequisites: DRE 097 **or** appropriate placement test score.
Corequisites: None. (S)

MEC 265 Fluid Mechanics **2 2 0 3**
This course covers the physical behavior of fluids and fluid systems. Topics include fluid statics and dynamics, laminar and turbulent flow, Bernoulli's Equation, components, applications, and other related topics. Upon completion, students should be able to apply fluid power principles to practical applications.
Prerequisites: PHY 131 must pass with a grade of C or higher;
DRE 097 **or** appropriate placement test score. Corequisites: None. (S)

MEC 270 Machine Design **3 3 0 4**
This course covers the basic principles underlying design and selection of machine elements. Topics include stress analysis, selection of components, power transmission, and other design considerations. Upon completion, students should be able to identify and solve mechanical design problems by applying basic engineering principles.
Prerequisites: DFT 151, EGR 250, MEC 180, must pass with a grade of C or higher; DRE 097 **or** appropriate placement test score.
Corequisites: None. (S)

MEDICAL ASSISTING

MED 114 Prof Interac in Heal Care **1 0 0 1**
This course is designed to identify various patient behaviors encountered in the medical setting. Emphasis is placed on stressors related to illness, cultural influences, death and dying, and needs specific to patients. Upon completion, students should be able to utilize appropriate methods of verbal and nonverbal communication with empathy and impartiality.
Prerequisites: None. Corequisites: None. (F, S)

MED 118 Medical Law and Ethics **2 0 0 2**
This course covers legal relationships of physicians and patients, contractual agreements, professional liability, malpractice, medical practice acts, informed consent, and bioethical issues. Emphasis is placed on legal terms, professional attitudes, and the principles and basic concepts of ethics and laws involved in providing medical services. Upon completion, students should be able to meet the legal and ethical responsibilities of a multi-skilled health professional.
Prerequisites: None. Corequisites: None. (F, SU)

MED 121 Medical Terminology I 3 0 0 3
This course introduces prefixes, suffixes, and word roots used in the language of medicine. Topics include medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions, and treatment of selected systems. Upon completion, students should be able to pronounce, spell, and define medical terms as related to selected body systems and their pathological disorders.
Prerequisites: DRE 097 **or** appropriate placement test score.
Corequisites: None. (F, S)

MED 122 Medical Terminology II 3 0 0 3
This course is the second in a series of medical terminology courses. Topics include medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions, and treatment of selected systems. Upon completion, students should be able to pronounce, spell, and define medical terms as related to selected body systems and their pathological disorders.
Prerequisites: MED 121 must pass with a grade of C or higher.
Corequisites: None. (F, S)

MARKETING AND RETAILING

MKT 120 Principles of Marketing 3 0 0 3
This course introduces principles and problems of marketing goods and services. Topics include promotion, placement, and pricing strategies for products. Upon completion, students should be able to apply marketing principles in organizational decision making.
Prerequisites: None. Corequisites: None. (S)

MKT 123 Fundamentals of Selling 3 0 0 3
This course is designed to emphasize the necessity of selling skills in a modern business environment. Emphasis is placed on sales techniques involved in various types of selling situations. Upon completion, students should be able to demonstrate an understanding of the techniques covered.
Prerequisites: None. Corequisites: None. (F)

MKT 220 Advertising and Sales Promotion 3 0 0 3
This course covers the elements of advertising and sales promotion in the business environment. Topics include advertising and sales promotion appeals, selection of media, use of advertising and sales promotion as a marketing tool, and means of testing effectiveness. Upon completion, students should be able to demonstrate an understanding of the concepts covered through application.
Prerequisites: None. Corequisites: None. (S)

MKT 221 Consumer Behavior 3 0 0 3
This course is designed to describe consumer behavior as applied to the exchange processes involved in acquiring,nsuming, and disposing of goods and services. Topics include an analysis of basic and environmental determinants of consumer behavior with emphasis on the decision-making process. Upon completion, students should be able to analyze concepts related to the study of the individual consumer.
Prerequisites: None. Corequisites: None. (On demand)

MKT 223 Customer Service 3 0 0 3
This course stresses the importance of customer relations in the business world. Emphasis is placed on learning how to respond to complex customer requirements and to efficiently handle stressful situations. Upon completion, students should be able to demonstrate the ability to handle customer relations.
Prerequisites: None. Corequisites: None. (On demand)

MAINTENANCE

MNT 110 Intro to Maint Procedures 1 3 0 2
This course covers basic maintenance fundamentals for power transmission equipment. Topics include equipment inspection, lubrication, alignment, and other scheduled maintenance procedures. Upon completion, students should be able to demonstrate knowledge of accepted maintenance procedures and practices according to current industry standards.
Prerequisites: DRE 097 **or** appropriate placement test score.
Corequisites: None. (On demand)

MUSIC

MUS 110 Music Appreciation (Coll/Tran) 3 0 0 3
This course is a basic survey of the music of the Western world. Emphasis is placed on the elements of music, terminology, composers, form, and style within a historical perspective. Upon completion, students should be able to demonstrate skills in basic listening and understanding of the art of music.
Prerequisites: None. Corequisites: None. (F, S, SU)

MUS 111 Fundamentals of Music (Coll/Tran) 3 0 0 3
This course is an introductory course for students with little or no music background. Emphasis is placed on music notation, rhythmic patterns, scales, key signatures, intervals, and chords. Upon completion, students should be able to demonstrate an understanding of the rudiments of music.
Prerequisites: None. Corequisites: None. (F)

MUS 112 Introduction to Jazz (Coll/Tran) 3 0 0 3
This course introduces the origins and musical components of jazz and the contributions of its major artists. Emphasis is placed on the development of discriminating listening habits, as well as the investigation of the styles and structural forms of the jazz idiom. Upon completion, students should be able to demonstrate skills in listening and understanding this form of American music.
Prerequisites: None. Corequisites: None. (On demand)

MUS 113 American Music (Coll/Tran) 3 0 0 3
This course introduces various musical styles, influences, and composers of the United States from pre-Colonial times to the present. Emphasis is placed on the broad variety of music particular to American culture. Upon completion, students should be able to demonstrate skills in basic listening and understanding of American music.
Prerequisites: None. Corequisites: None. (On demand)

MUS 121 Music Theory I (Coll/Tran) 3 2 0 4
This course provides an in-depth introduction to melody, rhythm, and harmony. Emphasis is placed on fundamental melodic, rhythmic, and harmonic analysis, introduction to part writing, ear-training, and sight-singing. Upon completion, students should be able to demonstrate proficiency in the recognition and application of the above.
Prerequisites: None. Corequisites: None. (F)

MUS 122 Music Theory II (Coll/Tran) 3 2 0 4
This course is a continuation of studies begun in MUS 121. Emphasis is placed on advanced melodic, rhythmic, and harmonic analysis and continued studies in part-writing, ear-training, and sight-singing. Upon completion, students should be able to demonstrate proficiency in the recognition and application of the above.
Prerequisites: MUS 121. Corequisites: None. (S)

MUS 131 Chorus I (Coll/Tran) 0 2 0 1
This course provides an opportunity to gain experience singing in a chorus. Emphasis is placed on vocal techniques and the study and performance of a variety of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance. This course includes a performance choir that will prepare a Christmas Music Presentation in conjunction with a neighborhood church choir; rehearsals at both locations (on campus and church site) will be required.
Prerequisites: Appropriate vocal proficiency. Corequisites: None. (On demand)

MUS 132 Chorus II (Coll/Tran) 0 2 0 1
This course provides a continuation of studies begun in MUS 131. Emphasis is placed on vocal techniques and the study and performance of a variety of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance.
Prerequisites: MUS 131. Corequisites: None. (On demand)

MUS 133 Band I (Coll/Tran) 0 2 0 1
This course provides an opportunity for those who play a band instrument to gain experience playing in an ensemble. Emphasis is placed on band techniques and the study and performance of a variety of styles and periods of band literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.
Prerequisites: Audition. Corequisites: None. (F, On demand)

MUS 134 Band II (Coll/Tran) **0 2 0 1**
This course is a continuation of MUS 133. Emphasis is placed on band techniques and the study and performance of a variety of styles and periods of band literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.
Prerequisites: MUS 133. Corequisites: None. (S, On demand)

MUS 135 Jazz Ensemble I **0 2 0 1**
This course provides an opportunity for those who play an appropriate instrument to gain experience playing in a jazz ensemble. Emphasis is placed on jazz ensemble techniques and the study and performance of a variety of styles of jazz literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.
Prerequisites: None. Corequisites: None. (On demand)

MUS 136 Jazz Ensemble II (Coll/Tran) **0 2 0 1**
This course is a continuation of MUS 135. Emphasis is placed on jazz ensemble techniques and the study and performance of a variety of styles and periods of jazz literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.
Prerequisites: MUS 135. Corequisites: None. (On demand)

MUS 141 Ensemble I (Coll/Tran) **0 2 0 1**
This course provides an opportunity to perform in any combination of instrumental, vocal, or keyboard groups of two or more. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.
Prerequisites: Audition. Corequisites: None. (F)

MUS 142 Ensemble II (Coll/Tran) **0 2 0 1**
This course is a continuation of MUS 141. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.
Prerequisites: MUS 141. Corequisites: None. (S)

MUS 151 Class Music I (Coll/Tran) **0 2 0 1**
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.
Prerequisites: None. Corequisites: None. (F)

MUS 151G Class Music I-Guitar **0 2 0 1**
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.
Prerequisites: None. Corequisites: None. (F)

MUS 151P Class Music I-Piano **0 2 0 1**
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.
Prerequisites: None. Corequisites: None. (F)

MUS 151V Class Music I-Voice **0 2 0 1**
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.
Prerequisites: None. Corequisites: None. (F, On demand)

MUS 152 Class Music II (Coll/Tran) **0 2 0 1**
This course is a continuation of MUS 151. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.
Prerequisites: MUS 151. Corequisites: None. (S)

MUS 152G Class Music II-Guitar **0 2 0 1**
This course is a continuation of MUS 151G. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.
Prerequisites: MUS 151. Corequisites: None. (S)

MUS 152P Class Music II-Piano **0 2 0 1**
This course is a continuation of MUS 151P. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.
Prerequisites: MUS 151. Corequisites: None. (S)

MUS 152V Class Music II-Voice **0 2 0 1**
This course is a continuation of MUS 151V. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.
Prerequisites: None. Corequisites: None. (F, On demand)

MUS 161 Applied Music I (Coll/Tran) **1 2 0 2**
This course provides individual instruction in the skills and techniques of the particular instrument or voice. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.
Prerequisites: None. Corequisites: None. (F, S, SU)

MUS 161B Applied Music I-Brass **1 2 0 2**
This course provides individual instruction in the skills and techniques of the particular instrument or voice. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.
Prerequisites: None. Corequisites: None. (F, S)

MUS 161D Applied Music I-Percussion **1 2 0 2**
This course provides individual instruction in the skills and techniques of the particular instrument or voice. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.
Prerequisites: None. Corequisites: None. (F, S)

MUS 161G Applied Music I-Guitar **1 2 0 2**
This course provides individual instruction in the skills and techniques of the particular instrument or voice. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.
Prerequisites: None. Corequisites: None. (F, S)

MUS 161P Applied Music I-Piano **1 2 0 2**
This course provides individual instruction in the skills and techniques of the particular instrument or voice. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.
Prerequisites: None. Corequisites: None. (F, S, SU)

MUS 161V Applied Music I-Voice 1 2 0 2
This course provides individual instruction in the skills and techniques of the particular instrument or voice. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.
Prerequisites: None. Corequisites: None. (F, S, SU)

MUS 161W Applied Music I-Woodwinds 1 2 0 2
This course provides individual instruction in the skills and techniques of the particular instrument or voice. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.
Prerequisites: None. Corequisites: None. (F, S)

MUS 162 Applied Music II (Coll/Tran) **1 2 0 2**
This course is a continuation of MUS 161. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.
Prerequisites: MUS 161. Corequisites: None. (F, S)

MUS 162B Applied Music II-Brass 1 2 0 2
This course is a continuation of MUS 161B. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.
Prerequisites: MUS 161. Corequisites: None. (F, S)

MUS 162G Applied Music II-Guitar 1 2 0 2
This course is a continuation of MUS 161G. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.
Prerequisites: MUS 161. Corequisites: None. (F, S)

MUS 162P Applied Music II-Piano 1 2 0 2
This course is a continuation of MUS 161P. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.
Prerequisites: MUS 161. Corequisites: None. (F, S)

MUS 162V Applied Music II-Voice 1 2 0 2
This course is a continuation of MUS 161V. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.
Prerequisites: MUS 161. Corequisites: None. (F, S)

MUS 162W Applied Music II-Woodwinds 1 2 0 2
This course is a continuation of MUS 161W. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.
Prerequisites: MUS 161. Corequisites: None. (F, S)

MUS 181 Show Choir I (Coll/Tran) **3 3 0 4**
This course provides students the initial training in basic competencies of dance/voice-based performances and to the nuances of preparation for such pop/jazz/theatre performances. Emphasis is placed on the introduction to, and subsequent development of, basic performance skills necessary for choreographed performance. Upon completion, students should be able to demonstrate the foundation competencies necessary to perform the assigned literature in various venues and under various professional conditions.
Prerequisites: None. Corequisites: None. (F, S)

MUS 182 Show Choir II (Coll/Tran) **3 3 0 4**
This course provides intermediate training in dance/voice-based performances and in the nuances of preparation for such pop/jazz/theatre performances. Emphasis is placed on continued development of skills necessary for professional group choral preparation and performance, as well as effective social interaction with a performance troupe. Upon completion, students should be able to demonstrate the intermediate competencies necessary to perform the assigned literature in various venues and under various professional conditions.
Prerequisites: MUS 181. Corequisites: None. (F, S)

MUS 210 History of Rock Music (Coll/Tran) **3 0 0 3**
This course is a survey of Rock music from the early 1950's to the present. Emphasis is placed on musical groups, soloists, and styles related to the evolution of this idiom and on related historical and social events. Upon completion, students should be able to identify specific styles and to explain the influence of selected performers within their respective eras.
Prerequisites: None. Corequisites: None. (On demand)

MUS 211 History of Country Music (Coll/Tran) **3 0 0 3**
This course introduces the varied origins of country music and the commercialization of this art form. Emphasis is placed on historical, sociocultural, and stylistic factors related to country music and musicians. Upon completion, students should be able to identify specific styles and explain the influence of pop culture on the development of country music.
Prerequisites: None. Corequisites: None. (On demand)

MUS 212 American Musical Theatre (Coll/Tran) **3 0 0 3**
This course covers the origins and development of the musical from Show Boat to the present. Emphasis is placed on the investigation of the structure of the musical and its components through listening and analysis. Upon completion, students should be able to demonstrate skills in listening and understanding this form of American music.
Prerequisites: None. Corequisites: None. (On demand)

MUS 213 Opera and Musical Theatre (Coll/Tran) **3 0 0 3**
This course covers the origins and development of opera and musical theatre from the works of Claudio Monteverdi to the present. Emphasis is placed on how the structure and components of opera and musicals effect dramaturgy through listening examples and analysis. Upon completion, students should be able to demonstrate analytical and listening skills in understanding both opera and the musical.
Prerequisites: None. Corequisites: None. (S)

MUS 214 Electronic Music I (Coll/Tran) **1 2 0 2**
This course provides an opportunity to study and explore various electronic instruments and devices. Emphasis is placed on fundamental MIDI applications and implementation, features and application of sequences, sound modules, and digital keyboards. Upon completion, students should be able to demonstrate proficiency by creation of appropriate musical projects using the equipment and techniques covered.
Prerequisites: MUS 111. Corequisites: None. (On demand)

MUS 215 Electronic Music II (Coll/Tran) **1 2 0 2**
This course is a continuation of MUS 214. Emphasis is placed on advanced MIDI applications and implementation and continued work with sequencers, sound modules, and digital keyboards. Upon completion, students should be able to demonstrate proficiency by creation of appropriate musical projects using the equipment and techniques covered.
Prerequisites: MUS 214. Corequisites: None. (On demand)

MUS 217 Elementary Conducting (Coll/Tran) **1 2 0 2**
This course introduces the basic patterns and skills for conducting instrumental and vocal groups. Emphasis is placed on conducting beat patterns, expressive gestures, fermatas, accents, tempos, and rehearsal techniques. Upon completion, students should be able to demonstrate the above skills by conducting vocal and/or instrumental groups.
Prerequisites: MUS 111. Corequisites: None. (S)

MUS 221 Music Theory III (Coll/Tran) **3 2 0 4**
This course is a continuation of MUS 122. Emphasis is placed on altered and chromatic harmony, common practice era compositional techniques and forms, and continued studies in part-writing, ear training, and sight-singing. Upon completion, students should be able to demonstrate proficiency in the recognition and application of the above.
Prerequisites: MUS 122. Corequisites: None. (S)

MUS 222 Music Theory IV (Coll/Tran) **3 2 0 4**
This course is a continuation of studies begun in MUS 221. Emphasis is placed on continued study of common practice era compositional techniques and forms, 20th century practices, ear-training, and sight-singing. Upon completion, students should be able to demonstrate proficiency in the recognition and application of the above.
Prerequisites: MUS 221. Corequisites: None. (S)

MUS 231 Chorus III (Coll/Tran) **0 2 0 1**
This course is a continuation of MUS 132. Emphasis is placed on vocal techniques and the study and performance of a variety of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance.
Prerequisites: MUS 132. Corequisites: None. (S, On demand)

MUS 232 Chorus IV (Coll/Tran) **0 2 0 1**
This course is a continuation of MUS 231. Emphasis is placed on vocal techniques and the study of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance.
Prerequisites: MUS 231. Corequisites: None. (On demand)

MUS 233 Band III (Coll/Tran) **0 2 0 1**
This course is a continuation of MUS 134. Emphasis is placed on band techniques and the study and performance of a variety of styles and periods of band literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.
Prerequisites: MUS 134. Corequisites: None. (On demand)

MUS 234 Band IV (Coll/Tran) **0 2 0 1**
This course is a continuation of MUS 233. Emphasis is placed on band techniques and the study and performance of a variety of styles and periods of band literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.
Prerequisites: MUS 233. Corequisites: None. (On demand)

MUS 235 Jazz Ensemble III (Coll/Tran) **0 2 0 1**
This course is a continuation of MUS 136. Emphasis is placed on jazz ensemble techniques and the study and performance of a variety of styles and periods of jazz literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.
Prerequisites: MUS 136. Corequisites: None. (On demand)

MUS 236 Jazz Ensemble IV (Coll/Tran) **0 2 0 1**
This course is a continuation of MUS 235. Emphasis is placed on jazz ensemble techniques and the study and performance of a variety of styles and periods of jazz literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.
Prerequisites: MUS 235. Corequisites: None. (On demand)

MUS 241 Ensemble III (Coll/Tran) **0 2 0 1**
This course is a continuation of MUS 142. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.
Prerequisites: MUS 142. Corequisites: None. (F, S)

MUS 242 Ensemble IV (Coll/Tran) **0 2 0 1**
This course is a continuation of MUS 241. Emphasis is placed on the development of performance skills and the study of styles of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.
Prerequisites: MUS 241. Corequisites: None. (On demand)

MUS 251 Class Music III (Coll/Tran) **0 2 0 1**
This course is a continuation of MUS 152. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.
Prerequisites: MUS 152. Corequisites: None. (On demand)

MUS 252 Class Music IV (Coll/Tran) **0 2 0 1**
This course is a continuation of MUS 251. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.
Prerequisites: MUS 251. Corequisites: None. (On demand)

MUS 261 Applied Music III (Coll/Tran) **1 2 0 2**
This course is a continuation of MUS 162. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.
Prerequisites: MUS 162. Corequisites: None. (S)

MUS 261B Applied Music III-Brass **1 2 0 2**
This course is a continuation of MUS 162B. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.
Prerequisites: MUS 162. Corequisites: None. (S)

MUS 261D Applied Music III-Percussion **1 2 0 2**
This course is a continuation of MUS 162D. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.
Prerequisites: MUS 162. Corequisites: None. (S)

MUS 261G Applied Music III-Guitar **1 2 0 2**
This course is a continuation of MUS 162G. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.
Prerequisites: MUS 162. Corequisites: None. (S)

MUS 261P Applied Music III-Piano **1 2 0 2**
This course is a continuation of MUS 162P. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.
Prerequisites: MUS 162. Corequisites: None. (S)

MUS 261V Applied Music III-Voice **1 2 0 2**
This course is a continuation of MUS 162V. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.
Prerequisites: MUS 162. Corequisites: None. (S)

MUS 261W Applied Music III-Woodwinds **1 2 0 2**
This course is a continuation of MUS 162W. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.
Prerequisites: MUS 162. Corequisites: None. (S)

MUS 262 Applied Music IV (Coll/Tran) **1 2 0 2**
This course is a continuation of MUS 261. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.
Prerequisites: MUS 261. Corequisites: None. (S)

MUS 262B Applied Music IV-Brass **1 2 0 2**
This course is a continuation of MUS 261B. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.
Prerequisites: MUS 261. Corequisites: None. (S)

MUS 262G Applied Music IV-Guitar 1 2 0 2
This course is a continuation of MUS 261G. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.
Prerequisites: MUS 261. Corequisites: None. (S)

MUS 262P Applied Music IV-Piano 1 2 0 2
This course is a continuation of MUS 261P. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.
Prerequisites: MUS 261. Corequisites: None. (S)

MUS 262V Applied Music IV-Voice 1 2 0 2
This course is a continuation of MUS 261V. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.
Prerequisites: MUS 261. Corequisites: None. (S)

MUS 262W Applied Music IV-Woodwinds 1 2 0 2
This course is a continuation of MUS 261W. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.
Prerequisites: MUS 261. Corequisites: None. (S)

MUS 281 Show Choir III (Coll/Tran) **3 3 0 4**
This course provides advanced training in dance/voice-based performance and in the nuances of preparation for such pop/jazz/theatre performances. Emphasis is placed on development of advanced skills necessary for professional group choral performance and the technical skills necessary for the execution of such performances. Upon completion, students should be able to demonstrate the advanced competencies necessary to perform the assigned literature in various venues and under various professional conditions.
Prerequisites: MUS 182. Corequisites: None. (F, S)

MUS 282 Show Choir IV (Coll/Tran) **3 3 0 4**
This course provides advanced training in dance/voice-based pop/jazz/theatre performances and is the capstone course in a four-semester series. Emphasis is placed on refinement of advanced skills necessary for professional group choral performance and the technical skills necessary for the execution of such performances. Upon completion, students should be able to demonstrate a mastery of the skills necessary to plan and perform the assigned literature in various venues and under various professional conditions.
Prerequisites: MUS 281. Corequisites: None. (F, S)

MUS 283 Varied Cultures/Mus Perf (Coll/Tran) **1 2 0 2**
This course provides an opportunity for music students to experience various musical cultures and to perform in public venues for audiences in these cultures. Emphasis is placed on the development of performance skills and on the musically historical information that characterizes the specific culture. Upon completion, students should be able to identify new culturally-based musical concepts and will have experiences in working with other cultures and in culturally-reflective environments.
Prerequisites: None. Corequisites: MUS 181 **or** MUS 182 **or** MUS 281 **or** MUS 282. (S - Invitation only)

NETWORKING TECHNOLOGY

NET 125 Networking Basics 1 4 0 3
This course introduces the networking field. Emphasis is placed on network terminology and protocols, local-area networks, wide-area networks, OSI model, cabling, router programming, Ethernet, IP addressing, and network standards. Upon completion, students should be able to perform tasks related to networking mathematics, terminology, and models, media, Ethernet, subnetting, and TCP/IP Protocols.
Prerequisites: None. Corequisites: None. (F, S)

NET 126 Routing Basics 1 4 0 3
This course focuses on initial router configuration, router software management, routing protocol configuration, TCP/IP, and access control lists (ACLs). Emphasis will be placed on the fundamentals of router configuration, managing router software, routing protocol, and access lists. Upon completion, students should have an understanding of routers and their role in WANs, router configuration, routing protocols, TCP/IP, troubleshooting, and ACLs.
Prerequisites: NET 125. Corequisites: None. (F, S)

NET 175 Wireless Technology 2 2 0 3
This course introduces the student to wireless technology and interoperability with different communication protocols. Topics include Wireless Application Protocol (WAP), Wireless Mark-up language (WML), link manager, service discovery protocol, transport layer and frequency band. Upon completion, students should be able to discuss in written and oral form protocols and procedures required for different wireless applications.
Prerequisites: NET 125. Corequisites: None. (F)

NET 225 Routing & Switching I 1 4 0 3
This course focuses on advanced IP addressing techniques, intermediate routing protocols, command-line interface configuration of switches, Ethernet switching, VLANs, STP, and VTP. Emphasis will be placed on application and demonstration of skills acquired in pre-requisite courses. Upon completion, students should be able to perform tasks related to VLSM, routing protocols, switching concepts and configuration, STP, VLANs, and VTP.
Prerequisites: NET 126. Corequisites: None. (F, S)

NET 226 Routing & Switching II 1 4 0 3
This course introduces WAN theory and design, WAN technology, PPP, Frame Relay, ISDN, and additional case studies. Topics include network congestion problems, TCP/IP transport and network layer protocols, advanced routing and switching configuration, ISDN protocols, PPP encapsulation operations on a router. Upon completion, students should be able to provide solutions for network routing problems, identify ISDN protocols, and describe the Spanning Tree protocol.
Prerequisites: NET 225. Corequisites: None. (F, S)

NET 240 Network Design 3 0 0 3
This course covers the principles of the design of LANs and WANs. Topics include network architecture, transmission systems, traffic management, bandwidth requirements, Internet working devices, redundancy, and broadband versus base-band systems. Upon completion, students should be able to design a network to meet specified business and technical requirements.
Prerequisites: NET 125. Corequisites: None. (S)

NET 270 Building Scalable Netwks 1 4 0 3
This course covers principles and techniques of scalable networks. Topics include building multi-layer networks, controlling overhead traffic in growing routed networks, and router capabilities used to control traffic over LANs and WANs. Upon completion, students should be able to design; implement; and improve traffic flow, reliability, redundancy, and performance in enterprise networks.
Prerequisites: NET 226. Corequisites: None. (On demand)

NETWORKING OPERATING SYSTEMS

NOS 110 Operating System Concepts 2 3 0 3
This course introduces students to a broad range of operating system concepts, including installation and maintenance. Emphasis is placed on operating system concepts, management, maintenance, and resources required. Upon completion of this course, students will have an understanding of OS concepts, installation, management, maintenance, using a variety of operating systems.
Prerequisites: None. Corequisites: None. (F, S)

NOS 120 Linux/UNIX Single User 2 2 0 3
This course develops the necessary skills for students to develop both GUI and command line skills for using and customizing a Linux workstation. Topics include Linux file system and access permissions, GNOME Interface, VI editor, X Window System expression pattern matching, I/O redirection, network and printing utilities. Upon completion, students should be able to customize and use Linux systems for command line requirements and desktop productivity roles.
Prerequisites: NOS 110. Corequisites: None. (S)

NOS 130 Windows Single User 2 2 0 3
This course introduces operating system concepts for single-user systems. Topics include hardware management, file and memory management, system configuration/optimization, and utilities. Upon completion, students should be able to perform operating systems functions at the support level in a single-user environment.
Prerequisites: NOS 110. Corequisites: None. (S)

NOS 230 Windows Admin I 2 2 0 3
This course covers the installation and administration of a Windows Server network operating system. Topics include managing and maintaining physical and logical devices, access to resources, the server environment, managing users, computers, and groups, and Managing/Implementing Disaster Recovery. Upon completion, students should be able to manage and maintain a Windows Server environment.
Prerequisites: NOS 130. Corequisites: None. (F)

NOS 231 Windows Admin II 2 2 0 3
This course covers implementing, managing, and maintaining a Windows Server network infrastructure. Topics include implementing, managing, and maintaining IP addressing, name resolution, network security, routing and remote access, and managing a network infrastructure. Upon completion, students should be able to manage and maintain a Windows Server environment
Prerequisites: NOS 230. Corequisites: None. (S)

NOS 244 Operating System – AS/400 2 2 0 3
This course includes operating systems concepts for AS/400 systems. Topics include hardware management, file and memory management, system configuration/optimization, utilities, Job Control Language, and support functions. Upon completion, students should be able to perform operating system functions in an AS/400 environment.
Prerequisites: None. Corequisites: None. (S)

NURSING

NUR 111 Intro to Health Concepts 4 6 6 8
This course introduces the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts within each domain including medication administration, assessment, nutrition, ethics, interdisciplinary teams, informatics, evidence-based practice, individual-centered care, and quality improvement. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.
Prerequisites: None. Corequisites: BIO 168. (On demand)

NUR 111AB Intro to Health Concepts 2 3 3 4
This course introduces the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts within each domain including medication administration, assessment, nutrition, ethics, interdisciplinary teams, informatics, evidence-based practice, individual-centered care, and quality improvement. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.
Prerequisites: None. Corequisites: BIO 168. (On demand)

NUR 111BB Intro to Health Concepts 2 3 3 4
This course is a continuation of NUR 111AB. This course introduces the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts within each domain including medication administration, assessment, nutrition, ethics, interdisciplinary teams, informatics, evidence-based practice, individual-centered care, and quality improvement. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.
Prerequisites: None. Corequisites: BIO 168. (On demand)

NUR 112 Health-Illness Concepts 3 0 6 5
This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of acid-base, metabolism, cellular regulation, oxygenation, infection, stress/coping, health-wellness-illness, communication, caring interventions, managing care, safety, quality improvement, and informatics. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.
Prerequisites: BIO 168, NUR 111, PSY 150.
Corequisites: BIO 169, PSY 241. (On demand)

NUR 113 Family Health Concepts 3 0 6 5
This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of oxygenation, sexuality, reproduction, grief/loss, mood/affect, behaviors, development, family, health-wellness-illness, communication, caring interventions, managing care, safety, and advocacy. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.
Prerequisites: BIO 168, BIO 169, ENG 111, NUR 111, NUR 112, NUR 114, PSY 150, PSY 241. Corequisites: BIO 275. (On demand)

NUR 114 Holistic Health Concepts 3 0 6 5
This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of cellular regulation, perfusion, inflammation, sensory perception, stress/coping, mood/affect, cognition, self, violence, health-wellness-illness, professional behaviors, caring interventions, and safety. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.
Prerequisites: BIO 168, NUR 111, PSY 150.
Corequisites: BIO 169, PSY 241. (On demand)

NUR 211 Health Care Concepts 3 0 6 5
This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of cellular regulation, perfusion, infection, immunity, mobility, comfort, behaviors, health-wellness-illness, clinical decision-making, caring interventions, managing care, and safety. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.
Prerequisites: BIO 168, BIO 169, NUR 111, NUR 112, NUR 114, PSY 150, PSY 241. Corequisites: ENG 111. (On demand)

NUR 212 Health System Concepts 3 0 6 5
This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of grief/loss, violence, health-wellness-illness, collaboration, managing care, safety, advocacy, legal issues, policy, healthcare systems, ethics, accountability, and evidence-based practice. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.
Prerequisites: BIO 168, BIO 169, NUR 111, NUR 112, NUR 114, PSY 150, PSY 241. Corequisites: ENG 111. (On demand)

NUR 213 Complex Health Concepts 4 3 15 10
This course is designed to assimilate the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of fluid/electrolytes, metabolism, perfusion, mobility, stress/coping, violence, health-wellness-illness, professional behaviors, caring interventions, managing care, healthcare systems, and quality improvement. Upon completion, students should be able to demonstrate the knowledge, skills, and attitudes necessary to provide quality, individualized, entry level nursing care.
Prerequisites: BIO 168, BIO 169, BIO 275, ENG 111, NUR 111, NUR 112, NUR 113, NUR 114, NUR 211, NUR 212, PSY 150, PSY 241.
Corequisites: ENG 112 **or** ENG 113, **or** ENG 114.

NUR 213AB Complex Health Concepts 2 2 7 5
This course is designed to assimilate the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of fluid/electrolytes, metabolism, perfusion, mobility, stress/coping, violence, health-wellness-illness, professional behaviors, caring interventions, managing care, healthcare systems, and quality improvement. Upon completion, students should be able to demonstrate the knowledge, skills, and attitudes necessary to provide quality, individualized, entry level nursing care.
Prerequisites: BIO 168, BIO 169, BIO 275, ENG 111, NUR 111, NUR 112, NUR 113, NUR 114, NUR 211, NUR 212, PSY 150, PSY 241.
Corequisites: ENG 112 **or** ENG 113, **or** ENG 114. (On demand)

NUR 213BB Complex Health Concepts 2 1 8 5
This course is a continuation of NUR 213AB. This course is designed to assimilate the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of fluid/electrolytes, metabolism, perfusion, mobility, stress/coping, violence, health-wellness-illness, professional behaviors, caring interventions, managing care, healthcare systems, and quality improvement. Upon completion, students should be able to demonstrate the knowledge, skills, and attitudes necessary to provide quality, individualized, entry level nursing care.
Prerequisites: BIO 168, BIO 169, BIO 275, ENG 111, NUR 111, NUR 112, NUR 113, NUR 114, NUR 211, NUR 212, PSY 150, PSY 241.
Corequisites: ENG 112 **or** ENG 113, **or** ENG 114. (On demand)

OFFICE SYSTEMS TECHNOLOGY

OST 080 Keyboarding Literacy 1 2 0 2
This course is designed to develop elementary keyboarding skills. Emphasis is placed on mastery of the keyboard. Upon completion, students should be able to demonstrate basic proficiency in keyboarding.
Prerequisites: None. Corequisites: None. (On demand)

OST 132 Keyboard Skill Building 1 2 0 2
This course is designed to increase speed and improve accuracy in keyboarding. Emphasis is placed on diagnostic tests to identify accuracy and speed deficiencies followed by corrective drills. Upon completion, students should be able to keyboard rhythmically with greater accuracy and speed.
Prerequisites: OST 080. Corequisites: None. (F)

OST 136 Word Processing 2 2 0 3
This course is designed to introduce word processing concepts and applications. Topics include preparation of a variety of documents and mastery of specialized software functions. Upon completion, students should be able to work effectively in a computerized word processing environment.
Prerequisites: None. Corequisites: CTS 080. (F)

OST 137 Office Software Applicat 2 2 0 3
This course introduces the concepts and functions of software that meets the changing needs of the community. Emphasis is placed on the terminology and use of software through a hands on approach. Upon completion, students should be able to use software in a business environment.
Prerequisites: None. Corequisites: CTS 080. (S)

OST 140 Internet Comm/Research 1 2 0 2
This course provides a working knowledge of Internet usage and research for the modern office. Emphasis is placed on using search engines, email, Web sites, Web servers, communication services, and e-business to obtain information vital to the current office environment. Upon completion, students would be able to use the Internet to research any office topics required for employment.
Prerequisites: None. Corequisites: None. (S)

OST 148 Med Coding Billing & Insu 3 0 0 3
This course introduces fundamentals of medical coding, billing, and insurance. Emphasis is placed on the medical billing cycle to include third party payers, coding concepts, and form preparation. Upon completion, students should be able to explain the life cycle of and accurately complete a medical insurance claim.
Prerequisites: None. Corequisites: None. (S)

OST 149 Medical Legal Issues 3 0 0 3
This course introduces the complex legal, moral, and ethical issues involved in providing health-care services. Emphasis is placed on the legal requirements of medical practices; the relationship of physician, patient, and office personnel; professional liabilities; and medical practice liability. Upon completion, students should be able to demonstrate a working knowledge of current medical law and accepted ethical behavior.
Prerequisites: None. Corequisites: None. (S, SU)

OST 153 Office Finance Solutions 1 2 0 2
This course introduces basic bookkeeping concepts. Topics include entering data in accounts payable and receivable, keeping petty cash records, maintaining inventory, reconciling bank statements, running payroll, and generating simple financial reports. Upon completion, students should be able to demonstrate competence in the entry and manipulation of data to provide financial solutions for the office.
Prerequisites: None. Corequisites: CTS 080. (S)

OST 164 Text Editing Applications 3 0 0 3
This course provides a comprehensive study of editing skills needed in the workplace. Emphasis is placed on grammar, punctuation, sentence structure, proofreading, and editing. Upon completion, students should be able to use reference materials to compose and edit text.
Prerequisites: None. Corequisites: CTS 080. (F)

OST 165 Adv Text Editing Apps 2 2 0 3
This course is designed to develop proficiency in advanced editing skills needed in the office environment. Emphasis is placed on the application of creating effective electronic office documents. Upon completion, students should be able to apply advanced editing skills to compose text.
Prerequisites: OST 164. Corequisites: None. (F)

OST 181 Intro to Office Systems 2 2 0 3
This course introduces the skills and abilities needed in today's office. Topics include effectively interacting with co-workers and the public, processing simple financial and informational documents, and performing functions typical of today's offices. Upon completion, students should be able to display skills and decision-making abilities essential for functioning in the total office context.
Prerequisites: None. Corequisites: None. (S)

OST 184 Records Management 2 2 0 3
This course includes the creation, maintenance, protection, security, and disposition of records stored in a variety of media forms. Topics include alphabetic, geographic, subject, and numeric filing methods. Upon completion, students should be able to set up and maintain a records management system.
Prerequisites: None. Corequisites: CTS 080. (S)

OST 243 Med Office Simulation 2 2 0 3
This course introduces medical systems used to process information in the automated office. Topics include traditional and electronic information resources, storing and retrieving information, and the billing cycle. Upon completion, students should be able to use the computer accurately to schedule, bill, update, and make corrections.
Prerequisites: OST 148 must pass with a grade of C or higher.
Corequisites: None. (S)

OST 247 Procedure Coding 1 2 0 2
This course provides in-depth coverage of procedural coding. Emphasis is placed on CPT and HCPCS coding systems. Upon completion, students should be able to properly code procedures and services performed in a medical facility.
Prerequisites: MED 121 must pass with a grade of C or higher.
Corequisites: None. (F, S)

OST 248 Diagnostic Coding 1 2 0 2
This course provides an in-depth study of diagnostic coding. Emphasis is placed on ICD coding system. Upon completion, students should be able to properly code diagnoses in a medical facility.
Prerequisites: MED 121 must pass with a grade of C or higher.
Corequisites: None. (S)

OST 249 CPC Certification 3 2 0 4
This course provides instruction that will prepare students to sit for the American Association of Professional Coders (AAPC) CPC Exam. Topics include diagnostic and procedural coding. Upon completion, students should be able to sit for the AAPC CPC Exam.
Prerequisites: OST 247 and OST 248 must pass with a grade of C or higher.
Corequisites: None. (S)

OST 281 Emer Issues in Med Ofc 3 0 0 3
This course provides a comprehensive discussion of topics familiar to the health care setting. Topics include emerging issues in the health care setting. Upon completion, students should be able to demonstrate an understanding of current medical office procedures and treatments.
Prerequisites: None. Corequisites: None. (S)

OST 284 Emerging Technologies 1 2 0 2
This course provides opportunities to explore emerging technologies. Emphasis is placed on identifying, researching, and presenting current technological topics for class consideration and discussion. Upon completion, students should be able to understand the importance of keeping abreast of technological changes that affect the office professional.
Prerequisites: None. Corequisites: CTS 080. (S)

OST 286 Professional Development 3 0 0 3
This course covers the personal competencies and qualities needed to project a professional image in the office. Topics include interpersonal skills, health lifestyles, appearance, attitude, personal and professional growth, multicultural awareness, and professional etiquette. Upon completion, students should be able to demonstrate these attributes in the classroom, office, and society.
Prerequisites: None. Corequisites: None. (F)

OST 289 Administrative Office Mgt 2 2 0 3
This course is designed to be a capstone course for the office professional and provides a working knowledge of modern office procedures. Emphasis is placed on scheduling, telephone procedures, travel arrangements, event planning, office design, and ergonomics. Upon completion, students should be able to adapt in an office environment.
Prerequisites: OST 134 **and** OST 164, **or** OST 136 **and** OST 164.
Corequisites: None. (S)

PHYSICAL EDUCATION

PED 110 Fit and Well for Life (Coll/Tran) **1 2 0 2**
This course is designed to investigate and apply the basic concepts and principles of lifetime physical fitness and other health related factors. Emphasis is placed on wellness through the study of nutrition, weight control, stress management, and consumer facts on exercise and fitness. Upon completion, students should be able to plan a personal, lifelong fitness program based on individual needs, abilities, and interests.
Prerequisites: None. Corequisites: None. (S, On demand)

PED 113 Aerobics I (Coll/Tran) **0 3 0 1**
This course introduces a program of cardiovascular fitness involving continuous, rhythmic exercise. Emphasis is placed on developing cardiovascular efficiency, strength, and flexibility and on safety precautions. Upon completion, students should be able to select and implement a rhythmic aerobic exercise program.
Prerequisites: None. Corequisites: None. (F, S, On demand)

PED 114 Aerobics II (Coll/Tran) **0 3 0 1**
This course provides a continuation of a program of cardiovascular fitness involving rhythmic exercise. Emphasis is placed on a wide variety of aerobic activities which include cardiovascular efficiency, strength, and flexibility. Upon completion, students should be able to participate in and design a rhythmic aerobic exercise routine.
Prerequisites: PED 113 **or** equivalent training or experience. Corequisites: None. (On demand)

PED 117 Weight Training I (Coll/Tran) **0 3 0 1**
This course introduces the basics of weight training. Emphasis is placed on developing muscular strength, muscular endurance, and muscle tone. Upon completion, students should be able to establish and implement a personal weight training program.
Prerequisites: None. Corequisites: None. (F, S, On demand)

PED 118 Weight Training II (Coll/Tran) **0 3 0 1**
This course covers advanced levels of weight training. Emphasis is placed on meeting individual training goals and addressing weight training needs and interests. Upon completion, students should be able to establish and implement an individualized advanced weight training program.
Prerequisites: PED 117 **or** equivalent training or experience.
Corequisites: None. (F, S, On demand)

PED 120 Walking for Fitness (Coll/Tran) **0 3 0 1**
This course introduces fitness through walking. Emphasis is placed on stretching, conditioning exercises, proper clothing, fluid needs, and injury prevention. Upon completion, students should be able to participate in a recreational walking program.
Prerequisites: None. Corequisites: None. (On demand)

PED 121 Walk, Jog, Run (Coll/Tran) **0 3 0 1**
This course covers the basic concepts involved in safely and effectively improving cardiovascular fitness. Emphasis is placed on walking, jogging, or running as a means of achieving fitness. Upon completion, students should be able to understand and appreciate the benefits derived from these activities.
Prerequisites: None. Corequisites: None. (On demand)

PED 122 Yoga I (Coll/Tran) **0 2 0 1**
This course introduces the basic discipline of yoga. Topics include proper breathing, relaxation techniques, and correct body positions. Upon completion, students should be able to demonstrate the procedures of yoga.
Prerequisites: None. Corequisites: None. (F, S, On demand)

PED 123 Yoga II (Coll/Tran) **0 2 0 1**
This course introduces more detailed aspects of the discipline of yoga. Topics include breathing and physical postures, relaxation, and mental concentration. Upon completion, students should be able to demonstrate advanced procedures of yoga.
Prerequisites: PED 122. Corequisites: None. (On demand)

PED 124 Run, Swim, Cycle (Coll/Tran) **0 3 0 1**
This course introduces the sport of the triathlon. Topics include the rules, equipment, and skills necessary for the triathlon. Upon completion, students should be able to participate in a triathlon competition.
Prerequisites: None. Corequisites: None. (On demand)

PED 125 Self-Defense-Beginning (Coll/Tran) **0 2 0 1**
This course is designed to aid students in developing rudimentary skills in self-defense. Emphasis is placed on stances, blocks, punches, and kicks as well as non-physical means of self-defense. Upon completion, students should be able to demonstrate basic self defense techniques of a physical and non-physical nature.
Prerequisites: None. Corequisites: None. (On demand)

PED 128 Golf-Beginning (Coll/Tran) **0 2 0 1**
This course emphasizes the fundamentals of golf. Topics include the proper grips, stance, alignment, swings for the short and long game, putting, and the rules and etiquette of golf. Upon completion, students should be able to perform the basic golf shots and demonstrate a knowledge of the rules and etiquette of golf.
Prerequisites: None. Corequisites: None. (On demand)

PED 129 Golf-Intermediate (Coll/Tran) **0 2 0 1**
This course covers the more advanced phases of golf. Emphasis is placed on refining the fundamental skills and learning more advanced phases of the games such as club selection, trouble shots, and course management. Upon completion, students should be able demonstrate the knowledge and ability to play a recreational round of golf.
Prerequisites: PED 128 **or** equivalent training or experience.
Corequisites: None. (On demand)

PED 130 Tennis-Beginning (Coll/Tran) **0 2 0 1**
This course emphasizes the fundamentals of tennis. Topics include basic strokes, rules, etiquette, and court play. Upon completion, students should be able to play recreational tennis.
Prerequisites: None. Corequisites: None. (F, SU, On demand)

PED 131 Tennis-Intermediate (Coll/Tran) **0 2 0 1**
This course emphasizes the refinement of playing skills. Topics include continuing the development of fundamentals, learning advanced serves, and strokes and pace and strategies in singles and doubles play. Upon completion, students should be able to play competitive tennis.
Prerequisites: PED 130 **or** equivalent training or experience.
Corequisites: None. (On demand)

PED 137 Badminton (Coll/Tran) **0 2 0 1**
This course covers the fundamentals of badminton. Emphasis is placed on the basics of serving, clears, drops, drives, smashes, and the rules and strategies of singles and doubles. Upon completion, students should be able to apply these skills in playing situations.
Prerequisites: None. Corequisites: None. (On demand)

PED 138 Archery (Coll/Tran) **0 2 0 1**
This course introduces basic archery safety and skills. Topics include proper techniques of stance, bracing, drawing, and releasing as well as terminology and scoring. Upon completion, students should be able to participate safely in target archery.
Prerequisites: None. Corequisites: None. (On demand)

PED 139 Bowling-Beginning (Coll/Tran) **0 2 0 1**
This course introduces the fundamentals of bowling. Emphasis is placed on ball selection, grips, stance, and delivery along with rules and etiquette. Upon completion, students should be able to participate in recreational bowling.
Prerequisites: None. Corequisites: None. (On demand)

PED 142 Lifetime Sports (Coll/Tran) **0 2 0 1**
This course is designed to give an overview of a variety of sports activities. Emphasis is placed on the skills and rules necessary to participate in a variety of lifetime sports. Upon completion, students should be able to demonstrate an awareness of the importance of participating in lifetime sports activities.
Prerequisites: None. Corequisites: None. (On demand)

PED 143 Volleyball-Beginning (Coll/Tran) **0 2 0 1**
This course covers the fundamentals of volleyball. Emphasis is placed on the basics of serving, passing, setting, spiking, blocking, and the rules and etiquette of volleyball. Upon completion, students should be able to participate in recreational volleyball.
Prerequisites: None. Corequisites: None. (On demand)

PED 144 Volleyball-Intermediate (Coll/Tran) **0 2 0 1**
This course covers more advanced volleyball techniques. Emphasis is placed on refining skills and developing more advanced strategies and techniques. Upon completion, students should be able to participate in competitive volleyball.
Prerequisites: PED 143. Corequisites: None. (On demand)

PED 145 Basketball-Beginning (Coll/Tran) **0 2 0 1**
This course covers the fundamentals of basketball. Emphasis is placed on skill development, knowledge of the rules, and basic game strategy. Upon completion, students should be able to participate in recreational basketball.
Prerequisites: None. Corequisites: None. (On demand)

PED 146 Basketball-Intermediate (Coll/Tran) **0 2 0 1**
This course covers more advanced basketball techniques. Emphasis is placed on refining skills and developing more advanced strategies and techniques. Upon completion, students should be able to play basketball at a competitive level.
Prerequisites: PED 145. Corequisites: None. (On demand)

PED 147 Soccer (Coll/Tran) **0 2 0 1**
This course introduces the basics of soccer. Emphasis is placed on rules, strategies, and fundamental skills. Upon completion, students should be able to participate in recreational soccer.
Prerequisites: None. Corequisites: None. (On demand)

PED 148 Softball (Coll/Tran) **0 2 0 1**
This course introduces the fundamental skills and rules of softball. Emphasis is placed on proper techniques and strategies for playing softball. Upon completion, students should be able to participate in recreational softball.
Prerequisites: None. Corequisites: None. (On demand)

PED 150 Baseball - Beginning (Coll/Tran) **0 3 0 1**
This course covers the fundamentals of baseball. Emphasis is placed on skill development, knowledge of the rules, and basic game strategy. Upon completion, students should be able to participate in recreational baseball.
Prerequisites: None. Corequisites: None. (On demand)

PED 152 Swimming-Beginning (Coll/Tran) **0 2 0 1**
This course is designed for non-swimmers and beginners. Emphasis is placed on developing confidence in the water, learning water safety, acquiring skills in floating, and learning elementary strokes. Upon completion, students should be able to demonstrate safety skills and be able to tread water, back float, and use the crawl stroke for 20 yards.
Prerequisites: None. Corequisites: None. (On demand)

PED 153 Swimming-Intermediate (Coll/Tran) **0 2 0 1**
This course is designed for those who have mastered basic swimming skills. Emphasis is placed on refining basic skills and learning new swim strokes. Upon completion, students should be able to demonstrate the four basic strokes, the scissors kick, the underwater swim, and other related skills.
Prerequisites: PED 152 **or** proficiency in swimming.
Corequisites: None. (On demand)

PED 154 Swimming for Fitness (Coll/Tran) **0 3 0 1**
This course introduces lap swimming, aquacises, water activities, and games. Emphasis is placed on increasing cardiovascular efficiency through aquatic exercise. Upon completion, students should be able to develop an individualized aquatic fitness program.
Prerequisites: PED 152. Corequisites: None. (On demand)

PED 156 Scuba Diving (Coll/Tran) **0 2 0 1**
This course provides basic instruction in fundamental skills and safety procedures for scuba diving. Emphasis is placed on the history, theory, and principles of diving; development of diving skills; safety; and care and maintenance of equipment. Upon completion, students should be able to demonstrate skills, knowledge, and techniques of scuba diving in preparation for diver certification.
Prerequisites: PED 153 **or** proficiency in swimming. Corequisites: None. (On demand)

PED 158 Whitewater Rafting (Coll/Tran) **0 2 0 1**
This course covers the skills necessary to safely participate in whitewater rafting. Topics include raft guiding, paddling skills, scouting rapids, and rigging boats. Upon completion, students should be able to successfully complete a whitewater rafting experience.
Prerequisites: PED 152. Corequisites: None. (On demand)

PED 160 Canoeing-Basic (Coll/Tran) **0 2 0 1**
This course provides basic instruction for the beginning canoeist. Emphasis is placed on safe and correct handling of the canoe and rescue skills. Upon completion, students should be able to demonstrate basic canoeing, safe-handling, and self-rescue skills.
Prerequisites: None. Corequisites: None. (On demand)

PED 161 Canoeing-Rivers (Coll/Tran) **0 2 0 1**
This course provides practice in the basic skills of river and whitewater canoeing. Emphasis is placed on river running, safety, and care of equipment. Upon completion, students should be able to demonstrate navigation in a moving current, canoe safety, and self-rescue skills.
Prerequisites: PED 160. Corequisites: None. (On demand)

PED 163 Kayaking-Basic (Coll/Tran) **0 2 0 1**
This course is designed to teach the basic skills of kayaking. Topics include forward and reverse strokes, sweeps, Eskimo roll, and self-rescue skills. Upon completion, students should be able to maneuver and demonstrate safe kayaking practices.
Prerequisites: PED 152. Corequisites: None. (On demand)

PED 171 Nature Hiking (Coll/Tran) **0 2 0 1**
This course provides instruction on how to equip and care for oneself on the trail. Topics include clothing, hygiene, trail ethics, and necessary equipment. Upon completion, students should be able to successfully participate in nature trail hikes. Much of this course involves travel to and participation on nearby mountain trails.
Prerequisites: None. Corequisites: None. (On demand)

PED 181 Snow Skiing-Beginning (Coll/Tran) **0 2 0 1**
This course introduces the fundamentals of snow skiing. Topics include basic techniques, safety, and equipment involved in snow skiing. Upon completion, students should be able to ski a down slope, enter and exit a ski lift, and perform basic maneuvers on skis.
Prerequisites: None. Corequisites: None. (S, On demand)

PED 212 Snowboarding-Beginning (Coll/Tran) **0 2 0 1**
This course is designed to develop the basic knowledge and skills of snowboarding. Topics include equipment, conditioning exercises, terminology, safety, rules, fundamental skills, and the use of lifts. Upon completion, students should be able to snowboard downhill, enter and exit a ski lift, and perform basic maneuvers on a snowboard.
Prerequisites: None. Corequisites: None. (On demand)

PED 217 Pilates I (Coll/Tran) **0 2 0 1**
This course provides an introduction to the pilates method of body conditioning exercise. Topics include instruction in beginning and intermediate pilates exercises using a mat or equipment, history of pilates method, and relevant anatomy and physiology. Upon completion, students should be able to perform beginning and intermediate exercises, and possess an understanding of the benefits of conditioning the body's core muscles.
Prerequisites: None. Corequisites: None. (On demand)

PED 218 Pilates II (Coll/Tran) **0 2 0 1**
This course provides continued instruction to the pilates method of body conditioning exercise. Topics include instruction in intermediate and advanced pilates exercises using a mat or equipment, relevant anatomy and physiology, and further discussion of related concepts. Upon completion, students should be able to perform intermediate and advanced exercises, and possess the autonomy to maintain their own personal pilates practice.
Prerequisites: PED 217. Corequisites: None. (On demand)

PED 220 Exer for Phys Challenged (Coll/Tran) **0 2 0 1**
This course is designed to improve physical strength, endurance, and range of motion while focusing on individual needs. Emphasis is placed on exercises which are designed and adapted to serve those with special needs. Upon completion, students should be able to show improved physical fitness, body awareness, and an appreciation for their physical well-being.
Prerequisites: None. Corequisites: None. (On demand)

PED 252 Officiating/Bsball/Sfball (Coll/Tran) **1 2 0 2**
This course introduces the rules and techniques for sports officiating in baseball and softball. Emphasis is placed on officiating fundamentals and responsibilities. Upon completion, students should be able to demonstrate proper mechanics and knowledge of officiating procedures in baseball and softball.
Prerequisites: None. Corequisites: None. (On demand)

PED 254 Coaching Basketball (Coll/Tran) **1 2 0 2**
This course introduces the theory and methods of coaching basketball. Emphasis is placed on rules, game strategies, and selected techniques of coaching basketball. Upon completion, students should be able to demonstrate competent coaching skills in basketball.
Prerequisites: None. Corequisites: None. (On demand)

PED 256 Coaching Baseball (Coll/Tran) **1 2 0 2**
This course introduces the theory and methods of coaching baseball. Emphasis is placed on rules, game strategies, and selected techniques of coaching baseball. Upon completion, students should be able to demonstrate competent coaching skills in baseball.
Prerequisites: None. Corequisites: None. (On demand)

PED 259 Prev & Care Ath Injuries (Coll/Tran) **1 2 0 2**
This course provides information on the prevention and care of athletic injuries. Topics include safety devices, taping, therapeutic techniques, and conditioning exercises. Upon completion, students should be able to demonstrate proper preventive measures and skills in caring for athletic injuries.
Prerequisites: None. Corequisites: None. (On demand)

PHILOSOPHY

PHI 210 History of Philosophy (Coll/Tran) **3 0 0 3**
This course introduces fundamental philosophical issues through an historical perspective. Emphasis is placed on such figures as Plato, Aristotle, Lao-Tzu, Confucius, Augustine, Aquinas, Descartes, Locke, Kant, Wollstonecraft, Nietzsche, and Sartre. Upon completion, students should be able to identify and distinguish among the key positions of the philosophers studied. Primary sources are examined to understand the key philosophical ideas that have shaped the way we think.
Prerequisites: ENG 111. Corequisites: None. (On demand)

PHI 215 Philosophical Issues (Coll/Tran) **3 0 0 3**
This course introduces fundamental issues in philosophy considering the views of classical and contemporary philosophers. Emphasis is placed on knowledge and belief, appearance and reality, determinism and free will, faith and reason, and justice and inequality. Upon completion, students should be able to identify, analyze, and critically evaluate the philosophical components of an issue.
Prerequisite: ENG 111. Corequisites: None. (On demand)

PHI 240 Introduction to Ethics (Coll/Tran) **3 0 0 3**
This course introduces theories about the nature and foundations of moral judgments and applications to contemporary moral issues. Emphasis is placed on utilitarianism, rule-based ethics, existentialism, relativism versus objectivism, and egoism. Upon completion, students should be able to apply various ethical theories to individual moral issues such as euthanasia, abortion, crime and punishment, and justice. Primary sources are examined to better understand the background of ethical theories.
Prerequisites: ENG 111. Corequisites: None. (On demand)

PHOTOGRAPHY

PHO 110 Fund of Photography **3 6 0 5**
This course covers the basic technical aspects of photography, including camera controls, light and optics, flash, exposure, and processing. Emphasis is placed on principles of camera design and the relationship between subject and photographic image, with hands-on experience. Upon completion, students should be able to consistently produce technically excellent images.
Prerequisites: None. Corequisites: None. (F)

PHO 113 History of Photography **3 0 0 3**
This course introduces the history of photography from its inception through contemporary times. Emphasis is placed on technical and aesthetical developments in artistic and commercial photography. Upon completion, students should be able to identify significant photographers and procedures, trace the development of the medium, and discuss current trends in photography.
Prerequisites: None. Corequisites: None. (F)

PHO 115 Basic Studio Lighting **2 6 0 4**
This course covers the basic principles of studio lighting. Topics include basic lighting techniques and application of lighting ratios to product illustration/portraiture using tungsten/electronic strobe sources, with emphasis on equipment maintenance and safety. Upon completion, students should be able to select and set up the best lights and lighting applications for a wide variety of photographic subjects.
Prerequisites: PHO 110. Corequisites: None. (S)

PHO 120 Intermediate Photography **2 4 0 4**
This course expands the coverage of photographic materials and provides an opportunity to experiment. Emphasis is placed on additional techniques and processes, including solarization, multiple-imaging, infrared toning, and other non-traditional uses of photography. Upon completion, students should be able to demonstrate how the choice of technique enhances the photographic subject and influences content.
Prerequisites: PHO 110. Corequisites: None. (S)

PHO 131 View Camera **2 4 0 4**
This course is a comprehensive hands-on study of the large-format camera, including capabilities, movements, and applications in studio and architectural photography. Topics include camera systems, camera controls, perspective correction, plane of sharp focus, depth-of-field, image shape modification, and sheet film handling and processing. Upon completion, students should be able to demonstrate competence in using the view camera and its various controls.
Prerequisites: PHO 110 **and** PHO 115. Corequisites: None.

PHO 139 Intro to Digital Imaging **1 3 0 2**
This course introduces digital images by exploring the effect hardware and software have on the reproduction process. Topics include basic imaging tools and vocabulary, calibration, density, contrast, and color. Upon completion, students should be able to demonstrate a basic understanding of the digital imaging process and be able to capture and output images.
Prerequisites: None. Corequisites: None. (F)

PHO 150 Portfolio Development I 3 3 0 4
This course provides an opportunity to develop a thematically related portfolio of photographic images that are consistent in print quality. Emphasis is placed on subject/content development, choice of materials, and archival processing controls; organizing and sequencing images; editing; print finishing; and portfolio presentation. Upon completion, students should be able to edit and exhibit a consistent body of photographic prints in a portfolio presentation.
Prerequisites: PHO 120. Corequisites: None. (F)

PHO 180 Creative Problem Solving 1 4 0 3
This course encourages the development of innovative photographic solutions to instructor-assigned tasks. Emphasis is placed on identifying components necessary to complete the task and applying creative solutions. Upon completion, students should be able to solve problems in a variety of photographic areas, combining media where needed to achieve the desired results.
Prerequisites: PHO 110 **and** permission of instructor.
Corequisites: None. (On demand)

PHO 216 Documentary Photography 2 4 0 4
This course introduces the practical, historical, and contemporary applications of documentary photography. Emphasis is placed on understanding the various approaches to creating a photographic documentary and how a documentary project can affect society. Upon completion, students should be able to produce a documentary project on a topic of interest to them.
Prerequisites: PHO 110. Corequisites: None. (S)

PHO 217 Photojournalism I 1 6 0 4
This course covers logistics and techniques used in current professional newspaper photography. Topics include detailed study of spot and general news, sports, and feature photography along with basic newspaper layout, advanced photographic techniques, and legal issues. Upon completion, students should be able to demonstrate an understanding of basic aspects of news, sports, and feature photography.
Prerequisites: PHO 110. Corequisites: None. (F)

PHO 219 Digital Applications 1 3 0 2
This course provides additional experience in digital photography including input/output and computer manipulation of images. Topics include legal and ethical issues and commonly used hardware and software packages, including their basic controls and imaging tools. Upon completion, students should be able to input/output images and manipulate images.
Prerequisites: PHO 139. Corequisites: None. (S)

PHO 220 Business of Photography 3 0 0 3
This course covers the business practices of photography with emphasis on freelance photography. Topics include copyright, payment fees, client relations, licenses, insurance, assignments, stock sales, and usage rates. Upon completion, students should be able to demonstrate an understanding of the photographic business, including billing, clients, copyright protection, and obtaining assignments.
Prerequisites: None. Corequisites: None. (S)

PHO 224 Multimedia Production 2 3 0 3
This course covers various aspects of computer based multimedia production. Topics include sound recording and editing techniques and software, multimedia software, control of image and continuity and pacing, script writing, copyright laws and ethics. Upon completion, students should be able to use computer hardware and software for multimedia production.
Prerequisites: PHO 110. Corequisites: None. (S)

PHO 226 Portraiture 3 3 0 4
This course covers the techniques of contemporary studio and location portraiture. Topics include lighting techniques, lighting ratios, available light to multiple light setups, posing techniques, and styles of glamour, fashion, corporate, and public relations portraiture. Upon completion, students should be able to choose the appropriate lighting, accessories, and posing style to produce a successful portrait. Formal and candid wedding photography will also be a part of the course of study.
Prerequisites: PHO 115. Corequisites: None. (F)

PHO 235 Commercial Photography 2 4 0 4
This course covers the techniques of advertising photography used in the print media. Emphasis is placed on the conception, lighting, and creation of photographic illustration used for food, fashion, and product photography. Upon completion, students should be able to produce advertising photographs for professional photographic illustration.
Prerequisites: PHO 115. Corequisites: None. (F)

PHO 250 Portfolio Development II 2 4 0 4
This course provides an opportunity to develop a diversified professional portfolio of photographs. Emphasis is placed on the development of a portfolio exhibiting technical excellence, consistency of vision, and professional presentation. Upon completion, students should be able to present a diversified portfolio of professional quality photographs to potential employers.
Prerequisites: PHO 217, PHO 226, PHO 235. Corequisites: None. (S)

PHO 275 Travel/Outdoor Photo 1 6 0 3
This course explores the growing market for travel and outdoor photography. Emphasis is placed on photography in foreign environments, including travel arrangements and restrictions; protection of cameras, accessories, and filters; and identification of markets for travel photography. Upon completion, students should be able to photograph people in cross-cultural situations, photograph outdoor environments, and market travel photography.
Prerequisites: PHO 110. Corequisites: None.

PHYSICAL SCIENCE

PHS 130 Earth Science (Coll/Tran) **3 2 0 4**
This course is a survey of the forces that impact the earth. Topics include geology, oceanography, and meteorology. Upon completion, students should be able to explain and identify the forces within, on, and around the earth as they influence the earth's dynamics.
Prerequisites: DRE 098 **or** appropriate placement test score.
Corequisites: None. (On demand)

PHYSICS

PHY 110 Conceptual Physics (Coll/Tran) **3 0 0 3**
This course provides a conceptually-based exposure to the fundamental principles and processes of the physical world. Topics include basic concepts of motion, forces, energy, heat, electricity, magnetism, and the structure of matter and the universe. Upon completion, students should be able to describe examples and applications of the principles studied.
Prerequisites: DMA 010, DMA 020, DMA 030, DMA 040, DMA 050; DRE 098 **or** appropriate placement test scores.
Corequisites: PHY 110A. (F, S, On demand)

PHY 110A Conceptual Physics Lab (Coll/Tran) **0 2 0 1**
This course is a laboratory for PHY 110. Emphasis is placed on laboratory experiences that enhance materials presented in PHY 110. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in PHY 110.
Prerequisites: None. Corequisites: PHY 110. (F, S, On demand)

PHY 121 Applied Physics I 3 2 0 4
This algebra-based course introduces fundamental physical concepts as applied to industrial and service technology fields. Topics include systems of units, problem-solving methods, graphical analyses, vectors, motion, forces, Newton's laws of motion, work, energy, power, momentum, and properties of matter. Upon completion, students should be able to demonstrate an understanding of the principles studied as applied in industrial and service fields.
Prerequisites: DMA 010, DMA 020, DMA 030, DMA 040, DMA 050; DRE 098 **or** appropriate placement test scores.
Corequisites: ENG 111. (On demand)

PHY 131 Physics-Mechanics 3 2 0 4
This algebra/trigonometry-based course introduces fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem-solving methods, graphical analysis, vectors, motion, forces, Newton's laws of motion, work, energy, power, momentum, and properties of matter. Upon completion, students should be able to apply the principles studied to applications in engineering technology fields. MAT 122 or MAT 172 is recommended prior to or concurrently with this course.
Prerequisites:MAT 121 **or** MAT 171 **or** MAT 271 must pass with a grade of C or higher; DRE 098 **or** appropriate placement test score.
Corequisites: None. (F, S, On demand)

PHY 132 Physics-Elec & Magnetism 3 2 0 4
This algebra/trigonometry-based course is a study of fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem-solving methods, graphical analysis, waves, electricity, magnetism, circuits, transformers, motors, and generators. Upon completion, students should be able to apply the principles studied to applications in engineering technology fields.
Prerequisites: PHY 131 must pass with a grade of C or higher.
Corequisites: None. (S)

PHY 133 Physics-Sound & Light 3 2 0 4
This algebra/trigonometry-based course is a study of fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem-solving methods, graphical analysis, wave motion, sound, light, and modern physics. Upon completion, students should be able to apply the principles studied to applications in engineering technology fields.
Prerequisites: PHY 131. Corequisites: None. (On demand)

PHY 151 College Physics I (Coll/Tran) **3 2 0 4**
This course uses algebra- and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include units and measurement, vectors, linear kinematics and dynamics, energy, power, momentum, fluid mechanics, and heat. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. MAT 172 is recommended prior to or concurrently with this course.
Prerequisites: MAT 171 **or** MAT 271 must pass with a grade of C or higher; DRE 098 **or** appropriate placement test score.
Corequisites: None. (F, S, On demand)

PHY 152 College Physics II (Coll/Tran) **3 2 0 4**
This course uses algebra- and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include electrostatic forces, electric fields, electric potentials, direct-current circuits, magnetostatic forces, magnetic fields, electromagnetic induction, alternating current circuits, and light. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered.
Prerequisites: PHY 151 must pass with a grade of C or higher.
Corequisites: None. (S)

PHY 251 General Physics I (Coll/Tran) **3 3 0 4**
This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include units and measurement, vector operations, linear kinematics and dynamics, energy, power, momentum, rotational mechanics, periodic motion, fluid mechanics, and heat. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered.
Prerequisites: MAT 271 must pass with a grade of C or higher; DRE 098 **or** appropriate placement test score. Corequisites: MAT 272. (F)

PHY 252 General Physics II (Coll/Tran) **3 3 0 4**
This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include electrostatic forces, electric fields, electric potentials, direct-current circuits, magnetostatic forces, magnetic fields, electromagnetic induction, alternating-current circuits, and light. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered.
Prerequisites: MAT 272, PHY 251 must pass with a grade of C or higher.
Corequisites: None. (S)

PHYSICAL FITNESS TECHNOLOGY

PSF 110 Exercise Science 4 0 0 4
This course is a survey of scientific principles, methodologies, and research as applied to exercise and physical adaptations to exercise. Topics include the basic elements of kinesiology, biomechanics, and motor learning. Upon completion, students should be able to identify and describe physiological responses and adaptations to exercise.
Prerequisites: None. Corequisites: None. (F)

PSF 111 Fitness & Exer Testing I 3 2 0 4
This course introduces the student to graded exercise testing. Topics include various exercise testing protocols with methods for prescribing exercise programs based on exercise tolerance tests and the use of various equipment and protocols. Upon completion, students should be able to conduct specific exercise tests and the use of various equipment.
Prerequisites: None. Corequisites: None. (S)

PSF 114 Phys Fit Theory & Instr 4 0 0 4
This course provides information about related components of fitness and general information about the industry. Topics include the study of the components of fitness, theories of exercise and fitness, and information about the industry. Upon completion, students should be able to identify fitness components and demonstrate these in an exercise setting.
Prerequisites: PSF 110. Corequisites: None. (S)

PSF 116 Pvnt & Care Exer Injuries 2 2 0 3
This course provides information about the care and prevention of exercise injuries. Topics include proper procedures, prevention techniques, and on-site care of injuries. Upon completion, students should be able to demonstrate the knowledge and skills necessary to prevent and care for exercise related injuries.
Prerequisites: None. Corequisites: None. (F)

PSF 118 Fitness Facility Mgmt 4 0 0 4
This course provides information about the management and operation of health and fitness facilities and programs. Topics include human resources, sales and marketing, member retention, financial management, facility design and maintenance, and risk management. Upon completion, students should be able to demonstrate the knowledge and skills necessary to effectively manage a fitness facility.
Prerequisites: None. Corequisites: None. (S)

PSF 120 Group Exer Instruction 2 2 0 3
This course introduces the concepts and guidelines of instructing exercise classes. Topics include program designs, working with special populations, and principles of teaching and monitoring physical activity. Upon completion, students should be able to demonstrate basic skills in instructing an exercise class and monitoring workout intensity.
Prerequisites: PSF 110. Corequisites: None. (F)

PSF 210 Personal Training 2 2 0 3
This course introduces the student to the aspects of personal (one-on-one) training. Topics include training systems, marketing, and program development. Upon completion, students should be able to demonstrate personal training techniques and competencies of same.
Prerequisites: PSF 110, PSF 111. Corequisites: None. (S)

PSF 212 Exercise Programming 2 2 0 3
This course provides information about organizing, scheduling, and implementation of physical fitness programs. Topics include programming for various age groups, competitive activities and special events, and evaluating programs. Upon completion, students should be able to organize and implement exercise activities in a competent manner.
Prerequisites: PSF 110. Corequisites: None. (S)

PSF 218 Lifestyle Chng & Wellness 3 2 0 4
This course introduces health risk appraisals and their application to lifestyle changes. Topics include nutrition, weight control, stress management, and the principles of exercise. Upon completion, students should be able to conduct health risk appraisals and apply behavior modification techniques in a fitness setting.
Prerequisites: None. Corequisites: None. (S)

POLITICAL SCIENCE

POL 110 Intro Political Science (Coll/Tran) **3 0 0 3**
This course introduces basic political concepts used by governments and addresses a wide range of political issues. Topics include political theory, ideologies, legitimacy, and sovereignty in democratic and non-democratic systems. Upon completion, students should be able to discuss a variety of issues inherent in all political systems and draw logical conclusions in evaluating these systems.
Prerequisites: DRE 098 **or** appropriate placement test score.
Corequisites: None. (On demand)

POL 120 American Government (Coll/Tran) **3 0 0 3**
This course is a study of the origins, development, structure, and functions of American national government. Topics include the constitutional framework, federalism, the three branches of government including the bureaucracy, civil rights and liberties, political participation and behavior, and policy formation. Upon completion, students should be able to demonstrate an understanding of the basic concepts and participatory processes of the American political system.
Prerequisites: DRE 098 **or** appropriate placement test score.
Corequisites: None. (F, S)

POL 130 State & Local Government (Coll/Tran) **3 0 0 3**
This course includes state and local political institutions and practices in the context of American federalism. Emphasis is placed on procedural and policy differences as well as political issues in state, regional, and local governments of North Carolina. Upon completion, students should be able to identify and discuss various problems associated with intergovernmental politics and their effect on the community and the individual.
Prerequisites: DRE 098 **or** appropriate placement test score.
Corequisites: None. (On demand)

PRINTING

PRN 155 Screen Printing I **1 3 0 2**
This course covers screen printing techniques and materials. Topics include methods, materials, design, and image and stencil preparation techniques. Upon completion, students should be able to produce single- or multi-color projects.
Prerequisites: None. Corequisites: None. (S)

POLYSOMNOGRAPHY

PSG 110 Intro to Polysomnography **3 2 0 4**
This course introduces the polysomnography profession. Topics include the history of the profession and role of the polysomnographic technologist, communication, time management, infection control, basic patient assessment, and medical gas therapy. Upon completion, students should be able to demonstrate competence in concepts through written and laboratory evaluations.
Prerequisites: None. Corequisites: None. (F)

PSG 111 Neuro/Cardiopulmonary A&P **4 0 0 4**
This course provides a concentrated study of anatomy and physiology essential to the practice of polysomnography. Emphasis is placed on the physiology of the nervous, cardiovascular, and pulmonary systems and basic pharmacological principles. Upon completion, students should be able to demonstrate competence in concepts through written evaluation.
Prerequisites: BIO 163; **or** BIO 168 **and** BIO 169. Corequisites: None. (S)

PSG 112 PSG Fundamentals **3 0 0 3**
This course provides the knowledge and skills necessary to manage/function in a polysomnographic laboratory. Topics include recordkeeping, scheduling techniques, creation/implementation of departmental policies, reimbursement, the technologist's role as sleep advocate, and case management/patient education. Upon completion, students should be able to demonstrate competence in concepts through written evaluation.
Prerequisites: None. Corequisites: None. (S)

PSG 189 Polysomnog Transition **1 3 3 3**
This course introduces the basic fundamentals for polysomnography. Emphasis is placed on cardiopulmonary assessment and monitoring, medical gas therapy, principles of case management, wellness promotion, recordkeeping, reimbursement, and exposure to the clinical setting. Upon completion, students should be prepared to apply the above concepts to the field of polysomnography.
Prerequisites: None. Corequisites: None. (On demand)

PSG 210 Polysomnography I **3 2 9 7**
This course provides entry-level didactic, laboratory, and clinical training in polysomnography. Emphasis is placed on medical terminology, instrumentation setup and calibration, recording and monitoring techniques, and patient technologist interactions. Upon completion, students should be able to demonstrate competence in concepts and procedures through written, laboratory and clinical evaluations.
Prerequisites: PSG 111 **or** PSG 189. Corequisites: None. (F)

PSG 211 Polysomnography II **2 6 9 7**
This course provides advanced-level didactic, laboratory, and clinical training in polysomnography. Emphasis is placed on the knowledge and skills necessary to obtain and evaluate high quality sleep recordings. Upon completion, students should be able to demonstrate competence in concepts and procedures through written, laboratory and clinical evaluations
Prerequisites: PSG 210. Corequisites: None. (S)

PSG 212 Infant/Pediatric PSG **3 2 0 4**
This course provides the knowledge and skills to perform and score polysomnographic procedures on infants and pediatric patients. Emphasis is placed on infant/pediatric assessment, monitoring, and sleep disorders. Upon completion, students should be able to demonstrate competence in concepts through written and laboratory evaluations.
Prerequisites: None. Corequisites: None. (S)

PSG 213 Case Study/Exam Review **0 3 0 1**
This course provides an opportunity to review clinical cases and prepare for the polysomnography credentialing exam. Emphasis is placed on case management and review for the Registered Polysomnographic Technologist Exam. Upon completion, students should be able to successfully complete practice exams.
Prerequisites: None. Corequisites: None. (S)

PSG 214 PSG Clinical Apps I **0 2 0 1**
This course provides practical application of theories covered in previous PSG courses. Emphasis is placed on polysomnography testing and procedures. Upon completion, students should be able to demonstrate competence through laboratory evaluation.
Prerequisites: None. Corequisites: None. (F)

PSYCHOLOGY

PSY 110 Life Span Development **3 0 0 3**
This course provides an introduction to the study of human growth and development. Emphasis is placed on the physical, cognitive, and psychosocial aspects of development from conception to death. Upon completion, students should be able to demonstrate knowledge of development across the life span and apply this knowledge to their specific field of study.
Prerequisites: DRE 098 **or** appropriate placement test score.
Corequisites: None. (On demand)

PSY 150 General Psychology (Coll/Tran) **3 0 0 3**
This course provides an overview of the scientific study of human behavior. Topics include history, methodology, biopsychology, sensation, perception, learning, motivation, cognition, abnormal behavior, personality theory, social psychology, and other relevant topics. Upon completion, students should be able to demonstrate a basic knowledge of the science of psychology.
Prerequisites: DRE 098 **or** appropriate placement test score.
Corequisites: None. (F, S, SU)

PSY 211 Psychology of Adjustment (Coll/Tran) **3 0 0 3**
This course introduces the study of the adjustment process focusing on contemporary challenges individuals must deal with in everyday life. Topics include theories of behavior, career choices, self-understanding, coping mechanisms, human relationships, intimacy, sociocultural factors influencing healthy personal adjustment, and other related topics. Upon completion, students should be able to demonstrate an awareness of the processes of adjustment.
Prerequisites: PSY 150 must pass with a grade of C or higher.
Corequisites: None. (On demand)

PSY 231 Forensic Psychology (Coll/Tran) **3 0 0 3**
This course introduces students to concepts which unite psychology and the legal system. Topics include defining competency, insanity, involuntary commitment as well as introducing forensic assessment techniques, such as interviewing process, specialized assessments, and collecting collateral information. Upon completion, students should be able to demonstrate knowledge in areas of forensic psychology: risk assessment, criminal competencies, insanity, psychopathology, and mentally disordered offenders.
Prerequisites: PSY 150 must pass with a grade of C or higher.
Corequisites: None. (On demand)

PSY 237 Social Psychology (Coll/Tran) **3 0 0 3**
This course introduces the study of individual behavior within social contexts. Topics include affiliation, attitude formation and change, conformity, altruism, aggression, attribution, interpersonal attraction, and group behavior. Upon completion, students should be able to demonstrate an understanding of the basic principles of social influences on behavior.
Prerequisites: PSY 150 must pass with a grade of C or higher.
Corequisites: None. (F, S)

PSY 239 Psychology of Personality (Coll/Tran) **3 0 0 3**
This course covers major personality theories and personality research methods. Topics include psychoanalytic, behavioristic, social learning, cognitive, humanistic, and trait theories including supporting research. Upon completion, students should be able to compare and contrast traditional and contemporary approaches to the understanding of individual differences in human behavior.
Prerequisites: PSY 150 must pass with a grade of C or higher.
Corequisites: None. (On demand)

PSY 241 Developmental Psych (Coll/Tran) **3 0 0 3**
This course is a study of human growth and development. Emphasis is placed on major theories and perspectives as they relate to the physical, cognitive, and psychosocial aspects of development from conception to death. Upon completion, students should be able to demonstrate knowledge of development across the life span.
Prerequisites: PSY 150 must pass with a grade of C or higher.
Corequisites: None. (F, S, On demand)

PSY 243 Child Psychology (Coll/Tran) **3 0 0 3**
This course provides an overview of physical, cognitive, and psychosocial development from conception through adolescence. Topics include theories and research, interaction of biological and environmental factors, language development, learning and cognitive processes, social relations, and moral development. Upon completion, students should be able to identify typical and atypical childhood behavior patterns as well as appropriate strategies for interacting with children.
Prerequisites: PSY 150 must pass with a grade of C or higher.
Corequisites: None. (On demand)

PSY 244 Child Development I **3 0 0 3**
This course provides an introduction to the study of child development and examines the growth and development of children from conception through early childhood. Topics include historical and theoretical perspectives, terminology, research and observation techniques as well as physical, cognitive, and psychosocial growth and change. Upon completion, students should be able to demonstrate an understanding of the early stages of child development.
Prerequisites: None. Corequisites: None. (On demand)

PSY 245 Child Development II **3 0 0 3**
This course examines the growth and development of children during early and middle childhood. Emphasis is placed on factors influencing physical, cognitive, and psychosocial growth and change. Upon completion, students should be able to demonstrate an understanding of early and middle child development.
Prerequisites: None. Corequisites: None. (On demand)

PSY 246 Adolescent Psychology (Coll/Tran) **3 0 0 3**
This course provides an overview of the behavior patterns, life changes, and social issues that accompany the developmental stage of adolescence. Topics include developmental theories; physical, cognitive and psychosocial growth; transitions to young adulthood; and sociocultural factors that influence adolescent roles in home, school and community. Upon completion, students should be able to identify typical and atypical adolescent behavior patterns as well as appropriate strategies for interacting with adolescents.
Prerequisites: PSY 150 must pass with a grade of C or higher.
Corequisites: None. (On demand)

PSY 263 Educational Psychology (Coll/Tran) **3 0 0 3**
This course examines the application of psychological theories and principles to the educational process and setting. Topics include learning and cognitive theories, achievement motivation, teaching and learning styles, teacher and learner roles, assessment, and developmental issues. Upon completion, students should be able to demonstrate an understanding of the application of psychological theory to educational practice.
Prerequisites: PSY 150 must pass with a grade of C or higher.
Corequisites: None. (On demand)

PSY 275 Health Psychology (Coll/Tran) **3 0 0 3**
This course covers the biopsychosocial dynamics of stress and the maintenance of good health. Topics include enhancing health and well-being, stress management, lifestyle choices and attitudes, the mind-body relationship, nutrition, exercise, and fitness. Upon completion, students should be able to demonstrate an understanding of the psychological factors related to health and well-being.
Prerequisite: PSY 150 must pass with a grade of C or higher.
Corequisite: None. (On demand)

PSY 281 Abnormal Psychology (Coll/Tran) **3 0 0 3**
This course provides an examination of the various psychological disorders, as well as theoretical, clinical, and experimental perspectives of the study of psychopathology. Emphasis is placed on terminology, classification, etiology, assessment, and treatment of the major disorders. Upon completion, students should be able to distinguish between normal and abnormal behavior patterns as well as demonstrate knowledge of etiology, symptoms, and therapeutic techniques.
Prerequisites: PSY 150 must pass with a grade of C or higher.
Corequisites: None. (F, S)

RADIOGRAPHY

RAD 110 Rad Intro & Patient Care **2 3 0 3**
This course provides an overview of the radiography profession and student responsibilities. Emphasis is placed on basic principles of patient care, radiation protection, technical factors, and medical terminology. Upon completion, students should be able to demonstrate basic skills in these areas.
Prerequisites: Admission to Radiography program.
Corequisites: RAD 111, RAD 151. (F)

RAD 111 RAD Procedures I **3 3 0 4**
This course provides the knowledge and skills necessary to perform standard radiographic procedures. Emphasis is placed on radiography of the chest, abdomen, extremities, spine, and pelvis. Upon completion, students should be able to demonstrate competence in these areas.
Prerequisites: Admission to Radiography program.
Corequisites: RAD 110, RAD 151. (F)

RAD 112 RAD Procedures II **3 3 0 4**
This course provides the knowledge and skills necessary to perform standard radiographic procedures. Emphasis is placed on radiography of the skull, bony thorax, and gastrointestinal, biliary, and urinary systems. Upon completion, students should be able to demonstrate competence in these areas.
Prerequisites: RAD 110, RAD 111, RAD 151.
Corequisites: RAD 121 **and** RAD 161. (S)

RAD 121 Radiographic Imaging I **2 3 0 3**
This course provides the principles of conventional film-screen radiography. Emphasis is placed on the factors that impact density, contrast, recorded detail, and distortion. Upon completion, students should be able to demonstrate an understanding of conventional film-screen radiographic imaging.
Prerequisites: RAD 110, RAD 111, RAD 151.
Corequisites: RAD 112 **and** RAD 161. (S)

RAD 122 Radiographic Imaging II **1 3 0 2**
This course provides advanced principles of imaging including digital radiography. Emphasis is placed on the factors that impact brightness, contrast, recorded detail, and distortion. Upon completion, students should be able to demonstrate an understanding of advanced principles of imaging.
Prerequisites: RAD 112, RAD 121, RAD 161.
Corequisites: RAD 131, RAD 171. (SU)

RAD 131 Radiographic Physics I 1 3 0 2
This course introduces the principles of radiation characteristics and production. Emphasis is placed on imaging equipment. Upon completion, students should be able to demonstrate a basic understanding of radiation characteristics and production.
Prerequisites: Admission to the Radiography Program.
Corequisites: RAD 122 **and** RAD 171. (SU)

RAD 151 RAD Clinical Ed I 0 0 6 2
This course introduces patient management and basic radiographic procedures in the clinical setting. Emphasis is placed on mastering positioning of the chest and extremities, manipulating equipment, and applying principles of ALARA. Upon completion, students should be able to demonstrate successful completion of clinical objectives.
Prerequisites: Admission to Radiography program.
Corequisites: RAD 110, RAD 111. (F)

RAD 161 RAD Clinical Ed II 0 0 15 5
This course provides additional experience in patient management and in more complex radiographic procedures. Emphasis is placed on mastering positioning of the spine, pelvis, head and neck, and thorax and adapting procedures to meet patient variations. Upon completion, students should be able to demonstrate successful completion of clinical objectives.
Prerequisites: RAD 110, RAD 111, RAD 151.
Corequisites: RAD 112, RAD 121.(S)

RAD 171 RAD Clinical Ed III 0 0 12 4
This course provides experience in patient management specific to fluoroscopic and advanced radiographic procedures. Emphasis is placed on applying appropriate technical factors to all studies and mastering positioning of gastrointestinal and urological studies. Upon completion, students should be able to demonstrate successful completion of clinical objectives.
Prerequisites: RAD 112, RAD 121, RAD 161.
Corequisites: RAD 122, RAD 131. (SU)

RAD 211 RAD Procedures III 2 3 0 3
This course provides the knowledge and skills necessary to perform standard and specialty radiographic procedures. Emphasis is placed on radiographic specialty procedures, sectional anatomy, and advanced imaging. Upon completion, students should be able to demonstrate competence in these areas.
Prerequisites: RAD 122, RAD 131, RAD 171.
Corequisites: RAD 231, RAD 241, RAD 251. (F)

RAD 231 Radiographic Physics II 1 3 0 2
This course provides advanced principles of radiation characteristics and production including digital imaging and Computed Tomography (CT). Emphasis is placed on imaging equipment. Upon completion, students should be able to demonstrate an understanding of radiation characteristics and production.
Prerequisites: RAD 131 **or** RAD 171.
Corequisites: RAD 211, RAD 241, **and** RAD 251. (F)

RAD 241 Radiobiology/Protection 2 0 0 2
This course covers the principles of radiation protection and radiobiology. Topics include the effects of ionizing radiation on body tissues, protective measures for limiting exposure to the patient and personnel, and radiation monitoring devices. Upon completion, students should be able to demonstrate an understanding of the effects and uses of radiation in diagnostic radiology.
Prerequisites: RAD 122, RAD 131, RAD 171.
Corequisites: RAD 211, RAD 231, RAD 251. (F)

RAD 245 Image Analysis 1 3 0 2
This course provides an overview of image analysis and introduces methods of quality management. Topics include image evaluation, pathology, quality control, and quality assurance. Upon completion, students should be able to demonstrate a basic knowledge of image analysis and quality management.
Prerequisites: RAD 211, RAD 231, RAD 241, RAD 251.
Corequisites: RAD 261 **and** RAD 271. (S)

RAD 251 RAD Clinical Ed IV 0 021 7
This course provides the opportunity to continue mastering all basic radiographic procedures and to attain experience in advanced areas. Emphasis is placed on equipment operation, pathological recognition, pediatric and geriatric variations, and a further awareness of radiation protection requirements. Upon completion, students should be able to demonstrate successful completion of clinical objectives.
Prerequisites: RAD 122, RAD 131, RAD 171.
Corequisites: RAD 211, RAD 231, RAD 241. (F)

RAD 261 RAD Clinical Ed V 0 0 21 7
This course is designed to enhance expertise in all radiographic procedures, patient management, radiation protection, and image production and evaluation. Emphasis is placed on developing an autonomous approach to the diversity of clinical situations and successfully adapting to those procedures. Upon completion, students should be able to demonstrate successful completion of clinical objectives.
Prerequisites: RAD 251. Corequisites: RAD 245 **and** RAD 271. (S)

RAD 271 Radiography Capstone 0 3 0 1
This course provides an opportunity to exhibit problem-solving skills required for certification. Emphasis is placed on critical thinking and integration of didactic and clinical components. Upon completion, students should be able to demonstrate the knowledge required of any entry-level radiographer.
Prerequisites: RAD 211, RAD 231, RAD 241, RAD 251.
Corequisites: RAD 245, RAD 261. (S)

RESPIRATORY THERAPY

RCP 110 Intro to Respiratory Care 3 3 0 4
This course introduces the respiratory care profession. Topics include the role of the respiratory care practitioner, medical gas administration, basic patient assessment, infection control, and medical terminology. Upon completion, students should be able to demonstrate competence in concepts and procedures through written and laboratory evaluations. Competencies in the following procedures will prepare the students for clinical practice: aerosol/humidity, bronchial hygiene, hyperinflation, and airway management.
Prerequisites: Enrollment in the Respiratory Therapy program.
Corequisites: None. (F)

RCP 111 Therapeutics/Diagnostics 4 3 0 5
This course is a continuation of RCP 110. Emphasis is placed on entry-level therapeutic and diagnostic procedures used in respiratory care. Upon completion, students should be able to demonstrate competence in concepts and procedures through written and laboratory evaluations. Competencies in the following procedures will prepare the students for clinical practice: electro cardiography, pulmonary function testing, blood gases, bedside monitoring, and introduction to mechanical ventilation.
Prerequisites: RCP 110. Corequisites: None. (S)

RCP 113 RCP Pharmacology 2 0 0 2
This course covers the drugs used in the treatment of cardiopulmonary diseases. Emphasis is placed on the uses, actions, indications, administration, and hazards of pharmacological agents. Upon completion, students should be able to demonstrate competence through written evaluations. This course includes indepth study of the following drug classifications: bronchodilators, surface active agents, corticosteroids, antibiotics, CNS agents, cardiovascular drugs, and neonatal/pediatric drugs.
Prerequisites: Enrollment in the Respiratory Therapy program.
Corequisites: None. (F)

RCP 114 C-P Anatomy & Physiology 3 0 0 3
This course provides a concentrated study of cardiopulmonary anatomy and physiology essential to the practice of respiratory care. Emphasis is placed on cardiovascular and pulmonary physiology, acid/base balance, and blood gas interpretation. Upon completion, students should be able to demonstrate competence in these concepts through written evaluation. This course includes an overview of the effects of renal failure, aging, exercise, high-altitude and high-pressure environments on the cardiopulmonary system.
Prerequisites: None. Corequisites: None. (F)

RCP 115 C-P Pathophysiology 2 0 0 2
This course introduces the etiology, pathogenesis, and physiology of cardiopulmonary diseases and disorders. Emphasis is placed on clinical signs and symptoms along with diagnoses, complications, prognosis, and management. Upon completion, students should be able to demonstrate competence in these concepts through written evaluations. Case study evaluation will be used to emphasize clinical practice guideline implementation in care plan development.
Prerequisites: None. Corequisites: None. (S)

RCP 122 Special Practice Lab 0 2 0 1
This course provides additional laboratory learning opportunities in respiratory care. Emphasis is placed on therapeutic procedures and equipment management. Upon completion, students should be able to demonstrate competence in concepts and procedures through laboratory evaluations.
Prerequisites: None. Corequisites: None. (F)

RCP 123 Special Practice Lab 0 3 0 1
This course provides additional laboratory learning opportunities in respiratory care. Emphasis is placed on therapeutic procedures and equipment management. Upon completion, students should be able to demonstrate competence in concepts and procedures through laboratory evaluations.
Prerequisites: None. Corequisites: None. (SU)

RCP 145 RCP Clinical Practice II 0 0 15 5
This course provides entry-level clinical experience. Emphasis is placed on therapeutic and diagnostic patient care. Upon completion, students should be able to demonstrate clinical competence in required performance evaluations.
Prerequisites: RCP 110. Corequisites: RCP 111. (S)

RCP 152 RCP Clinical Practice III 0 0 6 2
This course provides entry-level clinical experience. Emphasis is placed on therapeutic and diagnostic patient care. Upon completion, students should be able to demonstrate clinical competence in required performance evaluations.
Prerequisites: RCP 111. Corequisites: None. (SU)

RCP 210 Critical Care Concepts 3 3 0 4
This course provides further refinement of acute patient care and underlying pathophysiology. Topics include a continuation in the study of mechanical ventilation, underlying pathophysiology, and introduction of critical care monitoring. Upon completion, students should be able to demonstrate competence in concepts and procedures through written and laboratory evaluations. Specific topics include: prevention of lung injury, independent lung ventilation, high frequency techniques, and infant mechanical ventilation.
Prerequisites: None. Corequisites: None. (F)

RCP 211 Adv Monitoring/Procedures 3 3 0 4
This course includes advanced information gathering and decision making for the respiratory care professional. Topics include advanced cardiac monitoring and special procedures. Upon completion, students should be able to evaluate, design, and recommend appropriate care plans through written and laboratory evaluations. This course prepares the student for ACLS certification.
Prerequisites: RCP 210. Corequisites: None. (S)

RCP 214 Neonatal/Ped's RC 1 3 0 2
This course provides in-depth coverage of the concepts of neonatal and pediatric respiratory care. Emphasis is placed on neonatal and pediatric pathophysiology and on the special therapeutic needs of neonates and children. Upon completion, students should be able to demonstrate competence in these concepts through written and laboratory evaluations. This course includes preparation for PALS and NRP certification.
Prerequisites: RCP 111. Corequisites: None. (F)

RCP 215 Career Prep-Adv Level 0 3 0 1
This course provides preparation for employment and the advanced-level practitioner credentialing exam. Emphasis is placed on review of the NBRC Advanced-Level Practitioner Exam and supervision and management. Upon completion, students should be able to successfully complete the appropriate self-assessment examinations and meet the requirements for employment.
Prerequisites: None. Corequisites: None. (S)

RCP 236 RCP Clinical Practice IV 0 0 18 6
This course provides advanced practitioner clinical experience. Emphasis is placed on therapeutic and diagnostic patient care. Upon completion, students should be able to demonstrate clinical competence in required performance evaluations.
Prerequisites: RCP 111. Corequisites: RCP 210. (F)

RCP 246 RCPClinical Practice V 0 18 0 6
This course provides advanced practitioner clinical experience. Emphasis is placed on therapeutic and diagnostic patient care. Upon completion, students should be able to demonstrate clinical competence in required performance evaluations.
Prerequisites: RCP 210. Corequisites: RCP 211. (S)

RELIGION

REL 110 World Religions (Coll/Tran) **3 0 0 3**
This course introduces the world's major religious traditions. Topics include Primal religions, Hinduism, Buddhism, Islam, Judaism, and Christianity. Upon completion, students should be able to identify the origins, history, beliefs, and practices of the religions studied. Attention will also be given to current practices and historical influences.
Prerequisites: None. Corequisites: None. (F, S, SU)

REL 211 Intro to Old Testament (Coll/Tran) **3 0 0 3**
This course is a survey of the literature of the Hebrews with readings from the law, prophets, and other writings. Emphasis is placed on the use of literary, historical, archeological, and cultural analysis. Upon completion, students should be able to use the tools of critical analysis to read and understand Old Testament literature.
Prerequisites: None. Corequisites: None. (F, S)

REL 212 Intro to New Testament (Coll/Tran) **3 0 0 3**
This course is a survey of the literature of first-century Christianity with readings from the gospels, Acts, and the Pauline and pastoral letters. Topics include the literary structure, audience, and religious perspective of the writings, as well as the historical and cultural context of the early Christian community. Upon completion, students should be able to use the tools of critical analysis to read and understand New Testament literature.
Prerequisites: None. Corequisites: None. (F, S)

REL 221 Religion in America (Coll/Tran) **3 0 0 3**
This course is an examination of religious beliefs and practice in the United States. Emphasis is placed on mainstream religious traditions and non-traditional religious movements from the Colonial period to the present. Upon completion, students should be able to recognize and appreciate the diversity of religious traditions in America. Some attention will be given to religious beliefs and practices in the South.
Prerequisites: None. Corequisites: None. (F, S, SU)

REAL ESTATE

RLS 112 Broker Prelicensing 5 0 0 5
This course provides basic instruction in real estate principles and practices. Topics include law, finance, brokerage, closing, valuation, management, taxation, mathematics, construction, land use, property insurance, and NC License Law and Commission Rules. Upon completion, students should be able to demonstrate basic knowledge and skills necessary for real estate sales.
Prerequisites: None. Corequisites: None. (F, S)

INFORMATION SYSTEMS SECURITY

SEC 110 Security Concepts 2 2 0 3
This course introduces the concepts and issues related to securing information systems and the development of policies to implement information security controls. Topics include the historical view of networking and security, security issues, trends, security resources, and the role of policy, people, and processes in information security. Upon completion, students should be able to identify information security risks, create an information security policy, and identify processes to implement and enforce policy.
Prerequisites: None. Corequisites: None. (F)

SEC 150 Secure Communications 2 2 0 3
This course provides an overview of current technologies used to provide secure transport of information across networks. Topics include data integrity through encryption, Virtual Private Networks, SSL, SSH, and IPSec. Upon completion, students should be able to implement secure data transmission technologies.
Prerequisites: SEC 110, NET 125, NOS 110. Corequisites: None. (S)

SEC 160 Secure Admin I 2 2 0 3
This course provides an overview of security administration and fundamentals of designing security architectures. Topics include networking technologies, TCP/IP concepts, protocols, network traffic analysis, monitoring, and security best practices. Upon completion, students should be able to identify normal network traffic using network analysis tools and design basic security defenses.
Prerequisites: SEC 110, NET 125. Corequisites: None. (F)

SEC 210 Intrusion Detection 2 2 0 3
This course introduces the student to intrusion detection methods in use today. Topics include the types of intrusion detection products, traffic analysis, and planning and placement of intrusion detection solutions. Upon completion, students should be able to plan and implement intrusion detection solution for networks and host based systems.
Prerequisites: SEC 160. Corequisites: None. (S)

SEC 220 Defense-In-Depth 2 2 0 3
This course introduces students to the concepts of defense in-depth, a security industry best practice. Topics include firewalls, backup systems, redundant systems, disaster recovery, and incident handling. Upon completion, students should be able to plan effective information security defenses, backup systems, and disaster recovery procedures.
Prerequisites: None. Corequisites: SEC 160. (F)

SEC 240 Wireless Security 2 2 0 3
This course introduces security principles and topics related to the wireless networking environment. Topics include network topologies, network protocols, security issues, and best practices for wireless environments. Upon completion, students should be able to design, setup, manage, and secure a wireless network.
Prerequisites: SEC 110 **and** NET 175. Corequisites: None. (S)

SEC 289 Security Capstone Project 1 4 0 3
This course provides the student the opportunity to put into practice all the skills learned to this point. Emphasis is placed on security policy, process planning, procedure definition, business continuity, and systems security architecture. Upon completion, students should be able to design and implement comprehensive information security architecture from the planning and design phase through implementation.
Prerequisites: SEC 220. Corequisites: None. (S)

SIMULATION AND GAME DEVELOPMENT

SGD 111 Introduction to SGD 2 3 0 3
This course provides students with an introduction to simulation and game development. Topics include setting, storytelling, narrative, character design, interface design, game play, internal economy, core mechanics, game genres, AI, the psychology of game design and professionalism. Upon completion, students should be able to demonstrate knowledge of the major aspects of simulation and game design and development.
Prerequisites: None. Corequisites: None. (On demand)

SGD 112 SGD Design 2 3 0 3
This course introduces the fundamentals of simulation and game design. Topics include industry standards and design elements for simulations and games. Upon completion, students should be able to design simple simulations and/or games.
Prerequisites: None. Corequisites: None. (On demand)

SGD 114 3D Modeling 2 3 0 3
This course introduces the tools required to create three dimensional (3D) models. Emphasis is placed on exploring tools used to create 3D models. Upon completion, students should be able to create and animate 3D models using 3D modeling tools.
Prerequisites: None. Corequisites: None. (On demand)

SOCIOLOGY

SOC 210 Introduction to Sociology (Coll/Tran) **3 0 0 3**
This course introduces the scientific study of human society, culture, and social interactions. Topics include socialization, research methods, diversity and inequality, cooperation and conflict, social change, social institutions, and organizations. Upon completion, students should be able to demonstrate knowledge of sociological concepts as they apply to the interplay among individuals, groups, and societies.
Prerequisites: DRE 098 **or** appropriate placement test score.
Corequisites: None. (F, S, SU)

SOC 213 Sociology of the Family (Coll/Tran) **3 0 0 3**
This course covers the institution of the family and other intimate relationships. Emphasis is placed on mate selection, gender roles, sexuality, communication, power and conflict, parenthood, diverse lifestyles, divorce and remarriage, and economic issues. Upon completion, students should be able to analyze the family as a social institution and the social forces which influence its development and change.
Prerequisites: DRE 098 **or** appropriate placement test score.
Corequisites: None. (F, S, SU)

SOC 215 Group Processes (Coll/Tran) **3 0 0 3**
This course introduces group processes and dynamics. Emphasis is placed on small group experiences, roles and relationships within groups, communication, cooperation and conflict resolution, and managing diversity within and among groups. Upon completion, students should be able to demonstrate the knowledge and skills essential to analyze group interaction and to work effectively in a group context.
Prerequisites: DRE 098 **or** appropriate placement test score.
Corequisites: None. (On demand)

SOC 220 Social Problems (Coll/Tran) **3 0 0 3**
This course provides an in-depth study of current social problems. Emphasis is placed on causes, consequences, and possible solutions to problems associated with families, schools, workplaces, communities, and the environment. Upon completion, students should be able to recognize, define, analyze, and propose solutions to these problems.
Prerequisites: DRE 098 **or** appropriate placement test score.
Corequisites: None. (F, S)

SOC 225 Social Diversity (Coll/Tran) **3 0 0 3**
This course provides a comparison of diverse roles, interests, opportunities, contributions, and experiences in social life. Topics include race, ethnicity, gender, sexual orientation, class, and religion. Upon completion, students should be able to analyze how cultural and ethnic differences evolve and how they affect personality development, values, and tolerance.
Prerequisites: DRE 098 **or** appropriate placement test score.
Corequisites: None. (On demand)

SOC 230 Race and Ethnic Relations (Coll/Tran) **3 0 0 3**
This course includes an examination of the various aspects of race and ethnicity and how these lead to different experiences, opportunities, problems, and contributions. Topics include prejudice, discrimination, perceptions, myths, stereotypes, and intergroup relationships. Upon completion, students should be able to identify and analyze relationships among racial and ethnic groups within the larger society.
Prerequisites: DRE 098 **or** appropriate placement test score.
Corequisites: None. (On demand)

SOC 234 Sociology of Gender (Coll/Tran) **3 0 0 3**
This course examines contemporary roles in society with special emphasis on recent changes. Topics include sex role socialization, myths and stereotypes, gender issues related to family, work, and power. Upon completion, students should be able to analyze modern relationships between men and women.
Prerequisites: DRE 098 **or** appropriate placement test score.
Corequisites: None. (On demand)

SOC 242 Sociology of Deviance (Coll/Tran) **3 0 0 3**
This course provides an overview of deviant behavior and the processes involved in its definition, causation, prevention, control, and treatment. Topics include theories of causation, social control, delinquency, victimization, criminality, the criminal justice system, punishment, rehabilitation, and restitution. Upon completion, students should be able to identify and analyze issues surrounding the nature and development of social responses to deviance.
Prerequisites: DRE 098 **or** appropriate placement test score.
Corequisites: None. (On demand)

SOC 244 Soc of Death & Dying (Coll/Tran) **3 0 0 3**
This course presents sociological perspectives on death and dying. Emphasis is placed on analyzing the different death rates among various groups, races, and societies, as well as various types of death. Upon completion, students should be able to discuss the rituals of death, both cultural and religious, and examine current issues relating to death and dying.
Prerequisites: DRE 098 **or** appropriate placement test score.
Corequisites: None. (F)

SOC 250 Sociology of Religion (Coll/Tran) **3 0 0 3**
This course examines religion from a sociological perspective as part and product of human society. Topics include the origins, development, and functions of belief systems; religious organizations; conversion; and interactions with politics, the economy, science, and the class system. Upon completion, students should be able to describe and analyze religious systems.
Prerequisites: DRE 098 **or** appropriate placement test score.
Corequisites: None. (On demand)

SOC 254 Rural and Urban Sociology (Coll/Tran) **3 0 0 3**
This course applies sociological concepts to a comparative study of major social issues facing contemporary rural and urban America. Emphasis is placed on growth and development patterns, ecological factors, social organizations, social controls, and processes of change. Upon completion, students should be able to illustrate the differences and similarities that exist between urban and rural environments as they resolve contemporary issues.
Prerequisites: DRE 098 **or** appropriate placement test score.
Corequisites: None. (On demand)

SPANISH

SPA 111 Elementary Spanish I (Coll/Tran) **3 0 0 3**
This course introduces the fundamental elements of the Spanish language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Spanish and demonstrate cultural awareness.
Prerequisites: None. Corequisites: SPA 181. (F, S, SU)

SPA 112 Elementary Spanish II (Coll/Tran) **3 0 0 3**
This course is a continuation of SPA 111 focusing on the fundamental elements of the Spanish language within a cultural context. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Spanish and demonstrate further cultural awareness.
Prerequisites: SPA 111 must pass with a grade of C or higher.
Corequisites: SPA 182. (F, S, SU)

SPA 120 Spanish for the Workplace **3 0 0 3**
This course offers applied Spanish for the workplace to facilitate basic communication with people whose native language is Spanish. Emphasis is placed on oral communication and career-specific vocabulary that targets health, business, and/or public service professions. Upon completion, students should be able to communicate at a functional level with native speakers and demonstrate cultural sensitivity.
Prerequisites: None. Corequisites: None. (S)

SPA 141 Culture and Civilization (Coll/Tran) **3 0 0 3**
This course provides an opportunity to explore issues related to the Hispanic world. Topics include historical and current events, geography, and customs. Upon completion, students should be able to identify and discuss selected topics and cultural differences related to the Hispanic world.
Prerequisites: None. Corequisites: None. (On demand)

SPA 161 Cultural Immersion (Coll/Tran) **2 3 0 3**
This course explores Hispanic culture through intensive study on campus and field experience in a host country or area. Topics include an overview of linguistic, historical, geographical, sociopolitical, economic, and/or artistic concerns of the area visited. Upon completion, students should be able to exhibit first-hand knowledge of issues pertinent to the host area and demonstrate understanding of cultural differences.
Prerequisites: SPA 111. Corequisites: None. (On demand)

SPA 181 Spanish Lab 1 (Coll/Tran) **0 2 0 1**
This course provides an opportunity to enhance acquisition of the fundamental elements of the Spanish language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of various supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Spanish and demonstrate cultural awareness.
Prerequisites: None. Corequisites: SPA 111. (F, S, SU)

SPA 182 Spanish Lab 2 (Coll/Tran) **0 2 0 1**
This course provides an opportunity to enhance acquisition of the fundamental elements of the Spanish language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of various supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Spanish and demonstrate cultural awareness.
Prerequisites: SPA 181 must pass with a grade of C or higher.
Corequisites: SPA 112. (F, S, SU)

SPA 211 Intermediate Spanish I (Coll/Tran) **3 0 0 3**
This course provides a review and expansion of the essential skills of the Spanish language. Emphasis is placed on the study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future.
Prerequisites: SPA 112 must pass with a grade of C or higher.
Corequisites: SPA 281. (F)

SPA 212 Intermediate Spanish II (Coll/Tran) **3 0 0 3**
This course provides a continuation of SPA 211. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication.
Prerequisites: SPA 211 must pass with a grade of C or higher.
Corequisites: SPA 282. (S)

SPA 221 Spanish Conversation (Coll/Tran) **3 0 0 3**
This course provides an opportunity for intensive communication in spoken Spanish. Emphasis is placed on vocabulary acquisition and interactive communication through the discussion of media materials and authentic texts. Upon completion, students should be able to discuss selected topics, express ideas and opinions clearly, and engage in formal and informal conversations.
Prerequisites: SPA 212. Corequisites: None. (On demand)

SPA 281 Spanish Lab 3 (Coll/Tran) **0 2 0 1**
This course provides an opportunity to enhance the review and expansion of the essential skills of the Spanish language. Emphasis is placed on the study of authentic and representative literary and cultural texts through the use of various supplementary learning media and materials. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future.
Prerequisties: SPA 182 must pass with a grade of C or higher.
Corequisites: SPA 211. (F)

SPA 282 Spanish Lab 4 (Coll/Tran) **0 2 0 1**
This course provides an opportunity to enhance the review and expansion of the essential skills of the Spanish language. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts through the use of various supplementary learning media and materials. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication.
Prerequisties: SPA 281 must pass with a grade of C or higher.
Corequisites: SPA 212. (S)

SURGICAL TECHNOLOGY

SUR 110 Intro to Surg Tech 3 0 0 3
This course provides a comprehensive study of peri-operative care, patient care concepts, and professional practice concepts within the profession of surgical technology. Topics include: introductory concepts, organizational structure and relationships, legal, ethical and moral issues, medical terminology, pharmacology, anesthesia, wound healing management concepts, and the technological sciences. Upon completion, students should be able to apply theoretical knowledge of the course topics to the practice of surgical technology.
Prerequisites: CTS 080 **or** appropriate test score; Enrollment in the Surgical Technology program. Corequisites: ACA 111, BIO 163, ENG 111, SUR 111. (F)

SUR 111 Periop Patient Care 5 6 0 7
This course provides the surgical technology student the theoretical knowledge required to function in the pre-operative, intra-operative, and post-operative role. Topics include asepsis, disinfection and sterilization, physical environment, instrumentation, equipment, peri-operative patient care, and peri-operative case management. Upon completion, students should be able to apply the principles and practice of the peri-operative team member to the operative environment.
Prerequisites: CTS 080 **or** appropriate test score; Enrollment in the Surgical Technology program. Corequisites: ACA 111, BIO 163, ENG 111, SUR 110. (F)

SUR 122 Surgical Procedures I 5 3 0 6
This course provides an introduction to selected basic and intermediate surgical specialties that students are exposed to the first clinical rotation. Emphasis is placed on related surgical anatomy, pathology, and procedures that enhance theoretical knowledge of patient care, instrumentation, supplies, and equipment. Upon completion, students should be able to correlate, integrate, and apply theoretical knowledge of the course topics to the clinical operative environment.
Prerequisites: BIO 163, ENG 111, SUR 110, SUR 111.
Corequisites: BIO 175, PSY 150, SUR 123. (S)

SUR 123 SUR Clinical Practice I 0 021 7
This course provides clinical experience with a variety of perioperative assignments to build upon skills learned in SUR 111. Emphasis is placed on the scrub and circulating roles of the surgical technologist including aseptic technique and basic case preparation for selected surgical procedures. Upon completion, students should be able to prepare, assist with, and dismantle basic surgical cases in both the scrub and circulating roles.
Prerequisites: SUR 110, SUR 111. Corequisites: SUR 122. (S)

SUR 134 Surgical Procedures II 5 0 0 5
This course provides a comprehensive study of intermediate and advanced surgical specialties that students are exposed to in the second clinical rotation. Emphasis is placed on related surgical anatomy, pathology, and procedures that enhance theoretical knowledge of patient care, instrumentation, supplies, and equipment. Upon completion, students should be able to correlate, integrate, and apply theoretical knowledge of the course topics to the clinical operative environment.
Prerequisites: SUR 123. Corequisites: None. (SU)

SUR 135 SUR Clinical Practice II 0 0 12 4
This course provides clinical experience with a variety of perioperative assignments to build skills required for complex perioperative patient care. Emphasis is placed on greater technical skills, critical thinking, speed, efficiency, and autonomy in the operative setting. Upon completion, students should be able to function in the role of an entry-level surgical technologist.
Prerequisites: BIO 175, PSY 150, SUR 123.
Corequisites: SUR 134, SUR 137. (SU)

SUR 137 Prof Success Prep 1 0 0 1
This course provides employability skills and an overview of theoretical knowledge in preparation for certification. Topics include test-taking strategies, resume preparation, interviewing strategies, communication skills, and teamwork concepts. Upon completion, students should be able to prepare a resume, demonstrate appropriate interview techniques, and identify strengths and weaknesses in preparation for certification.
Prerequisites: SUR 123. Corequisites: SUR 134, SUR 135. (SU)

TURFGRASS MANAGEMENT

TRF 110 Intro Turfgrass Cult & ID 3 2 0 4
This course covers the principles of reproduction, growth development, species characteristics, establishment and maintenance of golf courses and sports fields, and lawns. Topics include principles of reproduction, growth development, species characteristics, establishment and maintenance of golf courses and sports fields, and lawn applications. Upon completion, students should be able to identify turfgrass species and develop an establishment and maintenance plan for high quality turf areas in accordance with sustainable practices.
Prerequisites: None. Corequisites: None. (F, SU)

TRF 120 Turfgrass Irrigat & Design 2 4 0 4
This course covers the basic techniques involved in the design, layout, installation, and use of water-wise turfgrass irrigation systems. Topics include types of irrigation systems, components of the systems, materials available for use, and economic considerations. Upon completion, students should be able to complete a functional design for a turfgrass irrigation system according to sustainable practices.
Prerequisites: None. Corequisites: None. (S)

TRF 125 Turfgrass Computer App 1 3 0 2
This course introduces basic computer applications for the turfgrass industry. Emphasis is placed on computer software applications for irrigation design, management, and budget planning for turfgrass applications. Upon completion, students should be able to use appropriate software for various turfgrass management applications.
Prerequisites: None. Corequisites: None. (F)

TRF 130 Native Flora ID 1 3 0 2
This course covers identification of selected native ground covers and woodland trees by summer and/or winter characteristics. Emphasis is placed on mature age, fall colors, site adaptability, and habit of growth for special turf-related areas. Upon completion, students should be able to identify native plants by size and leaf, bud, twig, and limb formation.
Prerequisites: None. Corequisites: None. (F)

TRF 140 Turfgrass Mgmt Safety 2 2 0 3
This course introduces the dangers and problems that may be faced in the turfgrass management profession. Emphasis is placed on the possible prevention and treatment that may be necessary as well as basic first aid treatment. Upon completion, students should be able to demonstrate effective leadership skills in various professional emergency scenarios.
Prerequisites: None. Corequisites: None. (F)

TRF 150 Landscape Drafting 1 3 0 2
This course introduces the equipment, software, and skills involved in landscape drafting. Emphasis is placed on creating geometrical constructions and visualizing and drawing scaled profile views of various turfgrass-related sites. Upon completion, students should be able to produce competent landscape drawings.
Prerequisites: None. Corequisites: None. (F)

TRF 151 Intro Landscape Design 2 2 0 3
This course covers the principles and practices of landscape design with application to landscape problems associated with lawn areas. Emphasis is placed on drafting, site analysis, cost estimating, and common elements of good design, plant material selection, and proper plant utilization (encouraged use of native plants and discouraged use of invasive species). Upon completion, students should be able to read plans, draft a landscape design, and install plans according to sustainable practices.
Prerequisites: None. Corequisites: None. (S)

TRF 152 Landscape Maintenance 2 2 0 3
This course introduces the tasks of landscape maintenance. Emphasis is placed on lawns, shrubs, trees, flowers, and ground covers. Upon completion, students should be able to maintain a landscape area on a year-round schedule.
Prerequisites: None. Corequisites: None. (F)

TRF 210 Turfgrass Eqmt Mgmt 1 4 0 3
This course covers the operation and maintenance of specialized turfgrass management equipment. Topics include small engine use and repair; operation, maintenance, and repair of turfgrass management equipment; organization of shop areas; and safety considerations. Upon completion, students should be able to operate and maintain turfgrass management equipment.
Prerequisites: None. Corequisites: None. (S)

TRF 220 Turfgrass Calculations 2 0 0 2
This course introduces the specific math concepts and calculations necessary in the turfgrass industry. Emphasis is placed on calibration of equipment used in the application of fertilizers and pesticides and calculation of solid materials used in construction. Upon completion, students should be able to correctly perform basic calculations and calibrations and estimate materials needed in specific professional turfgrass management situations.
Prerequisites: None. Corequisites: None. (S)

TRF 230 Turfgrass Mgmt Apps 1 2 0 2
This course introduces specific sports field design, installation, and maintenance. Topics include natural grass croquet courts and baseball, soccer, and football fields. Upon completion, students should be able to perform specific tasks in layout, field marking, and preparing for tournament play.
Prerequisites: None. Corequisites: None. (S)

TRF 240 Turfgrass Pest Control 2 2 0 3
This course covers detection and identification of turfgrass pests with emphasis on methods of sustainable management. Topics include pest identification with an understanding of pesticides used, application procedures, and costs involved in sustainable management programs. Upon completion, students should be able to identify turfgrass pests, select the proper pesticide, develop pest management programs, and/or use integrated pest management.
Prerequisites: None. Corequisites: None. (F)

TRF 250 Golf /Sport Field Const 2 4 0 4
This course provides information for layout, materials, and construction of special recreational applications. Emphasis is placed on site selection, equipment, safety regulations, drainage, turfgrass species, and irrigation needs. Upon completion, students should be able to locate construction reference sites and develop drainage and irrigation plans from their own blueprints and topo map designs.
Prerequisites: None. Corequisites: None. (S)

TRF 260 Adv Turfgrass Mgmt 3 2 0 4
This course covers the principles and practices involved in turfgrass management. Topics include choosing the best management practice in mowing, pest control, fertilization, irrigation, traffic control, air control, budgeting, and materials procurement. Upon completion, students should be able to demonstrate knowledge of the principles covered and select and apply the best practices in turfgrass management.
Prerequisites: TRF 110. Corequisites: None. (S)

TRANSPORTATION TECHNOLOGY

TRN 110 Intro to Transport Tech 1 2 0 2
This course covers workplace safety, hazardous materials, environmental regulations, hand tools, service information, basic concepts, vehicle systems, and common transportation industry terminology. Topics include familiarization with major vehicle systems, proper use of various hand and power tools, material safety data sheets, and personal protective equipment. Upon completion, students should be able to demonstrate appropriate safety procedures, identify and use basic shop tools, and describe government regulations regarding transportation repair facilities.
Prerequisites: DRE 097 **or** appropriate placement test score.
Corequisites: CTS 080. (F, S)

TRN 120 Basic Transp Electricity 4 3 0 5
This course covers basic electrical theory, wiring diagrams, test equipment, and diagnosis, repair and replacement of batteries, starters, and alternators. Topics include Ohm's Law, circuit construction, wiring diagrams, circuit testing, and basic troubleshooting. Upon completion, students should be able to properly use wiring diagrams, diagnose, test, and repair basic wiring, battery, starting, charging, and electrical concerns.
Prerequisites: DMA 010, DMA 020, DMA 030, DRE 097 **or** appropriate placement test score. Corequisites: TRN 110. (F)

TRN 140 Transp Climate Control 1 2 0 2
This course covers the theory of refrigeration and heating, electrical/electronic/pneumatic controls, and diagnosis and repair of climate control systems. Topics include diagnosis and repair of climate control components and systems, recovery/recycling of refrigerants, and safety and environmental regulations. Upon completion, students should be able to diagnose and repair vehicle climate control systems.
Prerequisites: DRE 097 **or** appropriate placement test score.
Corequisites: TRN 110, TRN 140A. (F)

TRN 140A Transp Climate Cont Lab 1 2 0 2
This course provides experiences for enhancing student skills in the diagnosis and repair of transportation climate control systems. Emphasis is placed on reclaiming, recovery, recharging, leak detection, climate control components, diagnosis, air conditioning equipment, tools and safety. Upon completion, students should be able to describe the operation, diagnose, and safely service climate control systems using appropriate tools, equipment, and service information.
Prerequisites: None. Corequisites: TRN 140. (F)

TRN 170 Pc Skills for Transp 1 2 0 2
This course introduces students to personal computer literacy and Internet literacy with an emphasis on the transportation service industry. Topics include service information systems, management systems, computer-based systems, and PC-based diagnostic equipment. Upon completion, students should be able to access information pertaining to transportation technology and perform word processing.
Prerequisites: CTS 080, DRE 097 **or** appropriate placement test score.
Corequisites: None. (F)

WEB TECHNOLOGIES

WEB 110 Internet/Web Fundamentals 2 2 0 3
This course introduces World Wide Web Consortium (W3C) standard markup language and services of the Internet. Topics include creating web pages, search engines, FTP, and other related topics. Upon completion, students should be able to deploy a hand-coded website created with mark-up language, and effectively use and understand the function of search engines.
Prerequisites: None. Corequisites: None. (F)

WEB 111 Intro to Web Graphics 2 2 0 3
This course is the first of two courses covering the creation of web graphics, addressing problems peculiar to WWW display using appropriate software. Topics include web graphics file types, type conversion, RGB color, the browser-safe palette, elementary special effects, image maps, and other related topics. Upon completion, students should be able to create graphics such as banners buttons, backgrounds, and other graphics for Web pages.
Prerequisites: None. Corequisites: None. (On demand)

WEB 115 Web Markup and Scripting 2 2 0 3
This course introduces client-side Internet programming using the current W3C-recommended presentation markup language and supporting elements. Topics include site management and development, markup elements, stylesheets, validation, accessibility, standards, browsers, and basic JavaScripting. Upon completion, students should be able to hand-code web pages with various media elements according to current markup standards and integrate them into websites.
Prerequisites: None. Corequisites: None. (F)

WEB 120 Intro Internet Multimedia 2 2 0 3
This is the first of two courses covering the creation of internet multimedia. Topics include Internet multimedia file types, file type conversion, acquisition of digital audio/video, streaming audio/video and graphics animation plug-in programs and other related topics. Upon completion, students should be able to create Internet multimedia presentations utilizing a variety of methods and applications.
Prerequisites: None. Corequisites: None. (S)

WEB 140 Web Development Tools 2 2 0 3
This course provides an introduction to web development software suites. Topics include the creation of websites and applets using web development software. Upon completion, students should be able to create entire websites and supporting applets.
Prerequisites: None. Corequisites: None. (S)

WEB 151 Mobile Application Dev I 2 2 0 3
This course introduces students to programming technologies, design and development related to mobile applications. Topics include accessing device capabilities, industry standards, operating systems, and programming for mobile applications using an OS Software Development Kit (SDK). Upon completion, students should be able to create basic applications for mobile devices.
Prerequisites: None. Corequisites: None. (On demand)

WEB 180 Active Server Pages 2 2 0 3
This course introduces Active Server Programming. Topics include Jscript, VBScript, HTML forms processing, and the Active Server Object Model. Upon completion, students should be able to create and maintain Active Server applications.
Prerequisites: CIS 115. Corequisites: None. (On demand)

WEB 186 XML Technology 2 2 0 3
This course is designed to introduce students to XML and related internet technologies. Topics include extensible style language (XSL) document object model (DOM), extensible stylesheet language transformation (XSLT), and simple object access protocol (SOAP). Upon completion, students should be able to create a complex XML document.
Prerequisites: CIS 115. Corequisites: None. (On demand)

WEB 210 Web Design 2 2 0 3
This course introduces intermediate to advanced web page design techniques. Topics include effective use of graphics, fonts, colors, navigation tools, advanced markup language elements, as well as a study of bad design techniques. Upon completion, students should be able to employ advanced design techniques to create high impact and highly functional web pages.
Prerequisites: None. Corequisites: None. (S)

WEB 220 Advanced Multimedia 2 2 0 3
This is the second of two courses covering Internet multimedia. Topics include use of advanced Internet multimedia applications. Upon completion, students should be able to create interactive Internet multimedia presentations.
Prerequisites: WEB 120. Corequisites: None. (On demand)

WEB 230 Implementing Web Serv 2 2 0 3
This course covers website and web server architecture. Topics include installation, configuration, administration, and security of web servers, services and sites. Upon completion, students should be able to effectively manage the web services deployment lifecycle according to industry standards.
Prerequisites: NET 125. Corequisites: None. (F)

WEB 240 Internet Security 2 2 0 3
This course covers security issues related to Internet services. Topics include the operating system and the Internet service security mechanisms. Upon completion, students should be able to implement security procedures for operating system level and server level alerts.
Prerequisites: WEB 110; CIS 110 **or** CIS 111; SEC 110.
Corequisites: None. (On demand)

WEB 250 Database Driven Websites 2 2 0 3
This course introduces dynamic (database-driven) website development. Topics include the use of basic database CRUD statements (create, read, update and delete) incorporated into web applications, as well as in software architecture principles. Upon completion, students should be able to design and develop database driven web applications according to industry standards.
Prerequisites: DBA 110, WEB 140. Corequisites: None. (F)

WEB 260 E-Commerce Infrastructure 2 2 0 3
This course introduces the concepts and tools to implement electronic commerce via the Internet. Topics include application and server software selection, securing transactions, use and verification of credit cards, publishing of catalogs, documentation, and site administration. Upon completion, students should be able to setup a working e-commerce Internet website.
Prerequisites: WEB 250. Corequisites: None. (On demand)

WEB 289 Internet Technologies Project 1 4 0 3
This course provides an opportunity to complete a significant Web technologies project from the design phase through implementation with minimal instructor support. Emphasis is placed on project definition, documentation, installation, testing, presentation, and training. Upon completion, students should be able to complete an Internet project from the definition phase through implementation.
Prerequisites: WEB 250. Corequisites: None. (S)

WORK-BASED LEARNING

WBL 110 World of Work 1 0 0 1
This course covers basic knowledge necessary for gaining and maintaining employment. Topics include job search skills, work ethic, meeting employer expectations, workplace safety, and human relations. Upon completion, students should be able to successfully make the transition from school to work.
Prerequisites: DRE 097 **or** appropriate placement test score.
Corequisites: None. (On Demand)

WBL 111 Work-Based Learning I 0 010 1
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.
Prerequisites: None. Corequisites: None. (F, S, SU)

WBL 112 Work-Based Learning I 0 0 20 2
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.
Prerequisites: None. Corequisites: None. (F, S, SU)

WBL 113 Work-Based Learning I 0 03 0 3
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.
Prerequisites: None. Corequisites: None. (F, S, SU)

WBL 114 Work-Based Learning I 0 0 40 4
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.
Prerequisites: None. Corequisites: None. (F, S)

WBL 115 Work-Based Learning Seminar I 1 0 0 1
This course provides information for career development through emphasis on self-exploration and awareness of the world of work. Upon completion, students are capable of career decision making and planning.
Prerequisites: None.
Corequisites: WBL 111 or WBL 112 or WBL 113 or WBL 114. (On Demand)

WBL 121 Work-Based Learning II 0 0 10 1
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.
Prerequisites: WBL 111 **or** WBL 112 **or** WBL 113 **or** WBL 114.
Corequisites: None. (F, S, SU)

WBL 122 Work-Based Learning II 0 0 20 2
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.
Prerequisites: WBL 111 **or** WBL 112 **or** WBL 113 **or** WBL 114.
Corequisites: None. (F, S, SU)

WBL 123 Work-Based Learning II 0 030 3
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies. Prerequisites: WBL 111 **or** WBL 112 **or** WBL 113 **or** WBL 114.
Corequisites: None. (F, S, SU)

WBL 124 Work-Based Learning II 0 040 4
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies. Prerequisites: WBL 111 **or** WBL 112 **or** WBL 113 **or** WBL 114.
Corequisites: None. (F, S)

WBL 125 Work-Based Learning Seminar II 1 0 0 1
This course provides information for career development through emphasis on self-exploration and awareness of the world of work. Upon completion, students are capable of career decision making and planning.
Prerequisites: WBL 115.
Corequisites: WBL 121 **or** WBL 122 **or** WBL 123 **or** WBL 124. (On Demand)

WBL 131 Work-Based Learning III 0 0 10 1
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies. Prerequisites: Select one (1) required course from WBL 111, WBL 112, WBL 113, WBL 114; and Select one (1) required course from WBL 121, WBL 122, WBL 123, WBL 124. Corequisites: None. (F, S, SU)

WBL 132 Work-Based Learning III 0 0 20 2
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies. Prerequisites: Select one (1) required course from WBL 111, WBL 112, WBL 113, WBL 114; **and** Select one (1) required course from WBL 121, WBL 122, WBL 123, WBL 124. Corequisites: None. (F, S, SU)

WBL 133 Work-Based Learning III 0 0 30 3
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies. Prerequisites: Select one (1) required course from WBL 111, WBL 112, WBL 113, WBL 114; **and** Select one (1) required course from WBL 121, WBL 122, WBL 123, WBL 124. Corequisites: None. (F, S, SU)

WBL 134 Work-Based Learning III 0 040 4
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies. Prerequisites: Select one (1) required course from WBL 111, WBL 112, WBL 113, WBL 114; **and** Select one (1) required course from WBL 121, WBL 122, WBL 123, WBL 124. Corequisites: None. (F, S)

WBL 135 Work-Based Learning Seminar III 1 0 0 1
This course provides information for career development through emphasis on self-exploration and awareness of the world of work. Upon completion, students are capable of career decision making and planning.
Prerequisites: WBL 115, WBL 125.
Corequisites: WBL 131 **or** WBL 132. (On Demand)

WBL 211 Work-Based Learning IV 0 010 1
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies. Prerequisites: Select one (1) required course from WBL 111, WBL 112, WBL 113, or WBL 114; **and** Select one (1) required course from WBL 121, WBL 122, WBL 123, WBL 124; **and** Select one (1) required course from WBL 131, WBL 132, WBL 133, WBL 134. Corequisites: None. (F, S, SU)

WBL 212 Work-Based Learning IV 0 020 2
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies. Prerequisites: Select one (1) required course from WBL 111, WBL 112, WBL 113, WBL 114; **and** Select one (1) required course from WBL 121, WBL 122, WBL 123, WBL 124; **and** Select one (1) required course from WBL 131, WBL 132, WBL 133, WBL 134. Corequisites: None. (F, S, SU)

WBL 213 Work-Based Learning IV 0 0 30 3
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies. Prerequisites: Select one (1) required course from WBL 111, WBL 112, WBL 113, WBL 114; **and** Select one (1) required course from WBL 121, WBL 122, WBL 123, WBL 124; **and** Select one (1) required course from WBL 131, WBL 132, WBL 133, WBL 134. Corequisites: None. (F, S, SU)

WBL 214 Work-Based Learning IV 0 040 4
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies. Prerequisites: Select one (1) required course from WBL 111, WBL 112, WBL 113, or WBL 114; **and** Select one (1) required course from WBL 121, WBL 122, WBL 123, WBL 124; **and** Select one (1) required course from WBL 131, WBL 132, WBL 133, WBL 134. Corequisites: None. (F, S)

WBL 221 Work-Based Learning V 0 010 1
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies. Prerequisites: Select one (1) required course from WBL 111, WBL 112, WBL 113, or WBL 114; **and** Select one (1) required course from WBL 121, WBL 122, WBL 123, WBL 124; **and** Select one (1) required course from WBL 131, WBL 132, WBL 133, WBL 134; **and** Select one (1) required course from WBL 211, WBL 212, WBL 213, WBL 214. Corequisites: None. (F, S, SU)

WBL 222 Work-Based Learning V 0 020 2
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies. Prerequisites: Select one (1) required course from WBL 111, WBL 112, WBL 113, or WBL 114; **and** Select one (1) required course from WBL 121, WBL 122, WBL 123, WBL 124; **and** Select one (1) required course from WBL 131, WBL 132, WBL 133, WBL 134; **and** Select one (1) required course from WBL 211, WBL 212, WBL 213, WBL 214. Corequisites: None. (F, S, SU)

WBL 223 Work-Based Learning V 0 030 3
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies. Prerequisites: Select one (1) required course from WBL 111, WBL 112, WBL 113, or WBL 114; **and** Select one (1) required course from WBL 121, WBL 122, WBL 123, WBL 124; **and** Select one (1) required course from WBL 131, WBL 132, WBL 133, WBL 134; **and** Select one (1) required course from WBL 211, WBL 212, WBL 213, WBL 214. Corequisites: None. (F, S, SU)

WBL 224 Work-Based Learning V 0 040 4
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies. Prerequisites: Select one (1) required course from WBL 111, WBL 112, WBL 113, or WBL 114; **and** Select one (1) required course from WBL 121, WBL 122, WBL 123, WBL 124; **and** Select one (1) required course from WBL 131, WBL 132, WBL 133, WBL 134; **and** Select one (1) required course from WBL 211, WBL 212, WBL 213, WBL 214. Corequisites: None. (F, S)

WBL 231 Work-Based Learning VI 0 0 10 1
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies. Prerequisites: Select one (1) required course from WBL 111, WBL 112, WBL 113, or WBL 114; **and** Select one (1) required course from WBL 121, WBL 122, WBL 123, WBL 124; **and** Select one (1) required course from WBL 131, WBL 132, WBL 133, WBL 134; **and** Select one (1) required course from WBL 211, WBL 212, WBL 213, WBL 214; **and** Select one (1) required course from WBL 221, WBL 222, WBL 223, WBL 224. Corequisites: None. (F, S, SU)

WBL 232 Work-Based Learning VI 0 020 2
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies. Prerequisites: Select one (1) required course from WBL 111, WBL 112, WBL 113, or WBL 114; **and** Select one (1) required course from WBL 121, WBL 122, WBL 123, WBL 124; **and** Select one (1) required course from WBL 131, WBL 132, WBL 133, WBL 134; **and** Select one (1) required course from WBL 211, WBL 212, WBL 213, WBL 214; **and** Select one (1) required course from WBL 221, WBL 222, WBL 223, WBL 224. Corequisites: None. (F, S, SU)

WBL 233 Work-Based Learning VI 0 030 3
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies. Prerequisites: Select one (1) required course from WBL 111, WBL 112, WBL 113, or WBL 114; **and** Select one (1) required course from WBL 121, WBL 122, WBL 123, WBL 124; **and** Select one (1) required course from WBL 131, WBL 132, WBL 133, WBL 134; **and** Select one (1) required course from WBL 211, WBL 212, WBL 213, WBL 214; **and** Select one (1) required course from WBL 221, WBL 222, WBL 223, WBL 224. Corequisites: None. (F, S, SU)

WBL 234 Work-Based Learning VI 0 040 4
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies. Prerequisites: Select one (1) required course from WBL 111, WBL 112, WBL 113, or WBL 114; **and** Select one (1) required course from WBL 121, WBL 122, WBL 123, WBL 124; **and** Select one (1) required course from WBL 131, WBL 132, WBL 133, WBL 134; **and** Select one (1) required course from WBL 211, WBL 212, WBL 213, WBL 214; **and** Select one (1) required course from WBL 221, WBL 222, WBL 223, WBL 224. Corequisites: None. (F, S)

WELDING

WLD 110 Cutting Processes 1 3 0 2
This course introduces oxy-fuel and plasma-arc cutting systems. Topics include safety, proper equipment setup, and operation of oxy-fuel and plasma-arc cutting equipment with emphasis on straight line, curve and bevel cutting. Upon completion, students should be able to oxy-fuel and plasma-arc cut metals of varying thickness.
Prerequisites: None. Corequisites: None. (F, S)

WLD 112 Basic Welding Processes 1 3 0 2
This course introduces basic welding and cutting. Emphasis is placed on beads applied with gases, mild steel fillers, and electrodes and the capillary action of solder. Upon completion, students should be able to set up welding and oxy-fuel equipment and perform welding, brazing, and soldering processes.
Prerequisites: None. Corequisites: None. (F, S)

WLD 115 SMAW (Stick) Plate 2 9 0 5
This course introduces the shielded metal arc (stick) welding process. Emphasis is placed on padding, fillet, and groove welds in various positions with SMAW electrodes. Upon completion, students should be able to perform SMAW fillet and groove welds on carbon plate with prescribed electrodes.
Prerequisites: None. Corequisites: WLD 110. (F, S)

WLD 115AB SMAW (Stick) Plate-AB 2 4 0 3
This course introduces the shielded metal arc (stick) welding process. Emphasis is placed on padding, fillet, and groove welds in the flat and horizontal positions with SMAW electrodes. Upon completion, students should be able to perform groove welds on carbon plate with prescribed electrodes.
Prerequisites: None. Corequisites: WLD 110. (F, S)

WLD 115BB SMAW (Stick) Plate-BB 0 5 0 2
This course is a continuation of WLD 115AB, the shielded metal arc (stick) welding process. Emphasis is placed on padding, fillet, and groove welds in the vertical and overhead positions with SMAW electrodes. Upon completion, students should be able to perform groove welds on carbon plate with prescribed electrodes.
Prerequisites: None. Corequisites: WLD 110, WLD 115AB. (F, S)

WLD 116 SMAW (Stick) Plate/Pipe 1 9 0 4
This course is designed to enhance skills with the shielded metal arc (stick) welding process. Emphasis is placed on advancing manipulative skills with SMAW electrodes on varying joint geometry. Upon completion, students should be able to perform groove welds on carbon steel with prescribed electrodes in the flat, horizontal, vertical, and overhead positions.
Prerequisites: WLD 115. Corequisites: None. (F, S)

WLD 116AB SMAW (Stick) Plate/Pipe-AB 1 4 0 2
This course is designed to enhance skills with the shielded metal arc (stick) welding process. Emphasis is placed on advancing manipulative skills with SMAW electrodes on varying joint geometry. Upon completion, students should be able to perform groove welds on carbon steel with prescribed electrodes in the flat, and horizontal positions.
Prerequisites: WLD 115. Corequisites: None. (F, S)

WLD 116BB SMAW (Stick)Plate/Pipe-BB 0 5 0 2
This course is a continuation of WLD 116AB, the shielded metal arc (stick) welding process. Emphasis is placed on advancing manipulative skills with SMAW electrodes on varying joint geometry. Upon completion, students should be able to perform groove welds on carbon steel with prescribed electrodes in the flat, horizontal, vertical and overhead positions without backing plates.
Prerequisites: WLD 115. Corequisites: WLD 116AB. (F, S)

WLD 121 GMAW (MIG) FCAW/Plate 2 6 0 4
This course introduces metal arc welding and flux core arc welding processes. Topics include equipment setup and fillet and groove welds with emphasis on application of GMAW and FCAW electrodes on carbon steel plate. Upon completion, students should be able to perform fillet welds on carbon steel with prescribed electrodes in the flat, horizontal, and overhead positions.
Prerequisites: None. Corequisites: WLD 110. (F, S)

WLD 131 GTAW (TIG) Plate 2 6 0 4
This course introduces the gas tungsten arc (TIG) welding process. Topics include correct selection of tungsten, polarity, gas, and proper filler rod with emphasis placed on safety, equipment setup, and welding techniques. Upon completion, students should be able to perform GTAW fillet and groove welds with various electrodes and filler materials.
Prerequisites: None. Corequisites: WLD 110. (F, S)

WLD 141 Symbols & Specifications 2 2 0 3
This course introduces the basic symbols and specifications used in welding. Emphasis is placed on interpretation of lines, notes, welding symbols, and specifications. Upon completion, students should be able to read and interpret symbols and specifications commonly used in welding.
Prerequisites: None. Corequisites: None. (On demand)

WLD 143 Welding Metallurgy 1 2 0 2
This course introduces the concepts of welding metallurgy. Emphasis is placed on basic metallurgy, effects of welding on various metals, and metal classification and identification. Upon completion, students should be able to understand basic metallurgy, materials designation, and classification systems used in welding.
Prerequisites: DRE 097 **or** appropriate placement test score.
Corequisites: None. (On demand)

WLD 215 SMAW (Stick) Pipe 1 9 0 4
This course covers the knowledge and skills that apply to welding pipe. Topics include pipe positions, joint geometry, and preparation with emphasis placed on bead application, profile, and discontinuities. Upon completion, students should be able to perform SMAW welds to applicable codes on carbon steel pipe with prescribed electrodes in various positions.
Prerequisites: WLD 115 or WLD 116. Corequisite: None. (F, S)

WLD 215AB SMAW (Stick) Pipe-AB 1 4 0 2
This course covers the knowledge and skills that apply to welding pipe. Topics include pipe positions, joint geometry, and preparation with emphasis placed on bead application, profile, and discontinuities. Upon completion, students should be able to perform SMAW welds to applicable codes on carbon steel pipe with prescribed electrodes in the 2G and 5G positions.
Prerequisites: WLD 115 or WLB 116. Corequisites: None. (F)

WLD 215BB SMAW (Stick) Pipe-BB 0 5 0 2
This course is a continuation of WLD 215AB. Topics include pipe positions, joint geometry, and preparation with emphasis on making welds in the 2G and 5G positions without backing, and testing in the 6G position with carbon steel electrodes and making pipe welds with stainless steel electrodes. Upon completion, students should be able to perform SMAW welds to applicable codes on carbon steel pipe with carbon steel electrodes in various positions.
Prerequisites: WLD 115 or WLD 116. Corequisites: WLD 215AB. (F, S)

WLD 261 Certification Practices 1 3 0 2
This course covers certification requirements for industrial welding processes. Topics include techniques and certification requirements for prequalified joint geometry. Upon completion, students should be able to perform welds on carbon steel plate and/or pipe according to applicable codes.
Prerequisites: WLD 115, WLD 116, WLD 121, WLD 131.
Corequisites: None. (On demand)

WLD 262 Inspection & Testing 2 2 0 3
This course introduces destructive and non-destructive testing methods. Emphasis is placed on safety, types and methods of testing, and the use of testing equipment and materials. Upon completion, students should be able to understand and/or perform a variety of destructive and non-destructive testing processes.
Prerequisites: None. Corequisites: None. (On demand)

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(2014-2015)

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Trustees for Catawba Valley Community College are selected for four-year terms, four each by the Catawba County Board of Commissioners, the Governor of North Carolina, the three Boards of Education in Catawba County, and two by the Alexander County Board of Commissioners. Under state law, the duly-elected President of the CVCC Student Government Association is a non-voting trustee for a term of one year. New appointments occur in July each year and at other times if there are resignations, etc. For a current listing, please contact the Office of the President.

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Williams, Sherry ..... Assistant to the President
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Bost, Brenda..... HRD Faculty
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