2010 – 2011

Catalog and Student Handbook

www.rccc.edu

ABOUT ROWAN CABARRUS COMMUNITY COLLGE

By deciding to go to college, you have chosen to expand your career choices, to enlarge your understanding about the world you live and work in, and to gain deeper insights into your own worth and promise. We think you have made a wise choice, and Rowan-Cabarrus Community College is the right place for you to begin.

The college has 5 campus locations and multiple other sites where classes are held for both continuing education and college credit. The 102-acre North Campus is conveniently located in the North Carolina Piedmont, just off Interstate Highway 85 in Rowan County, within an hour's drive of several major cities. RCCC's 24-acre South Campus is conveniently located in Cabarrus County at the junction of I-85, NC 73 and Trinity Church Road. Cabarrus Business and Technology Center is located in Concord at the junction of Concord Parkway and Park way Ave. Cloverleaf Extension Center and Cosmetology Center are located in Kannapolis at the intersection of Hwy. 29 and I-85. The RCCC North Carolina Research Campus (NCRC) building is located in downtown Kannapolis.

Each campus location has modern classrooms, laboratories, shops and related academic services appropriate for the programs offered at the site. A highly qualified and dedicated faculty and staff stand ready to help you succeed as they encourage you to learn in stimulating and innovative ways.

Rowan-Cabarrus Community College offers a wide variety of associate degree, diploma and certificate programs, with both day and evening classes. As you leaf through the catalog, envision yourself as part of the college. Today you will discover the way to a more fulfilling and rewarding life!

History of the College

The need for a technical education center was recognized in 1960, when Salisbury-Rowan community leaders, working through the chamber of commerce, conducted a survey of manpower requirements in the area. Results of the survey provided the basis for their request that the State Board of Education establish an industrial education center in Rowan County. The people of Rowan County gave strong support to the idea by approving a $500,000 bond issue to purchase land and to finance construction of the first building. When the center first opened its doors in 1963, it offered seven pre-employment education programs and a variety of short courses for adults.

In 1964, the school was designated Rowan Technical Institute under the provisions of the Community College-Technical Institute Act. This made it possible to expand the school's curricula.

In 1979, the General Assembly passed a bill which recognized the synonymous nature of the terms "institute" and "college." After appropriate action by the Board of Trustees and the Rowan County Commissioners, the North Carolina State Board of Education officially approved the name of Rowan Technical College.

In 1988, the trustees of the college voted to change the name of the institution to Rowan-Cabarrus Community College to more accurately reflect the comprehensive nature of its programs and the service area. The college has experienced considerable growth since 1963, and now enrolls an average of 20,000 citizens annually.

Today, Rowan-Cabarrus Community College prepares individuals for careers in approximately 40 programs of study in business, health and public services, and industrial and engineering technologies. An Associate Degree Arts and Sciences program is also available for those students who intend to transfer to a four-year college or university. During the year, at least 10 percent of the citizens of Rowan and Cabarrus counties enroll in some form of instructional program at Rowan-Cabarrus Community College.

The physical plant has expanded almost as rapidly as the curricula. From a single building designed especially for vocational-technical training, the college's North Campus in Rowan County now consists of seven educational buildings containing more than 230,000 square feet.

These facilities are complemented by three buildings containing 120,000 square feet located on the college's South Campus located in Cabarrus County. The Cloverleaf Center consists of 19,525 square feet. The Cabarrus Business and Technology Center located at Concord Parkway and Parkway Avenue in Concord provides 39,000 square feet of instructional space. The R^3 Center located at 200 West Avenue Kannapolis, offers multi-functional space for career counseling, workshops, and administrative services.

GENERAL INFORMATION

Credit Programs

The instruction you will get at Rowan-Cabarrus Community College is fully accredited. Each program meets specific requirements set by employers in Rowan, Cabarrus and surrounding counties. Representatives of local business and industry make up our advisory committees. Because of this strong tie to the real world of work, each of these programs offers the student the opportunity for a well-rounded, interesting and practical education.

When you enroll in a particular program, you will follow a schedule of "credit courses" which, when successfully completed, will enable you to receive a degree, diploma or certificate. If you have an immediate need or interest in a particular course or group of courses, you may enroll without committing yourself to a particular program. The credits Earned can then apply toward a degree, diploma or certificate when you are ready to complete a program.

Services for the Community

At Rowan-Cabarrus Community College, Continuing Education programs support the philosophy that learning is a lifelong activity. This division offers classes and short courses for professional development and community service courses of general interest at convenient times and locations.

Business and Industry Services' staff provide customized support for the community through the Small Business Center, New and Expanding Industry Training and Focused Industrial Training. The Small Business Center is designed to assist small business start-ups and to help existing businesses grow. The college's New and Expanding Industry Training Office has earned national recognition for cooperative training efforts with area industries. Focused Industrial Training designs innovative educational programs for the service region's manufacturing sector.

An important function of the college is to provide educational programs on the precollege level. Literacy Services offer adults the opportunity for meaningful social and occupational growth through Adult Basic Education (ABE), Human Resources Development (HRD), and the High School Equivalency Program (GED).

PURPOSE OF THE COLLEGE

Mission

Rowan-Cabarrus Community College is an open-door, comprehensive learning-centered institution of higher education serving the citizens of Rowan and Cabarrus counties. The college, a member of the North Carolina Community College System, offers affordable occupational and education programs leading to the Associate in Applied Science Degree; Arts and Sciences programs leading to the Associate in Arts Degree, an Associate in Fine Arts Degree or an Associate in Science Degree.

Diplomas and certificates are awarded for other occupational, adult and continuing education programs. The primary focus of the college's offerings is on workforce development by meeting the educational needs of the individual and meeting the changing training requirements of business and industrial firms, as well as other employers in the service area. Reflecting its commitment to student learning outcomes, the college strives to inspire adults to increase their knowledge, develop occupational and technical proficiencies, respond to lifelong learning opportunities, and increase their awareness as responsible citizens in a democratic society.

STRATEGIC PLAN

Strategic Goal 1: *Student Success*

At Rowan-Cabarrus Community College, we empower all learners to become active participants in their education. Our primary emphasis as a learning-centered college is providing meaningful academic experiences within a collaborative learning environment where students are encouraged to achieve their maximum potential.

Strategic Goal 2: *Workforce and Economic Development*

At Rowan-Cabarrus Community College, we serve our students and support the regional economy by placing emphasis on timely and high quality workforce development initiatives.

Strategic Goal 3: *North Carolina Research Campus*

At Rowan-Cabarrus Community College, we support the North Carolina Research Campus by assuming a leadership role in its establishment and development.

Strategic Goal 4: *Communication*

At Rowan-Cabarrus Community College, we place a high priority on broad-based, interactive internal and external communication in the management of a multi-campus environment.

Strategic Goal 5: *Outcomes-Based Culture*

At Rowan-Cabarrus Community College, we place an emphasis on evidence-based planning and outcomes assessment as a means of fulfilling the mission of the college.

Strategic Goal 6: *Institutional Success*

At Rowan-Cabarrus Community College, we align funding, organizational structure, operational procedures, and processes to ensure the quality of the college's growth and success as a multi-campus college.

Goals

- To increase the academic attainment of adult citizens through comprehensive programs of lifelong learning that include the high school level, the one-year diploma level, and the two-year degree level, as well as articulation that facilitates transfer of occupational courses and two-year degrees to four-year institutions.
- To increase the occupational and technical skill levels of adult citizens.
- To increase the economic development of the area.
- To increase the quality of life of adult citizens through personal growth and development.
- To increase awareness of the democratic process.

RCCC meets its institutional goals through these educational offerings:

- Specialized occupational education degree programs leading to the Associate in Applied Science Degree and occupational programs leading to certificates and diplomas.
- Arts and Sciences course offerings leading to the Associate in Arts Degree and Associate in Science Degree.
- Customized training programs which increase the productivity of employees of existing firms and organizations in the service area and programs which prepare potential employees for new businesses and industries.
- Adult education and continuing education programs which include literacy skills, English as a Second Language (ESL), the North Carolina High School Equivalency program (GED), and occupational skills courses.
- Avocational courses and cultural events to enhance the personal growth and development of the citizens of the area.
- Programs of instruction and student government activities to increase awareness of the democratic process.

VALUES

Excellence in Education

The establishment of programs related to specific occupations and programs designed for the acquisition of those general skills and knowledge which make it possible for an individual to live effectively in society.

Primary Provider of Post-Secondary Workforce Training
The design and offering of programs enabling the college to fulfill its role as the primary provider of post-secondary workforce training in the region.

Enhancement of Workforce Development through Partnerships
The fostering of programs and partnerships which enhance workforce and economic development. These partnerships and cooperative programs include those established by the college with state, county and municipal governments; business, industry and other employers; area public schools, colleges and universities; economic development organizations and chambers of commerce; the Employment Security Commission, Job Link Centers and workforce development boards; and RCCC program advisory committees.

Value-Added Education
The provision of services and programs which add value for citizens in terms of their current and future employment and which enhance productivity of the workforce for employers.

Accessibility
Through a policy of open admissions, a dedication to keeping costs at a level that will not prevent a student's attendance because of financial need and the determination to attract those students who previously have been denied, have been undervalued or who have not been successful in formal education.

Lifelong Learning
A commitment to providing a variety of courses to serve area citizens who wish to pursue a wide range of interests and a commitment to instilling in students of all ages a desire to be learners throughout their lives.

Concern for Students
The establishment of appropriate student services for all students, including personal counseling, academic advising, job placement, financial aid advice, referral services and student activities.

Accountability
The creation of processes which enhance the efficiency of specific college operations and overall institutional effectiveness.

Effective Management
The involvement of those with appropriate expertise in making decisions, the achievement of general consensus about fundamental college goals, the development of strategic planning processes and the systematic evaluation of all college programs.

Intellectual Orientation
The cultivation of an attitude about academic work, an attitude which encourages self-directed learning and which fosters both the ability to synthesize knowledge from many sources and the ability to appreciate new ideas and ways of thinking.

Personal Development
The promotion of individual student goals and the development of ways of achieving them, in combination with the enhancement of feelings of self-worth, self-confidence and self-direction.

Public Awareness
The creation of communications and partnerships with community organizations, media outlets and publications which provide timely and accurate information about the college, its mission, its programs and its effectiveness to the citizens and employers of the region.

Scholarship
RCCC perceives scholarship as intellectual work incorporating the discovery of knowledge, the transfer of knowledge, the application of new knowledge and the interdisciplinary integration of knowledge. The discovery of knowledge includes maintaining awareness of current trends and practices in one's field as well as the creation of new knowledge through research using both quantitative and qualitative methods.

Scholarship in the transfer of knowledge is evidenced through an awareness of different learning styles and an ability to individualize learning in the classroom and lab environment, and an understanding of the cooperative and collaborative nature of learning. The scholarly instructor applies this knowledge through the use of innovative teaching techniques and course and program development, with consistent attention to learning objectives and outcomes. The achievement of learning objectives and outcomes is assessed through design of an evaluation program. Scholarship through the application of new knowledge is evidenced in the lab and clinical components of instruction. Standards, protocols, procedures and practices should be continually reviewed and revised when necessary.

Globalization & Understanding
Global awareness and international experiences are an important factor in the educational framework. Students who enter the job market with global knowledge, international experience, and cross-cultural skills are the key to continued economic competitiveness in the global marketplace. Rowan-Cabarrus Community College encourages all students, Faculty and staff to participate in global education initiatives.

Accreditation

- Rowan-Cabarrus Community College is accredited to award associate degrees by the Commission on Colleges of the Southern Association of Colleges and Schools (SACS). The address for the SACS Commission on Colleges is: 1866 Southern Lane, Decatur, Georgia 30033. The phone number is: (404) 679-4500, website: www.sacscoc.org.

- The Associate Degree Nursing program is accredited by the National League for Nursing Accrediting Commission (NLNAC), 61 Broadway, New York, NY 10006, (800) 669-1656.

- The Associate Degree Nursing program and the Practical Nursing program are approved by the North Carolina Board of Nursing, P.O. Box 2129, Raleigh, NC 27602-2129, (919) 782-3211.

- The Dental Assisting program is accredited by the Commission on Dental Accreditation, 211 East Chicago Avenue, Chicago, IL 60611, (312) 440-2500.

- The Radiography program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 N. Wacker Dr., Suite 2850, Chicago, IL 60606-3182, Ph.: (312) 704-5300, Fax: (312) 704-5304, Email: mail@jcert.org

Institutional Effectiveness
An institutional effectiveness program is a continuous and integrated system for planning, implementing, assessing, analyzing, and improving college programs and services in fulfillment of the college's stated mission. Rowan-Cabarrus Community College uses the institutional effectiveness process to determine whether programs and services are doing what they were intended to do, how well they are accomplishing their stated mission and where there is room for improvement based on the analysis of measurable outcomes.

In 1985, the Commission on Colleges of the Southern Association of Colleges and Schools (COC/SACS) began using the term "institutional effectiveness" to mean "outcomes assessment." Today, institutional effectiveness is at the heart of SACS accreditation process with one core requirement and multiple comprehensive standards focusing on assessment, evaluation and use of results for institutional improvement.

Institutional effectiveness is an integral part of Rowan-Cabarrus Community College's quest for continuous improvement in programs, services, and administrative functions. The college is committed to enhancing student learning through outcomes-based assessment of progress and continual improvement of programs and services.

Governed by the Current Board of Trustees:

Ray E. Paradowski, Chairman
Cynthia L. Mynatt, Vice Chairman
Nancy A. Bilson
J. Thomas Bost
Paul A. Brown
Patricia G. Fulcher
Clyde A. Higgs
Susan W. Kluttz
Robert S. Misenheimer
Irvin T. Newberry
Carl M. Short, Jr.
Wayne Troutman
Paul B. Woodson
Quentin Woodward, Jr.
SGA President

Supported by:

The North Carolina State Board of Community Colleges
The Rowan County Board of Commissioners
The Cabarrus County Board of Commissioners

Member of:

American Association of Community Colleges
American Association of Higher Education
Association of Community College Trustees
Association of Governing Boards
Cabarrus Regional Chamber of Commerce
National Conference on Teaching Excellence
National Council for Occupational Education
National Institution for Leadership and Institutional Effectiveness
National Safety Council
North Carolina Career Information Consortium
Rowan County Chamber of Commerce
Southern Association of Colleges and Schools
Southern Association of Community Colleges

North Carolina Performance Measures and Standards

North Carolina General Statutes require that all community colleges publish in their catalogs (and online) their record on 8 performance measures. The North Carolina Community College System office publishes annually a Critical Success Factors Report providing system-wide and individual college results on the performance measures and other statistical measures. The 2009 Critical Success Factors Report provided results on the 12 performance measures. www.nccommunitycolleges.edu/Publications/docs/Publications/csf2009.pdf

RCCC's performance on the measures with results reported was as follows:

- **Progress of Basic Skills Students** – Measures the progress of basic skills students. A composite measure that includes the percent of students progressing within a literacy level, the percent of students completing a level entered or a predetermined goal, and the percent of students completing the level entered and advancing to a higher level. NCCCS standard: 75%. The NCCCS average was 82%. RCCC's performance was 79%.
- **Passing Rates on Licensure and Certification Examinations** – Measures the percentage of first-time test takers from community colleges passing an examination required for North Carolina licensure or certification prior to practicing the profession. NCCCS standard: 80%. The NCCCS average was 86%. RCCC's performance was 80%.
- **Performance of College Transfer Students** – Compares the performance of community college associate degree students who transfer to public UNC institutions with "native" students (students who began their collegiate studies at the UNC institution). NCCCS standard: 83% will have a grade point average of 2.0 or above after two semesters at a UNC institution. The NCCCS average was 88%. RCCC's performance was 86%.
- **Passing Rates of Students in Developmental Courses** – The percent of students who complete developmental English, mathematics or reading courses with a grade of "C" or better. NCCCS standard: 75%. The NCCCS average was 77%. RCCC's performance was 80%.

- **Success Rate of Developmental Students in Subsequent College-Level Courses** – The performance of developmental students in subsequent college-level courses will be compared with the performance of non-developmental students in those courses. NCCCS standard: There will be no statistically significant difference in the performance of developmental students as compared to non-developmental students. As long as the performance of the developmental groups exceeds 85%, the institution meets the standard. Developmental - NCCCS average was 89%. RCCC's performance was 84%.
- **Student Satisfaction of Completers and Non-Completers** – This indicator reports the proportion of graduates and early-leavers who indicate that the quality of the college programs and services meet or exceed their expectations. The NCCCS average was 96%, The NCCCS Standard was 90%. RCCC's performance was 96%.
- **Curriculum Student Retention and Graduates** – Composite includes:
  - Number of individuals completing a curriculum program with a certificate, diploma or degree;
  - Number of individuals who have not completed a program but who are continuing their enrollment in either curriculum or occupational extension programs. NCCCS standard: 65% of students will have completed their program or still be enrolled. The NCCCS average was 69%. RCCC's performance was 66%.
- **Client Satisfaction with Customized Training** – Percentage of individuals who have received Small Business Center services from a community college indicating that their expectations have been. NCCCS standard: 90%. The NCCCS average was 94%. RCCC's performance was 93%.

SUMMARY REPORT ON PERFORMANCE MEASURES, 2007-2008
NC COMMUNITY COLLEGE SYSTEM & RCCC

MEASURE	STANDARD	SYSTEM AVERAGE	RCCC
Progress of Basic Skills Students	75%	82%	79%
Passing Rates on Licensure/Aggregate, Certification Rates for 1st Time Test Takers	80%	86%	80%
Performance of College Transfer Students	83%	88%	86%
Passing Rates in Developmental Courses	75%	77%	80%
Success Rate of Developmental Students in Subsequent College Level Courses	80%	89%	84%
Student Satisfaction of Completers & Non-Completers	90%	96%	96%
Curriculum Student Retention, Graduation & Transfer	65%	69%	66%
Client Satisfaction with Customized Training	90%	94%	93%

ADMISSIONS

HOW TO ENROLL To Assure Your Success. . .

Rowan-Cabarrus Community College and other institutions in the North Carolina Community College System operate under an Open Door policy. In accordance with the North Carolina Administrative Code, Title 23, Chapter 2(c), Section .0300, the college shall maintain an open-door admissions policy to all applicants who are high school graduates or who are at least 18 years of age. Student admission processing and placement determination shall be performed by the college's Admissions Office.

The degree, diploma, or certificate programs are taught at a level beyond high school. Therefore, a high school diploma or recognized equivalent is usually minimal preparation. If you have not completed high school, the college provides G.E.D. programs through the Pre-College Division.

In order to assure that your educational experience will be successful, counselors will assist qualitatively and quantitatively in determining your present academic preparedness for the program you have chosen. The college uses placement tests, academic records, occupational experience and/or other indicators to determine the student's preparedness and potential for success.

All health programs contain additional admission requirements that must be met before the student is admitted to the program. All admission requirements are listed in the Programs of Study and the on-line catalog updates.

If you have not successfully completed all the high school courses you need to succeed in the program of your choice, RCCC will make the courses available to you. In certain occupational programs, students are enrolled on a space-available basis because laboratory space is limited. Applicants to these programs are encouraged to contact the Student Services Office as soon as possible.

High school seniors should apply early in their senior year. New students are admitted prior to the start of each semester. Qualified students are accepted during each semester's registration if space is available.

Pre-Curriculum Courses (Developmental)

To further assure your success, Rowan-Cabarrus Community College provides a number of services. When you contact the college, you will be provided information about the admission process. Placement testing will determine your academic strengths. If you need to refresh your skills, you will want to take some developmental courses. These courses (designed to improve reading, writing, spelling, mathematics and computer skills) are taught in small classes. Usually, students who take developmental courses will be advised that they can take one or two of their regular program courses at the same time.

Students register for developmental courses and pay tuition and fees as with any class. Developmental classes are considered non-credit courses and are not included in the Grade Point Average. Some college courses have satisfactory completion of a related developmental course as a prerequisite.

Enrolling is Easy at RCCC

Apply for Admission Once you have made the decision to take classes at Rowan-Cabarrus Community College, call or visit the Student Services Office on any campus or go online to www.rccc.edu to apply online or to obtain an Application for Admission form. Please realize it takes a minimum of two business days to process your application, depending on the date you apply. All students are expected to follow the policies and procedures of the college.

By signing or electronically completing and submitting the college application, the student accepts the responsibility to be aware of and follow codes of conduct, behavior standards and all program specific rules, policies, and procedures.

Official Transcripts* Contact the Guidance/Registrar's office of your high school and any colleges you have attended and request they send an official transcript of your work to:

Student Services Office, Rowan-Cabarrus Community College,
P.O. Box 1595
Salisbury, North Carolina, 28145-1595.

*An official transcript is in a sealed envelope, has an embossed seal or original signature, and is usually mailed directly to RCCC from the institution. A high school transcript will have the graduation date posted on it.

Home-school graduates should send a final transcript, verifying your graduation, as well as a copy of the letter from the North Carolina Department of Non-Public Instruction acknowledging your home school. Correspondence/online school diplomas will be accepted if they are regionally accredited or accredited by the Distance Education and Training Council (DETC). Any other correspondence/online school diplomas will be reviewed on a case-by-case basis.

Placement Testing - As soon as possible, schedule an appointment to take the COMPASS Placement Test and the Computer Skills Placement Test. Students entering a certificate program or taking a specific course of interest may not be required to take the placement test, but will be expected to meet all course prerequisites. You may be exempt from testing if you:

- have transferable college credits in Computers, English and Math completed within the last ten (10) years*; or
- made a score of 500 or higher on the math, reading, and writing portions of the SAT within the last five (5) years or made a score of 21 or higher on the math and reading portions of the ACT within the last five (5) years; or
- have a baccalaureate degree or higher within the last 10 years*.

Special accommodations* for placement testing due to a disability can be made with Disability Services prior to scheduling a placement test date. Please refer to the Information about Special Students section of this catalog.

*This exemption does not apply to applicants for the Associate Degree Nursing, Practical Nursing, Dental Assisting, and Radiography programs (Health programs). Health Programs:—Score, remediation, demonstrated, proficiency, or transferable credit (grade of "C" or better) must be acquired within five (5) years of January 1 of the admission year.

New Student Orientation - Complete RCCC New Student Orientation

Student Agreement Regarding Internet Usage

Upon signing the college application, the student accepts and agrees to abide by the policy and responsibilities specified in Procedure No. 7.18 – Student Internet Acceptable Use Policy. Further, with this educational opportunity also comes responsibility, and the student concurs that:

- It is my responsibility to not reproduce or redistribute software and/or software keys licensed to Rowan-Cabarrus Community College.
- It is my responsibility to know and observe the acceptable use policies of external networks accessed via RCCC's Internet connection.
- It is my responsibility to ensure that the performance of RCCC's network is not degraded and that authorized users are not deprived of Internet and/or network resources or access by my activities. It is my responsibility to avoid the knowing or inadvertent spread of computer viruses.
- It is my responsibility to ensure that all copyright laws, including licensing restrictions, are honored. I understand that ownership of text, music, software, and other media is proprietary and, therefore, is protected to the full extent of the law and must be respected.
- It is my responsibility to not intentionally interfere with the normal operation of computer networks or illegally gain access (i.e., hack) to the networks and the information contained within the network resources or attached equipment.
- It is my responsibility to ensure that use of the network and Internet is consistent with student behavior and conduct guidelines and is not for personal financial gain.

- I further understand and agree that RCCC may inspect, monitor or disclose Internet, electronic mail, and/or network activities when required by and constituted by law when there is substantiated reason to believe that violations of any federal, state or local law or any violation of Rowan-Cabarrus Community College policies or procedures have taken place.
- It is my responsibility not to view, download, save, receive, or send material(s) related to or including:
    - Offensive content of any kind, including obscene material.
    - Discrimination on the basis of race, gender, national origin, age, marital status, sexual orientation, religion, or disability.
    - Threatening or violent content or behavior.
    - Illegal activities.
    - Gambling.
    - Personal financial gain.
    - Forwarding email chain letters.
    - Spamming email accounts from RCCC's email services or company machines.
    - Dispersing corporate data to RCCC's customers or clients without authorization.
    - Personal use that states or implies RCCC's sponsorship or endorsement of its message.
- RCCC has the right to review any materials stored on any system provided by the college and to edit and remove any materials. I hereby waive any right which I may otherwise have in and to such materials.

Student Agreement Regarding Academic Testing Center Usage

Upon signing the college application, the student accepts and agrees to abide by the Student Academic Testing Center Terms for Testing. Further, with this educational opportunity also comes responsibility, and the student concurs that:

- Identification will be required for testing - driver's license or picture ID.
- Students must know course name and number, instructor's name, and course type.
- All books, book bags, and coats will be left in a specified location.
- Disruptive devices (cell phones, beepers, etc.) are to be turned off and not used.
- No notes, books or other supplemental materials will be permitted unless specifically stated on the instructor's "Conditions of Testing" form.
- No discussion of any type will be permitted while testing. We are attempting to create a similar environment to in-class testing.
- All tests will be taken in one sitting and returned to the Facilitator before leaving the ATC.
- The Dean, LRC may consult Student Services or Security if suspicious or questionable behavior is observed. The rules of student behavior and sanctions also apply to the ATC.

Please see the ATC Facilitator and/or Dean, LRC, if you have questions regarding this agreement or a testing concern before receiving the test.

INFORMATION ABOUT SPECIAL NEEDS STUDENTS

All students are special at RCCC; however, some students have special needs.

Special Credit Students

Some students wish to register for credit courses, but do not intend to complete a degree, diploma, or certificate program. These students are registered as Special Credit students. They can enroll in classes on a space-available basis and with the approval of their college advisor. Tuition and fees are the same as for regularly enrolled program students. If these students later wish to apply credits earned toward a degree or diploma, they must request a change in their status at the Student Services Office. A change in status must be submitted when the student has earned 18 semester hours (including a college-level English and math course) as a Special Credit student. The student must meet all the regular admission requirements for specific programs.

Policies Regarding Students with Disabilities

Disability services at RCCC are offered to assist students with disabilities in achieving their educational and vocational goals and to comply with section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act of 1990.

The college's goal is to make RCCC accessible for all students. In order to minimize the effects of a student's disability on his/her classroom performance, a reasonable adjustment or accommodation is provided as long as an accommodation or an adjustment does not alter a published course competency or course standard. Services are provided based on documentation provided by the student and the individual's particular need and circumstance.

Request for Assistance or Accommodation

Students seeking assistance or accommodation are responsible for making their disability known to the Disability Services Counselors in the Office of Student Services. Students may elect to disclose a disability at any time. RCCC may not seek out and identify students with disabilities. Disability Services provides support services in curriculum, continuing education and pre-college courses. Because disability accommodations are not automatic and often require specific arrangements, students seeking disability accommodations should make contact with Disability Services for any additional information as soon as possible. Students are encouraged to contact Disability Services as soon as possible. Requests for accommodations should be made at least three weeks prior to the first day of class for which the accommodations are requested. All attempts will be made, but without minimal advance notice, RCCC cannot assure that all appropriate accommodations can be accomplished prior to the first class.

Required Documentation

Students seeking assistance or accommodation must provide documentation from an appropriate professional. Required documentation includes the results of medical, psychological, educational and/or emotional diagnostic tests or evaluations that verify both the need for accommodation, and the specific type of accommodation requested. Specific documentation guidelines are available through Disability Services. Documentation will be considered confidential and will be maintained by Disability Services. Disability documentation is not a part of the academic record. This information will be considered confidential and is to be shared within the institution on a need-to-know basis only. Disability records may be destroyed five years after the student's last enrollment. For students with learning or other non-apparent disabilities, documentation should be current, which is generally considered no older than three years. Students who provide documentation showing a history of disability may be granted accommodations for one semester in order to allow the student an opportunity to update older documentation; however, accommodation beyond one semester will be dependent upon the student providing current documentation. RCCC may also require an updated evaluation or assessment of disability.

Accommodation Plan

Upon a student's request for accommodation and a review of appropriate documentation, the student and a Disability Services Counselor will develop an accommodation plan in consultation with faculty as appropriate or necessary. The plan will outline specific accommodations or adjustments. These may include physical, testing, instructional, academic support and/or equipment accommodations. Requested accommodations must be supported by documentation.

The accommodation plan may include a pre-determined schedule of meetings to monitor progress with a Disability Services Counselor. A copy will remain on file with Disability Services. The accommodation plan must be reviewed and/or updated with each semester registration. Accommodations are not automatic and must be requested in advance. Accommodations will not be granted retroactively. Students are expected to maintain contact with Disability Services as to the implementation and effectiveness of specific accommodations. Students should immediately report any concern regarding their accommodation plan to Disability Services. RCCC does not provide services of a personal nature outside of the classroom. Arrangements for personal services are the student's responsibility. All students are expected to comply with college policies and regulations as outlined in the RCCC College Catalog/Student Handbook.

Accessible Services, Materials and Equipment

Instructor Notification

Instructor notification is not automatic and must be initiated by the student. Following class registration, the student must request an Accommodation Notification form through Disability Services. The student will then deliver the Accommodation Notification to each course instructor. The student must obtain the instructor's signature, provide a copy for the instructor, and return the completed form to Disability Services. Accommodation will not be in effect until the completed form is returned.

Classroom Notes

Students with specific functional limitations may request assistance with classroom notes. A determination of the method for obtaining classroom notes is based on disability documentation, course format and the course instructor's recommendation. Classroom notes will generally be obtained by the utilization of a tape recorder or a volunteer classmate. Carbonless duplication paper is available upon request through Disability Services as well as a photocopy machine. Students are generally responsible for providing and operating the tape recorder along with tapes and batteries. When presenting an Accommodation Notification form, the student informs the instructor that notes will be needed and asks for assistance to identify a volunteer. In the event that either the volunteer system or tape recorder is not successful, immediately contact Disability Services. A volunteer note-taker or tape recorder does not excuse class attendance. Students receiving class notes accommodation should not expect notes for days missed unless special arrangements are made in advance. Based on the inability to access reasonable and appropriate classroom notes through the use of a tape recorder or volunteer, a student may be eligible for a staff note-taker/scribe. This accommodation will be determined on an individual basis. The student should contact and inform Disability Services regarding the cancellation of staff note-taker/scribe services. The staff note-taker/scribe will wait 15 minutes following the scheduled class start time. The staff note-taker/scribe will not remain in the classroom when the student is absent. If the student fails to arrive by the second class, the staff note-taker/scribe will assume that the student will be absent for the remaining classes. The student will be expected to obtain missed notes in the same manner as other students.

Alternative Testing

Testing accommodations, based on disability documentation, may include extended time, reduced distraction environment, test scribe, test reader, computer use for written exams, enlarged print or use of a calculator. The student is expected to make arrangements, at least two (2) class days in advance, through the course instructor and Disability Services. Actual test accommodations may be provided through Disability Services or the Testing Center based on the specific arrangements made by the student and course instructor. The instructor will be notified if the student is absent at the scheduled time.

Accessible Materials

Students whose documentation supports an accommodation for printed material in an alternate format should contact Disability Services as soon as possible following registration. Availability of alternate format material may be limited so students are encouraged to make a request for textbooks or other class-related materials well in advance. In converting printed text into an alternate form, Disability Services will try to honor the student's preference. However, depending on the time of the request, the availability of materials, the volume of materials, and the expected time for return, adjustments may be necessary. Such adjustment may include the student using appropriate assistive technology (CCTV or scan/reader computer software) available on campus. Requests for accessible materials will be processed in the order in which they are received.

Interpreters

Interpretation and transliteration services will be arranged for qualifying deaf and hard-of-hearing students for scheduled classes, labs, scheduled student activities, and appointments. Every attempt will be made to honor a student's communication preference; however, other arrangements may be made depending on the time of advanced notice and availability of interpreters. Students must request services in advance to assure that services can be arranged. Due to the national and local shortage of sign language interpreters, students are asked to provide a three-week advance notice for scheduled classes and a one-week notice for scheduled activities or appointments. Students who request interpreter services and plan to be absent or find that services are not needed must cancel arrangements immediately through Disability Services. In the event of an unreported absence, the interpreter will wait 15 minutes following the scheduled class start time. The interpreter will not remain in the classroom when the student is absent. If the student fails to arrive by the second class, the interpreter will assume that the student will be absent for the remaining classes. The student will be expected to obtain materials in the same manner as other students. If a student has three unreported absences in a given class, interpreter services may be terminated until the student meets with Disability Services. The student will be notified in writing. Students should report any concern or problem involving an interpreter to Disability Services.

Adaptive Equipment
Various adaptive equipment or software for on-campus use can be made available to qualified students as a part of a specific classroom accommodation plan. However, any prescriptive or personal devices, including those for home use, are the responsibility of the student. As a part of the accommodation plan, the qualified student will be able to sign out equipment, such as modified calculators or assistive listening devices, from the Disability Services Office. Other equipment, such as software or modified keyboards, will be available in the assigned classroom or LRC. Every attempt will be made to provide appropriate training to enable the student to effectively utilize specific equipment or software. Such training will require active student participation, advance notice, and additional time on campus.

Reduced Course Load
Students who have documented disabilities may be entitled to a reduced course load and extended time to complete a specific program while maintaining full-time student status as long as doing so does not fundamentally alter the academic program, specific coursework, or a satisfactory progress provision. Eligibility for this accommodation will be determined on an individual basis by RCCC Disability Services with the approval of the Vice President of Student Services. Students who are granted a reduced course load accommodation will be considered as full-time students for the requested semester. Continuing accommodations are not automatic so a new request for a reduced course load must be made each semester. Reduced course (credit) load will result in an adjustment to federal and state financial assistance. A copy of the Reduced Course Load Accommodation Policy will be maintained in the student's academic record and will be included, as appropriate, requested or required, with any enrollment verification for the requested semester.

Personal Services

Personal Attendants
Students are responsible for providing for their own personal health and hygiene needs along with their mobility needs within the classroom and around campus. Due to regulations and space limitations, personal attendants generally may not attend class with the registered student unless the accommodation is supported by disability documentation as a health/safety issue and is included in the student's accommodation plan.

Attendance
Disability Services does not have a role in determining course attendance policies. Students are expected to attend scheduled classes regardless of their disability. Students may request that instructors be informed as to the legitimacy of disability-related absences, but such notification will not excuse or alter the course attendance policy. Students anticipating absences should notify the course instructor in advance. Students are also responsible for all missed assignments and material.

Tutoring Services
Tutorial services are scheduled in specific content areas campus-wide through academic programs as appropriate. Qualified students are encouraged to request accommodations in order to utilize those services. Students are responsible for individual tutoring or individual instruction outside of the scheduled activities offered through academic programs.

Parking
Accessible parking is available in accordance with state and federal regulations. Students are required to follow all appropriate regulations and to have a North Carolina-issued permit visible when parked in an accessible or handicapped space. Accessible parking is available on a first-come, first-served basis. Any student wishing to address accessible parking issues should contact Disability Services.

Grievance Process
Students who experience a problem and/or feel unfairly treated should attempt to resolve the problem informally with Disability Services. Concerns regarding a specific accommodation will be resolved with the involvement of the student and the appropriate instructor, Program Head, Academic Dean, Academic Vice President, and Vice President of Student Services. If a concern cannot be resolved to the student's satisfaction, the student should utilize the Student Grievance process as outlined in the RCCC College Catalog/Student Handbook.

Program Evaluation and Development
In consultation with faculty and staff, the RCCC Counseling Staff will be responsible for evaluating services at RCCC for students with disabilities and recommending changes in policies, procedures and services as appropriate. The RCCC Counseling Staff will provide guidance and support to both faculty and staff in providing services for students with disabilities. The RCCC Counseling Staff will provide in-service training and information to RCCC faculty and staff as appropriate. Professional consultants in the area of services for students with disabilities may be utilized in specific cases and in staff development efforts.

For additional information and resources regarding disabilities for students in higher education, please see the following links:

- www.ahead.org/affiliates/north-carolina
- www.ADA.gov
- www.edpubs.org/ocr/transition.html or www.edpubs.gov
- www.disabilityresources.org

International Admissions

RCCC provides educational opportunities for individuals who may not be citizens or residents of our regional service area. This school is authorized under Federal law to enroll non-immigrant students. Non-immigrant students will be accepted to begin classes in the Fall Semester only. To be considered for admission, an international student must present to the Office of Admissions and Records the following information:

- A completed application, received no later than June 15 of the admission year.
- Forward a certified copy of his/her official high school diploma, transcript from all high schools and post-secondary institutions the student has attended, and official U.S. educational evaluation of the documents.
- Evidence of international high school graduation can be a document evaluation from a reputable U.S. evaluation service. The student will submit an official evaluation plus the official high school document.
- For transcripts to be evaluated for possible college-level transfer credit, the educational evaluation must be provided by a NACES member evaluation service and be a course-by-course evaluation. A list of NACES member evaluation services is available in Student Services or at www.naces.org/members. The student will submit an official evaluation plus the official post-secondary transcript.
- All financial documents must be originals - no copies will be accepted. A statement of financial support from the student's sponsor, and a statement from the sponsor's bank that there are sufficient funds, $15,000 U.S. dollars, to support the student. If there is no sponsor, an original and official document that shows the student has on deposit sufficient funds to support his/her tenure as a student ($15,000/year U.S. dollars).
- A minimum score of 500 on the Test of English as a Foreign Language (TOEFL) or a minimum score of 173 on the computerized version, or a minimum Internet Based Test (IBT) score of Reading 17, Listening 17, Speaking 16, and Writing 16. If any single score falls below the minimum, the IBT will not be considered. All scores must be received as official documents. No copies of scores will be accepted. TOEFL test scores must be within 2 years of the date of admission.

After all required documentation has been received by deadline, and after approval by the Director of Admissions, the applicant may be issued his/her I-20. After applicant has received the appropriate visa allowing him/her to enter the U.S. he/she must present evidence of medical insurance coverage prior to registration.

NOTE: RCCC does not have scholarship or loan funds for international students available at this time. The College does not provide dormitory facilities.

Admission of High School Students

Some college programs are available for enrollment of high school students. For specific information, see Huskin's Bill Classes, Dual (concurrent) Enrollment, Learn and Earn Online, and Intellectually Gifted Students under **Academic Information and Policies**.

TUITION, FEES & RELATED COSTS

Tuition and registration fees are set by the North Carolina State Board of Community Colleges and the General Assembly and are subject to change. Tuition and fees are payable to RCCC Cashier by the payment date listed for each registration period. Please refer to Registration Information on-line for the payment dates.

Tuition

Because the state helps pay the tuition of North Carolina residents out of tax dollars, tuition for North Carolina residents is $56.50 per credit hour, up to and including 16 credit hours. There will be a maximum tuition charge of $904.00 per semester. Tuition for nonresident students is charged at the rate of $248.50 per credit hour with a maximum charge of $3,976.00 per semester. The college accepts American Express, Discover, MasterCard, VISA credit cards for registration payment. For additional tuition rate information, please refer to: www.rccc.edu/tuition. A resident student is generally defined as one whose legal residence has been in North Carolina for at least 12 months before enrollment or re-enrollment in the college. A resident student who is 65 years or older is exempt from paying tuition. *Tuition rates are subject to change by action of the General Assembly.*

Campus Access Fee

All students pay a campus access flat fee of $15.00 per semester/term which supports, parking, security systems, student accident insurance, remote notification and public safety infrastructure, and other enhancements of access to college facilities. This fee is refundable only if the student completely drops all courses by the refund deadline as published in the Academic Calendar.

Technology Fee

Students at Rowan-Cabarrus Community College pay a technology fee for each of the fall and spring semesters, and summer term. Technology fees cover the cost of instructional supplies, materials, computers and other technology support. Technology fees are charged on a pro-rata basis depending on the number of credit hours for which the student is enrolled as follows:

- 12 or more credit hours ..... $16.00 per semester
- 7-11 credit hours..... $10.00 per semester
- 1-6 credit hours ..... $7.00 per semester

Student Activity Fee

Students at RCCC are required to pay a $25.00 activity fee for fall and spring semesters (regardless of the number of credit hours enrolled). This fee covers student activities coordinated by the SGA. Students pay a $6.00 activity fee for summer term, regardless of the number of credit hours for which the student is enrolled.

Supply Fee

All curriculum courses with an associated lab will have $15.00 fee attached to the course billing. This fee is in addition to course tuition.

A.D.N. Testing Fee

All Associate Degree Nursing students are required to pay the following fee for Total Testing Resources. This fee is billed during registration for the related course at the rate noted:

- NUR 110-$75.00
- NUR 120-$125.00
- NUR 210-$200.00
- NUR 220-$200.00

Liability Insurance
Cosmetology, Early Childhood Education, Dental, Nursing, Radiography students are required to purchase Student Professional Liability Insurance which is available for approximately $13.00 per year. Students in Continuing Education courses which require patient care or direct client service are also required to have Professional Liability Insurance. The RCCC Cashiers Office can provide additional information about this fee.

Graduation Fee
Curriculum students will pay a $40.00 fee per graduate, regardless of participation in the ceremony, to offset the costs of degree, diploma, or certificate production and diploma cover. Graduating students may receive multiple degrees or diplomas in the same academic year at the single $40.00 fee rate. Degrees or diplomas earned in subsequent academic years will be subject to the graduation fee in place at that time. This fee does not cover the cap and gown costs for the ceremony.

Official Transcript Fee (3rd Request)
Students can receive two official transcripts at no charge by completing the transcript request form. The third transcript and each official transcript thereafter will be acknowledged upon receipt of payment at a rate of $8.00 per document.

Retest Fee
Students choosing to retest will pay a fee to cover at minimum the actual cost of the test. The cost will vary depending on the test or inventory type. A minimum fee of $5.00 will be charged for each retest session.

Tuition Refunds
Tuition, as well as the refund policy, are set by the North Carolina State Board of Community Colleges and the General Assembly, and are subject to change. The following is the tuition refund policy:

- A 100% refund will be granted if the student officially withdraws prior to the first day of the semester or prior to the day a class begins.
- Once the semester or class begins, a 75% refund will be issued if the student officially withdraws from the class(es) prior to or on the official 10 percent date of the semester.
- For classes beginning at times other than the first week of the academic semester, a 100% refund will be granted if the student officially withdraws from the class prior to the first class meeting. A 75% refund will be granted if the student officially withdraws from the class prior to or on the 10 percent point of the class.

Official withdrawal involves completing the proper withdrawal form through the Student Services Office prior to or on the 10 percent of the semester. Students must request a refund in writing prior to or no later than the 10 percent date of the semester. See the Academic Calendar in the front of this catalog for the 10% date of each semester. Refund information is also available online at www.rccc.edu/registration.

Textbooks and Supplies
The cost of textbooks and supplies varies with the program of study. These items may be purchased from the Bookstore. The Bookstore accepts Master Card and VISA credit cards for payment of textbooks and other merchandise.

Financial Aid
Many students seek some form of financial aid to help meet their college expenses. Financial aid programs are available in the form of scholarships, grants, and work study programs. Financial Aid in Student Services can provide you with specific information. You can qualify for financial aid if you:

- are accepted for admission as a student; and
- show eligibility by completion of the online, www.fafsa.gov, Free Application for Federal Student Aid (FAFSA). RCCC's school code for the FAFSA is 005754 for all campuses.

Check the RCCC website, www.rccc.edu/financialaid, for additional and detailed information.

The college serves as a referral agency for:

Veterans Benefits	Department of Social Services
Social Security	Employment Security Commission
Vocational Rehabilitation	

The college serves as a disbursing or coordinating agency for:
Federal Supplemental Educational Opportunity Grants (SEOG)
Federal Pell Grant
North Carolina Education Lottery Grant
North Carolina Community College Grant
North Carolina Student Incentive Grants
Federal Academic Competitiveness Grant (ACG)

Scholarships
Various scholarship opportunities are available through RCCC. Check the RCCC website, www.rccc.edu/financialaid/scholarships, often for updated scholarship information. Most scholarship applications are available in the spring of each year for the following Fall Semester.

Other Financial Aid Information
The Financial Aid Office can provide you with information on other types of aid which may be available. In addition to scholarships and grants, many Rowan-Cabarrus Community College students are employed on a part-time basis in college laboratories, offices, the library, or as grounds and office maintenance personnel. These work study programs may also constitute a part of your financial aid package if you meet certain criteria. Applications for financial aid are accepted throughout the year, and assistance will be given as funds are available. Students must meet Satisfactory Academic Progress (SAP). Check the website, www.rccc.edu/financialaid/terms, for the specific requirements regarding SAP. For more information on financial aid and scholarships, please contact the Financial Aid Office, 704-216-3649 (North Campus) or 704-216-3616 (South Campus).

U. S. DEPARTMENT OF VETARANS AFFAIRS and BENEFITS

Rowan-Cabarrus Community College programs are approved by the North Carolina State Approving Agency for the enrollment of persons eligible for education assistance benefits from the U.S. Department of Veterans Affairs (VA). Entitled veterans, eligible spouses, and dependent children who have applied, met all admission requirements, been fully accepted, and have registered for classes, may be CERTIFIED to the U.S. DVA Atlanta, Georgia office as enrolled and in pursuit of an approved program of education. It is the responsibility of the veteran to request from the last high school and all colleges attended that an official transcript(s) be sent directly from the school to Rowan-Cabarrus Community College. Students cannot be certified to receive benefits until all transcripts have been received and evaluated. Students may be certified for only the classes required for completion in their approved program of study.

Veterans receive educational benefits on the following basis:

- Arts and Sciences Courses - Credit Hours Per Week
- Occupational Courses - Credit Hours Per Week

Tele-Course and Internet courses may change your eligible credit hour certification. Check the RCCC website, www.rccc.edu/financialaid/va, for additional information.

Grades and Progress Reports
Records of progress are kept by this institution on veteran and non-veteran students alike. Progress records are furnished to the students, veterans, and non-veterans alike at the end of each scheduled school term.

ACADEMIC INFORMATION & POLICIES

Academic Load - Students

A full-time student is one who is enrolled in 12 or more credit hours of course work per semester. Average full-time enrollment for most students will vary between 15 and 18 hours of credit. Students who wish to carry more than 21 credit hours must have prior approval from the Vice President of Student Services unless their curriculum requirements, as stated in the catalog, require more than 21 hours in a particular semester. Course schedules and course loads should be carefully planned through consultation with a counselor and approved by the student's faculty advisor. (Note: The NC General Assembly has set tuition and registration fees on a "per credit hour" basis with a maximum charge for 16 credit hours. Please see Admissions section of this catalog for further details.)

Administrative Office Hours

All college offices on both the North and South campuses are open Monday through Friday from 8 a.m. to 5 p.m. In addition, the Academic Programs Office on both campuses is open evenings, Monday through Thursday until 11 p.m. The Occupational Extension and Student Services Office operate until 8p.m. (Monday through Thursday), with some exceptions, during non-academic term weeks.

Preparation for College Study

The college offers three courses to assist students in being ready for college level work. In the 2010-2011 academic year, ACA 085 will be offered as an elective for students who need 2 or more courses at the developmental education course level (less than 100 level). ACA 111 will be required for all students enrolled in Biotechnology degrees. Finally, ACA 122 will be an elective course for students who intend to transfer to a senior college or university.

Attendance Requirements

A student is expected to attend every class for which he/she is scheduled and to arrive on time. Instructors will keep an accurate record of class attendance. The student is responsible for contacting his/her instructor when unavoidable absences occur, and for maintaining contact every few days during any necessary extended absence. Students are responsible for withdrawing from any class, if they find they will be unable to complete a term. The student must complete and submit a Drop/Add/Withdrawal Notice to Student Services when officially withdrawing from a class.

Instructional time missed is a serious deterrent to learning. A student is responsible for fulfilling the requirements of the course by attending all classes (including shops, labs, and clinics) and completing course assignments. Failure to maintain contact with the instructor for the equivalent of two weeks (1/8 of total instructional hours) either by attending classes, submitting assignments, and/or meeting with the instructor in person or by telephone, may result in a grade of "F" being issued for the course. In some cases, an exception may be granted. The student must contact the instructor if there are extenuating circumstances such as an accident, illness, or death in the family. Some programs and courses at Rowan-Cabarrus Community College may have more stringent attendance requirements due to the nature of a course or program. These requirements are stated in the program description or course syllabus. Students will be informed in writing during the first class meeting of specific attendance requirements. Class attendance is calculated from the first officially scheduled class meeting (includes the drop/add period) through the last scheduled meeting.

Class Schedules

Rowan-Cabarrus Community College schedules classes between 8 a.m. and 11 p.m., Monday through Thursday; and between 8 a.m. and 5 p.m. on Friday. Saturday classes may also be offered. Credit courses are offered during the day and during the evening hours from 6:00 p.m. to 11 p.m. The purpose of offering credit courses both day and evening is to provide flexibility in scheduling and optimum availability of courses. Schedule and course information are published by the college the prior to each semester and are available on the college's website, www.rccc.edu. Non-credit Occupational Extension and Community Service courses are also offered both day and evening.

RCCC Closing — Adverse Weather

Classes at Rowan-Cabarrus Community College will be conducted as scheduled unless otherwise announced. Students and employees will be notified via the Campus Connect automated service if classes are cancelled or delayed. Campus Connect uses phone and email information to contact RCCC students and staff. Any delays and cancellations will also be noted on the RCCC website and on the college telephone service.

When classes resume after cancellation or delay, the class schedule for that day of the week will be followed. Example: If there is a two (2) hour delay, 8am and 9am classes will be cancelled. Classes beginning at 10am and after will meet as scheduled. Exceptions to this may be made by prior arrangements with classes meeting off campus (i.e. Nursing classes).

If day classes are canceled, decisions on whether evening classes will be held will be announced after 3pm, and evening students must listen to local media outlets regarding college operation.

The College Relations Office will inform selected radio and television stations (listed below) at the earliest time possible. Once cancellation of classes is announced for a day, this will not be rescinded. However, cancellation may be announced at any time the conditions warrant. For example: Afternoon and evening classes may be canceled after morning sessions have been held.

The student must make the ultimate decision on whether or not he/she can travel safely. Radio and television stations are very helpful in making frequent announcements concerning school closings. Students are asked not to call the stations. Announcements concerning school closings also are posted on our website, www.rccc.edu, and can be accessed by calling either campus phone number: North Campus: 704-637-0760/South Campus: 704-788-3197.

Radio and television stations that will announce RCCC closings are:

WSAT……. Salisbury ..... 1280 AM
WSTP……. Salisbury …….. 1490 AM
WRNA…… China Grove ….. 1140 AM
WPEG…… Concord …….. 98 FM
WBAV…… Concord …… 101.9 FM
WEGO…….. Concord …… 1410 AM
WBTV……. Charlotte……. Channel 3 TV
WCNC…… Charlotte……. Channel 6, 36 TV
WSOC…… Charlotte……... Channel 9 TV
WBT…… Charlotte……. 1110 AM
WKKT……. Charlotte……. 96.9 FM
WLNK…….. Charlotte ……. 107.9 FM
WSOC……. Charlotte ……. 930 AM/103.7 FM
WLYT…….. Charlotte …….. 102.9 FM
WTHZ/WLXN….. Lexington …….. 94.1 FM
WXII…….. Winston-Salem .. Channel 12 TV
WTQR…… Winston-Salem .. 104.1 FM
WXRI…….. Winston-Salem .. 91.3 FM/1040 AM
WMAG/WHSL…. Greensboro ……. 100.3 FM
WAME……. Statesville ……. 550 AM
WDSL…… Mocksville ……... 1520 AM
WLXN…….. Lexington …….. 1440 AM

Faculty Advisors

Each student enrolled in a program is assigned to a faculty advisor or advising group who assists the student in planning course schedules. The faculty advisor also assists the student in evaluating his/her academic progress and suggests improvements or schedule changes.

Registration

The traditional college curriculum operates on the semester system. All students enrolled in programs are expected to register using Web Advisor - Registration during the dates scheduled on the Academic Calendar which can be found on the RCCC Website www.rccc.edu. Web Advisor Support Sessions are available to assist students in navigating the use of Web Advisor, review of pre-requisite blocks, waivers and overrides. Students are encouraged to meet with faculty advisors prior to registration access.

Registration for Continuing Education classes (non-credit) is conducted on the primary campuses and at the class sites. Please refer to the Continuing Education webpage for additional information. http://info.rccc.edu/3980.aspx.

Schedule Changes
At the beginning of Fall and Spring semester, there is a two-day period during which students, who are enrolled in credit courses, can make schedule changes (Drop/Add). There is one day at the beginning of Summer semester, which students may make changes to schedules. Changes to student schedules may be done through Web Advisor or by coming on campus for assistance at a Web Advisor Support Session. Students wishing to make a change after this time must see their instructor and program head.

Withdrawal Policy
If a student withdraws from a class after the end of the drop/add period and before the 65% point in the class, he/she will receive a grade of "W." A Grade of "W" will appear on the student's transcript, but will not be considered as hours attempted in the accumulated Grade-Point Average. If a student does not withdraw before the 65% point in the class, the student will receive a grade of "F" or the grade earned. Courses may be dropped at any time during the schedule change period of the class. Courses dropped during schedule change (drop/add) period will not appear on the student's record. Once a student has enrolled in class and has paid fees, that student remains a member of the class unless:

- **Student Withdrawal**
  - The on-campus student officially withdraws from the course by completing the necessary printed form. The distance education student notifies the course faculty to officially withdraw him/her from the course. Such notification should be via email to the faculty or by completed form submitted to Student Services.
- **Administrative Withdrawal**
  - Administrative withdrawal may be implemented as part of mediated resolution to violations of the Campus Code of Conduct and appropriate documentation may appear on the student's official transcript, as needed.

ACADEMIC POLICIES AND PROCEDURES

Rowan-Cabarrus Community College reserves the right to make changes in the regulations, courses, fees, and other matters of policy and procedure when necessary.

Grading
Rowan-Cabarrus Community College operates on a grade-point system, and each student's academic standing is established by a "Grade-Point Average" (GPA) which is determined by numerical values assigned to each grade. At the end of each semester, students will access final grades via Web Advisor based on the following Scale. Health programs and Developmental Studies courses are graded on a variation of this scale.*

GRADE	GRADE EXPLANATION		QUALITY POINTS & INFORMATION
A	93 – 100	Excellent	4 quality points per semester hour
B	85 – 92	Good	3 quality points per semester hour
C	77 – 84	Average	2 quality points per semester hour
D	70 – 76	Below Average	1 quality point per semester hour
F	<76	Failing	0 quality points • Student did not meet minimum requirements for the course.
I	Incomplete		0 quality points • Student did not meet the objectives of the course due to unusual circumstances. By written agreement, faculty may allow the

		work to be completed prior to the end of the following semester or term.
W	Withdrawn	0 quality pints • Student officially withdrew after the census date and before the 65% point of the semester.
AU	Audit, No Credit Earned	0 quality points • Student registered for the course and requested 'AUDIT' status before the 10% point of the semester. AUDIT STATUS IS NOT POSSIBLE AFTER CENSUS DATE.
CE	Credit by Examination	0 quality points • Student must register for course
R	Developmental Course Repeat	0 quality points • Student did not meet the objectives of the course. Course must be repeated. Student must register and complete course with a satisfactory grade. COURSE IS NOT COMPUTED IN GPA.

*In the Associate Degree Nursing and Practical Nursing programs, numerical grades below 77 (C) in all required courses are considered unsatisfactory attainment of course competencies. For students enrolled in the Radiography and Dental Assisting programs, numerical grades below 77 (C) in Radiography (RAD), Dental Assisting (DEN), and Biology (BIO) courses are considered unsatisfactory attainment of course competencies. In these instances, students will not be allowed to continue in the program. All health program students should refer to the specific program handbook regarding the minimum grade to be earned for program progression.

In Developmental Studies courses, a grade of 77 or above is required for satisfactory completion. Students earning numerical grades below 77 will receive the grade of "R" (Repeat) and must register again for the course. Developmental Studies courses are noncredit courses and are not included in the Grade-Point Average (GPA).

Grade of Incomplete (I)

Students who need extra time to complete the objectives of a course because of unusual circumstances such as extended sickness or hospitalization may receive a grade of "I" (Incomplete). Students should refer to the course syllabi for information related to all grading standards. The student and the instructor must complete an Incomplete Agreement Form which details the work to be completed no later than the agreed date or no later than the end of the next academic term. The "I" is computed in the Grade-Point Average as "0" quality points. However, when a student completes the provisions necessary for the removal of an "I," the "I" will be removed from the student's record and replaced with the grade earned. The GPA will then be recomputed using the grade earned. If course requirements are not met by the deadline given, the grade of "I" will automatically be changed to a grade of "F." The student must register again for the course.

Grade-Point Average (GPA)

The GPA for one semester is obtained by the following method: The quality points for each course are found by multiplying the appropriate grade point value for the grade earned by the semester hour credits assigned to the course. The total grade points for all courses in the grading period are added. Dividing the total of the grade points by the total of the semester credit hours gives the grade-point average for the semester.

Example:

Grade of "A" earned on a three-semester hour credit course equals 12 grade points.

Total Grade Points Earned 12	**= 4.0 GPA**
All Credit Course Hours Registered 3	

Cumulative Grade-Point Average
The cumulative GPA is determined by using the total grade points in two or more semesters divided by the total course credits attempted in two or more semesters.

Scholastic Honors
The following academic honors lists are posted on each campus location as well as on the RCCC Website. More information on the following academic honors lists may be obtained from the Student Services Office.

- **President's List -** A full-time student achieving a grade-point average of 4.0 for the semester will be recognized on the President's List. To be eligible for the President's List, the student must be a full-time student enrolled in a minimum of 12 credit hours.
- **Dean's List -** A full-time student obtaining a grade-point average of 3.5 or above for the semester will be recognized on the Dean's List. To be eligible for the Dean's List, the student must be a full-time student enrolled in a minimum of 12 credit hours.
- **Honors List -** A student obtaining a grade-point average of 3.0 or above for the semester will be recognized on the Honors List. To be eligible for the Honors List, the student must be enrolled in a minimum of six credit hours.

Note: Since Developmental Courses (designated on transcripts with an asterisk) are non-credit courses, they are not included in the total hours required for President's, Dean's, or Honors lists.

Course Residency Requirement
A minimum of 25% of the total number of credit hours required for graduation in a particular program must be taken at Rowan-Cabarrus Community College. No more than 75% of required credit hours can be accepted for transfer credit.

Course Substitution
A student may request credit for a course required in his/her program of study based on successful completion of a substitute course. Action upon such substitutions must be initiated by the student's advisor who in turn forwards the request to the appropriate academic dean for approval. A maximum of five courses may be credited for any student through the course substitution method.

Course Repeat Rule
Students may repeat one time a course for which they received credit regardless of the grade received unless specified in the curriculum. Although both grades will appear on the student's record, only the higher grade will be counted toward the cumulative grade-point average. For students receiving Veteran's Benefits, approval is required prior to repeating any course for which a final grade of "F" was received. This can only be done once per course. If a passing grade of "D" or better was received, the course cannot be repeated for Veteran's Benefits. Courses for which a grade of "W" was received, may be repeated for Veteran's Benefits, providing the student's cumulative GPA indicates overall satisfactory progress to date. Approvals will be communicated through the campus Veteran's Benefits officer.

Auditing Courses
Students who wish to audit courses must register for those courses. If an audit is not declared at the time of registration, students must obtain approval from the instructor of the class and submit a Drop/Add Withdrawal Form to Student Services for processing by the end of the 10% point of the semester. Students auditing courses receive no credit but are encouraged to attend class, participate in discussions, and take examinations. Normal attendance policies will apply. Students withdrawing during the semester will be given a grade of "W." Fees for audits are the same as for regular enrollment. Academic credit is not earned for audited coursework. Therefore, any audited coursework will not be considered for transfer credit toward any other RCCC program. Audited courses are not eligible for transfer credit to another institution.

Tests and Final Examinations
Tests and quizzes (oral and written), including comprehensive final exams, are given by the instructor in accordance with the approved course syllabus.

Transfer of Credits - College Coursework

RCCC has adopted a ten (10) year age limit on credits transferred into an Associate in Applied Science degree (for either major courses or elective course requirements). This policy will also apply to General Education course work in the areas of Mathematics and Natural Sciences and for those courses in which the content is time sensitive. This policy applies to credits earned at RCCC as well as other regionally accredited institutions. Any incoming students may request a transfer of credits earned at another regionally accredited institution or in other programs within Rowan-Cabarrus Community College. Awarding of credits earned at a non-regionally accredited institution will be reviewed on a case-by-case basis.

An official transcript mailed directly from the transferring institution to the Student Services Office of RCCC will be required. Courses submitted for transfer credit must be equivalent to offerings at RCCC. Exceptions to the transfer of credits may be made by the appropriate Program Head and the Academic Vice President. Only courses with grades of a "C" or higher will be accepted for transfer, provided the courses are applicable to the curriculum of interest. Quality points will not be transferred. No more than 75% of required credit hours can be accepted for transfer credit.

Credit may also be awarded for appropriate scores on subject areas of the College Level Examination Program (CLEP), the Dantes Subject Standardized Tests (DSST), or the Advanced Placement (AP) Program. Official test results should be submitted to the Admissions Office. Ordinarily, full credit will be transferred for similar courses if the numbers of credit hours in the two courses under review are the same.

Students receiving an Associate in Arts degree or Associate in Science degree from RCCC will find those credits transferable to most colleges and universities. Students receiving an Associate in Applied Science degree will find their credits transferable to most private colleges in our area. Students should consult the receiving institution to determine the credits that will transfer from the program in which they are enrolled. A student may obtain general information about Cooperative Programs from the Admissions Office, and is responsible for seeking specifics and complete requirements from the school that awards the degree.

Transfer of Credits - Professional Certificates

An enrolling student may request that professional certificates with appropriate documentation be evaluated for full or partial course credit within his/her major. Additional criteria may be required along with the certificate to receive full course credit. For each area of certification, the appropriate program head will determine the RCCC course equivalencies and corresponding certification required for credit.

The student should notify the program head of which course(s) the professional certification is to be applied by submitting the original professional certificate for review. The student should submit this information during the admissions process; however, a professional certification can be submitted at any time during the student's enrollment at the college. The program head will complete the Credit by Professional Certification Form and submit it to the appropriate academic dean for approval, along with a copy of the certification. Once approved by the dean, the documentation will be sent to Student Services' Records Department for assignment of credit to the permanent record. No more than 75% of required credit hours for a degree or diploma can be accepted for credit in this manner. Professional certifications should be current, and program heads can provide information regarding time limits (i.e. within last five years) in order for credits to be awarded for a particular program of study.

RCCC Programs of Study accepting appropriate Professional Certificates:

Air Conditioning	Machining Technology
Heating and Refrigeration	Medical Office Administration
Automotive Systems Technology	Networking Technology
Computer Information Technology	Office Systems Technology
Computer Programming	Web Technologies
Construction Management	Welding Technology
Electrical/Electronic Technology	

Please check the RCCC website for updates and revisions to the technical programs of study that accept professional certifications for full or partial course credit.

Examples of Professional Certifications and related Programs of Study:

- Automotive Service Excellence (ASE) Program Certificates – Automotive Systems Technology
- Certified Professional Secretary (CPS) Credentials - Office Systems Technology
- Medical Office Administration Degree or Diploma

Credit by Examination

Students enrolling at the college who believe they are proficient in a subject due to Continuing Education Units (CEUs), life experiences or professional certifications may request credit by examination. The examination may be written, oral, a performance test, or a combination of these. To seek credit by examination, a student should obtain guidance from his/her faculty advisor, approval from the program head of the course in question, and must be registered for the course for which credit by examination is sought. The examination for credit must be administered by the instructor during the first eight class days of the semester. Fees for credit by examination are the same as for regular enrollment. If the examination is completed satisfactorily with a grade of "C" or better, the instructor will then complete a Credit by Examination Form and forward it to the Director of Records for a grade of "CE" to be awarded. A student who is unsuccessful with the examination may not request a second attempt, but may remain in the course through completion of the semester. The decision of the examining faculty is final. Credits earned by examination will be entered on the student's permanent record, but quality points will not be awarded for such credit. Credits earned by examination may be used to satisfy graduation requirements but cannot be used to satisfy the policy stating 25% of the credits required for graduation must be taken at RCCC. Hours earned by credit by examination will not be used to satisfy VA or Pell Grant requirements. Hours earned by Credit by Examination are not transferable to other colleges. For further information, contact the program head of your area of study or the Student Services Office. Students receiving financial aid, scholarships or third party payment of tuition are responsible for checking with the Financial Aid Office before requesting Credit by Examination.

Advanced Placement for High School Courses

Students entering Rowan-Cabarrus Community College from Rowan-Salisbury Schools, Cabarrus County Schools, and Kannapolis City Schools may be awarded advanced placement credit as provided in agreements between these school systems and Rowan-Cabarrus Community College. Advanced placement may also be awarded to those students taking appropriate high school coursework and meeting guidelines established by the High School to College Agreement between the N.C. Department of Public Instruction and the N.C. Community College System. Advanced placement credit based on high school achievement may be allowed to students enrolling in specified programs. Details concerning specific requirements are available from counselors at the high schools and at Rowan-Cabarrus Community College. High school credit will be based on credit hour equivalencies determined by the local school system. To participate in these courses which are established specifically for high school students, the student must be recommended by the high school, make appropriate scores on the college placement test, submit a high school transcript, and meet course prerequisites. Students interested in Huskins Bill classes should contact their high school counseling office.

Early College at RCCC

Early College is an educational partnership between RCCC and school districts in Rowan and Cabarrus County. This partnership provides high school students an opportunity to earn both high school and college credits during four years of enrollment in an early college program. By earning enough credits, a graduating high school senior could exit high school with an associate degree and be ready for workforce employment or transfer to a four-year college or university. The student must enroll as a high school freshman to pursue this opportunity. College tuition for Early College students is waived. Early College programs are administered by the local educational agency (school district) but housed on the college campus. To learn more information about Early College opportunities in Rowan or Cabarrus County or with Kannapolis City Schools, please contact these school districts.

Huskins Bill Classes

RCCC offers Huskins Bill classes to qualified students at participating area high schools. Qualified students are defined as high school juniors or seniors, or anyone who is 16 and over, who have achieved a level of academic and social maturity necessary to perform successfully in college credit courses and who have also been recommended by their high school for enrollment. Upon successful completion of courses, this program allows students to earn college credits and high school credits while attending high school.

Dual (Concurrent) Enrollment
High school students who are at least 16 years of age, are taking three (3) or more classes in high school (2 if under a block schedule), and are making satisfactory progress toward graduation may concurrently enroll in regularly scheduled RCCC college-level credit or Continuing Education courses when certain conditions are met. Students must complete the enrollment process, take all college placement tests (COMPASS and computer skills), submit a Request for Dual Enrollment, and meet course prerequisites. Registration is limited to two college-level courses per semester upon approval of the school's chief administrative officer and approval by the designated college official. The college course(s) cannot duplicate a course offered at the student's high school. The Dual Enrollment student earns college credit for curriculum courses taken. Each local school board determines if any credit will be granted at the high school.

Tuition and Fees for Huskins Bill Classes and Dual Enrollment
Tuition for Huskins Bill Classes is waived for students in Huskins (T90970) enrolled in courses with the following prefixes: **AST, BIO, CHM, CIS, GEL, IMS, MAT, PHS, PHY** and **SCI**. Tuition is also waived for Huskins students in enrolled in technical and vocational courses consistent with G.S. 115D-5(b). Examples at RCCC include, but are not limited to: **Automotive Technology, Cosmetology,** and **Motorsports Management**.

Tuition may be charged at a rate sufficient to cover the costs of the courses for all other course prefixes, if RCCC elects to offer these courses for Dual Enrollment and Huskins purposes. Course prefixes for which tuition will be charged if the course is taken by a Huskins or Dual Enrolled student include the following: **ACA, ANT, ARA, ART, ASL, CHI, COM, DAN, DRA, ECO, ENG, FRE, GEO, GER, HIS, HUM, ITA, JPN, LAT, MUS, PED, PHI, POL, POR, PSY, REL, RUS, SOC,** and **SPA**.

Fees must be paid by the Huskins or Dual Enrolled student prior to the first day of class. Tuition and fees will be charged for Continuing Education courses taken by Huskins or Dual Enrolled students.

Intellectually Gifted Students
Under certain circumstances, a student under the age of 16 may enroll in a community college if the President of the College or the President's designee finds that the student is intellectually gifted and has the maturity to justify admission to the College. The State Board has adopted specific criteria for the administration and implementation of this program. Please contact the RCCC Admissions Office for detailed information about student eligibility, course eligibility, and the required documentation.

GRADUATION

Application for Degree, Diploma, or Certificate
In order for the Student Services Office to have all the degrees, diplomas, and certificates ready in time for graduation, students are asked to notify the Graduation Office no later than the semester preceding their expected date of graduation. Special forms for this purpose are available from the Student Services Office and the college website. Students are responsible for ensuring that they have met all program and course requirements to earn the degree, diploma, or certificate to which they are applying. Beginning in Fall 2010 for any subsequent graduation, students must pay a graduation fee. This fee will cover facility rental, degrees, diplomas or certificates earned in the current academic year, a diploma cover and other related graduation costs. Students who intend to march in the graduation ceremony are responsible for the cost of the cap and gown beyond this graduation fee.

Degree, Diploma, and Certificate Requirements
Students who successfully complete a two-year technical education program will earn the Associate in Applied Science Degree. Students who complete the Arts and Sciences program will earn the Associate in Arts or Associate in Science Degree. The Diploma is awarded to students who satisfactorily complete a one-year vocational program or the general education core for the Associate in Arts or Associate in Science program. Students who satisfactorily complete programs of study less than a year in length are awarded a Certificate. A student is scholastically eligible for graduation when he/she has satisfied the specific requirements of the college and the program for which he/she is enrolled, completed a minimum of 25% of required hours in residence at RCCC, and has earned a program grade point average of at least 2.0.

A student may graduate using the catalog under which he/she initially enrolled or the current catalog. A student not enrolled for 12 consecutive months (or more) will re-enter under the current catalog.

Graduation Events

Graduation exercises to award degrees, diplomas, and certificates are held at the end of the Spring Semester. The specific date of graduation is listed in the Academic Calendar. Graduation rate information for Rowan-Cabarrus Community College is available on the college website, www.rccc.edu, and in the Office of Student Services.

Graduation Honors

Students who earn a grade-point average of 3.0 through 3.49 out of a possible 4.0 in completing their course of study will graduate With Honors. Those students who earn a 3.5 and higher out of a possible 4.0 in their course of study will graduate With High Honors. Those students who earn a 4.0 in their course of study will graduate with Highest Honors.

Outstanding Student Awards

These awards are made to the graduates who have distinguished themselves by being most outstanding in terms of scholastic achievement, performance, and maturity of purpose during their program of instruction at Rowan-Cabarrus Community College. One student may be recognized for each program.

W. A. Swing Memorial Award

The W. A. Swing Memorial Award is presented to recognize the graduating student in Radiography who has demonstrated professionalism, dedication, the desire to succeed, and superior performance to the limit of his/her capabilities.

Student Records

The Student Services Office keeps complete student records. Each student, however, is responsible for making certain that all of the requirements for graduation have been met. For that reason, students are encouraged to check their records periodically, especially prior to registration for their last semester.

Transcript Request Policy

In accordance with the Family Educational Rights and Privacy Act of 1974 (FERPA), students and former students needing official copies of their academic transcript must request them from the Student Services Office. The request must bear the original signature in pen and ink by the student, to include the name and address of the institution or individual who is to receive the transcript. Faxed requests will be honored only if the transcript is forwarded directly to the college or university. Phone requests are not acceptable. The first two transcript requests are free of charge. Any thereafter are charged $8.00 per transcript request. More information is provided on the Transcript Request Form which can be found on the RCCC Website, www.rccc.edu, under Forms for Students.

Confidentiality of Student Records

To All Students and Parents of Students Currently Attending Rowan-Cabarrus Community College:

The Family Educational Rights and Privacy Act of 1974 (FERPA) is a Federal law that governs the maintenance of student records. This act, with which the College intends to comply fully, protects the privacy of educational records, establishes the right for students enrolled to inspect records kept by the College about the student and the right to correct inaccuracies in the records. Rowan-Cabarrus Community College recognizes its responsibilities to students in maintaining accurate and confidential student records. Access to the records by persons other than the student is limited and generally requires prior consent by the student. Rowan-Cabarrus Community College adopted a written policy governing the rights of parents and students under the Family Educational Rights and Privacy Act. Copies of this policy may be found in the offices of the President and the Vice President of Student Services at Rowan-Cabarrus Community College.

Directory Information
The College may make the following Directory Information available to the public unless the student notifies, in writing, the Director of Records and Registration within the first five (5) days after student enrollment that such information is not to be made available.

- Student's name
- Address
- Telephone listing
- Date of birth
- Field of study
- Dates of attendance
- Degrees, Diplomas or Certificates awarded

STANDARDS GOVERNING STUDENT ENROLLMENT

General
Students are both members of the external community, which includes Rowan-Cabarrus Community College, as well as members of the internal academic community of the college itself. As citizens of the external community, students are subject to all civil laws, the enforcement of which is the responsibility of civil authorities. As members of the academic community, students are subject to Rowan-Cabarrus Community College regulations and obligations. College students, as adults, are expected to exercise mature and responsible self-discipline, to behave with courtesy and integrity, and to maintain appropriate academic standards as well as appropriate conduct standards. Failure to maintain required standards can lead to conditional enrollment or curtailment of enrollment. These standards and enrollment constraints are described in the following paragraphs.

Academic Standards
Students must maintain satisfactory academic standards. Academic evaluation of student performance occurs at the end of each semester. This evaluation may be neither arbitrary nor capricious and must be consistent with previously announced criteria. Minimum satisfactory academic performance is defined as maintaining a cumulative Grade-Point Average (GPA) of at least 2.0 (a grade of "C").

Advising Students Who Experience Academic Difficulty
Instructors are responsible for keeping students informed regularly about their progress in individual courses, with specific responsibility to expedite the reporting of student performance at each measurement point (chapter tests, mid-terms, finals, etc.). Instructors and advisors are responsible for assisting students who are experiencing academic difficulty. Advice to help students improve performance may include, but is not limited to, completing developmental education courses or subcomponents of developmental programs, carrying a reduced course load, special tutoring, or repeating selected courses. Semester grade reports are sent to all students. The faculty advisor and student should arrange a conference with a Student Services counselor whenever the nature of a student's academic difficulty is beyond the scope of the instructor or faculty advisor's ability to assist. Failure to maintain satisfactory academic standards will result in academic probation and can result in academic suspension.

Academic Probation
A student who fails to maintain satisfactory academic standards at the end of any term will automatically be placed on academic probation for the next term. A student placed on academic probation will not be allowed to register and/or begin class until the student has (a) participated in an Academic Probation Workshop or (b) met with a Student Services counselor. Either of these establishes corrective conditions to help the student achieve satisfactory performance while continuing probationary enrollment. The hold on registration/class attendance would then be lifted and documentation of the corrective actions placed in the student's file. A student on academic probation who fails to achieve satisfactory academic standards by the end of the academic probationary term is subject to academic suspension and will not be allowed to register for the next term without the permission of the Vice President of Student Services or his or her designee.

Academic Suspension
At the end of each semester, the counseling staff at the direction of the Director of Counseling and Career Services will review the cases of all students on academic probation who failed to achieve satisfactory academic standards. Unless they are able to document individual cases of extenuating or mitigating circumstances that, in their professional judgment, justify extending academic probation for another semester, a recommendation for academic suspension may be made to the Vice President of Student Services. However, students suspended from one program may apply for admission to another program where the likelihood of achieving satisfactory academic standards may be more promising. After one semester of academic suspension, a student may also apply for readmission to the program from which he or she has been academically suspended if the sequence of course offerings make readmission possible.

Academic Appeals Committee
Appeals of academic suspension will be referred by the Vice President of Student Services to the Academic Appeals Committee no later than five days after receipt. The Appeals Committee will be comprised of the vice president, the student's advisor, a counselor, two students selected by the Student Government Association, and the program head of the program from which the student has been suspended. If the Academic Appeals Committee reverses suspension, the student will be afforded an opportunity to make up all work missed during the appeal process.

STUDENT BEHAVIOR STANDARDS/SANCTIONS, WARNINGS, DISCIPLINE PENATLITES & DISMISSAL

The College reserves the right to maintain a safe and orderly educational environment for students and staff. Therefore, when in the judgment of College officials, a student's/patron's conduct disrupts or threatens to disrupt the College Community, appropriate disciplinary actions will be taken to restore and protect the well-being of the College Community. Students are expected to conduct themselves in accordance with generally accepted standards of scholarship and morality. Community Patrons are expected to conduct themselves in accordance with the accepted standards of good citizenship in the state of North Carolina. The purpose of this Code is not to restrict Student or Patrons Rights, but to protect the rights of individuals in their academic pursuits on the campus.

Academic Dishonesty

- **Academic Integrity**: The College prohibits taking or acquiring possession of any academic material (test information, research papers, notes, etc.) from a member of the College staff or another Student without permission; receiving or giving help during tests; submitting papers or reports presented as the student's original work that are not entirely the Student's own; not giving credit for others' work.
- **Network Files**: RCCC Network files are provided to Students for academic work. These files are not private and are subject to review for compliance with the College's acceptable use policy for technology, the Digital Millennium Copyright Act of 1998, and general copyright law.

Behavior

- **Indecent Conduct**: The College prohibits disorderly, lewd, or indecent conduct, including public physical or verbal action; language commonly considered offensive (not limited to, but including profanity); or distribution of obscene or libelous written or electronic material.
- **Violence**: The College prohibits mental, psychological or physical abuse of any person (including sex offenses) on College premises or at College-sponsored or College-supervised functions, including verbal or physical actions that threaten or endanger the health or safety of any such persons or which promote hatred or prejudice. This includes fighting and or other disruptive behaviors, which includes any action or threat of action which endangers the peace, safety or orderly function of the College, its facilities or persons engaged in the business of the College.
- **Harassment**: The college prohibits any act, comment, behavior, or clothing which is of a sexually suggestive, harassing, offensive, or intimidating nature. The college prohibits stalking, or behavior which in any way interferes with another student's rights or an employee's performance or created an intimidating, hostile or offensive environment. (This includes the display or navigation to pornography or other inappropriate websites and materials.)

- **Disruption**: The college prohibits any intentional obstruction or interruption of teaching, research, administration, disciplinary proceedings or other college activities, including public service functions, and other duly authorized activities on college premises or at college-sponsored activity sites.
- **Failure to Comply**: Refusal to adapt one's behavior to instructions of College Officials is prohibited. If, in the opinion of College Officials, clothing or behaviors (including gang colors, signs or symbols) are threatening, intimidating or offensive in nature, sanctions may be imposed immediately.

Use of College Property

- **Purposeful Use of Campus Facilities**: The College prohibits loitering without educational purpose or goal; therefore, individuals must be engaged in purposeful acts on campus which meet educational goals or in appropriate recreational and extracurricular activities.
- Use by Unattended Minors: The College prohibits minors under the age of sixteen (16) from being on the campus unattended. Minors are not allowed in classrooms, labs, shops, learning resource center or other instructional areas without College authorization. Parents and guardians whether enrolled in college or as a community patron, must remain with the minor child at all times. Violators will be asked to leave the premises. Early College students are exempt from this requirement.
- **Theft and Damage**: The College prohibits theft of, misuse of, or harm to College Property, or theft of or damage to property of a member of the college Community or a campus visitor on College Premises or at a college function.
- **Occupation or Seizure**: The College prohibits occupation or seizure in any manner of College Property, a College facility, or any portion thereof for a use inconsistent with prescribed, customary or authorized use.
- **Presence on College Premise**s: The College prohibits unauthorized entry upon the College Premises; unauthorized entry into a College facility or a portion thereof which has been restricted in use; unauthorized presence in a college facility after closing hours; or furnishing false information to gain entry on the College Premises or into a College facility.
- **Assembly**: The College prohibits participation in or conducting an informal or formal unauthorized gathering in a manner that threatens or causes injury to persons or property or that interferes with free access to, ingress or egress of College facilities, that is harmful, obstructive, or disruptive to the educational process or institutional functions of the College; or remaining at the scene of such an assembly after being asked to leave by a College Official.
- **Fire Alarms**: The College prohibits setting off a fire alarm or using or tampering with any fire safety equipment on College Premises or at College-sponsored activity sites, except with reasonable belief in the need for such alarm or equipment. In the event of a fire alarm sounding, Students MUST evacuate the building, unless otherwise directed by the College Official.
- **Emergency Phones**: The College prohibits the misuse of the Emergency Phones in college hallways in making false reports of emergencies, disturbances, physical injury or illness of students, employees or college visitors requiring attention of campus security or off-campus emergency personnel. Students activating the emergency phone are required to give their full-name, nature of the emergency, exact location of the emergency and stay "on the line" with the College Official until released. Exception: If the individual activating the Emergency Phone believes they are in imminent danger from another person, they should provide as much information as possible before leaving the phone in the connected position.

Drugs, Alcohol and Other Substances

- **Drugs and Alcohol**: Substances referred to under this policy include all illegal drugs, alcoholic beverages, and misused legal drugs (both prescription and over the counter). The College prohibits possession or use of alcoholic beverages on College Premises or at College-sponsored or supervised functions (including off-campus functions) unless otherwise permitted by a College Administrator. The College prohibits being in a state of intoxication on College premises or at College-sponsored or supervised functions (including off-campus functions) or in a College – owned vehicle. The college prohibits possession, use, sale or distribution of any controlled substance, illegal drugs, or drug paraphernalia except as expressly permitted by law. Any influence which may be attributed to the use of drugs or of alcoholic beverages shall not be in any way limit the responsibility of the individual for the conduct or consequences of his/her actions.

- **Tobacco and Food**: The College prohibits eating and/or drinking in classrooms, shops, and labs or other unauthorized areas, unless otherwise permitted by College Officials. The College prohibits use of tobacco products on campus in college owned vehicles or in properties rented for the purpose of college use.

Weapons

The College prohibits possession, storage, use or threat of use of firearms, weapons, ammunition, incendiary devices or explosives on College Premises or in personal vehicles parked on College Premises or at College-sponsored activity sites. This also includes unauthorized use of any instrument capable of inflicting serious bodily injury to any person. Possession or use of firearms or other weapons on College premises for instructional purposes must have the prior approval of the Vice President for Academics. North Carolina General Statute 14-269.22 makes it unlawful for any person to possess or carry, whether openly or concealed any gun, rifle, pistol or any other weapon of like kind as defined by the statute. That statute overrides the North Carolina concealed weapons act. Violation of this regulation will result in immediate and permanent expulsion, exclusion from College Premises and arrest.

Use of Technology

- **Damage and Destruction**: Destruction of or harm to equipment, software, or data belonging to the College or to others is considered unacceptable usage and is subject to disciplinary action. This may include altering, downloading, or installing software on College computers, tampering with computer hardware or software configuration, improper access to the College's network, and disconnection of College computers or devices. Refer to the College Internet and Network Services Policy.
- **Electronic Devices**: Unless otherwise permitted by College Officials, the College prohibits use of electronic devices in classrooms, labs and other instructional, event, or support facilities. Such devices include, but are not limited to cell phones, texting devices, beepers, walkie- talkies, cameras, I-Pods, MP3 players or other electronic devices which may cause unnecessary disruption to the teaching/learning process. All electronic devices must be turned off in the classroom, labs or other instructional support areas. Cameras, camera phones or other visual recording devices may not be used in restrooms, locker rooms, changing facilities or other areas where personal privacy is a reasonable expectation.

Gambling and Gaming

The College prohibits gambling in any format on the campus. RCCC also prohibits competitive, unstructured competitive gaming which fosters disruptive behavior. This includes participating on College Premises or at College sponsored activity sites in an activity where making a set wager or playing for money or material is involved.

Forgery

The College prohibits forgery, alteration, duplication, or misuse of College documents, records, computers or instruments of identification with intent to deceive.

Financial Irresponsibility

The College prohibits failure to pay College-levied charges, fees or fines, failure to repay College-funded loans, the passing of worthless checks to College Officials or any fraudulent action when transacting business with the College or third party agent contracted by the college to provide services for students (i.e. bookstore, food service, e-cashiering).

Disciplinary Probation

The College prohibits violation of the terms of disciplinary probation during the period of probation. Additional violations of any College regulation during the probationary period will result in immediate review for additional sanctions.

Violation of RCCC Policy, Rules or Regulations

The College prohibits violation of any RCCC policy, rule or regulation published in hard copy or available electronically on the RCCC website, www.rccc.edu.

Violation of Law

The College prohibits violation of any federal, state or local law.

Disciplinary Actions & Sanctions
Violation of the Campus Code of Conduct, or of RCCC policies, or of North Carolina and federal laws while on campus or while off campus when participating in activities sponsored by RCCC, subjects violators to appropriate sanctions. Charges that a student has violated behavior standards will be investigated by the Vice President of Enrollment Management and Student Services (or designee) to determine whether the charges are significant or whether they may be dropped or informally resolved. Charges that a student has violated an academic standard will be investigated by the appropriate dean to determine if the charges are significant, whether the charges will be dropped or informally resolved. Charges that a community patron has violated the Campus Code of Conduct will be investigated by the Vice President of Administration (or designee) to determine if the charges are significant, inform the patron and appropriate administrative unit of any restrictions imposed and notify campus security of any additional action to be taken.

Procedures for Disciplinary Actions
This section describes the College disciplinary procedures in response to violations of the Campus Code of Conduct. The Vice President of Enrollment Management and Student Services (or Designee) is responsible for implementing student disciplinary procedures.

Disposition of Disciplinary Cases
The following section outlines the procedure for handling student disciplinary cases in accordance with due process and justice.

Charges
Any member of the College community may file charges with the Vice President of Enrollment Management and Student Services against any student for violation of the College regulations. The individual(s) making the charge must complete a charge form stating:

- The name(s) of the student(s) involved
- The alleged provision of the Campus Code of Conduct, college regulation, state or federal law that has been violated.
- The date, time and location of the incident
- The names of students or staff directly involved or who witnessed the infractions, and
- The actions taken by the complainant related to the incident.
- The desired solution(s).

The completed charge form (written or electronic) with the printed name and signature of the person filing the charge should be forwarded directly to the Vice-President of Enrollment Management and Student Services.

Investigation and Decision
Within five (5) business days after the charge is filed, the VP (or dean) shall complete a preliminary investigation of the charge, and the schedule a meeting with the student(s) alleged to be in violation. After meeting with the student(s) to review the alleged infraction(s) one of the following actions will be taken:

- Drop the charge(s)
- Impose a sanction consistent with those listed below
- Refer the student(s) to a College Office or community agency for services

Notifications
The decision of the VP (or dean) shall be presented to the student in writing or mailed within five (5) business days. In instances where the student cannot be reached to schedule an appointment or where the student refuses to cooperate, the VP (or dean) shall send a certified letter to the student's last known address providing the student with a list of charges, the decision, and instructions governing the appeals process.

- **Immediate Interim Suspension** is a procedure which can be invoked by any College Official for any student who has been involved in conduct that threatens the health or well-being of any member of the College community or disrupts the function or good order of the College or College Premises. The College Official must advise the student that failure to cease and desist will result in immediate interim suspension. If the student fails to cease and desist, the College Official may invoke the interim suspension until disciplinary proceedings are completed.

College Officials may contact College security officers to have the Student removed from campus. Once interim suspension has been invoked by a College Official, a written report must be filed with the Vice President of Enrollment Management and Student Services. The report must detail the individual(s) involved and the nature of the infraction with supporting information. It must include other students or employees who observed the incident. The report must be filed immediately, but not more than two (2) working days after the incident. Incidents in the classroom should be reported to the program head and dean of the division by the instructor involved.

The Vice President of Enrollment Management and Student Services will notify the student in writing of the interim suspension and the reasons for the suspension. The notice will include a description of disciplinary procedures including the time, date and location of any subsequent hearing. The procedural timeline outlined in a subsequent section will be followed by the College to resolve the pending matter.

Interim suspension may result in continued exclusion (beyond the incident date) from class and or other privileges including presence on College Property or College sponsored activities until a final decision has been made concerning the alleged conduct violation.

Disciplinary Sanctions

Verbal Warning (reprimand)

A verbal communication given to the student/patron by a College Agent to cease a behavior or action deemed inappropriate, or possibly a violation of the Campus Code of Conduct. The issuing College Official should document the issuing of a verbal warning, including the incident and the student/patron name.

Written Warning (reprimand)

A written communication which gives official notice to the student/patron regarding the offense noted and that any subsequent offense of the Campus Code of Conduct will carry heavier penalties because of the prior infraction.

Interim Suspension

Exclusion from class or other privileges or activities as set forth in the notice, until a final decision has been made concerning the alleged violation.

General Probation

A minor disciplinary offense may result in this penalty which allows the student to show the willingness and capacity to observe the Campus Code of Conduct without further penalty. IF a second penalty occurs during the probationary period further action can be taken. The probationary period can be in effect for no more than 2 academic terms.

Restrictive Probation

A major disciplinary offense or series of violations may result in a loss of good standing and a matter of official record (transcript notation) denoted by this sanction. Restrictive probation limits the student's/patron's activity on the campus and within the college community. The student cannot be initiated into any local or national organization, receive any college award or recognitions, occupy a position of leadership or travel with any college student organization. Further, the College may restrict the student's/patron's access to campus or use of campus services and facilities. Restrictive probation is for a period of not less than 2 academic terms. Any violation of Restrictive Probation orders may result in immediate suspension.

Restitution

Paying for damage, misuse, destruction, or loss of property belonging to the College, College personnel, student, or contract agent for the college. Withholding grade reports, diplomas, right to register to participate in graduation ceremonies may be imposed when financial obligations are not met.

Loss of Academic Credit or Grade

Imposed as result of academic dishonesty.

Suspension
Exclusion from class (es) or all other privileges or activities of the College for a specified period of time. Reserved for offenses which warrant discipline more severe than probation or for repeated misconduct. Students receive this sanction must get specific written permission from the Vice President before returning to campus.

Expulsion
Dismissing a student/patron from campus for an indefinite period. Loss of student/patron status means that the individual will not be permitted on the College property, may not register for any course (basic skills, curriculum, or continuing education, occupational/corporate) and may not participate as a citizen in any college sponsored event. The individual may be readmitted to the College only with the approval of the Vice President, Enrollment Management and Student Affairs or the Vice President of Academic Affairs.

Appeal of Disciplinary Sanctions
The disciplinary decision of the Vice President of Enrollment Management and Student Services or academic dean must be presented to the student in writing within five (5) working days after the charge is investigated. If a disciplinary sanction is imposed, the student may appeal the decision as follows:

- The student must submit the appeal in writing within five (5) working days to the Associate VP of Enrollment Management and Student Services. The appeal must include the student's reason for appeal, mitigating circumstances or evidence which needs to be considered. The Associate VP of Student Services and respective dean will render a decision and will notify the student of the decision within five (5) working days of receipt of the appeal.
- Further appeals of disciplinary sanctions must be made in writing within five (5) working days of receipt of the Associate VP decision. Appeals are made to the Student Appeals Committee through the Director of Counseling, The Student Appeals Committee consists of 2 faculty, 2 staff and 1 student who render a decision based on the written appeal submitted. The decision of the Student Appeals Committee will be submitted in writing to the student within five (5) days. The decision of the Student Appeals Committee is final except in the case of expulsion.
- Final appeal regarding expulsion may be issued to the President within five (5) working days of receipt of the Student Appeals Committee decision to support the disciplinary sanction of expulsion. The President may solicit evidence and information regarding the student case, appeal proceedings, recommendations of the Student Appeals Committee and take any other steps deemed appropriate before rendering a decision as soon as possible but not more than ten (10) days from the date received. In the event that a suspension or expulsion is issued, campus security will be notified.

Appeal of Financial Obligations to the College
Students who want to appeal disciplinary action related to violation of financial indebtedness to the college must do so through the College Business Office, Associate Vice-President for Business and Finance until the matter is submitted to local and state legal authorities.

Student Grievances
Any student may request a review of any College decision or action alleged to be discriminatory or have a negative effect on the student's enrollment status at Rowan-Cabarrus Community College. Students must follow the procedure noted below and may request consultation assistance from Student Services.

- A grievance must be presented within 30 days after the action or decision being questioned. Processing at each step cannot exceed 30 working days; however, the time may be extended by agreement of both parties or by extenuating circumstances as decided by the administrator to whom the grievance is presented. If administrator at each step does not meet processing time limitations, the grievant may then request higher administrative assistance in obtaining requested relief. If the grievant does not meet the stated time limitations, the process will be terminated and such grievance cannot be resubmitted.
- The student shall first informally discuss the matter in question with the College employee most directly involved unless the issue is a claim of discriminatory harassment. In that case, the student may move directly to the employee's immediate administrator or student services counselor.

- If the student is unable to resolve the matter in question through discussion with the College employee directly involved, the student may file a formal grievance form with the employee's immediate administrator. All such grievances shall be in writing and state the basic facts in the case.
- If the matter is not resolved, the formal appeal may be processed through the employee's supervising administrators in succession until a satisfactory resolution is obtained or until the appeal reaches the appropriate Vice-President. The Vice-President's decision will be final except in the case of expulsion from the college which requires a final ruling by the President.
- A student may at any stage of the process consult with the Associate Vice President for Student Services to obtain advice regarding the grievance procedure.

Safety and Security

The Security Department consists of professionally trained members of the respective county or municipal law enforcement or security agency. Security Staff safeguard and serve our campus community. Security is responsible for the flow of traffic on campus, building security, and enforcement of traffic and parking regulations. Uniformed law enforcement officers have the authority to arrest.

Reporting Emergencies on Any Campus

Red emergency phones are located in each building throughout the campus to report any fire, medical, or security emergency, or you may dial "0" on any office phone to contact the switchboard. Please report the type of emergency, the location, and your name so appropriate personnel may be notified. On most occasions, security personnel are located in the parking lot and are available for assistance. Security personnel are on campus to serve and protect employees and students. We urge you to report any suspicious persons or anything out of the ordinary in the buildings or parking lots to a security officer or the switchboard. Upon request, security personnel will escort you to your vehicle for added protection. Red emergency phones are located in each building throughout the campus to report any fire, medical, or security emergency, or you may dial 7248 on any office phone to contact the Academic Programs Office. If unable to access an emergency or office phone, the Academic Programs Office is located in Room 201 of Building 1000. Please report the type of emergency, the location, and your name so appropriate personnel may be notified. On most occasions, security personnel are located in the parking lot and are available for assistance.

CRIME STATISTICS – ROWAN COUNTY CAMPUS

Offense	2005	2006	2007	2008	2009
Murder	0	0	0	0	0
Sex Offense	0	0	0	0	0
Robbery	0	0	0	0	0
Aggravated Assault	0	0	0	0	0
Burglary	0	0	0	0	0
Arson	0	0	0	0	0
Hate Crimes	0	0	0	0	0
Negligent Manslaughter	0	0	0	0	0
Auto Theft	0	0	0	0	0

CRIME STATISTICS – CABARRUS COUNTY CAMPUSES

Offense	2005	2006	2007	2008	2009
Murder	0	0	0	0	0
Sex Offense	0	1	0	0	0
Robbery	0	2	0	0	0
Aggravated Assault	0	0	0	0	0
Burglary	0	0	0	0	0
Arson	0	0	0	0	0

Hate Crimes	0	0	0	0	0
Negligent Manslaughter	0	0	0	0	0
Auto Theft	0	0	0	0	0

STUDENT LIFE & SUPPORT SERVICES

Student Life and Leadership Development

The college experience reaches far beyond the classroom. To get the most out of this experience, students are encouraged to participate in campus, intramural, and interscholastic activities. There are more than 16 active clubs and organizations on campus. Consider getting involved to network with peers and professionals on state and national levels. To learn more about Student Life visit www.rccc.edu/studentlife or contact a Staff Member:

Patty Scott, Administrative Assistant
Patty.scott@rccc.edu
704-216-3722

Emily Baumgardner, Student Activities Coordinator-Cabarrus County
Emily.baumgardner@rccc.edu
704-216-3605

Natasha Lipscomb, Director of Student Life
Natasha.lipscomb@rccc.edu
704-216-3722

Counseling Services

Professional Counseling Services are provided to students, prospective students, and the entire college community in the areas of personal, academic, and emergency needs. The staff is comprised of trained counselors who are qualified to assist individuals assess and understand their personal issues in support of academic success. Counseling Services are confidential. Consistent with the College mission, counseling services are focused to promote individual growth, student success and retention. Counseling Services are provided through the comprehensive work of the Student Services Office and are available on both North and South campuses, day and evening. Counseling Services are also available at Cabarrus Business and Technology Center, Cloverleaf Extension & Cosmetology Center, and North Carolina Research Campus.

R3 Career Services

R3 Career Services provides Rowan-Cabarrus Community College and the community with career exploration, career development and career information activities.

Career Exploration

Students and citizens of the community are able to work with a counselor to identify individual interests, preferences, transferable skills and career opportunities. State-of-the-art career development materials are used in both individual and small group formats facilitated by R^3 Career Services staff.

Career Information

Information on occupations, educational programs, and job opportunities is available through the college to students and community citizens. The R^3 Career Services staff within Student Services is available to assist anyone in finding and interpreting desired information. Job-seeking skills, résumé writing, and interviewing skills are offered in an individual and small group setting. College Central Network (CCN) is a web-based database management system dedicated to helping RCCC students and alumni connect with area employers to find part-time or full-time employment. (Refer to: www.rccc.edu/studentservices/ccn). The responsibility for getting the job rests entirely with the individual. Employers

that wish to consider students and graduates of Rowan-Cabarrus Community College are invited to contact the Student Services Office.

Career Development

Opportunities and information on goal setting, training opportunities and college transfer options are available. Four-year colleges and universities visit RCCC individually and in a fair-style event which are coordinated through the R^3 Career Services. Colleges and Universities who would like to meet with RCCC students are encouraged to contact the Student Services Office.

Learning Resource Centers (Library)

The Learning Resource Centers are an essential component of Rowan-Cabarrus Community College. The LRCs provide our patrons with library, audiovisual, Internet and instructional resources and services necessary to support the educational programs of the college. They also provide resources to meet the various needs, interests, and aptitudes of the students enrolled in lifelong learning. RCCC has two full service LRCs, one on North Campus, and the Charles A. Cannon Library, on South Campus. Each LRC offers collections of books, magazines, newspapers, audiovisual materials, and equipment as well as access to electronic resources. North Carolina Libraries for Virtual Education (NC-LIVE) is also available with access to resources found in various databases, including information from newspapers, magazines, and professional journals. An Early Childhood Learning Laboratory special collection is also housed at each facility. The Cabarrus Business and Technology Center (CBTC) and Cosmetology also have LRC services available to students. The LRC's are open to students, administration, faculty, and staff as well as individuals in the community. The hours are posted on campus and on our website at: www.rccc.edu/lrc. Students are encouraged to use these areas for study, research, recreational reading, browsing, or relaxing between classes. All LRC's have access via WebCat, to our online catalog and to other holdings through the Community College Libraries in North Carolina (CCLINC). These books may be requested (through inter-library loan) by our students and faculty by placing a hold on the item to be borrowed. RCCC also provides a courier service to transfer materials daily between locations in our two-county area. Books from the general collection are initially checked out for a two-week period and may be renewed. Inter-library loan books are checked out for a two-week period. In addition, faculty may place reference and AV material on reserve as needed. Books on the reserve shelves may be checked out with instructor approval. Audiovisual materials and equipment are made available for student use in the classroom upon request. A coin-operated plain paper black and white copier plus a color photocopier are available at LRC's, located North and South Campuses, for student and public use. Students may check their accounts online via their library card and pin number. Fines are charged for all overdue material (excluding Sundays and holidays). These fines must be paid before additional books are checked out and before students will be allowed to register for the next semester. Overdue notices are sent by mail. The LRC personnel assist in locating and using LRC resources. The LRC personnel also support faculty and students with daily operations of the Interactive Television/North Carolina Information Highway (ITV/NCIH) classrooms on each campus. The LRC personnel also operate the Academic Testing Center (ATC) in the LRC North and South during specified hours which provides an opportunity for students to make up exams missed during regular class hours, to take tests for Tele-Course and Internet classes, and for other reasons as needed. Patrons are encouraged to take advantage of these services.

LRC Mission Statement

The mission of the Learning Resource Center (LRC) is to advance the learning and research skills of the students, faculty, staff, and administration of Rowan-Cabarrus Community College by providing library, audio-visual, and instructional resources necessary to support the programs of the college and lifelong learning. To accomplish this purpose, the LRC personnel will strive to meet the following objectives:

- To develop a comprehensive Learning Resource Center with an atmosphere conducive to learning through the use of technology.
- To develop and retain a dynamic trained staff to assist with the goals of active learning through technology by instructing and assisting patrons in the use of resources and services collected to support the programs of the college.
- To acquire, organize, and circulate LRC materials or provide access through cooperative relationships/consortia with a variety of study options, including the use of the Internet service to ensure it is used for college-related

research and educational activities. To conduct periodic evaluations of patrons to assure the needs of the college community are being met.

- To provide Academic Testing Center services for students of our college and other colleges through reciprocal arrangements and support day-to-day operations for the North Carolina Information Highway Interactive Television (NCIH/ITV) classrooms.
- To oversee Information Commons (computer lab).

Information Commons

Students enrolled at Rowan-Cabarrus Community College are provided access to the Information Commons, a staffed facility where students can utilize computer resources to work on traditional and distance education course assignments. An Information Commons is located at North, South and CBTC campuses. Each facility provides multimedia computers, laptops, an automated student login/tracking system, and high-speed printers – both black/white and color. The staff can help students with questions about software applications: Blackboard, e-mail, web advisor, and Microsoft office. For more information about the locations, hours of operation, computers, and/or software, please visit the Information Commons web page at www.rccc.edu/labs/.

LEARNING CENTERS

Student Tutoring Academic Resource

(STAR) Centers opened on South Campus in the Fall 2010 offering tutoring for all, students, all the time, in all disciplines. The STAR Center offers tutoring in Computer and Business, Math, Writing, Foreign Language, and Reading. The North STAR Center will open in Fall 2010.

Computer/Business Tutoring

RCCC Technology Tutoring Centers, located on North Campus in the Learning Resource Center - **Room 520-I** and on South Campus in the STAR Center-**Rooms 2224-2225**, provides tutoring services free of charge in the following areas:

Accounting (all levels)
Business Math
Business Finance
Business Law
Economics
Computer Information Systems and Programming
Networking & Information Technology
Office Systems Technology
Medical Office Administration
Microsoft Office (All Levels)
Marketing & Retail
Management & Retail

The lab also provides facilities for student to come and work on business technologies related assignments. A schedule of lab hours and tutor availability in specific areas is located on the college webpage under Tutoring Services or at www.rccc.edu/tutoring/business. Students should bring a completed **Student Referral Form** to the lab on their first visit for tutoring. The referral forms are available from your course instructors. Referral forms are not required for regular lab visits. For further information, you may contact the North Campus location at (704) 216-3780 and the South Campus STAR Center at (704) 216-3768 or email Jane Benson, Director at Jane.benson@rccc.edu.

Math Tutoring Center

The Math Tutoring Center (MTC) provides free, individualized tutoring for curriculum students enrolled in Biotech, Math, and Science courses at RCCC. Students must be referred by the instructor and present a completed Student Referral Form to the lab on their first visit for tutoring. The referral forms are available from your course instructors. Tutoring assistance is available on a first come, first serve basis during “drop in” hours. Appointments are available by request. The North Campus Math Tutoring Center is located inside the LRC in building 500. The South Campus Math Tutoring Center is located in room 2224, the STAR (Student Tutoring & Academic Resource) Center. Contact and schedule

information can be found at: www.rccc.edu/tutoring/N_math.html (North Campus), or at www.rccc.edu/tutoring/south_star.html (South Campus). Additional Math Resource links can be found at: www.rccc.edu/tutoring/OR_math.html.

Reading Center

Rowan-Cabarrus Community College is providing students with a Reading Center to primarily build strong skills in comprehension of various types of written material. Tutors guide students through different levels of exercises to master understanding of text from any course discipline. Individualized instruction is also provided in the areas of phonics, vocabulary building, word attack skills and reference skills. A goal of the Reading Center is to have students overcome reading-related deficiencies. All students visiting the center must be instructor-referred. Technology use is available in the Reading Center. Information regarding hours of operation and location can be found at: www.rccc.edu/tutoring/reading.

Foreign Language Tutoring

Free tutoring in Spanish and sometimes German and French, all levels, is available to all RCCC students on North and South campuses. No appointment is necessary and tutoring assistance is offered both day and evening hours, during the week. The tutoring staff consists of individuals from varying countries and cultures which will enhance the individualized help received. Students must bring an Instructor Referral Form to set up a record of visits kept on file in the center. A schedule of tutoring hours can be found on flyers posted around campus and at: www.rccc.edu/tutoring/spanish. Any questions or concerns should be addressed to katherine.vestal@rccc.edu.

Writing Center

The Writing Center (WC) is a free service provided to assist students with any course related writing; including compositions, essays, proposals, research papers, reports, business correspondence, and resumes. The Center also provides individualized instruction for problem areas in grammar, punctuation, organization, wording, rhetorical modes, and research. The Writing Center offers students skills in proofreading and learning how to avoid these errors in the future. Students are referred to the WC by their instructors at the beginning of each semester. Students are responsible for scheduling their appointment by calling or visiting the WC. The Writing Center offers 30-minute tutoring appointments. The WC also offers assistance to walk-in students, based on availability. Tutoring Session Verification Slips are provided. The Writing Center hours of operation and tutoring schedules may be accessed online at www.rccc.edu/tutoring/writing or by clicking Tutoring Services tab on RCCC's main webpage. For questions or comments, contact the Director, ginger.fox@rccc.edu, or call one of the centers at 704-216-3543 (N), 704-216-3525 (S), or 704-216-3491 (CBTC).

Cooperative Education

Cooperative Education (Co-op) is a unique academic plan in which students blend classroom learning with practical work experience. This is accomplished through supervised work assignments outside the formal classroom environment. Co-op is based on the theory that education does not confine itself to just the classroom and should include the vital input that students may gain from participation in the world of work. The program is designed to make a student's educational program more relevant and meaningful by integrating classroom study with planned and supervised practical experience in business, industry, government, and professional or service organizations. It is called "Cooperative Education" because educators and outside agencies work together to design a superior total educational program for students. There are two co-op enrollment plans available to students and employers:

- **Alternating Plan** – The student alternates semesters of full-time work (40 hours per week) and full-time college enrollment.
- **Parallel Plan** – The student works part-time (10-30 hours a week) and attends school.

Co – Op Education Eligibility

To be eligible to participate in the Cooperative Education program, students must meet the following minimum requirements:

- Have completed one semester (12 credit hours) of college work with at least three credit hours in a major field of study.
- Have a minimum of 2.25 overall GPA and be in good academic standing. (Nursing requires a 2.5 overall GPA.)

- Be recommended and approved for co-op participation by the Co-op faculty coordinator.
- A transfer student must complete 12 semester hours at RCCC before applying for the Co-op program.
- Demonstrate the ability to profit from the experience and meet the employer's requirements.
- A student enrolled in the Co-op program must be registered for three hours of credit (in addition to the co-op) during the semester(s) he or she is participating. *(Exceptions are for Summer Term.)*
- All students must be willing to co-op a minimum of 160 clock hours.
- If released from a prior Co-op position, eligibility to reapply will be determined by the Co-op Director with special permission from the System Office.
- A student who does not meet the eligibility criteria may be admitted to the program at the discretion of the Co-op Director and the Co-op Faculty Coordinator. *(Certain degree programs may specify additional requirements.)*

The Cooperative Education program has an interrelated work experience and classroom content, carefully planned and supervised to produce quality educational results for each student involved. The institution assumes the responsibilities for finding assignments which are related to the student's professional objectives, thus providing experience that enhances knowledge acquired in the classroom.

Co – Op Education Application Procedure
Interested students should obtain an application from the Office of Work-based Learning and Cooperative Education and make an appointment with the Co-op Director. Co-op applications must be approved by Co-op faculty coordinators. Students who are currently employed may seek to have their present employment approved for Cooperative Education; however, such employment will be required to meet all Co-op criteria and the student and employer must be willing to be governed by the Co-op policies and procedures. Cooperative Education credit will not be given for previous employment held prior to registration for the course.

Co - Op Education Registration
Before attempting to register for a COE course (except COE 110), students should complete a Cooperative Education Approval Form, and secure approval from the Co-op Director. Students who are approved and are placed in the Co-op program must register before going to their Co-op Work Assignment.

Co – Op Academic Credit
Credit hours for Co-op work periods are determined by the number of hours worked per semester. For example, students working an average of 20 hours weekly (320 hours per semester) earn two hours of credit per semester. Grades given by the faculty coordinator will be based on the student's specific learning objectives, reports, and evaluations submitted by the student and the employer. The student's transcript indicates that practical work experience has been integrated into his/her academic program.

For more information on how to get involved in the Co-op program, contact the Office of Work-based Learning and Cooperative Education, Building 100, Room 131G(North) or Building 1000, Room 214 (South), 704-216-3648; or email: dottie.moore@rccc.edu.

NOTE: Co-op options are listed under each participating program as outlined in the RCCC Catalog/Student Handbook.

Continuing Education Services - Services for the Community
At Rowan-Cabarrus Community College, Continuing Education programs support the philosophy that learning is a lifelong activity. This division offers courses for professional development and community service courses of general interest at convenient times and locations. The Corporate Education Department http://info.rccc.edu/4030.aspx supports individual, organizational, and economic development by providing career-focused, educational programs and services to businesses and industries of Rowan and Cabarrus counties. RCCC's Small Business Center, www.rccc.edu/sbc, supports the development of new businesses and the growth of existing businesses by being a community-based provider of training, counseling, and resources. Through Corporate and Professional Development, the college provides classes that are open to the public or specifically customized to meet an organization's needs. Topics include leadership development, computer training, continuous improvement and customer service. The Customized Training Program is designed to react quickly to the needs of local businesses. Course content includes practical hands-on experience that is

customized for employees who need to become more productive in the shortest time possible. An important function of the college is to provide educational programs on the precollege level. Precollege Studies offer adults the opportunity for meaningful social and occupational growth through Adult Basic Education (ABE), and the High School Equivalency Program (GED). http://info.rccc.edu/3998.aspx. Through Community Education, the college offers courses in Human Resources Development (HRD), certifications and renewals, and a variety of topics for personal enrichment. More can be learned about these special services by referring to the specific sections in this publication.

The Small Business Center

Through the services provided by the Small Business Center (SBC), Rowan-Cabarrus Community College addresses the full spectrum of needs of small businesses, which comprise 98% of the business population in the two counties. The mission of the Small Business Center is to increase the success rate and number of viable small businesses in the community by providing education, counseling, a resource library, and special programs. The SBC offers free two-hour seminars on topics such as business start-up, funding, business plans, marketing, sales, green operations, social media, and online ventures. More in-depth training and skill building includes courses in basic accounting, QuickBooks and business plan writing. A schedule of small business courses and seminars is available at www.rccc.edu/sbc. Experienced counselors in Rowan and Cabarrus Counties help small business owners with all aspects of their business from idea development to operations and growth. Free one-on-one counseling is available by appointment. The SBC works closely with local and state resource providers that can assist with specific needs such as government procurement and funding requests. A lending library with over 400 books on topics such as marketing, management, leadership, and business specialties is available at the Cabarrus Business & Technology Development Center in Concord, along with brochures and other information from organizations that can assist business owners. Business owners can also participate in special programs sponsored by the SBC. For example, each semester RCCC marketing students will develop a marketing plan at no cost for any business that wants to participate in a class marketing project. "Business Connector" is also a special Web site that will link area businesses with potential customers at the North Carolina Research Campus. For more information about the Small Business Center visit www.rccc.edu/sbc or contact Barbara Hall, Director, Small Business Center, 704-216-3534 or via e-mail at barbara.hall@rccc.edu.

PROGRAMS OF STUDY

RCCC offers various occupational programs leading to an Associate in Applied Science degree. Diplomas and certificates of completions are awarded for other occupational programs. An Arts and Sciences program is also offered, leading to the Associate in Arts or Associate in Science Degree.

General Education goals provide the foundation to learning in all degree programs at Rowan-Cabarrus Community College. These goals seek to provide a high quality educational experience for all degree students and will ensure that our graduates have the necessary fundamental knowledge, skills and abilities to function effectively in their personal and professional lives.

General Education Goals

General Education at RCCC seeks to create the desire and provide the opportunity for students to live more informed and more reflective lives. To those ends, the General Education component of the curriculum at RCCC should enable students to:

- Learn Actively
- Think Critically
- Communicate Effectively
- Participate Responsibly

The following goals identify the essence of a general education and allow students to develop at a level appropriate to their degree. Although some of these competencies may be achieved primarily through successful completion of a particular course, students should have the opportunity to develop the use of many of these skills throughout their programs.

GOAL I: ***Communications***

Students who successfully complete a degree program at RCCC should be able to:

- Communicate clearly and coherently, in writing and orally, using standard English
- Read with understanding and listen perceptively at a level appropriate to their degree or occupational goals
- Use appropriate skills and technology to locate, evaluate and utilize information effectively
- Learn appropriate interpersonal and group communication skills

GOAL II: ***Mathematics, Science, & Technology***

Students who successfully complete a degree program at RCCC should possess the analytical abilities necessary to:

- Apply mathematical concepts and skills to interpret, understand and communicate quantitative data
- Understand the basic principles of the scientific method
- Identify the impact of technology on the individual and the global environment
- Apply technological skills

GOAL III: ***Problem Solving & Critical Thinking Skills***

Students who successfully complete a degree program at RCCC should be able to:

- Develop critical thinking skills that will allow them to analyze a variety of problem
- Select or create possible solutions, assess the impact of the solutions, and make informed judgments

GOAL IV: ***Society & Culture***

Students who successfully complete a degree program at RCCC should be able to:

- Develop an awareness of the humanities to broaden their understand of cultures in the diverse world
- Identify and enhance creativity
- Increase awareness of their own values, beliefs, and behaviors as well as those of others
- Demonstrate an awareness of the importance of this responsibility.

2010 – 2011 Associate in Arts (10100)
Program of Study

Description: The Associate in Arts (AA) program emphasizes liberal arts and is intended for students who wish to transfer to a four-year college or university. This degree program offers courses comparable to the freshman and sophomore levels at four-year colleges and universities. Academic advisors are available to assist students in selecting courses that best meet students' interests and the requirements of transfer institutions. Because course requirements vary among four-year institutions, students should obtain current catalogs from the schools they plan to attend A comprehensive articulation agreement between the North Carolina Community College System and the North Carolina University System facilitates the transfer process for students wishing to attend a four-year institution within the N.C. University System. Because of this agreement, students who complete the general education core at RCCC will have satisfied the universities' general education requirements and become eligible to enroll with junior level status upon completion of the Associate in Arts degree. Courses included in the articulation agreement are designated in the RCCC catalog Course Descriptions. Community college graduates who have earned 64 semester hours of academic credit in approved transfer courses with a grade of "C" or better in each course and an overall GPA of at least 2.0 on a 4.0 scale will receive at least 64 semester hours of academic credit upon admission to a university. A similar articulation agreement between RCCC and Catawba College facilitates the transfer process for students wishing to complete their four-year degrees at Catawba. Because of this agreement, RCCC students can satisfy all but one course needed to complete general education requirements for Catawba College. Some RCCC upper level junior/senior credits also may transfer. Courses included in the articulation agreement are designated in the RCCC catalog course descriptions. Courses may also transfer through bilateral agreements between institutions. Courses offered through bilateral agreements may not transfer to all receiving institutions. In addition to the 44 semester hours credit (SHC) general education core, students must complete 1 (one) SHC in College Transfer Success (ACA 122), and 20 (twenty) SHC of college transfer general education, elective, and/or pre-major courses. ***Transfer of ACA 122 is not guaranteed.***

Award(s): A10100 - Associate in Arts Degree
D10100 - Associate in Arts Diploma

Contact Information: The Associate in Arts program is in the Liberal Arts, Business Technology, and General Education Department. For additional information regarding this program, contact Dean Yolanda Wilson at (704) 216-3750 or yolanda.wilson@rccc.edu.

Course Requirements: See below.

Course Information:							
		Title	Class	Lab	Clinical	Work Exp.	Credits
The following success and study skills course (one semester hour credit) must be taken in the first semester by all students pursuing the Associate in Arts degree. This course may not transfer to a senior institution.							
ACA	122	College Transfer Success	1	0	0	0	1
General Education (44 SHC)							

English Composition (6 SHC)							
ENG	111	Expository Writing	3	0	0	0	3
Select one course from the following:							
ENG	112	Argument-Based Research	3	0	0	0	3
ENG	113	Literature-Based Research	3	0	0	0	3
ENG	114	Professional Research & Reporting	3	0	0	0	3
Humanities/Fine Arts: (12 SHC) Select four courses from at least three of the following discipline areas: music, art, foreign languages, inter - disciplinary humanities, literature, philosophy, and religion. Note: at least one course must be a literature course.							
Literature (3 SHC) - Select one course from the following (Speech/Communication may not substitute for the literature requirement.)							
ENG	131	Introduction to Literature	3	0	0	0	3
ENG	231	American Literature I	3	0	0	0	3
ENG	232	American Literature II	3	0	0	0	3
ENG	241	British Literature I	3	0	0	0	3
ENG	242	British Literature II	3	0	0	0	3
ENG	243	Major British Literature	3	0	0	0	3
ENG	251	Western World Literature I	3	0	0	0	3
ENG	252	Western World Literature II	3	0	0	0	3
ENG	261	World Literature I	3	0	0	0	3
ENG	262	World Literature II	3	0	0	0	3
Select three courses (9 SHC) from at least two of the following discipline areas:							
Art							
ART	111	Art Appreciation	3	0	0	0	3
ART	114	Art History Survey I	3	0	0	0	3
ART	115	Art History Survey II	3	0	0	0	3
ART	116	Survey of American Art	3	0	0	0	3
Drama							
DRA	111	Theatre Appreciation	3	0	0	0	3
DRA	112	Literature of the Theatre	3	0	0	0	3
DRA	122	Oral Interpretation	3	0	0	0	3
DRA	126	Story Telling	3	0	0	0	3
Foreign Languages							
FRE	111	Elementary French I	3	0	0	0	3
FRE	112	Elementary French II	3	0	0	0	3
GER	111	Elementary German I	3	0	0	0	3
GER	112	Elementary German II	3	0	0	0	3
SPA	111	Elementary Spanish I	3	0	0	0	3
SPA	112	Elementary Spanish II	3	0	0	0	3
SPA	211	Intermediate Spanish I	3	0	0	0	3
SPA	212	Intermediate Spanish II	3	0	0	0	3
Humanities							

HUM	110	Technology and Society	3	0	0	0	3
HUM	115	Critical Thinking	3	0	0	0	3
HUM	122	Southern Culture	3	0	0	0	3
HUM	130	Myth in Human Culture	3	0	0	0	3
HUM	150	American Women's Studies	3	0	0	0	3
HUM	160	Introduction to Film	2	2	0	0	3
HUM	161	Advanced Film Studies	2	2	0	0	3
HUM	211	Humanities I	3	0	0	0	3
HUM	212	Humanities II	3	0	0	0	3
Music							
MUS	110	Music Appreciation	3	0	0	0	3
MUS	113	American Music	3	0	0	0	3
MUS	210	History of Rock Music	3	0	0	0	3
MUS	213	Opera and Musical Theatre	3	0	0	0	3
Philosophy							
PHI	210	History of Philosophy	3	0	0	0	3
PHI	220	Western Philosophy I	3	0	0	0	3
PHI	221	Western Philosophy II	3	0	0	0	3
PHI	230	Introduction to Logic	3	0	0	0	3
PHI	240	Introduction to Ethics	3	0	0	0	3
Religion							
REL	110	World Religions	3	0	0	0	3
REL	211	Introduction to Old Testament	3	0	0	0	3
REL	212	Introduction to New Testament	3	0	0	0	3
REL	221	Religion in America	3	0	0	0	3
Speech/Communication (one of the following courses may be substituted for 3 SHC in Humanities/Fine Arts)							
COM	110	Introduction to Communication	3	0	0	0	3
COM	120	Introduction to Interpersonal Communication	3	0	0	0	3
COM	231	Public Speaking	3	0	0	0	3
Social/Behavioral Sciences (12 SHC) Select four courses from at least three of the following discipline areas: anthropology, economics, geography, history, political science, psychology, and sociology. Note: at least one course must be a history course.							
History (select one course from the following)							
HIS	111	World Civilizations I	3	0	0	0	3
HIS	112	World Civilizations II	3	0	0	0	3
HIS	121	Western Civilization I	3	0	0	0	3
HIS	122	Western Civilization II	3	0	0	0	3
HIS	131	American History I	3	0	0	0	3
HIS	132	American History II	3	0	0	0	3
Students must select three courses (9 SHC) from at least two of the following discipline areas:							
Anthropology							
ANT	210	General Anthropology	3	0	0	0	3
ANT	220	Cultural Anthropology	3	0	0	0	3

ANT	221	Comparative Cultures	3	0	0	0	3
ANT	230	Physical Anthropology	3	0	0	0	3
ANT	230A	Physical Anthropology Lab	0	0	0	1	1
ANT	240	Archaeology	3	0	0	0	3
Economics							
ECO	251	Principles of Microeconomics	3	0	0	0	3
ECO	252	Principles of Macroeconomics	3	0	0	0	3
Geography							
GEO	111	World Regional Geography	3	0	0	0	3
GEO	112	Cultural Geography	3	0	0	0	3
GEO	113	Economic Geography	3	0	0	0	3
GEO	130	General Physical Geography	3	0	0	0	3
Political Science							
POL	110	Introduction to Political Science	3	0	0	0	3
POL	120	American Government	3	0	0	0	3
POL	210	Comparative Government	3	0	0	0	3
POL	220	International Relations	3	0	0	0	3
Psychology							
PSY	150	General Psychology	3	0	0	0	3
PSY	237	Social Psychology	3	0	0	0	3
PSY	239	Psychology of Personality	3	0	0	0	3
PSY	241	Developmental Psychology	3	0	0	0	3
PSY	281	Abnormal Psychology	3	0	0	0	3
Sociology							
SOC	210	Introduction to Sociology	3	0	0	0	3
SOC	213	Sociology of the Family	3	0	0	0	3
SOC	220	Social Problems	3	0	0	0	3
SOC	225	Social Diversity	3	0	0	0	3
SOC	230	Race and Ethnic Relations	3	0	0	0	3
SOC	240	Social Psychology	3	0	0	0	3
Natural Sciences/Mathematics (14 SHC)							
Natural Sciences (8 SHC) Select two courses (including accompanying laboratory work) (AST, BIO, CHM, or PHY) from the following biological and physical science disciplines:							
AST	151	General Astronomy I	3	0	0	0	3
AST	151A	General Astronomy I - Lab	0	2	0	0	1
AST	152	General Astronomy II	3	0	0	0	3
AST	152A	General Astronomy II - Lab	0	2	0	0	1
BIO	111	General Biology I	3	3	0	0	4
BIO	112	General Biology II	3	3	0	0	4
CHM	131	Introduction to Chemistry	3	0	0	0	3
CHM	131A	Introduction to Chemistry - Lab	0	3	0	0	1
CHM	132	Organic and Biochemistry	3	3	0	0	4

CHM	151	General Chemistry I	3	3	0	0	4
CHM	152	General Chemistry II	3	3	0	0	4
PHY	151	College Physics I	3	2	0	0	4
PHY	152	College Physics II	3	2	0	0	4
PHY	251	General Physics I	3	3	0	0	4
PHY	252	General Physics II	3	3	0	0	4
Mathematics (6 SHC) Select at least one course in introductory mathematics. The other course may be selected from among other quantitative subjects, such as computer science and statistics.							
Introductory Mathematics (Select one :)							
MAT	140	Survey of Mathematics	3	0	0	0	3
MAT	151	Statistics I	3	0	0	0	3
MAT	161	College Algebra	3	0	0	0	3
MAT	175	Pre-Calculus	4	0	0	0	4
Select one course from the following:							
CIS	110	Introduction to Computers	2	2	0	0	3
CIS	115	Intro. to Programming & Logic	2	2	0	0	3
MAT	151	Statistics I	3	0	0	0	3
MAT	263	Brief Calculus	3	0	0	0	3
MAT	271	Calculus I	3	2	0	0	4
Students should check with the university of their choice to make sure that they complete the appropriate math course.							
A diploma may be awarded for this program after completing the entire general education core, as outlined above, with a grade of "C" or better in each course.							
Other Required Hours (20 SHC) A minimum of 20 SHC of college transfer general education, elective, and/or pre-major courses is required.							
ACC	120	Principles of Financial Accounting	3	2	0	0	4
ACC	121	Principles of Managerial Accounting	3	2	0	0	4
ANT	240A	Archaeology Field Lab	0	4	0	0	2
ANT	245	World Prehistory	3	0	0	0	3
ART	121	Design I	0	6	0	0	3
ART	122	Design II	0	6	0	0	3
ART	131	Drawing I	0	6	0	0	3
ART	132	Drawing II	0	6	0	0	3
ART	135	Figure Drawing I	0	6	0	0	3
ART	212	Gallery Assistantship I	0	2	0	0	1
ART	214	Portfolio and Resumé	0	2	0	0	1
ART	235	Figure Drawing II	0	6	0	0	3
ART	240	Painting I	0	6	0	0	3
ART	241	Painting II	0	6	0	0	3
ART	244	Watercolor	0	6	0	0	3
ART	261	Photography I	0	6	0	0	3
ART	264	Digital Photography I	1	4	0	0	3

ART	265	Digital Photography II	1	4	0	0	3
ART	281	Sculpture I	0	6	0	0	3
ART	288	Studio	0	6	0	0	3
AST	111	Descriptive Astronomy	3	0	0	0	3
AST	111A	Descriptive Astronomy - Lab	0	2	0	0	1
AST	251	Observational Astronomy	1	3	0	0	2
BIO	110	Principles of Biology	3	3	0	0	4
BIO	140	Environmental Biology	3	0	0	0	3
BIO	140A	Environmental Biology - Lab	0	3	0	0	1
BIO	163	Basic Anatomy & Physiology	4	2	0	0	5
BIO	168	Anatomy and Physiology I	3	3	0	0	4
BIO	169	Anatomy and Physiology II	3	3	0	0	4
BIO	250	Genetics	3	3	0	0	4
BIO	275	Microbiology	3	3	0	0	4
BIO	280	Biotechnology	2	3	0	0	3
BUS	110	Introduction to Business	3	0	0	0	3
BUS	115	Business Law I	3	0	0	0	3
BUS	137	Principles of Management	3	0	0	0	3
CHM	263	Analytical Chemistry	3	4	0	0	5
CJC	111	Introduction to Criminal Justice	3	0	0	0	3
CJC	121	Law Enforcement Operations	3	0	0	0	3
CJC	141	Corrections	3	0	0	0	3
COM	130	Nonverbal Communication	3	0	0	0	3
COM	140	Introduction to Intercultural Communication	3	0	0	0	3
COM	150	Introduction to Mass Communication	3	0	0	0	3
COM	160	Small Group Communication	3	0	0	0	3
COM	232	Election Rhetoric	3	0	0	0	3
COM	233	Persuasive Speaking	3	0	0	0	3
COM	251	Debate I	3	0	0	0	3
COM	252	Debate II	3	0	0	0	3
CSC	134	C++ Programming	2	3	0	0	3
CSC	139	Visual BASIC Programming	2	3	0	0	3
CSC	151	JAVA Programming	2	3	0	0	3
CSC	239	Advanced Visual BASIC Programming	2	3	0	0	3
DFT	170	Engineering Graphics	2	2	0	0	3
ECO	151	Survey of Economics	3	0	0	0	3
ENG	125	Creative Writing I	3	0	0	0	3
ENG	126	Creative Writing II	3	0	0	0	3
ENG	132	Introduction to Drama	3	0	0	0	3
ENG	235	Survey of Film as Literature	3	0	0	0	3
ENG	272	Southern Literature	3	0	0	0	3

ENG	273	African-American Literature	3	0	0	0	3
ENG	274	Literature by Women	3	0	0	0	3
GEO	121	North Carolina Geography	3	0	0	0	3
HEA	110	Personal Health/Wellness	3	0	0	0	3
HIS	163	The World Since 1945	3	0	0	0	3
HIS	226	The Civil War	3	0	0	0	3
HIS	236	North Carolina History	3	0	0	0	3
JOU	110	Introduction to Journalism	3	0	0	0	3
JOU	216	Writing for Mass Media	2	2	0	0	3
JOU	217	Feature/Editorial Writing	2	2	0	0	3
JOU	242	Intro to Multimedia	2	2	0	0	3
MAT	151A	Statistics I - Lab	0	2	0	0	1
MAT	272	Calculus II	3	2	0	0	4
MAT	273	Calculus III	3	2	0	0	4
MUS	131	Chorus I	0	2	0	0	1
PED	110	Fit and Well for Life	1	2	0	0	2
PED	111	Physical Fitness I	0	3	0	0	1
PED	113	Aerobics I	0	3	0	0	1
PED	117	Weight Training I	0	3	0	0	1
PED	121	Walk, Jog, Run	0	3	0	0	1
PED	122	Yoga I	0	2	0	0	1
PED	128	Golf – Beginning	0	2	0	0	1
PED	142	Lifetime Sports	0	2	0	0	1
PED	217	Pilates I	0	2	0	0	1
PHY	110	Conceptual Physics	3	0	0	0	3
PHY	110A	Conceptual Physics - Lab	0	2	0	0	1
POL	130	State & Local Government	3	0	0	0	3
PSY	211	Psychology of Adjustment	3	0	0	0	3
PSY	215	Positive Psychology	3	0	0	0	3
PSY	231	Forensic Psychology	3	0	0	0	3
PSY	243	Child Psychology	3	0	0	0	3
PSY	246	Adolescent Psychology	3	0	0	0	3
PSY	249	Psychology of Aging	3	0	0	0	3
PSY	259	Human Sexuality	3	0	0	0	3
PSY	271	Sports Psychology	3	0	0	0	3
PSY	275	Health Psychology	3	0	0	0	3
SOC	234	Sociology of Gender	3	0	0	0	3
SOC	242	Sociology of Deviance	3	0	0	0	3
SOC	245	Drugs and Society	3	0	0	0	3
SOC	250	Sociology of Religion	3	0	0	0	3
In addition to the above, any courses not taken to satisfy the general education core requirement may be used to fulfill the other required hours' requirement of 20 SHC.							
TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 65							

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.

2010 – 2011 Associate in Fine Arts (10200)
Program of Study

Description: The Associate in Fine Arts (AFA) degree is recommended for students who plan to transfer to senior colleges or universities to continue study in areas leading to a Bachelor of Fine Arts, Bachelor of Arts in Fine Arts (BAFA) or Bachelor of Science in Art Education. The program has a concentration in the studio arts which includes courses in 2 and 3 dimensional design, drawing, painting, and digital photography. This degree program offers courses comparable to the freshman and sophomore levels at four-year colleges and universities. Academic advisors are available to assist students in selecting courses that best meet students' interests and the requirements of transfer institutions. Because course requirements vary among four-year institutions, students should obtain current catalogs from the schools they plan to attend.

Award(s): A10200 Associate in Fine Arts Degree

Additional Information: A comprehensive articulation agreement between the North Carolina Community College System and the North Carolina University System facilitates the transfer process for students wishing to attend a four-year institution within the N.C. University System. Because of this agreement, students who complete the general education core at RCCC will have satisfied the universities' general education requirements and become eligible to enroll with junior level status upon completion of the Associate in Fine Arts degree. Courses included in the articulation agreement are designated in the RCCC catalog Course Descriptions. Community college graduates who have earned 64 semester hours of academic credit in approved transfer courses with a grade of "C" or better in each course and an overall GPA of at least 2.0 on a 4.0 scale will receive at least 64 semester hours of academic credit upon admission to a university. Courses may also transfer through bilateral agreements between institutions. Courses offered through bilateral agreements may not transfer to all receiving institutions. In addition to the 28 semester hours credit (SHC) general education core, students must complete 1 SHC in College Transfer Success (ACA 122), and 36 SHC of college transfer fine arts courses. Transfer of ACA 122 is not guaranteed.

Contact Information: The Associate in Fine Arts program is in the Liberal Arts, Business Technology, and General Education Department. For additional information regarding this program, contact Program Head Robin Satterwhite at (704) 216-3810 or **robbin.satterwhite@rccc.edu**. You may also contact Instructor Jonathan Church at (704) 216-3819 or **jonathan.church@rccc.edu** or Instructor Jenn Selby at (704) 216-3620 or **jenn.selby@rccc.edu**.

Course Requirements: See below.

Course Information:							
		Title	Class	Lab	Clinical	Work Exp.	Credits
The following success and study skills course (one semester hour credit) must be taken in the first semester by all students pursuing the Associate in Fine Arts degree. This course may not transfer to a senior institution.							
ACA	122	College Transfer Success	1	0	0	0	1
General Education (28 SHC)							
English Composition (6 SHC)							
ENG	111	Expository Writing	3	0	0	0	3
Select one course (3 SHC) from the following:							
ENG	112	Argument-Based Research	3	0	0	0	3
ENG	113	Literature-Based Research	3	0	0	0	3
ENG	114	Professional Research & Reporting	3	0	0	0	3
Humanities/Fine Arts: (6 SHC) Select one literature course (3 SHC) and one course (3 SHC) from one of the following discipline areas: music, foreign languages, humanities, philosophy, religion, and speech/communication.							
Literature - Select one course from the following (Speech/Communication may not substitute for the literature requirement.)							
ENG	131	Introduction to Literature	3	0	0	0	3
ENG	231	American Literature I	3	0	0	0	3
ENG	232	American Literature II	3	0	0	0	3
ENG	241	British Literature I	3	0	0	0	3
ENG	242	British Literature II	3	0	0	0	3
ENG	243	Major British Literature	3	0	0	0	3
ENG	251	Western World Literature I	3	0	0	0	3
ENG	252	Western World Literature II	3	0	0	0	3
ENG	261	World Literature I	3	0	0	0	3
ENG	262	World Literature II	3	0	0	0	3
Select one course (3 SHC) from the following discipline areas:							
Foreign Languages							
FRE	111	Elementary French I	3	0	0	0	3
FRE	112	Elementary French II	3	0	0	0	3
GER	111	Elementary German I	3	0	0	0	3
GER	112	Elementary German II	3	0	0	0	3
SPA	111	Elementary Spanish I	3	0	0	0	3
SPA	112	Elementary Spanish II	3	0	0	0	3
SPA	211	Intermediate Spanish I	3	0	0	0	3
SPA	212	Intermediate Spanish II	3	0	0	0	3
Drama							
DRA	111	Theatre Appreciation	3	0	0	0	3
DRA	112	Literature of the Theatre	3	0	0	0	3
DRA	122	Oral Interpretation	3	0	0	0	3
DRA	126	Story Telling	3	0	0	0	3
Humanities							
HUM	110	Technology and Society	3	0	0	0	3

HUM	115	Critical Thinking	3	0	0	0	3
HUM	122	Southern Culture	3	0	0	0	3
HUM	130	Myth in Human Culture	3	0	0	0	3
HUM	150	American Women's Studies	3	0	0	0	3
HUM	160	Introduction to Film	2	2	0	0	3
HUM	161	Advanced Film Studies	2	2	0	0	3
HUM	211	Humanities I	3	0	0	0	3
HUM	212	Humanities II	3	0	0	0	3
Music							
MUS	110	Music Appreciation	3	0	0	0	3
MUS	113	American Music	3	0	0	0	3
MUS	210	History of Rock Music	3	0	0	0	3
MUS	213	Opera and Musical Theatre	3	0	0	0	3
Philosophy							
PHI	210	History of Philosophy	3	0	0	0	3
PHI	220	Western Philosophy I	3	0	0	0	3
PHI	221	Western Philosophy II	3	0	0	0	3
PHI	230	Introduction to Logic	3	0	0	0	3
PHI	240	Introduction to Ethics	3	0	0	0	3
Religion							
REL	110	World Religions	3	0	0	0	3
REL	211	Introduction to Old Testament	3	0	0	0	3
REL	212	Introduction to New Testament	3	0	0	0	3
REL	221	Religion in America	3	0	0	0	3
Speech/Communication							
COM	110	Introduction to Communication	3	0	0	0	3
COM	120	Introduction to Interpersonal Communication	3	0	0	0	3
COM	231	Public Speaking	3	0	0	0	3
Social/Behavioral Sciences (9SHC) Select three courses from at least three of the following discipline a reas: anthropology, economics, geography, history, political science, psychology, and sociology. Note: at least one course must be a history course.							
History (select one course (3 SHC) from the following)							
HIS	111	World Civilizations I	3	0	0	0	3
HIS	112	World Civilizations II	3	0	0	0	3
HIS	121	Western Civilization I	3	0	0	0	3
HIS	122	Western Civilization II	3	0	0	0	3
HIS	131	American History I	3	0	0	0	3
HIS	132	American History II	3	0	0	0	3
Students must select two courses (6 SHC) from at least two of the following discipline areas:							
Anthropology							
ANT	210	General Anthropology	3	0	0	0	3
ANT	220	Cultural Anthropology	3	0	0	0	3

ANT	221	Comparative Cultures	3	0	0	0	3
ANT	230	Physical Anthropology	3	0	0	0	3
ANT	230A	Physical Anthropology Lab	0	2	0	0	1
ANT	240	Archaeology	3	0	0	0	3
Economics							
ECO	251	Principles of Microeconomics	3	0	0	0	3
ECO	252	Principles of Macroeconomics	3	0	0	0	3
Geography							
GEO	111	World Regional Geography	3	0	0	0	3
GEO	112	Cultural Geography	3	0	0	0	3
GEO	113	Economic Geography	3	0	0	0	3
GEO	130	General Physical Geography	3	0	0	0	3
Political Science							
POL	110	Introduction to Political Science	3	0	0	0	3
POL	120	American Government	3	0	0	0	3
POL	210	Comparative Government	3	0	0	0	3
POL	220	International Relations	3	0	0	0	3
Psychology							
PSY	150	General Psychology	3	0	0	0	3
PSY	237	Social Psychology	3	0	0	0	3
PSY	239	Psychology of Personality	3	0	0	0	3
PSY	241	Developmental Psychology	3	0	0	0	3
PSY	281	Abnormal Psychology	3	0	0	0	3
Sociology							
SOC	210	Introduction to Sociology	3	0	0	0	3
SOC	213	Sociology of the Family	3	0	0	0	3
SOC	220	Social Problems	3	0	0	0	3
SOC	225	Social Diversity	3	0	0	0	3
SOC	230	Race and Ethnic Relations	3	0	0	0	3
SOC	240	Social Psychology	3	0	0	0	3
Natural Sciences/Mathematics (7 SHC)							
Natural Sciences: (4 SHC) select one course (including accompanying laboratory work) from the following biological and physical sciences disciplines:							
AST	151	General Astronomy I AND	3	0	0	0	3
AST	151A	General Astronomy I Lab	0	2	0	0	1
		OR					
BIO	111	General Biology I	3	3	0	0	4
		OR					
CHM	131	Introduction to Chemistry AND	3	0	0	0	3
CHM	131A	Introduction to Chemistry Lab	0	3	0	0	1
		OR					
CHM	151	General Chemistry I	3	3	0	0	4
		OR					

PHY	151	College Physics I	3	2	0	0	4
Mathematics: (3 SHC) select one of the following courses in introductory mathematics:							
MAT	151	Statistics I	3	0	0	0	3
MAT	161	College Algebra	3	0	0	0	3
MAT	175	Pre-Calculus	3	0	0	0	3
Students should check with the university of their choice to make sure that they complete the appropriate math course. If MAT 151 Statistics I is selected, MAT 151A Statistics Lab is also required. This one-credit hour course will satisfy one of the 24 required electives listed at the bottom of this program of study.							
AFA courses as determined by the RCCC program of study.							
Other Required Hours (36 SHC)							
Fine Arts Core (Required): (12 SHC)							
Fine Arts Core: (12 SHC) Students must complete the following courses:							
ART	114	Art History Survey I	3	0	0	0	3
ART	115	Art History Survey II	3	0	0	0	3
ART	121	Design I	0	6	0	0	3
ART	131	Drawing I	0	6	0	0	3
Fine Arts Electives: (24 SHC)							
Fine Arts Electives: (24 SHC) Select courses from the list below for a total of 24 credit hours:							
ART	116	Survey of American Art	3	0	0	0	3
ART	122	Design II	0	6	0	0	3
ART	132	Drawing II	0	6	0	0	3
ART	135	Figure Drawing I	0	6	0	0	3
ART	214	Portfolio and Resume	0	2	0	0	1
ART	235	Figure Drawing II	0	6	0	0	3
ART	240	Painting I	0	6	0	0	3
ART	241	Painting II	0	6	0	0	3
ART	244	Watercolor	0	6	0	0	3
ART	261	Photography I	0	6	0	0	3
ART	264	Digital Photography I	1	4	0	0	3
ART	265	Digital Photography II	1	4	0	0	3
ART	281	Sculpture I	0	6	0	0	3
ART	288	Studio	0	6	0	0	3
MAT	151A	Statistics I - Lab	0	2	0	0	1
Students should check with the university of their choice regarding the transfer of the above Fine Arts electives.							
TOTAL HOURS REQUIRED FOR AFA DEGREE: 65 SEMESTER HOURS							
Note: MAT 151A Statistics I Lab is not an AFA course; however, it is a required elective if MAT 151 Statistics is selected as the 3-hour Mathematics requirement.							

2010 - 2011 Associate in General Education (10300)
Program of Study

Award(s): A10300 - Associate in Applied Science Degree

Contact Information: For additional information regarding this program, contact Terry Chapman, (704) 216-3700 or terry.chapman@rccc.edu.

Associate in General Education Degree (A10300)

The Associate in General Education (AGE) curriculum is designed for individuals wishing to broaden their education, with emphasis on personal interest, growth and development. The two-year General Education program provides students opportunities to study English, literature, fine arts, philosophy, social science, science and mathematics. More specifically at RCCC, the program is designed for students interested in entering a limited enrollment program (Radiography, Nursing, or Dental Assisting). They are admitted to the Associate in General Education program while they are actively working to meet program admission requirements. Students will work directly with their program advisors regarding specific requirements.

2010 – 2011 Associate in Science (10400)
Program of Study

Description: The Associate in Science (AS) degree is awarded for study in science and mathematics. This program is recommended for students planning to pursue programs of study in Agriculture, Dentistry, Engineering, Forestry, Furniture, Mathematics, Medicine, Science, Textiles, or other areas leading to a Bachelor of Science degree. This degree program offers courses comparable to the freshman and sophomore levels at four-year colleges and universities. Academic advisors are available to assist students in selecting courses that best meet students' interests and the requirements of transfer institutions. Because course requirements vary among four-year institutions, students should obtain current catalogs from the schools they plan to attend. A comprehensive articulation agreement between the North Carolina Community College System and the North Carolina University System facilitates the transfer process for students wishing to attend a four-year institution within the N.C. University System. Because of this agreement, students who complete the general education core at RCCC will have satisfied the universities' general education requirements and become eligible to enroll with junior level status upon completion of the Associate in Science degree. Courses included in the articulation agreement are designated in the RCCC catalog Course Descriptions. Community college graduates who have earned 64 semester hours of academic credit in approved transfer courses with a grade of "C" or better in each course and an overall GPA of at least 2.0 on a 4.0 scale will receive at least 64 semester hours of academic credit upon admission to a university. A similar articulation agreement between RCCC and Catawba College facilitates the transfer process for students wishing to complete their four-year degrees at Catawba. Because of this agreement, RCCC students can satisfy all but one course needed to complete general education requirements for Catawba College. Some RCCC upper level junior/senior credits also may transfer. Courses included in the articulation agreement are designated in the RCCC catalog course descriptions.

Courses may also transfer through bilateral agreements between institutions. Courses offered through bilateral agreements may not transfer to all receiving institutions.

Award(s): A10400 Associate in Science Degree

Additional Information: In addition to the 44 semester hours credit (SHC) general education core, students must complete 1 SHC in College Transfer Success (ACA 122), and 20 SHC of college transfer general education, elective, and/or pre-major courses. Transfer of ACA 122 is not guaranteed.

Contact Information: The Associate in Fine Arts program is in the Science, Biotechnology, and Mathematics Department. For additional information regarding this program, contact Dean Marcy Corjay at (704) 216-7217 or marcy.corjay@rccc.edu.

Course Requirements: See below.

Course Information:							
		Title	Class	Lab	Clinical	Work Exp.	Credits
The following success and study skills course (one semester hour credit) must be taken in the first semester by all students pursuing the Associate in Science degree. This course may not transfer to a senior institution.							
ACA	122	College Transfer Success	1	0	0	0	1
General Education (44 SHC)							
English Composition (6 SHC)							
ENG	111	Expository Writing	3	0	0	0	3
Select one course from the following:							
ENG	112	Argument-Based Research	3	0	0	0	3
ENG	113	Literature-Based Research	3	0	0	0	3
ENG	114	Professional Research & Reporting	3	0	0	0	3
Humanities/Fine Arts: (9 SHC) Select three courses from at least three of the following discipline areas: music, art, foreign languages, interdisciplinary humanities, literature, philosophy, and religion. Note: at least one course must be a literature course.							
Literature (3 SHC) - Select one course from the following (Speech/Communication may not substitute for the literature requirement.)							
ENG	131	Introduction to Literature	3	0	0	0	3
ENG	231	American Literature I	3	0	0	0	3
ENG	232	American Literature II	3	0	0	0	3
ENG	241	British Literature I	3	0	0	0	3
ENG	242	British Literature II	3	0	0	0	3
ENG	243	Major British Writers	3	0	0	0	3
ENG	251	Western World Literature I	3	0	0	0	3
ENG	252	Western World Literature II	3	0	0	0	3
ENG	261	World Literature I	3	0	0	0	3
ENG	262	World Literature II	3	0	0	0	3
Select two courses (6 SHC) from at least two of the following discipline areas:							

Art							
ART	111	Art Appreciation	3	0	0	0	3
ART	114	Art History Survey I	3	0	0	0	3
ART	115	Art History Survey II	3	0	0	0	3
ART	116	Survey of American Art	3	0	0	0	3
Drama							
DRA	111	Theatre Appreciation	3	0	0	0	3
DRA	112	Literature of the Theatre	3	0	0	0	3
DRA	122	Oral Interpretation	3	0	0	0	3
DRA	126	Story Telling	3	0	0	0	3
Foreign Languages							
FRE	111	Elementary French I	3	0	0	0	3
FRE	112	Elementary French II	3	0	0	0	3
GER	111	Elementary German I	3	0	0	0	3
GER	112	Elementary German II	3	0	0	0	3
SPA	111	Elementary Spanish I	3	0	0	0	3
SPA	112	Elementary Spanish II	3	0	0	0	3
SPA	211	Intermediate Spanish I	3	0	0	0	3
SPA	212	Intermediate Spanish II	3	0	0	0	3
Humanities							
HUM	110	Technology and Society	3	0	0	0	3
HUM	115	Critical Thinking	3	0	0	0	3
HUM	122	Southern Culture	3	0	0	0	3
HUM	130	Myth in Human Culture	3	0	0	0	3
HUM	150	American Women's Studies	3	0	0	0	3
HUM	160	Introduction to Film	2	2	0	0	3
HUM	161	Advanced Film Studies	2	2	0	0	3
HUM	211	Humanities I	3	0	0	0	3
HUM	212	Humanities II	3	0	0	0	3
Music							
MUS	110	Music Appreciation	3	0	0	0	3
MUS	113	American Music	3	0	0	0	3
MUS	210	History of Rock Music	3	0	0	0	3
MUS	213	Opera and Musical Theatre	3	0	0	0	3
Philosophy							
PHI	210	History of Philosophy	3	0	0	0	3
PHI	220	Western Philosophy I	3	0	0	0	3
PHI	221	Western Philosophy II	3	0	0	0	3
PHI	230	Introduction to Logic	3	0	0	0	3
PHI	240	Introduction to Ethics	3	0	0	0	3
Religion							
REL	110	World Religions	3	0	0	0	3
REL	211	Introduction to Old Testament	3	0	0	0	3

REL	212	Introduction to New Testament	3	0	0	0	3
REL	221	Religion in America	3	0	0	0	3
Speech/Communication (one of the following courses may be substituted for 3 SHC in Humanities/Fine Arts)							
COM	110	Introduction to Communication	3	0	0	0	3
COM	120	Introduction to Interpersonal Communication	3	0	0	0	3
COM	231	Public Speaking	3	0	0	0	3
Social/Behavioral Sciences (9SHC) Select three courses from at least three of the following discipline areas: anthropology, economics, geography, history, political science, psychology, and sociology. Note: at least one course must be a history course.							
History (select one course (3 SHC) from the following)							
HIS	111	World Civilizations I	3	0	0	0	3
HIS	112	World Civilizations II	3	0	0	0	3
HIS	121	Western Civilization I	3	0	0	0	3
HIS	122	Western Civilization II	3	0	0	0	3
HIS	131	American History I	3	0	0	0	3
HIS	132	American History II	3	0	0	0	3
Students must select two courses (6 SHC) from at least two of the following discipline areas:							
Anthropology							
ANT	210	General Anthropology	3	0	0	0	3
ANT	220	Cultural Anthropology	3	0	0	0	3
ANT	221	Comparative Cultures	3	0	0	0	3
ANT	230	Physical Anthropology	3	0	0	0	3
ANT	230A	Physical Anthropology Lab	0	2	0	0	1
ANT	240	Archaeology	3	0	0	0	3
Economics							
ECO	251	Principles of Microeconomics	3	0	0	0	3
ECO	252	Principles of Macroeconomics	3	0	0	0	3
Geography							
GEO	111	World Regional Geography	3	0	0	0	3
GEO	112	Cultural Geography	3	0	0	0	3
GEO	113	Economic Geography	3	0	0	0	3
GEO	130	General Physical Geography	3	0	0	0	3
Political Science							
POL	110	Introduction to Political Science	3	0	0	0	3
POL	120	American Government	3	0	0	0	3
POL	210	Comparative Government	3	0	0	0	3
POL	220	International Relations	3	0	0	0	3
Psychology							
PSY	150	General Psychology	3	0	0	0	3
PSY	237	Social Psychology	3	0	0	0	3
PSY	239	Psychology of Personality	3	0	0	0	3

PSY	241	Developmental Psychology	3	0	0	0	3
PSY	281	Abnormal Psychology	3	0	0	0	3
Sociology							
SOC	210	Introduction to Sociology	3	0	0	0	3
SOC	213	Sociology of the Family	3	0	0	0	3
SOC	220	Social Problems	3	0	0	0	3
SOC	225	Social Diversity	3	0	0	0	3
SOC	230	Race and Ethnic Relations	3	0	0	0	3
SOC	240	Social Psychology	3	0	0	0	3
Natural Sciences/Mathematics (20 SHC)							
Natural Sciences (8 SHC minimum) A minimum two-course sequence (including accompanying laboratory work) from the following general biology, general chemistry, or general physics courses is required:							
BIO	111	General Biology I	3	3	0	0	4
BIO	112	General Biology II	3	3	0	0	4
CHM	151	General Chemistry I	3	3	0	0	4
CHM	152	General Chemistry II	3	3	0	0	4
PHY	151	College Physics I	3	2	0	0	4
PHY	152	College Physics II	3	2	0	0	4
PHY	251	General Physics I	3	3	0	0	4
PHY	252	General Physics II	3	3	0	0	4
Mathematics (6 SHC minimum) One course in mathematics at the Pre-Calculus Algebra level or above is required. The other course(s) may be higher level mathematics or may be selected from among other quantitative subjects, such as computer science and statistics.							
Pre-Calculus Algebra level or above (Select one:)							
MAT	175	Pre-Calculus	4	0	0	0	4
MAT	263	Brief Calculus	3	0	0	0	3
Select one course from the following:							
CIS	110	Introduction to Computers	2	2	0	0	3
CIS	115	Intro. to Programming & Logic	2	3	0	0	3
MAT	151	Statistics I	3	0	0	0	3
MAT	263	Brief Calculus	3	0	0	0	3
MAT	271	Calculus I	3	2	0	0	4
Students should check with the university of their choice to make sure that they complete the appropriate math course.							
Additional General Education Core Hours in Natural Sciences/Mathematics (select 6 SHC from the following courses):							
AST	151	General Astronomy I	3	0	0	0	3
AST	151A	General Astronomy I Lab	0	2	0	0	1
AST	152	General Astronomy II	3	0	0	0	3
AST	152A	General Astronomy II Lab	0	2	0	0	1
BIO	111	General Biology I	3	3	0	0	4

BIO	112	General Biology II	3	3	0	0	4
BIO	140	Environmental Biology	3	0	0	0	3
BIO	140A	Environmental Biology Lab	0	3	0	0	1
CHM	131	Introduction to Chemistry	3	0	0	0	3
CHM	131A	Introduction to Chemistry Lab	0	3	0	0	1
CHM	132	Organic and Biochemistry	3	3	0	0	4
CHM	151	General Chemistry I	3	3	0	0	4
CHM	152	General Chemistry II	3	3	0	0	4
MAT	151	Statistics I	3	0	0	0	3
MAT	175	Pre-Calculus	4	0	0	0	4
MAT	263	Brief Calculus	3	0	0	0	3
MAT	271	Calculus I	3	2	0	0	4
MAT	272	Calculus II	3	2	0	0	4
MAT	273	Calculus III	3	2	0	0	4
A diploma may be awarded for this program after completing the entire general education core, as outlined above, with a grade of "C" or better in each course.							
Other Required Hours (20 SHC) Natural Science, Mathematics, Computer Science Electives (14 SHC) A minimum of 14 SHC of college transfer courses in mathematics, natural sciences or computer science is required. Select 14 SHC from the following courses or from the Natural Sciences/Mathematics courses listed above.							
AST	251	Observational Astronomy	1	3	0	0	2
BIO	163	Basic Anatomy & Physiology	4	2	0	0	5
BIO	168	Anatomy and Physiology I	3	3	0	0	4
BIO	169	Anatomy and Physiology II	3	3	0	0	4
BIO	250	Genetics	3	3	0	0	4
BIO	275	Microbiology	3	3	0	0	4
BIO	280	Biotechnology	2	3	0	0	3
CSC	134	C++Programming	2	3	0	0	3
CSC	139	Visual BASIC Programming	2	3	0	0	3
CSC	151	JAVA Programming	2	3	0	0	3
CSC	239	Advanced Visual BASIC Programming	2	3	0	0	3
MAT	151A	Statistics I Lab	0	2	0	0	1
MAT	161	College Algebra	3	0	0	0	3
General Electives (6 SHC) It is recommended that these electives be chosen from the Natural Science/Mathematics core courses or Natural Science, Mathematics, and Computer Science elective courses listed above. Electives also may be chosen from the following list of general education, pre-major, or elective courses.							
ACC	120	Principles of Financial Accounting	3	2	0	0	4
ACC	121	Principles of Managerial Accounting	3	2	0	0	4
ANT	240A	Archaeology Field Lab	0	4	0	0	2
ANT	245	World Prehistory	3	0	0	0	3
ART	121	Design I	0	6	0	0	3
ART	122	Design II	0	6	0	0	3
ART	131	Drawing I	0	6	0	0	3

ART	132	Drawing II	0	6	0	0	3
ART	135	Figure Drawing I	0	6	0	0	3
ART	212	Gallery Assistantship I	0	2	0	0	1
ART	214	Portfolio and Résumé	0	2	0	0	1
ART	235	Figure Drawing II	0	6	0	0	3
ART	240	Painting I	0	6	0	0	3
ART	241	Painting II	0	6	0	0	3
ART	244	Watercolor	0	6	0	0	3
ART	261	Photography I	0	6	0	0	3
ART	264	Digital Photography I	1	4	0	0	3
ART	265	Digital Photography II	1	4	0	0	3
ART	281	Sculpture I	0	6	0	0	3
ART	288	Studio	0	6	0	0	3
BUS	110	Introduction to Business	3	0	0	0	3
BUS	115	Business Law I	3	0	0	0	3
BUS	137	Principles of Management	3	0	0	0	3
CHM	263	Analytical Chemistry	3	4	0	0	5
CJC	111	Introduction to Criminal Justice	3	0	0	0	3
CJC	121	Law Enforcement Operations	3	0	0	0	3
CJC	141	Corrections	3	0	0	0	3
COM	130	Nonverbal Communication	3	0	0	0	3
COM	140	Introduction to Intercultural Communication	3	0	0	0	3
COM	150	Introduction to Mass Communication	3	0	0	0	3
COM	160	Small Group Communication	3	0	0	0	3
COM	232	Election Rhetoric	3	0	0	0	3
COM	233	Persuasive Speaking	3	0	0	0	3
COM	251	Debate I	3	0	0	0	3
COM	252	Debate II	3	0	0	0	3
DFT	170	Engineering Graphics	2	2	0	0	3
ECO	151	Survey of Economics	3	0	0	0	3
ENG	125	Creative Writing I	3	0	0	0	3
ENG	126	Creative Writing II	3	0	0	0	3
ENG	132	Introduction to Drama	3	0	0	0	3
ENG	235	Survey of Film as Literature	3	0	0	0	3
ENG	272	Southern Literature	3	0	0	0	3
ENG	273	African-American Literature	3	0	0	0	3
ENG	274	Literature by Women	3	0	0	0	3
HEA	110	Personal Health/Wellness	3	0	0	0	3
HIS	163	The World Since 1945	3	0	0	0	3
HIS	226	The Civil War	3	0	0	0	3
HIS	227	Native American History	3	0	0	0	3
HIS	236	North Carolina History	3	0	0	0	3

JOU	110	Introduction to Journalism	3	0	0	0	3
JOU	216	Writing for Mass Media	2	2	0	0	3
JOU	217	Feature/Editorial Writing	2	2	0	0	3
JOU	242	Intro to Multimedia	2	2	0	0	3
MUS	131	Chorus I	0	2	0	0	1
PED	110	Fit and Well for Life	1	2	0	0	2
PED	111	Physical Fitness I	0	3	0	0	1
PED	113	Aerobics I	0	3	0	0	1
PED	117	Weight Training I	0	3	0	0	1
PED	120	Walking for Fitness	0	3	0	0	1
PED	121	Walk, Jog, Run	0	3	0	0	1
PED	122	Yoga I	0	2	0	0	1
PED	128	Golf – Beginning	0	2	0	0	1
PED	142	Lifetime Sports	0	2	0	0	1
PED	217	Pilates I	0	2	0	0	1
POL	130	State & Local Government	3	0	0	0	3
PSY	211	Psychology of Adjustment	3	0	0	0	3
PSY	215	Positive Psychology	3	0	0	0	3
PSY	231	Forensic Psychology	3	0	0	0	3
PSY	243	Child Psychology	3	0	0	0	3
PSY	246	Adolescent Psychology	3	0	0	0	3
PSY	249	Psychology of Aging	3	0	0	0	3
PSY	259	Human Sexuality	3	0	0	0	3
PSY	271	Sports Psychology	3	0	0	0	3
PSY	275	Health Psychology	3	0	0	0	3
SOC	234	Sociology of Gender	3	0	0	0	3
SOC	242	Sociology of Deviance	3	0	0	0	3
SOC	245	Drugs and Society	3	0	0	0	3
SOC	250	Sociology of Religion	3	0	0	0	3
TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 65							
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.							

2010 – 2011 Associate in Arts Pre-Major (1010B)

Business Administration, Accounting, Economics, Finance, & Marketing Education Program of Study

Description: This program is designed for students who intend to pursue a Bachelor of Arts or Bachelor of Science degree in Business Administration, Accounting, Economics, Finance, or Marketing. Students who complete this program will meet freshmen and sophomore requirements for all public universities in North Carolina which offer degrees in Business Administration. Individual institutions may have additional requirements for admission into their major departments, and graduates should expect to have a GPA of 2.5 or higher to meet admission requirements. Students should consult catalogs from the schools they plan to attend to determine additional requirements, if any. This program is not designed to provide entry-level skills for entry into a business occupation. Students interested in obtaining an entry-level job in a business occupation upon graduation should pursue one of the A.A.S. degree programs within the Business Technologies area.

Award(s): A1010B - Associate in Arts Degree
D1010B - Associate in Arts Diploma

Additional Information: Application to a University: Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate degree, students who meet the requirements outlined in this pre-major articulation agreement will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree as listed at: www.northcarolina.edu/content.php/aa/planning/traditional.htm. Students are encouraged to contact the senior institution to confirm degree offerings. Admission to the Major: Grade-point average requirements vary, and admission is competitive across the several programs in Business Administration, Accounting, Economics, Finance, and Marketing.

Related Program(s) of Study:
Business Administration (25120)
Business Administration - Marketing & Retailing (2512F)
Associate in Arts Pre-Majors:
Business Education and Marketing Education (1010C)

Contact Information: This Associate in Arts Pre-Major program is in the Liberal Arts, Business Technology, and General Education Department. For additional information regarding this program, contact Program Head Garland Fulp at 704-216-3770 or garland.fulp@rccc.edu.

Course Requirements: See Below.

Course Information:							
		Title	Class	Lab	Clinical	Work Exp.	Credits
The following success and study skills course (one semester hour credit) must be taken in the first semester by all students pursuing this Pre-Major in the Associate in Arts Degree. This course may not transfer to a senior institution.							
ACA	122	College Transfer Success	1	0	0	0	1
General Education (44 SHC)							
English Composition (6 SHC)							
ENG	111	Expository Writing	3	0	0	0	3
Select one course from the following:							
ENG	112	Argument-Based Research	3	0	0	0	3
ENG	113	Literature-Based Research	3	0	0	0	3
ENG	114	Professional Research & Reporting	3	0	0	0	3
Humanities/Fine Arts: (12 SHC) Select four courses from at least three of the following discipline areas: music, art, foreign languages, interdisciplinary humanities, literature, philosophy, and religion. Note: at least one course must be a literature course.							
Literature (3 SHC) - Select one course from the following (Speech/Communication may not substitute for the literature requirement.)							
ENG	131	Introduction to Literature	3	0	0	0	3
ENG	231	American Literature I	3	0	0	0	3
ENG	232	American Literature II	3	0	0	0	3
ENG	241	British Literature I	3	0	0	0	3
ENG	242	British Literature II	3	0	0	0	3
ENG	243	Major British Writers	3	0	0	0	3
ENG	251	Western World Literature I	3	0	0	0	3
ENG	252	Western World Literature II	3	0	0	0	3
ENG	261	World Literature I	3	0	0	0	3
ENG	262	World Literature II	3	0	0	0	3
Select three courses (9 SHC) from at least two of the following discipline areas:							
Art							
ART	111	Art Appreciation	3	0	0	0	3
ART	114	Art History Survey I	3	0	0	0	3
ART	115	Art History Survey II	3	0	0	0	3
ART	116	Survey of American Art	3	0	0	0	3
Drama							
DRA	111	Theatre Appreciation	3	0	0	0	3
DRA	112	Literature of the Theatre	3	0	0	0	3
DRA	122	Oral Interpretation	3	0	0	0	3
DRA	126	Story Telling	3	0	0	0	3
Foreign Languages							
FRE	111	Elementary French I	3	0	0	0	3
FRE	112	Elementary French II	3	0	0	0	3

GER	111	Elementary German I	3	0	0	0	3
GER	112	Elementary German II	3	0	0	0	3
SPA	111	Elementary Spanish I	3	0	0	0	3
SPA	112	Elementary Spanish II	3	0	0	0	3
SPA	211	Intermediate Spanish I	3	0	0	0	3
SPA	212	Intermediate Spanish II	3	0	0	0	3
Humanities							
HUM	110	Technology and Society	3	0	0	0	3
HUM	115	Critical Thinking	3	0	0	0	3
HUM	120	Cultural Studies	3	0	0	0	3
HUM	122	Southern Culture	3	0	0	0	3
HUM	130	Myth in Human Culture	3	0	0	0	3
HUM	150	American Women's Studies	3	0	0	0	3
HUM	160	Introduction to Film	2	2	0	0	3
HUM	161	Advanced Film Studies	2	2	0	0	3
HUM	211	Humanities I	3	0	0	0	3
HUM	212	Humanities II	3	0	0	0	3
Music							
MUS	110	Music Appreciation	3	0	0	0	3
MUS	113	American Music	3	0	0	0	3
MUS	210	History of Rock Music	3	0	0	0	3
MUS	213	Opera and Musical Theatre	3	0	0	0	3
Philosophy							
PHI	210	History of Philosophy	3	0	0	0	3
PHI	220	Western Philosophy I	3	0	0	0	3
PHI	221	Western Philosophy II	3	0	0	0	3
PHI	230	Introduction to Logic	3	0	0	0	3
PHI	240	Introduction to Ethics	3	0	0	0	3
Religion							
REL	110	World Religions	3	0	0	0	3
REL	211	Introduction to Old Testament	3	0	0	0	3
REL	212	Introduction to New Testament	3	0	0	0	3
REL	221	Religion in America	3	0	0	0	3
Speech/Communication (one of the following courses may be substituted for 3 SHC in Humanities/Fine Arts)							
COM	110	Introduction to Communication	3	0	0	0	3
COM	120	Introduction to Interpersonal Communication	3	0	0	0	3
COM	231	Public Speaking	3	0	0	0	3
Social/Behavioral Sciences (12 SHC) Select four courses from at least three of the following discipline areas: anthropology, economics, geography, history, political science, psychology, and sociology. Note: at least one course must be a history course.							
History (select one course from the following)							
HIS	111	World Civilizations I	3	0	0	0	3
HIS	112	World Civilizations II	3	0	0	0	3

HIS	121	Western Civilization I	3	0	0	0	3
HIS	122	Western Civilization II	3	0	0	0	3
HIS	131	American History I	3	0	0	0	3
HIS	132	American History II	3	0	0	0	3
Economics (The following course is required):							
ECO	251	Principles of Microeconomics	3	0	0	0	3
Students must select two courses (6 SHC) from the following discipline areas: (POL 120, PSY 150, and SOC 210 are recommended.)							
Anthropology							
ANT	210	General Anthropology	3	0	0	0	3
ANT	220	Cultural Anthropology	3	0	0	0	3
ANT	221	Comparative Cultures	3	0	0	0	3
ANT	230	Physical Anthropology	3	0	0	0	3
ANT	230A	Physical Anthropology Lab	0	2	0	0	1
ANT	240	Archaeology	3	0	0	0	3
Geography							
GEO	111	World Regional Geography	3	0	0	0	3
GEO	112	Cultural Geography	3	0	0	0	3
GEO	113	Economic Geography	3	0	0	0	3
GEO	130	General Physical Geography	3	0	0	0	3
Political Science							
POL	110	Introduction to Political Science	3	0	0	0	3
POL	120	American Government	3	0	0	0	3
POL	210	Comparative Government	3	0	0	0	3
POL	220	International Relations	3	0	0	0	3
Psychology							
PSY	150	General Psychology	3	0	0	0	3
PSY	237	Social Psychology	3	0	0	0	3
PSY	239	Psychology of Personality	3	0	0	0	3
PSY	241	Developmental Psychology	3	0	0	0	3
PSY	281	Abnormal Psychology	3	0	0	0	3
Sociology							
SOC	210	Introduction to Sociology	3	0	0	0	3
SOC	213	Sociology of the Family	3	0	0	0	3
SOC	220	Social Problems	3	0	0	0	3
SOC	225	Social Diversity	3	0	0	0	3
SOC	230	Race and Ethnic Relations	3	0	0	0	3
SOC	240	Social Psychology	3	0	0	0	3
Natural Sciences/Mathematics (14 SHC)							
Natural Sciences (8 SHC) Select two courses (including accompanying laboratory work) (AST, BIO, CHM, or PHY) from the following biological and physical science disciplines:							
AST	151	General Astronomy I	3	0	0	0	3

AST	151A	General Astronomy I - Lab	0	2	0	0	1
AST	152	General Astronomy II	3	0	0	0	3
AST	152A	General Astronomy II - Lab	0	2	0	0	1
BIO	111	General Biology I	3	3	0	0	4
BIO	112	General Biology II	3	3	0	0	4
CHM	131	Introduction to Chemistry	3	0	0	0	3
CHM	131A	Introduction to Chemistry - Lab	0	3	0	0	1
CHM	132	Organic and Biochemistry	3	3	0	0	4
CHM	151	General Chemistry I	3	3	0	0	4
CHM	152	General Chemistry II	3	3	0	0	4
PHY	151	College Physics I	3	2	0	0	4
PHY	152	College Physics II	3	2	0	0	4
Mathematics (6 - 7 SHC) Select at least one course in introductory mathematics.							
Introductory Mathematics (Select one:)							
MAT	161	College Algebra	3	0	0	0	3
MAT	175	Pre-Calculus	4	0	0	0	4
One of the following courses is required:							
MAT	263	Brief Calculus	3	0	0	0	3
MAT	271	Calculus I	3	2	0	0	4
Students should check with the university of their choice to make sure that they complete the appropriate math course.							
A diploma may be awarded for this program after completing the entire general education core, as outlined above, with a grade of "C" or better in each course.							
Other Required Hours (20 SHC) A minimum of 20 SHC of college transfer general education, elective, and/or pre-major courses is required.							
The following courses are required:							
ACC	120	Principles of Financial Accounting	3	2	0	0	4
ACC	121	Principles of Managerial Accounting	3	2	0	0	4
CIS	110	Introduction to Computers	2	2	0	0	3
ECO	252	Principles of Macroeconomics	3	0	0	0	3
MAT	151	Statistics I	3	0	0	0	3
Select 3 SHC hours from the following courses:							
ANT	240A	Archaeology Field Lab	0	4	0	0	2
ANT	245	World Prehistory	3	0	0	0	3
ART	121	Design I	0	6	0	0	3
ART	122	Design II	0	6	0	0	3
ART	131	Drawing I	0	6	0	0	3
ART	132	Drawing II	0	6	0	0	3
ART	135	Figure Drawing I	0	6	0	0	3
ART	212	Gallery Assistantship I	0	2	0	0	1
ART	214	Portfolio and Résumé	0	2	0	0	1

ART	235	Figure Drawing II	0	6	0	0	3
ART	240	Painting I	0	6	0	0	3
ART	241	Painting II	0	6	0	0	3
ART	244	Watercolor	0	6	0	0	3
ART	261	Photography I	0	6	0	0	3
ART	264	Digital Photography I	1	4	0	0	3
ART	265	Digital Photography II	1	4	0	0	3
ART	281	Sculpture I	0	6	0	0	3
ART	288	Studio	0	6	0	0	3
AST	111	Descriptive Astronomy	3	0	0	0	3
AST	111A	Descriptive Astronomy - Lab	0	2	0	0	1
AST	251	Observational Astronomy	1	3	0	0	2
BIO	140	Environmental Biology	3	0	0	0	3
BIO	140A	Environmental Biology - Lab	0	3	0	0	1
BIO	163	Basic Anatomy & Physiology	4	2	0	0	5
BIO	250	Genetics	3	3	0	0	4
BIO	275	Microbiology	3	3	0	0	4
BIO	280	Biotechnology	2	3	0	0	3
BUS	110	Introduction to Business	3	0	0	0	3
BUS	115	Business Law I	3	0	0	0	3
BUS	137	Principles of Management	3	0	0	0	3
CHM	263	Analytical Chemistry	3	4	0	0	5
CJC	111	Introduction to Criminal Justice	3	0	0	0	3
CJC	121	Law Enforcement Operations	3	0	0	0	3
CJC	141	Corrections	3	0	0	0	3
COM	130	Nonverbal Communication	3	0	0	0	3
COM	140	Introduction to Intercultural Communication	3	0	0	0	3
COM	150	Introduction to Mass Communication	3	0	0	0	3
COM	160	Small Group Communication	3	0	0	0	3
COM	232	Election Rhetoric	3	0	0	0	3
COM	233	Persuasive Speaking	3	0	0	0	3
COM	251	Debate I	3	0	0	0	3
COM	252	Debate II	3	0	0	0	3
CSC	139	Visual BASIC Programming	2	3	0	0	3
CSC	151	JAVA Programming	2	3	0	0	3
CSC	239	Advanced Visual BASIC Programming	2	3	0	0	3
DFT	170	Engineering Graphics	2	2	0	0	3
ENG	125	Creative Writing I	3	0	0	0	3
ENG	126	Creative Writing II	3	0	0	0	3
ENG	132	Introduction to Drama	3	0	0	0	3
ENG	235	Survey of Film as Literature	3	0	0	0	3
ENG	272	Southern Literature	3	0	0	0	3
ENG	273	African-American Literature	3	0	0	0	3

ENG	274	Literature by Women	3	0	0	0	3
GEO	121	North Carolina Geography	3	0	0	0	3
HEA	110	Personal Health/Wellness	3	0	0	0	3
HIS	163	The World Since 1945	3	0	0	0	3
HIS	226	The Civil War	3	0	0	0	3
HIS	236	North Carolina History	3	0	0	0	3
JOU	110	Introduction to Journalism	3	0	0	0	3
JOU	216	Writing for Mass Media	2	2	0	0	3
JOU	217	Feature/Editorial Writing	2	2	0	0	3
JOU	242	Intro to Multimedia	2	2	0	0	3
MAT	151A	Statistics I - Lab	0	2	0	0	1
MUS	131	Chorus I	0	2	0	0	1
PED	110	Fit and Well for Life	1	2	0	0	2
PED	111	Physical Fitness I	0	3	0	0	1
PED	113	Aerobics I	0	3	0	0	1
PED	117	Weight Training I	0	3	0	0	1
PED	121	Walk, Jog, Run	0	3	0	0	1
PED	122	Yoga I	0	2	0	0	1
PED	128	Golf – Beginning	0	2	0	0	1
PED	142	Lifetime Sports	0	2	0	0	1
PED	217	Pilates I	0	2	0	0	1
PHY	110	Conceptual Physics	3	0	0	0	3
PHY	110A	Conceptual Physics - Lab	0	2	0	0	1
POL	130	State & Local Government	3	0	0	0	3
PSY	211	Psychology of Adjustment	3	0	0	0	3
PSY	215	Positive Psychology	3	0	0	0	3
PSY	231	Forensic Psychology	3	0	0	0	3
PSY	243	Child Psychology	3	0	0	0	3
PSY	246	Adolescent Psychology	3	0	0	0	3
PSY	249	Psychology of Aging	3	0	0	0	3
PSY	259	Human Sexuality	3	0	0	0	3
PSY	271	Sports Psychology	3	0	0	0	3
PSY	275	Health Psychology	3	0	0	0	3
SOC	234	Sociology of Gender	3	0	0	0	3
SOC	242	Sociology of Deviance	3	0	0	0	3
SOC	245	Drugs and Society	3	0	0	0	3
SOC	250	Sociology of Religion	3	0	0	0	3
In addition to the above, any courses not taken to satisfy the general education core requirement may be used to fulfill the other required hours' requirement of 20 SHC.							
TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 65							
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.							

2010 – 2011 Associate Degree Nursing (45110)
Program of Study

Description: The Associate Degree Nursing curriculum provides individuals with the knowledge and skills necessary to provide nursing care to clients and groups of clients throughout the lifespan in a variety of settings. Courses will include content related to the nurse's role as provider of nursing care, as manager of care, as member of the discipline of nursing, and as a member of the interdisciplinary team. Graduates of this program are eligible to apply to take the National Council Licensure Examination (NCLEX-RN) which is required for practice as a Registered Nurse. Employment opportunities include hospitals, long term care facilities, clinics, physicians' offices, industry, and community agencies.

Award(s): A45110 - Associate in Applied Science Degree

Additional Information:

The following Program Admission Requirements are subject to change:
▪ Checklist for Associate Degree Nursing
▪ Health Information Sessions (Part of the admission requirements is attending an information session in your field of interest - *students are required to attend one health information session the year prior to admission*.)
▪ Admission Requirements for Associate Degree Nursing.

Important Policies:
ADN Philosophy
ADN Competency Standards
ADN Advanced Placement Policy
ADN Graduation Policy
NUR Clinical Behavior Policy

Related Programs of Study:
LPN to ADN Transition Option (45110C)
Practical Nursing (45660)
Associate in Arts Pre-Major: Nursing (1010I)

Contact Information: The Associate Degree Nursing program is in the Health and Public Services Department. For additional information regarding this program, contact Director Cathy Norris at (704) 216-3701 or **cathy.norris@rccc.edu**.

Course Requirements: See below.

Associate in Applied Science Degree (A45110)								
			Title	Class	Lab	Clinical	Work Exp.	Credits
First Year (Fall)								
	ENG	111	Expository Writing	3	0	0	0	3
	BIO	168	Anatomy and Physiology I	3	3	0	0	4
■	NUR	111	Intro to Health Concepts	4	6	6	0	8
	PSY	150	General Psychology	3	0	0	0	3
			Total	**13**	**9**	**6**	**0**	**18**
First Year (Spring)								
	BIO	169	Anatomy and Physiology II	3	3	0	0	4
	ENG	112	Argument-Based Research	3	0	0	0	3
■	NUR	112	Health-Illness Concepts	3	0	6	0	5
■	NUR	211 (AB)	Health-Illness Concepts - Part A	1.5	0	3	0	2.5
	PSY	241	Developmental Psychology	3	0	0	0	3
			Total	**13.5**	**3**	**9**	**0**	**17.5**
First Year (Summer)								
■	NUR	211 (BB)	Health-Illness Concepts - Part B	1.5	0	3	0	2.5
■	NUR	113	Family Health Concepts	3	0	6	0	5
			Total	**4.5**	**0**	**9**	**0-10**	**7.5**
Second Year (Fall)								
	BIO	275	Microbiology	3	3	0	0	4
■	NUR	114	Holistic Health Concepts	3	0	6	0	5
■	NUR	212	Health System Concepts	3	0	6	0	5
			Total	**9**	**3**	**12**	**0**	**14**
Second Year (Spring)								
■	NUR	213	Complex Health Concepts	4	3	15	0	10
	---	---	Humanities/Fine Arts Elective	3	0	0	0	3
			Total	**7**	**3**	**15**	**0**	**13**
Total Semester Hours Credit (SHC) in Program:								70

2010 – 2011 LPN to ADN Transition Option (45110C)

Program of Study

Description: The NUR curriculum for the LPN to ADN Transition Program starts in the spring semester. Please note dates and deadlines for meeting admission requirements. Listed below are the guidelines and ADN curriculum NUR course sequence for the licensed practical nurse that is entering in 'advanced placement' standing.

Award(s): A45110C - Associate in Applied Science Degree

Additional Information:

The following Program Admission Requirements are subject to change:
▪ Checklist for LPN to ADN Transition Option.
▪ Health Information Sessions (Part of the admission requirements is attending an information session in your field of interest - students are required to attend one health information session the year prior to admission.)
▪ Admission Requirements for LPN to ADN Transition Program.

Important Policies:
ADN Philosophy
ADN Competency Standards
ADN Advanced Placement Policy
ADN Graduation Policy
NUR Clinical Behavior Policy

Estimated Cost by Semester is available online.

Related Programs of Study:
Associate Degree Nursing (45110)
Practical Nursing (45660)
Associate in Arts Pre-Major: Nursing (1010I)

Contact Information: The LPN to ADN Transition Option program is in the Health and Public Services Department. For additional information regarding this program, contact Director Cathy Norris at (704)216-3701 or cathy.norris@rccc.edu.

Course Requirements: See below.

Associate in Applied Science Degree (A45110C)								
			Title	Class	Lab	Clinical	Work Exp.	Credits
First Year (Spring)								
	ENG	112	Argument Based Research	3	0	0	0	3
	BIO	169	Anatomy and Physiology II	3	3	0	0	4
▪	NUR	214	Nursing Transition Concepts (1st 8 wks.)	3	0	3	0	4
▪	NUR	211 (AB)	Health Care Concepts (2nd 8 weeks)	1.5	0	3	0	2.5
	PSY	241	Developmental Psychology	3	0	0	0	3
*	COE	110	World of Work	1	0	0	0	1
First Year (Summer)								
▪	NUR	211 (BB)	Health Care Concepts	1.5	0	3	0	2.5
▪	NUR	113	Family Health Concepts	3	0	6	0	5
*	COE	110	World of Work	1	0	0	0	1

Second Year (Fall)								
	BIO	275	Microbiology	3	3	0	0	4
■	NUR	114	Holistic Health Concepts	3	0	6	0	5
■	NUR	212	Health Care Concepts	3	0	6	0	5
*	COE	110	World of Work	1	0	0	0	1
Second Year (Spring)								
■	NUR	213	Complex Health Concepts	4	3	15	0	10
	---	---	Humanities/Fine Arts Elective	3	0	0	0	3
*	COE	110	World of Work	1	0	0	0	1
Total Semester Hours Credit (SHC) in Program:								52

2010 – 2011 Automotive Systems Technology (60160)

Program of Study

Description: 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 coursework. 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 exam and be ready for full-time employment in dealerships and repair shops in the automotive service industry.

Award(s):
A60160 - **Associate in Applied Science Degree**
D60160 - **Diploma Program**
C60160 - **Certificate Programs**

Additional Information: Students must furnish hand tools and protective clothing, as well as textbooks, and may obtain this list from the Automotive Systems Technology program head or Student Services.

Contact Information: The Automotive Systems Technology program is in the **Industrial and Engineering Technologies** department. For additional information regarding this program, contact Program Head Wade Vernon at 704-216-3924 or wade.vernon@rccc.edu.

Course Requirements: The following is a suggested program of study for completing this program in six semesters. Some students' programs of study may be different, depending on their enrollment status (day, evening, full-time, or part-time).

Associate in Applied Science Degree (A60160)								
			Title	Class	Lab	Clinical	Work Exp.	Credits
First Year (Fall)								
	AUT	110	Introduction to Automotive Technology	2	2	0	0	3
	AUT	116	Engine Repair	2	3	0	0	3
	AUT	116A	Engine Repair - Lab	0	3	0	0	1

■	AUT	161	Basic Automotive Electricity	4	3	0	0	5
			Total	**8**	**11**	**0**	**0**	**12**
First Year (Spring)								
■	AUT	141	Suspension & Steering Systems	2	3	0	0	3
	AUT	141A	Suspension & Steering - Lab	0	3	0	0	1
■	AUT	151	Brake Systems	2	3	0	0	3
	AUT	151A	Brake Systems - Lab	0	3	0	0	1
■	AUT	181	Engine Performance I	2	3	0	0	3
	AUT	181A	Engine Performance I -Lab	0	3	0	0	1
	---	---	Social/Behavioral Sciences Elective	3	0	0	0	3
	---	---	COE Coursework*					
			Total	**9**	**18**	**0**	**0**	**15**
First Year (Summer)								
	AUT	171	Automotive Climate Control	2	4	0	0	4
■	AUT	183	Engine Performance II	2	6	0	0	4
	AUT	186	PC Skills for Auto Techs	2	2	0	0	3
	---	---	COE Coursework*					
			Total	**6**	**12**	**0**	**0**	**11**
Second Year (Fall)								
	AUT	163	Advanced Automotive Electricity	2	3	0	0	3
	AUT	163A	Advanced Automotive Electricity - Lab	0	3	0	0	1
	AUT	231	Manual Trans/Axles/Drivetrains	2	3	0	0	3
	AUT	231A	Manual Trans/Axles/Drivetrains - Lab	0	3	0	0	1
	ENG	111	Expository Writing	3	0	0	0	3
	MAT	115	Mathematical Models	2	2	0	0	3
	---	---	COE Coursework*					
			Total	**9**	**14**	**0**	**0**	**14**
Second Year (Spring)								
	AUT	221	Automatic Transmission/Transaxles	2	3	0	0	3
	AUT	221A	Automatic Transmission/Transaxles - Lab	0	3	0	0	1
	COM	231	Public Speaking	3	0	0	0	3
	PHY	110	Conceptual Physics	3	0	0	0	3
	PHY	110A	Conceptual Physics - Lab	0	2	0	0	1
	---	---	Humanities/Fine Arts Elective	3	0	0	0	3
	---	---	COE Coursework*					
			Total	**11**	**8**	**0**	**0**	**14**
Second Year (Summer)								
	AUT	113	Automotive Servicing	0	6	0	0	2
			OR					
	AUT	285	Introduction to Alternative Fuels	2	2	0	0	3
			OR					
	COE	112	Co-Op Work Experience I*	0	0	0	20	2
			Total	**0-2**	**0-6**	**0**	**0-20**	**2-3**
Total Semester Hours Credit (SHC) in Program:								68-69

■ This is a Core Course and cannot be substituted.

* Students may take either **AUT 113** or **COE 112** in the second year summer term. If students choose to co-op throughout the course sequence instead of taking **AUT 113** or **COE 112**, they may choose 2 SHC from the following COE coursework:

		Title	Class	Lab	Clinical	Work Exp.	Credits
COE	111	Co-Op Experience I	0	0	0	10	1
COE	121	Co-Op Experience II	0	0	0	10	1

Diploma Program (D60160)

			Title	Class	Lab	Clinical	Work Exp.	Credits
Fall Semester								
	AUT	110	Introduction to Automotive Technology	2	2	0	0	3
	AUT	116	Engine Repair	2	3	0	0	3
	AUT	116A	Engine Repair - Lab	0	3	0	0	1
■	AUT	161	Basic Automotive Electricity	4	3	0	0	5
	---	---	Social/Behavioral Sciences Elective	3	0	0	0	3
			Total	**11**	**11**	**0**	**0**	**15**
Spring Semester								
■	AUT	141	Suspension & Steering Systems	2	3	0	0	3
	AUT	141A	Suspension & Steering - Lab	0	3	0	0	1
■	AUT	151	Brake Systems	2	3	0	0	3
	AUT	151A	Brake Systems - Lab	0	3	0	0	1
■	AUT	181	Engine Performance I	2	3	0	0	3
	AUT	181A	Engine Performance I -Lab	0	3	0	0	1
	ENG	111	Expository Writing	3	0	0	0	3
			Total	**9**	**18**	**0**	**0**	**15**
Summer Term								
	AUT	171	Automotive Climate Control	2	4	0	0	4
■	AUT	183	Engine Performance II	2	6	0	0	4
			Total	**4**	**10**	**0**	**0**	**8**
Total Semester Hours Credit (SHC) in Program:								38

■ This is a Core Course and cannot be substituted.

Certificate Programs (C60160)

Courses			Credit Hours
Brakes Certificate (C60160BR)			
AUT	151	Brake Systems	3
AUT	151A	Brake Systems - Lab	1
AUT	161	Basic Automotive Electricity	5
AUT	163	Advanced Automotive Electricity	3
AUT	163A	Advanced Automotive Electricity - Lab	1
Total Semester Hours Credit:			13
Electrical & Electronics Certificate (C60160EE)			
AUT	161	Basic Automotive Electricity	5

AUT	163	Advanced Automotive Electricity	3
AUT	163A	Advanced Automotive Electricity - Lab	1
AUT	186	PC Skills for Auto Techs	3
Total Semester Hours Credit:			12
Engine Performance & Engine Repair Certificate (C60160EP)			
AUT	116	Engine Repair	3
AUT	116A	Engine Repair - Lab	1
AUT	181	Engine Performance I	3
AUT	181A	Engine Performance I -Lab	1
AUT	183	Engine Performance II	4
Total Semester Hours Credit:			12
Suspension & Steering Certificate (C60160SS)			
AUT	141	Suspension & Steering Systems	3
AUT	141A	Suspension & Steering - Lab	1
AUT	151	Brake Systems	3
AUT	151A	Brake Systems - Lab	1
AUT	161	Basic Automotive Electricity	5
Total Semester Hours Credit:			13
Heating & Air Conditioning Certificate (C60160HA)			
AUT	110	Introduction to Automotive Technology	3
AUT	113	Automotive Servicing	2
		OR	
COE	112	Co-Op Work Experience I	2
AUT	161	Basic Automotive Electricity	5
AUT	171	Automotive Climate Control	4
Total Semester Hours Credit:			14
Automatic Transmission Certificate (C60160AT)			
AUT	110	Introduction to Automotive Technology	3
AUT	113	Automotive Servicing	2
		OR	
COE	112	Co-Op Work Experience I	2
AUT	221	Automatic Transmission/Transaxles	3
AUT	221A	Automatic Transmission/Transaxles - Lab	1
AUT	161	Basic Automotive Electricity	5
Total Semester Hours Credit:			14
Manual Drive Train & Axles Certificate (C60160MD)			
AUT	110	Introduction to Automotive Technology	3
AUT	113	Automotive Servicing	2
		OR	

COE	112	Co-Op Work Experience I	2
AUT	161	Basic Automotive Electricity	5
AUT	231	Manual Trans/Axles/Drivetrains	3
AUT	231A	Manual Trans/Axles/Drivetrains - Lab	1
Total Semester Hours Credit:			14

2010 – 2011 Biotechnology (20100)

Program of Study

Description: The Biotechnology curriculum, which has emerged from molecular biology and chemical engineering, is designed to meet the increasing demands for skilled laboratory technicians in various fields of biological and chemical technology. Course work emphasizes biology, chemistry, mathematics, and technical communications. The curriculum objectives are designed to prepare graduates to serve in three distinct capacities: research assistant to a biologist or chemist, laboratory technician/instrumentation technician, and quality control/quality assurance technician. Graduates may find employment in various areas of industry and government, including research and development, manufacturing, sales, and customer service.

Award(s): A20100 - Associate in Applied Science Degree

Contact Information: The Biotechnology program is in the Science, Biotechnology, and Mathematics department. For additional information regarding this program, contact Program Head Carol Scherczinger at (704) 216-3923 or **carol.scherczinger@rccc.edu**.

Course Requirements: The following is a suggested program of study for completing this program in five semesters. Some students' programs of study may be different, depending on their enrollment status (day, evening, full-time, or part-time).

Associate in Applied Science Degree (A20100)								
			Title	Class	Lab	Clinical	Work Exp.	Credits
First Year (Fall)								
	ACA	111	College Study Skills	1	0	0	0	1
			OR					
	ACA	115	Success and Study Skills	0	2	0	0	1
			OR					
	ACA	122	College Transfer Success	1	0	0	0	1
■	BIO	111	General Biology I	3	3	0	0	4
	CIS	110	Introduction to Computers	2	2	0	0	3
	ENG	111	Expository Writing	3	0	0	0	3
	MAT	115	Mathematical Models	2	2	0	0	3
			OR					
	MAT	161	College Algebra	3	0	0	0	3
			OR					

	MAT	175	Pre - Calculus	4	0	0	0	4
			Total	**10-13**	**5-9**	**0**	**0**	**14-15**
First Year (Spring)								
■	BIO	112	General Biology II	3	3	0	0	4
■	BTC	181	Basic Lab Techniques	3	3	0	0	4
■	CHM	131	Introduction to Chemistry	3	0	0	0	3
			AND					
■	CHM	131A	Introduction to Chemistry - Lab	0	3	0	0	1
			OR					
■	CHM	151	General Chemistry I	3	3	0	0	4
	ENG	112	Argument-Based Research	3	0	0	0	3
			OR					
	ENG	114	Professional Research & Reporting	3	0	0	0	3
			Total	**12**	**9**	**0**	**0**	**15**
First Year (Summer)								
	BIO	275	Microbiology	3	3	0	0	4
	---	---	Humanities / Fine Arts Elective	3	0	0	0	3
			Total	**6**	**3**	**0**	**0**	**7**
Second Year (Fall)								
	BIO	250	Genetics	3	3	0	0	4
	BTC	285	Cell Culture	2	3	0	0	3
■	CHM	132	Organic and Biochemistry	3	3	0	0	4
	MAT	151	Statistics I	3	0	0	0	3
	MAT	151A	Statistics I - Lab	0	2	0	0	1
			Total	**11**	**11**	**0**	**0**	**15**
Second Year (Spring)								
	BTC	270	Recombinant DNA Techniques	3	3	0	0	4
	PSY	118	Interpersonal Psychology	3	0	0	0	3
			OR					
	PSY	150	General Psychology	3	0	0	0	3
			Select at least 8 SHC from the following courses:					
	BTC	281	Bioprocess Techniques	2	6	0	0	4
	BTC	282	Fermentation I	2	6	0	0	4
	BTC	283	Fermentation II	2	6	0	0	4
	BTC	286	Immunological Techniques	3	3	0	0	4
	BTC	288	Biotech Lab Experience	0	6	0	0	2
	CHM	263	Analytical Chemistry	3	4	0	0	5
	COE	111	Co-Op Work Experience I	0	0	0	10	1
			OR					
	COE	112	Co-Op Work Experience I	0	0	0	20	2
			Total	**9-11**	**4-12**	**0**	**0-20**	**15-16**
Total Semester Hours Credit (SHC) in Program:								66-67

Students wishing to take the Bioprocess Manufacturing Option should select the following sequence for the 2nd

Year Spring Semester and Summer Term: **Second Year / Spring Semester:** BTC 270 - Recombinant DNA; BTC 281 - Bioprocess Techniques; BTC 282 - Biotech Fermentation I; and PSY 118 - Interpersonal Psychology *OR* PSY 150 - General Psychology. **Second Year / Summer Term:** BTC 283 - Biotech Fermentation II. **ACA 111** is preferred (instead of ACA 115 or ACA 122).

- This is a Core Course and cannot be substituted.

2010 – 2011 Basic Law Enforcement Training (BLET) (55120)
Program of Study

Description: 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 alcohol beverage laws; investigative, patrol, custody, and court procedures; emergency responses; and ethics and community relations. Students must successfully complete and pass all units of study which include the certification examination mandated by the North Carolina Criminal Justice Education and Training Standards Commission and the North Carolina Sheriffs' Education and Training Standards Commission to receive a certificate.

Award(s): C55120 - Certificate Program

Additional Information:

A. 19 Semester Hour Credits
B. Nine Lecture Hours; 30 Lab Hours Per Week; 624 Contact Hours
C. Prerequisites: None
   Co-requisites: None

Admission Requirements for Basic Law Enforcement Training (BLET)
Note: Admission Requirements are subject to change.
Note: Includes Steps to Enrollment

Related Programs of Study:
Criminal Justice Technology (55180)
Associate in Arts Pre-Major: Criminal Justice (1010D)
Continuing Education Law Enforcement Training

Contact Information: The Basic Law Enforcement Training (BLET) program is in the Health and Public Services department. For additional information regarding this program, contact Program Head Spencer Rummage at (704) 216-3738 or **spencer.rummage@rccc.edu**.

Course Requirements: See Below

Certificate Program (C55120)								
			Title	Class	Lab	Clinical	Work Exp.	Credits
First Year (Fall)								
	CJC	100	Basic Law Enforcement Training	9	30	0	0	19
Total Semester Hours Credit (SHC) in Program:								19

BLET Transfer Credit : Students successfully completing Basic Law Enforcement Training at a school accredited by the N.C. Criminal Justice Training and Standards Commission will receive 10 semester hours credit toward heir Associate in Applied Science degree in Criminal Justice Technology at Rowan-Cabarrus Community College. These students must have successfully completed Basic Law Enforcement Training since 1985. RCCC only ensures acceptance of these transfer credit in our Associate in Applied Science – Criminal Justice Technology degree program. These transfer credits may or may not be accepted by a four-year institution. Students are responsible for checking the degree requirements of the four-year institution to which they intend to transfer.

2010 - 2011 Business Administration (25120)

Program of Study

Description: 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. Course work 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. Through these skills, students will have a sound business education base for lifelong learning. Graduates are prepared for employment opportunities in government agencies, financial institutions, and large to small business or industry.

Award(s):

A25120 - Associate in Applied Science Degree
D25120 - Diploma Program
C25120 - Certificate Programs

Additional Information:

Related Program(s) of Study:
Business Administration - Marketing & Retailing (2512F)
Associate in Arts Pre-Majors:
Business Administration, Accounting, Economics, Finance, and Marketing Education (1010B)
Business Education and Marketing Education (1010C)

Contact Information: The Business Administration program is in the Liberal Arts, Business Technology, and General Education Department. For additional information regarding this program, contact Program Head Garland Fulp at (704)216-3770 or **garland.fulp@rccc.edu**.

Course Requirements: The following is a suggested program of study for completing this program in four semesters. Some students' programs of study may be different, depending on their enrollment status (day, evening, full-time, or part-time).

Associate in Applied Science Degree (A25120)								
			Title	Class	Lab	Clinical	Work Exp.	Credits
First Year (Fall)								
	ACA	115	Success and Study Skills	0	2	0	0	1
	BUS	110	Introduction to Business	3	0	0	0	3
■	CIS	110	Introduction to Computers	2	2	0	0	3
	ENG	111	Expository Writing	3	0	0	0	3
	INT	110	International Business	3	0	0	0	3
	MAT	140	Survey of Mathematics	3	0	0	0	3
			OR					
	MAT	161	College Algebra	3	0	0	0	3
			OR					
	MAT	175	Pre - Calculus	4	0	0	0	4
			Total	**14-15**	**4**	**0**	**0**	**16-17**
First Year (Spring)								
■	ACC	120	Principles of Financial Accounting	3	2	0	0	4
■	BUS	115	Business Law I	3	0	0	0	3
■	ECO	151	Survey of Economics	3	0	0	0	3
			OR					
	ECO	251	Principles of Microeconomics	3	0	0	0	3
			OR					
	ECO	252	Principles of Macroeconomics	3	0	0	0	3
	ENG	112	Argument-Based Research	3	0	0	0	3
			OR					
	ENG	113	Literature-Based Research	3	0	0	0	3
			OR					
	ENG	114	Professional Research & Reporting	3	0	0	0	3
	---	---	Humanities/Fine Arts Elective	3	0	0	0	3
			Total	**15**	**2**	**0**	**0**	**16**
Second Year (Fall)								
■	ACC	121	Principles of Managerial Accounting	3	2	0	0	4
■	BUS	137	Principles of Management	3	0	0	0	3
	BUS	260	Business Communication	3	0	0	0	3
■	MKT	120	Principles of Marketing	3	0	0	0	3
	---	---	Social/Behavioral Sciences Elective	3	0	0	0	3
	---	---	Major Elective*	3	0	0	0	3
			Total	**15-18**	**2-4**	**0**	**0**	**19**
Second Year (Spring)								
	BUS	225	Business Finance	2	2	0	0	3
	CTS	130	Spreadsheet	2	2	0	0	3
	---	---	Major Elective*	10	0	0	0	10
			Total	**14**	**4**	**0**	**0**	**16**

Total Semester Hours Credit (SHC) in Program:	67-68

- This is a Core Course and cannot be substituted.

*Major Electives:
Select 13 semester hour credits from the following courses. This may include up to 3 SHC from COE course/combination of courses:

		Title	Class	Lab	Clinical	Work Exp.	Credits
BUS	121	Business Mathematics	2	2	0	0	3
BUS	153	Human Resource Management	3	0	0	0	3
BUS	217	Employment Law & Regulations	3	0	0	0	3
BUS	230	Small Business Management	3	0	0	0	3
BUS	240	Business Ethics	3	0	0	0	3
BUS	253	Leadership & Management Skills	3	0	0	0	3
BUS	280	REAL Small Business	4	0	0	0	4
INT	115	Global Communications	3	0	0	0	3
MKT	123	Fundamentals of Selling	3	0	0	0	3
MKT	220	Advertising and Sales Promotion	3	0	0	0	3
MKT	223	Customer Service	3	0	0	0	3
MKT	224	International Marketing	3	0	0	0	3
OST	131	Keyboarding	1	2	0	0	2
OST	136	Word Processing	1	2	0	0	2
SPA	111	Elementary Spanish I	3	0	0	0	3
COE	110	World of Work	1	0	0	0	1
COE	111	Co-op Work Experience I	0	0	0	10	1
COE	112	Co-op Work Experience I	0	0	0	20	2
COE	113	Co-op Work Experience I	0	0	0	30	3
COE	121	Co-op Work Experience II	0	0	0	10	1
COE	122	Co-op Work Experience II	0	0	0	20	2
COE	131	Co-op Work Experience III	0	0	0	10	1

Diploma Program (D25120)

Courses				Credits Hours
■	ACC	120	Principles of Financial Accounting	4
	ACC	121	Principles of Managerial Accounting	4
	BUS	110	Introduction to Business	3
■	BUS	115	Business Law I	3
	BUS	121	Business Mathematics	3
■	BUS	137	Principles of Management	3
	BUS	260	Business Communication	3
■	CIS	110	Introduction to Computers	3
■	ECO	151	Survey of Economics	3
	ENG	111	Expository Writing	3
■	MKT	120	Principles of Marketing	3
	---	---	Social/Behavioral Sciences Elective	3
Total Semester Hours Credit:				38

- This is a Core Course and cannot be substituted.

Certificate Programs (C25120)			
Courses			Credit Hours
Business Accounting Certificate (C2510BA)			
ACC	120	Principles of Financial Accounting	4
BUS	121	Business Mathematics	3
BUS	225	Business Finance	3
BUS	260	Business Communication	3
Total Semester Hours Credit:			13
Small Business Management Certificate (C25120SB)			
BUS	137	Principles of Management	3
BUS	153	Human Resource Management	3
BUS	230	Small Business Management	3
BUS	240	Business Ethics	3
BUS	253	Leadership & Management Skills	3
Total Semester Hours Credit:			15
Business Management Certificate (C25120BM)			
BUS	115	Business Law I	3
BUS	137	Principles of Management	3
BUS	153	Human Resource Management	3
BUS	240	Business Ethics	3
BUS	253	Leadership & Management Skills	3
Total Semester Hours Credit:			15
General Business Certificate (C25120GB)			
BUS	110	Introduction to Business	3
BUS	121	Business Mathematics	3
BUS	137	Principles of Management	3
BUS	260	Business Communication	3
CIS	110	Introduction to Computers	3
Total Semester Hours Credit:			15
Business Computing Certificate (C25120BC)			
BUS	110	Introduction to Business	3
BUS	260	Business Communication	3
CIS	110	Introduction to Computers	3
CTS	130	Spreadsheet	3
OST	136	Word Processing	2
Total Semester Hours Credit:			14

2010 - 2011 Business Administration - Marketing & Retailing (2512F) Program of Study

Description: Marketing and Retailing is a concentration under the curriculum title of Business Administration. This curriculum is designed to provide students with fundamental skills in marketing and retailing. Course work includes marketing, retailing, merchandising, selling, advertising, computer technology, and management. Graduates should qualify for marketing positions within manufacturing, retailing, and service organizations.

Award(s):

A2512F - Associate in Applied Science Degree
D2512F - Diploma Program
C2512F - Certificate Programs

Additional Information:

Related Program(s) of Study:
Business Administration (25120)
Associate in Arts Pre-Majors: Business Administration, Accounting, Economics, Finance, and Marketing Education (1010B)
Business Education and Marketing Education (1010C)

Contact Information: The Business Administration - Marketing & Retailing program is in the Liberal Arts, Business Technology, and General Education Department. For additional information regarding this program, contact Program Head David Cox at (704) 216-3765 or **david.cox@rccc.edu**.

Course Requirements: The following is a suggested program of study for completing this program in four semesters. Some students' programs of study may be different, depending on their enrollment status (day, evening, full-time, or part-time).

Associate in Applied Science Degree (A2512F)								
			Title	Class	Lab	Clinical	Work Exp.	Credits
First Year (Fall)								
	ACA	115	Success and Study Skills	0	2	0	0	1
■	BUS	115	Business Law I	3	0	0	0	3
■	CIS	110	Introduction to Computers	2	2	0	0	3
	ENG	111	Expository Writing	3	0	0	0	3
	INT	110	International Business	3	0	0	0	3
■	MKT	120	Principles of Marketing	3	0	0	0	3
	----	---	Major Elective*	0-3	0-2	0	0-30	3
			Total	**14-17**	**4-6**	**0**	**0-30**	**19**
First Year (Spring)								
■	ECO	151	Survey of Economics	3	0	0	0	3
	ENG	114	Professional Research & Reporting	3	0	0	0	3

■	MKT	122	Visual Merchandising	3	0	0	0	3
■	MKT	123	Fundamentals of Selling	3	0	0	0	3
	MAT	140	Survey of Mathematics	3	0	0	0	3
			OR					
	MAT	161	College Algebra	3	0	0	0	3
			OR					
	MAT	175	Pre-Calculus	4	0	0	0	4
			Total	**15-16**	**0**	**0**	**0**	**15-16**
Second Year (Fall)								
■	ACC	120	Principles of Financial Accounting	3	2	0	0	4
■	BUS	137	Principles of Management	3	0	0	0	3
	BUS	260	Business Communication	3	0	0	0	3
■	MKT	220	Advertising & Sales Promotion	3	0	0	0	3
	---	---	Social/Behavioral Sciences Elective	3	0	0	0	3
			Total	**15**	**2**	**0**	**0**	**16**
Second Year (Spring)								
■	MKT	225	Marketing Research	3	0	0	0	3
■	MKT	226	Retail Applications	3	0	0	0	3
	---	---	Humanities/Fine Arts Elective	3	0	0	0	3
			Major Electives*	0-3	0-2	0	0-30	10
			Total	**9-12**	**0-2**	**0**	**0-30**	**19**
Total Semester Hours Credit (SHC) in Program:								69-70

■ This is a Core Course and cannot be substituted.

*Major Electives:
Select 13 semester hour credits from the following courses. This may include up to 3 SHC from COE course/combination of courses:

		Title	Class	Lab	Clinical	Work Exp.	Credits
ACC	121	Principles of Managerial Accounting	3	2	0	0	4
BUS	110	Introduction to Business	3	0	0	0	3
BUS	121	Business Mathematics	2	2	0	0	3
BUS	225	Business Finance	2	2	0	0	3
BUS	230	Small Business Management	3	0	0	0	3
BUS	240	Business Ethics	3	0	0	0	3
BUS	253	Leadership & Management Skills	3	0	0	0	3
BUS	280	REAL Small Business	4	0	0	0	4
CTS	130	Spreadsheet	2	2	0	0	3
INT	115	Global Communications	3	0	0	0	3
MKT	125	Buying & Merchandising	3	0	0	0	3
MKT	221	Consumer Behavior	3	0	0	0	3
MKT	223	Customer Service	3	0	0	0	3
MKT	224	International Marketing	3	0	0	0	3
OST	131	Keyboarding	1	2	0	0	2
SPA	111	Elementary Spanish I	3	0	0	0	3
COE	110	World of Work	1	0	0	0	1
COE	111	Co-op Work Experience I	0	0	0	10	1

COE	112	Co-op Work Experience I	0	0	0	20	2
COE	113	Co-op Work Experience I	0	0	0	30	3
COE	121	Co-op Work Experience II	0	0	0	10	1
COE	122	Co-op Work Experience II	0	0	0	20	2
COE	131	Co-op Work Experience III	0	0	0	10	1

Diploma Program (D2512F)

Courses				Credits Hours
■	ACC	120	Principles of Financial Accounting	4
■	BUS	115	Business Law I	3
	BUS	121	Business Mathematics	3
■	BUS	137	Principles of Management	3
■	CIS	110	Introduction to Computers	3
■	ECO	151	Survey of Economics	3
	ENG	111	Expository Writing	3
	MKT	120	Principles of Marketing	3
	MKT	122	Visual Merchandising	3
	MKT	123	Fundamentals of Selling	3
	MKT	220	Advertising & Sales Promotion	3
	MKT	225	Marketing Research	3
	---	---	Social/Behavioral Sciences Elective	3
Total Semester Hours Credit:				40

■ This is a Core Course and cannot be substituted.

Certificate Programs (C2512F)

Courses			Credit Hours
Marketing & Sales Certificate (C2512FMS)			
MKT	120	Principles of Marketing	3
MKT	122	Visual Merchandising	3
MKT	123	Fundamentals of Selling	3
MKT	220	Advertising & Sales Promotion	3
MKT	225	Marketing Research	3
Total Semester Hours Credit:			15
Marketing Management Certificate (C2512FMM)			
ACC	120	Principles of Financial Accounting	4
BUS	137	Principles of Management	3
BUS	253	Leadership & Management Skills	3
MKT	120	Principles of Marketing	3
Total Semester Hours Credit:			13
General Marketing Certificate (C2512FGM)			
CIS	110	Introduction to Computers	3

MKT	120	Principles of Marketing	3
MKT	122	Visual Merchandising	3
MKT	123	Fundamentals of Selling	3
MKT	220	Advertising & Sales Promotion	3
Total Semester Hours Credit:			15

2010 - 2011 Computer Information Technology (25260)

Program of Study

Description: 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 system needs. Course work 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.

Award(s):

A25260 - Associate in Applied Science Degree
D25260 - Diploma Program
C25260 - Certificate Programs

Additional Information:

Related Program(s) of Study:
Computer Programming (25130)
Information Systems Security (25270)
Networking Technology (25340)
Web Technologies (25290)

Contact Information: The Computer Information Technology program is in the Information Technologies Department. For additional information regarding this program, contact Program Head Anne Curlee at (704) 216-3758 or **anne.curlee@rccc.edu**.

Course Requirements: The following is a suggested program of study for completing this program in five semesters. Some students' programs of study may be different, depending on their enrollment status (day, evening, full-time, or part-time).

Associate in Applied Science Degree (A25260)								
			Title	Class	Lab	Clinical	Work Exp.	Credits
First Year (Fall)								
■	CIS	110	Introduction to Computers	2	2	0	0	3
	ENG	111	Expository Writing	3	0	0	0	3
	MAT	115	Mathematical Models	2	2	0	0	3
			OR					
	MAT	161	College Algebra	3	0	0	0	3
			OR					
	MAT	175	Pre-Calculus	4	0	0	0	4
■	NOS	110	Operating System Concepts	2	3	0	0	3
	---	---	Social/Behavioral Science Elective	3	0	0	0	3
			Total	**12-14**	**5-7**	**0**	**0**	**15-16**
First Year (Spring)								
■	CIS	115	Introduction to Programming and Logic	2	3	0	0	3
■	CTS	120	Hardware/Software Support	2	3	0	0	3
	ENG	112	Argument-Based Research	3	0	0	0	3
			OR					
	ENG	114	Professional Research & Reporting	3	0	0	0	3
■	NET	110	Networking Concepts	2	2	0	0	3
	---	---	Major Elective*	1-3	0-3	0	0-40	3
			Total	**10-12**	**8-11**	**0**	**0-40**	**15**
First Year (Summer)								
■	BUS	110	Introduction to Business	3	0	0	0	3
	CTS	135	Integrated Software Introduction	2	4	0	0	4
			Total	**5**	**4**	**0**	**0**	**7**
Second Year (Fall)								
	CTS	240	Project Management	2	2	0	0	3
■	CTS	285	Systems Analysis & Design	3	0	0	0	3
■	DBA	110	Database Concepts	2	3	0	0	3
■	SEC	110	Security Concepts	3	0	0	0	3
	---	---	Humanities/Fine Arts Elective	3	0	0	0	3
			Total	**13**	**5**	**0**	**0**	**15**
Second Year (Spring)								
■	CTS	289	System Support Project	1	4	0	0	3
	DBA	115	Database Applications	2	2	0	0	3
■	NOS	130	Windows Single User	2	2	0	0	3
■	NOS	230	Windows Administration I	2	2	0	0	3
	---	---	Major Elective*	1-3	0-3	0	0-40	3
			Total	**8-10**	**10-13**	**0**	**0-40**	**15**
Total Semester Hours Credit (SHC) in Program:								68-69

- This is a Core Course and cannot be substituted.

*Major Electives:
Select 6 semester hour credits from the following courses. This may include up to 4 SHC from COE course/combination of courses:

		Title	Class	Lab	Clinical	Work Exp.	Credits
ACC	120	Principles of Financial Accounting	3	2	0	0	4
COE	110	World of Work	1	0	0	0	1
COE	111	Co-Op Work Experience I	0	0	0	10	1
COE	112	Co-Op Work Experience I	0	0	0	20	2
COE	113	Co-Op Work Experience I	0	0	0	30	3
COE	114	Co-Op Work Experience I	0	0	0	40	4
COE	121	Co-Op Work Experience II	0	0	0	10	1
COE	122	Co-Op Work Experience II	0	0	0	20	2
COE	123	Co-Op Work Experience II	0	0	0	30	3
COE	131	Co-Op Work Experience III	0	0	0	10	1
COE	211	Co-Op Work Experience IV	0	0	0	10	1
CSC	134	C++ Programming	2	3	0	0	3
CSC	139	Visual BASIC Programming	2	3	0	0	3
CSC	151	JAVA Programming	2	3	0	0	3
CSC	239	Advanced Visual BASIC Programming	2	3	0	0	3
CTS	125	Presentation Graphics	2	2	0	0	3
CTS	130	Spreadsheet	2	2	0	0	3
CTS	155	Technical Support Functions	2	2	0	0	3
CTS	210	Computer Ethics	3	0	0	0	3
CTS	220	Advanced Hardware/Software Support	2	3	0	0	3
CTS	230	Advanced Spreadsheet	2	2	0	0	3
NET	125	Networking Basics	1	4	0	0	3
NET	126	Routing Basics	1	4	0	0	3
NOS	120	Linux/UNIX Single User	2	2	0	0	3
NOS	220	Linux/UNIX Administration I	2	2	0	0	3
OST	136	Word Processing	1	2	0	0	2
SPA	111	Elementary Spanish I	3	0	0	0	3
WEB	110	Internet/Web Fundamentals	2	2	0	0	3
WEB	111	Introduction to Web Graphics	2	2	0	0	3

Diploma Program (D25260)

Courses				Credits Hours
■	CIS	110	Introduction to Computers	3
■	CIS	115	Introduction to Programming and Logic	3
■	CTS	120	Hardware/Software Support	3
	CTS	135	Integrated Software Introduction	4
■	DBA	110	Database Concepts	3
	ENG	111	Expository Writing	3

	MAT	115	Mathematical Models	3
			OR	
	MAT	161	College Algebra	3
			OR	
	MAT	175	Pre-Calculus	4
■	NET	110	Networking Concepts	3
■	NOS	110	Operating Systems Concepts	3
	---	---	Social/Behavioral Sciences Elective	3
Select 9 SHC from the following:				
	BUS	110	Introduction to Business	3
	CTS	240	Project Management	3
	CTS	285	Systems Analysis & Design	3
	DBA	115	Database Applications	3
	NOS	130	Windows Single User	3
	NOS	230	Windows Administration I	3
	SEC	110	Security Concepts	3
Total Semester Hours Credit:				40-41

■ This is a Core Course and cannot be substituted.

Certificate Programs (C25260)			
Courses			Credit Hours
Computer Information Technology Certificate (C25260CI)			
CIS	110	Introduction to Computers	3
CTS	120	Hardware/Software Support	3
CTS	135	Integrated Software Introduction	4
DBA	110	Database Concepts	3
NOS	110	Operating Systems Concepts	3
Total Semester Hours Credit:			16
Operating Systems Certificate (C25260OS)			
CIS	110	Introduction to Computers	3
NOS	110	Operating Systems Concepts	3
NOS	120	Linux/UNIX Single User	3
NOS	130	Windows Single User	3
NOS	230	Windows Administration I	3
Total Semester Hours Credit:			15
Computer Information Technology Office Support Certificate (C25260SU)			
BUS	110	Introduction to Business	3
CIS	110	Introduction to Computers	3
CTS	125	Presentation Graphics	3
CTS	135	Integrated Software Introduction	4
CTS	240	Project Management	3
Total Semester Hours Credit:			16
Computer Information Technology Foundations Certificate (C25260FO)			

CIS	110	Introduction to Computers	3
CIS	115	Introduction to Programming & Logic	3
DBA	110	Database Concepts	3
NET	110	Networking Concepts	3
NOS	110	Operating Systems Concepts	3
SEC	110	Security Concepts	3
Total Semester Hours Credit:			18
Spreadsheet Management Certificate (C25260SM)			
CIS	110	Introduction to Computers	3
CTS	130	Spreadsheet	3
CTS	135	Integrated Software	4
CTS	230	Advanced Spreadsheet	3
Total Semester Hours Credit:			13
Computer Information Technology Help Desk Certificate (C25260HD)			
CIS	110	Introduction to Computers	3
CTS	120	Hardware/Software Support	3
CTS	155	Tech Support Functions	3
CTS	285	Systems Analysis and Design	3
NET	110	Networking Concepts	3
NOS	110	Operating System Concepts	3
Total Semester Hours Credit:			18

2010 – 2011 Computer Programming (25130)

Program of Study

Description: 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.

Award(s):

A25130 - Associate in Applied Science Degree
D25130 - Diploma Program
C25130 - Certificate Programs

Additional Information:

Related Program(s) of Study:
Computer Information Technology (25260)
Information Systems Security (25270)
Networking Technology (25340)
Web Technologies (25290)

Contact Information:

The Computer Programming program is in the Information Technologies Department. For additional information regarding this program, contact Program Head Lisa Garneau at (704) 216-3757 or lisa.garneau@rccc.edu.

Course Requirements:

The following is a suggested program of study for completing this program in five semesters. Some students' programs of study may be different, depending on their enrollment status (day, evening, full-time, or part-time).

Associate in Applied Science Degree (A25130)								
			Title	Class	Lab	Clinical	Work Exp.	Credits
First Year (Fall)								
■	CIS	110	Introduction to Computers	2	2	0	0	3
■	CIS	115	Introduction to Programming & Logic	2	3	0	0	3
■	CSC	139	Visual BASIC Programming	2	3	0	0	3
■	NOS	110	Operating System Concepts	2	3	0	0	3
	---	---	Social/Behavioral Science Elective	3	0	0	0	3
			Total	**11**	**11**	**0**	**0**	**15**
First Year (Spring)								
■	CSC	134	C++Programming	2	3	0	0	3
■	CSC	239	Adv Visual BASIC Programming	2	3	0	0	3
■	DBA	110	Database Concepts	2	3	0	0	3
	ENG	111	Expository Writing	3	0	0	0	3
	MAT	115	Mathematical Models	3	0	0	0	3
			OR					
	MAT	161	College Algebra	3	0	0	0	3
			OR					
	MAT	175	Pre-Calculus	4	0	0	0	4
			Total	**11-12**	**9**	**0**	**0**	**15-16**
First Year (Summer)								
■	BUS	110	Introduction to Business	3	0	0	0	3
■	SEC	110	Systems Concepts	3	0	0	0	3
	ENG	112	Argument-Based Research	3	0	0	0	3
			OR					
	ENG	113	Literature-Based Research	3	0	0	0	3
			OR					

	COM	231	Public Speaking	3	0	0	0	3
	---	---	Other Major Electives*	0-3	2-3	0	0-30	3
			Total	**9-12**	**2-3**	**0**	**0-30**	**12**
Second Year (Fall)								
■	CSC	234	Advanced C++ Programming	2	3	0	0	3
■	CTS	285	Systems Analysis & Design	3	0	0	0	3
■	NOS	120	Linux/UNIX Single User	2	2	0	0	3
			OR					
■	NOS	130	Windows Single User	2	2	0	0	3
	---	---	CSC Major Elective*	2	3	0	0	3
	---	---	Other Major Electives*	0-3	2-3	0	0-30	3
			Total	**9-12**	**10-13**	**0**	**0-30**	**15**
Second Year (Spring)								
■	CSC	289	Programming Capstone Project	1	4	0	0	3
■	NET	110	Networking Concepts	2	2	0	0	3
	---	---	CSC Major Elective*	2	3	0	0	3
	---	---	CSC Major Elective*	2	3	0	0	3
	---	---	Humanities/Fine Arts Electives*	3	0	0	0	3
			Total	**10**	**12**	**0**	**0**	**15**
Total Semester Hours Credit (SHC) in Program:								72-74

■ This is a Core Course and cannot be substituted.

*CSC Major Electives:
Select 9 semester hour credits from the following courses:

		Title	Class	Lab	Clinical	Work Exp.	Credits
CSC	135	COBOL Programming	2	3	0	0	3
CSC	151	JAVA Programming	2	3	0	0	3
CSC	153	C# Programming	2	3	0	0	3
CSC	235	Advanced COBOL Programming	2	3	0	0	3
CSC	251	Advanced JAVA Programming	2	3	0	0	3

*Other Major Electives:
Select 6 semester hour credits from the following courses. This may include up to 3 SHC from COE course/combination of courses:

		Title	Class	Lab	Clinical	Work Exp.	Credits
ACC	120	Principles of Financial Accounting	3	2	0	0	4
COE	110	World of Work	1	0	0	0	1
COE	111	Co-Op Work Experience I	0	0	0	10	1
COE	112	Co-Op Work Experience I	0	0	0	20	2
COE	113	Co-Op Work Experience I	0	0	0	30	3
COE	121	Co-Op Work Experience II	0	0	0	10	1
COE	122	Co-Op Work Experience II	0	0	0	20	2

COE	123	Co-Op Work Experience II	0	0	0	30	3
COE	131	Co-Op Work Experience III	0	0	0	10	1
CTS	120	Hardware/Software Support	2	3	0	0	3
CTS	130	Spreadsheet	2	2	0	0	3
DBA	115	Database Applications	2	3	0	0	3
OST	131	Keyboarding	1	2	0	0	2
WEB	250	Database Driven Websites	2	2	0	0	3

Diploma Program (D25130)

Courses				Credits Hours
■	CIS	110	Introduction to Computers	3
■	CIS	115	Introduction to Programming and Logic	3
■	CSC	134	C++ Programming	3
■	CSC	139	Visual BASIC Programming	3
■	CSC	234	Advanced C++ Programming	3
■	CSC	239	Advanced Visual BASIC Programming	3
	ENG	111	Expository Writing	3
	MAT	115	Mathematical Models	3
			OR	
	MAT	161	College Algebra	3
			OR	
	MAT	175	Pre-Calculus	4
■	NET	110	Networking Concepts	3
■	NOS	110	Operating Systems Concepts	3
Select 9 SHC from the following:				
	CSC	135	COBOL Programming	3
	CSC	151	JAVA Programming	3
	CSC	153	C# Programming	3
	CSC	235	Advanced COBOL Programming	3
	CSC	251	Advanced JAVA Programming	3
Total Semester Hours Credit:				39-40

A diploma offered for this program must have a minimum of 12 SHC extracted from the Core courses of the A.A.S. degree.

Certificate Programs (C25130)

Courses			Credit Hours
COBOL Language Certificate (C25130CO)			
Fall Semester:			
CIS	115	Introduction to Programming and Logic	3
CSC	135	Cobol Programming	3
Spring Semester:			
CSC	153	C# Programming	3
CSC	235	Advanced COBOL Programming	3
Total Semester Hours Credit:			12

Visual Language Certificate (C25130VL)			
Fall Semester:			
CIS	115	Introduction to Programming and Logic	3
CSC	139	Visual BASIC Programming	3
Spring Semester:			
CSC	153	C# Programming	3
CSC	239	Advanced Visual BASIC Programming	3
Total Semester Hours Credit:			12
C-Based Language Certificate (C25130CL)			
Spring Semester:			
CIS	115	Introduction to Programming and Logic	3
CSC	134	C++ Programming	3
Fall Semester:			
CSC	151	JAVA Programming	3
CSC	234	Advanced C++ Programming	3
Total Semester Hours Credit:			12
Advanced C-Based Language Certificate (C25130AC)			
Fall Semester:			
CIS	115	Introduction to Programming and Logic	3
CSC	234	Advanced C++ Programming	3
Spring Semester:			
CSC	153	C# Programming	3
CSC	251	Advanced JAVA Programming	3
Total Semester Hours Credit:			12

2010 – 2011 Construction Management Technology (35190)Program of Study

Description: This curriculum is designed to prepare individuals for careers in the construction management field. Such positions may include project manager, superintendent, estimator, or foreman. Course work includes safety, planning, scheduling, cost control, productivity, human relations, estimating, and building codes. Students will also gain proficiency in specific construction related skills. Graduates should qualify for entry-level positions in the field of construction management.

Award(s):
A35190 - Associate in Applied Science Degree
D35190 - Diploma Program
C35190 - Certificate Programs

Additional Information: Please check out the CMT Advising Page on RCCC's BlackBoard website. The *username* is “rccc.cmt” and the *password* is “cmt”. Once you login, click on the

Construction Management Technology Advising Information link under My Organizations. If you are a new student, please click on the "new student" tab.

Contact Information: The Construction Management Technology program is in the Industrial and Engineering Technologies Department. For additional information regarding this program, contact Program Head Kao Vang at (704) 216-3903 or **kao.vang@rccc.edu**.

Course Requirements: The following is a suggested program of study for completing this program in five semesters. Some students' programs of study may be different, depending on their enrollment status (day, evening, full-time, or part-time).

Associate in Applied Science Degree (A35190)								
			Title	Class	Lab	Clinical	Work Exp.	Credits
First Year (Fall)								
▪	BPR	130	Blueprint Reading/Construction	1	2	0	0	2
▪	CIS	110	Introduction to Computers	2	2	0	0	3
▪	CMT	210	Profess. Construction Supervision	3	0	0	0	3
▪	CMT	212	Total Safety Performance	3	0	0	0	3
	ENG	111	Expository Writing	3	0	0	0	3
			Total	**12**	**4**	**0**	**0**	**14**
First Year (Spring)								
▪	ACC	120	Principles of Financial Accounting	3	2	0	0	4
▪	CST	241	Planning/Estimating I	2	2	0	0	3
	ENG	114	Professional Research & Reporting	3	0	0	0	3
	MAT	121	Algebra/Trigonometry I	2	2	0	0	3
	---	---	Technical Elective*	2-5	2-6	0	0	3-5
			Total	**12-15**	**8-12**	**0**	**0**	**16-18**
First Year (Summer)								
	---	---	Humanities/Fine Arts Elective	3	0	0	0	3
	---	---	Technical Elective*	1-3	2-5	0	0	2-2
			Total	**4-6**	**2-5**	**0**	**0**	**5-6**
Second Year (Fall)								
▪	CMT	214	Planning and Scheduling	3	0	0	0	3
▪	CMT	216	Cost and Productivity	3	0	0	0	3
▪	SPA	120	Spanish for the Workplace	3	0	0	0	3
	COE	112	Co-op Work Experience I	0	0	0	20	2
	---	---	Social/Behavioral Science Elective	3	0	0	0	3
	---	---	Technical Elective*	2-5	2-6	0	0	3-5
			Total	**14-17**	**2-6**	**0**	**20**	**17-19**
Second Year (Spring)								
▪	CIV	230	Construction Estimating	2	3	0	0	3
▪	CMT	218	Human Relations Issues	3	0	0	0	3
	COE	122	Co-op Work Experience II	0	0	0	20	2
	---	---	Technical Elective*	7-10	2-6	0	0	7-10
			Total	**12-15**	**5-9**	**0**	**20**	**15-18**
Total Semester Hours Credit (SHC) in Program:								68

▪ This is a Core Course and cannot be substituted.

*Technical Electives:
Select 15 SHC of technical electives from the following categories. Students anticipating transferring to a four-year university should select CIV-110, CIV-210, and SRV-110. In addition, students anticipating transferring to a four-year university must immediately consult with the Program Head of Construction Management Technology to choose electives that will better prepare transfer students.

		Title	Class	Lab	Clinical	Work Exp.	Credits
Air Conditioning, Heating and Refrigeration:							
AHR	110	Introduction to Refrigeration	2	6	0	0	5
AHR	111	HVACR Electricity	2	2	0	0	3
AHR	112	Heating Technology	2	4	0	0	4
AHR	113	Comfort Cooling	2	4	0	0	4
AHR	130	HVAC Controls	2	2	0	0	3
Civil Engineering Technology:							
CIV	110	Statics/Strength of Materials	2	6	0	0	4
CIV	210	Engineering Materials	1	3	0	0	2
CIV	240	Project Management	2	3	0	0	3
SRV	110	Surveying I	2	6	0	0	4
EGR	115	Introduction to Technology	2	3	0	0	3
Drafting:							
DFT	111	Technical Drafting I	1	3	0	0	2
DFT	111A	Technical Drafting I Lab	0	3	0	0	1
DFT	151	CAD 1	3	3	0	0	3
DFT	152	CAD 2	2	3	0	0	3
Electrical:							
ELC	113	Basic Wiring I	2	6	0	0	4
ELC	117	Motors and Controls	2	6	0	0	4
ELC	118	National Electrical Code	1	2	0	0	2
ELC	125	Diagrams and Schematics	1	2	0	0	2
ELC	138	DC Circuit Analysis	2	3	0	0	3
Welding:							
WLD	112	Basic Welding Processes	1	3	0	0	2
WLD	115	SMAW (Stick) Plate	2	9	0	0	5
WLD	121	GMAW (MIG) FCAW/Plate	2	6	0	0	4
WLD	131	GTAW (TIG) Plate	2	6	0	0	4
WLD	141	Symbols & Specifications	2	2	0	0	3

Diploma Program (D35190)

Courses				Credits Hours
▪	ACC	120	Principles of Financial Accounting	4
▪	BPR	130	Blueprint Reading/Construction	2
▪	CIS	110	Introduction to Computers	3
▪	CIV	230	Construction Estimating	3
▪	CMT	210	Profess. Construction Supervision	3
▪	CMT	212	Total Safety Performance	3
▪	CMT	214	Planning and Scheduling	3
▪	CMT	216	Cost and Productivity	3
▪	CMT	218	Human Relations Issues	3

■	CST	241	Planning/Estimating I	3
	ENG	102	Applied Communications II	3
			(or ENG 111 Expository Writing)	
	MAT	121	Algebra/Trigonometry I	3
■	SPA	120	Spanish for the Workplace	3
Total Semester Hours Credit:				39

■ This is a Core Course and cannot be substituted.

Certificate Programs (C35190)			
Courses			Credit Hours
Basic Certificate (C35190BA)			
BPR	130	Blueprint Reading/Construction	2
CIS	110	Introduction to Computers	3
CMT	210	Profess. Construction Supervision	3
CMT	212	Total Safety Performance	3
SPA	120	Spanish for the Workplace	3
Total Semester Hours Credit:			14
Intermediate Certificate (C35190IN)			
CMT	214	Planning and Scheduling	3
CMT	216	Cost and Productivity	3
CMT	218	Human Relations Issues	3
CST	241	Planning/Estimating I	3
Total Semester Hours Credit:			12
Project Supervision Certificate (C35190PS)			
CMT	210	Profess. Construction Supervision	3
CMT	212	Total Safety Performance	3
CMT	214	Planning and Scheduling	3
CMT	216	Cost and Productivity	3
CMT	218	Human Relations Issues	3
COE	112	Co-op Work Experience I	2
Total Semester Hours Credit:			17

2010 – 2011 Criminal Justice Technology (55180)

Program of Study

Description: 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.

Award(s): A55180 - Associate in Applied Science Degree
C55180 - Certificate Program

Additional Information: **Note: Criminal Justice employers require criminal background checks and a criminal record may prohibit employment.**

Related Programs of Study:
Basic Law Enforcement Technology (55120)
Associate in Arts Pre-Major: Criminal Justice (1010D)
Continuing Education Law Enforcement Training

Contact Information: The Criminal Justice Technology program is in the Health and Public Services Department. For additional information regarding this program, contact Program Head Spencer Rummage at (704) 216-3738 or **spencer.rummage@rccc.edu**.

Course Requirements: The following is a suggested program of study for completing this program in four semesters. Some students' programs of study may be different, depending on their enrollment status (day, evening, full-time, or part-time).

Associate in Applied Science Degree (A55180)								
			Title	Class	Lab	Clinical	Work Exp.	Credits
First Year (Fall)								
	ACA	115	Success and Study Skills	0	2	0	0	1
■	CJC	111	Introduction to Criminal Justice	3	0	0	0	3
	CJC	121	Law Enforcement Operations	3	0	0	0	3
■	CJC**	131	Criminal Law	3	0	0	0	3
	ENG	111	Expository Writing	3	0	0	0	3
	PSY	150	General Psychology	3	0	0	0	3
			Total	**15**	**2**	**0**	**0**	**16**
First Year (Spring)								
	CIS	110	Introduction to Computers	2	2	0	0	3
■	CJC	112	Criminology	3	0	0	0	3
■	CJC	113	Juvenile Justice	3	0	0	0	3
	ENG	112	Argument-Based Research	3	0	0	0	3
	SOC	210	Introduction to Sociology	3	0	0	0	3
	---	---	Major Elective*	3	0	0	0	3
			Total	**17**	**2**	**0**	**0**	**18**

Second Year (Fall)								
	CJC	141	Corrections	3	0	0	0	3
■	CJC	212	Ethics & Community Relations	3	0	0	0	3
■	CJC**	231	Constitutional Law	3	0	0	0	3
	MAT	140	Survey of Mathematics	3	0	0	0	3
			OR					
	MAT	161	College Algebra	3	0	0	0	3
			OR					
	MAT	175	Precalculus	4	0	0	0	4
	---	---	Major Elective*	0-3	0	0	0-30	3
			Total	**12-16**	**0**	**0**	**0-30**	**15-16**
Second Year (Spring)								
	CJC	132	Court Procedure & Evidence	3	0	0	0	3
	CJC	214	Victimology	3	0	0	0	3
■	CJC**	221	Investigative Principles	3	2	0	0	4
	COM	231	Public Speaking	3	0	0	0	3
			OR					
	COM	110	Introduction to Communication	3	0	0	0	3
	---	---	Humanities / Fine Arts Elective	3	0	0	0	3
			Total	**15**	**2**	**0**	**0**	**16**
Total Semester Hours Credit (SHC) in Program:								65-66

■ This is a Core Course and cannot be substituted.

Note: Criminal Justice employers require criminal background checks and a criminal record may prohibit employment.

*Major Electives:
Select 6 semester hour credits from the following courses. This may include up to 3 SHC from COE course/combination of courses:

		Title	Class	Lab	Clinical	Work Exp.	Credits
CJC	160	Terrorism: Underlying Issues	3	0	0	0	3
CJC	222	Criminalistics	3	0	0	0	3
CJC	223	Organized Crime	3	0	0	0	3
CJC	225	Crisis Intervention	3	0	0	0	3
CJC	233	Correctional Law	3	0	0	0	3
CJC	241	Community-Based Corrections	3	0	0	0	3
POL	120	American Government	3	0	0	0	3
SOC	213	Sociology of the Family	3	0	0	0	3
SPA	111	Elementary Spanish I	3	0	0	0	3
SPA	112	Elementary Spanish II	3	0	0	0	3
COE	110	World of Work	1	0	0	0	1
COE	111	Co-op Work Experience I	0	0	0	10	1
COE	112	Co-op Work Experience I	0	0	0	20	2

COE	113	Co-op Work Experience I	0	0	0	30	3
COE	121	Co-op Work Experience II	0	0	0	10	1
COE	122	Co-op Work Experience II	0	0	0	20	2
COE	131	Co-op Work Experience III	0	0	0	10	1

Certificate Program (C55180)

Courses			Credit Hours
CJC	111	Introduction to Criminal Justice	3
CJC	121	Law Enforcement Operations	3
CJC	141	Corrections	3
PSY	150	General Psychology	3
SOC	210	Introduction to Sociology	3
Total Semester Hours Credit:			15

2010 - 2011 Early Childhood Education - Transfer Program (55220TR) Program of Study - *Birth-Kindergarten - UNC-Charlotte, Catawba College and Livingstone College Transfer Program*

Description: The Early Childhood Education curriculum prepares individuals to work with children from birth through eight in diverse learning environments. Students will combine learned theories with practice in actual settings with young children under the supervision of qualified teachers. Course work includes child growth and development; physical/nutritional needs of children; care and guidance of children; and communication skills with families 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. A **criminal background check** will be required prior to students entering into EDU 284. A negative report may prevent students from participating in this required course which means that the student cannot complete the program requirements. Please contact the Director of Early Childhood Education if you have any questions. This program is designed for students who intend to transfer to UNC-Charlotte, Catawba College and Livingstone College in the Birth-Kindergarten teaching license program. Students who successfully complete this course of study and who meet the requirements for admission to UNC-Charlotte, Catawba College or Livingstone College are eligible to apply for admission to the major with junior standing. Requirements for transfer are:

- A.A.S. in Early Childhood Education (A55220TR)C
- Cumulative GPA of 2.5 or higher
- Passing scores on all three Praxis I Exams (Reading, Writing, and Mathematics). For information and registration for PRAXIS, contact www.etc.org/praxis or a counselor in Student Services.
- Grade of C or higher on EDU 119 and EDU 221

Award(s): A55220TR - Associate in Applied Science Degree

Additional Information:

Related Programs of Study:
Early Childhood Education - General Program (55220)
Infant/Toddler Care (55290)
School-Age Education - General Program (55440)
School-Age Education - Transfer Program (55440TR)
Associate in Arts Pre-Majors:
Elementary Education (1010R) Middle Grades Education (1010A) Social Science Secondary Education (1010M)

Contact Information: The Early Childhood programs are in the Health and Public Services Department. For additional information regarding this program, contact Director Sandra Novick at (704)216-3728 or **sandra.novick@rccc.edu**.

Course Requirements: The following is a suggested program of study for completing this program in five semesters. Some students' programs of study may be different, depending on their enrollment status (day, evening, full-time, or part-time).

Associate in Applied Science Degree (A55220TR)								
			Title	Class	Lab	Clinical	Work Exp.	Credits
First Year (Fall)								
■	EDU	119	Intro. to Early Childhood Education	4	0	0	0	4
■	EDU	144	Child Development I	3	0	0	0	3
■	EDU	151	Creative Activities	3	0	0	0	3
■	EDU	153	Health, Safety, & Nutrition	3	0	0	0	3
■	EDU	271	Educational Technology	2	2	0	0	3
			Total	**15**	**2**	**0**	**0**	**16**
First Year (Spring)								
■	EDU	145	Child Development II	3	0	0	0	3
■	EDU	146	Child Guidance	3	0	0	0	3
	EDU	162	Observation and Assessment	3	0	0	0	3
	ENG	111	Expository Writing	3	0	0	0	3
	---	---	Humanities/Fine Arts Elective	3	0	0	0	3
			Total	**15**	**0**	**0**	**0**	**15**
First Year (Summer)								
	PSY	150	General Psychology	3	0	0	0	3
	ENG	112	Argument-Based Research	3	0	0	0	3
			OR					
	ENG	113	Literature-Based Research	3	0	0	0	3
			Total	**6**	**0**	**0**	**0**	**6**

Second Year (Fall)								
■	EDU	221	Children with Exceptionalities	3	0	0	0	3
	EDU	251	Exploration Activities	3	0	0	0	3
	EDU	259	Curriculum Planning	3	0	0	0	3
■	EDU	280	Language & Literacy Experiences	3	0	0	0	3
	MAT	140	Survey of Mathematics	3	0	0	0	3
			Total	**15**	**0**	**0**	**0**	**15**
Second Year (Spring)								
■	EDU	131	Children, Family, & Community	3	0	0	0	3
	EDU	234	Infants, Toddlers, & Twos	3	0	0	0	3
■	EDU	284	Early Childhood Capstone Practicum	1	9	0	0	4
	COM	231	Public Speaking	3	0	0	0	3
	BIO	111	General Biology I	3	3	0	0	4
			OR					
	BIO	140	Environmental Biology	3	0	0	0	3
			Total	**13**	**9-12**	**0**	**0**	**16-17**
Total Semester Hours Credit (SHC) in Program:								68-69

■ This is a Core Course and cannot be substituted.

*Students may select any of the Humanities/Fine Arts electives with the exception of any of the ENG courses.

2010 – 2011 Electrical/Electronic Technology (35220)

Program of Study

Description: The Electrical/Electronic Technology curriculum is designed to provide training for persons interested in the installation and maintenance of electrical/electronic systems found in residential, commercial, and industrial facilities. Training, most of which is hands-on, will include such topics as AC/DC theory, basic wiring practices, digital electronics, programmable logic controllers, industrial motor controls, the National Electric Code, and other subjects as local needs require. Graduates should qualify for a variety of jobs in the electrical/electronic field as an on-the-job trainee or apprentice assisting in the layout, installation, and maintenance of electrical/electronic systems.

Award(s):
A35220 - Associate in Applied Science Degree
D35220 - Diploma Program
C35220 - Certificate Programs

Contact Information: The Electrical/Electronic Technology program is in the Industrial and Engineering Technologies department. For additional information regarding this program, contact Program Head Tony Deyton at (704) 216-3916 or **tony.deyton@rccc.edu**.

Course Re Requirements: The following is a suggested program of study for completing this program in five semesters. Some students' programs of study may be different, depending on their enrollment status (day, evening, full-time, or part-time).

Associate in Applied Science Degree (A35220)								
			Title	Class	Lab	Clinical	Work Exp.	Credits
First Year (Fall)								
■	ELC	112	DC/AC Electricity	3	6	0	0	5
■	ELC	113	Basic Wiring I	2	6	0	0	4
	ELC	118	National Electrical Code	1	2	0	0	2
	ELC	126	Electrical Computations	2	2	0	0	3
			Total	**8**	**16**	**0**	**0**	**14**
First Year (Spring)								
■	CIS	110	Introduction to Computers	2	2	0	0	3
■	ELC	117	Motors & Controls	2	6	0	0	4
	ELC	125	Diagrams & Schematics	1	2	0	0	2
	ENG	111	Expository Writing	3	0	0	0	3
	---	---	Social/Behavioral Sciences Elective	3	0	0	0	3
			Total	**11**	**10**	**0**	**0**	**15**
First Year (Summer)								
■	ELC	115	Industrial Wiring	2	6	0	0	4
	ELC	119	NEC Calculations	1	2	0	0	2
■	ELC	128	Introduction to PLC	2	3	0	0	3
			Total	**5**	**11**	**0**	**0**	**9**
Second Year (Fall)								
	ELC	228	PLC Applications	2	6	0	0	4
■	ELN	131	Semiconductor Applications	3	3	0	0	4
	ENG	114	Professional Research & Reporting	3	0	0	0	3
	MAT	121	Algebra/Trigonometry I	2	2	0	0	3
	---	---	Major Elective*	0-2	0-3	0	0-30	2
			Total	**10-12**	**11-14**	**0**	**0-30**	**16**
Second Year (Spring)								
	ELC	215	Electrical Maintenance	2	3	0	0	3
	ELN	133	Digital Electronics	3	3	0	0	4
	MAT	122	Algebra/Trigonometry II	2	2	0	0	3
	---	---	Humanities/Fine Arts Elective	3	0	0	0	3
	---	---	Major Elective*	0-2	0-3	0-3	0-30	2
			Total	**10-12**	**8-11**	**0-3**	**0-30**	**15**
Total Semester Hours Credit (SHC) in Program:								69

■ This is a Core Course and cannot be substituted.

*Major Electives:
Select 4 semester hour credits from the following courses. This may include up to 4 SHC from COE course/combination of courses.

		Title	Class	Lab	Clinical	Work Exp.	Credits
DFT	151	CAD I	2	3	0	0	3
ELN	150	CAD for Electronics	1	3	0	0	2
ISC	112	Industrial Safety	2	0	0	0	2
COE	111	Co-op Work Experience I	0	0	0	10	1

COE	112	Co-op Work Experience I	0	0	0	20	2
COE	113	Co-op Work Experience I	0	0	0	30	3
COE	121	Co-op Work Experience II	0	0	0	10	1
COE	122	Co-op Work Experience II	0	0	0	20	2
COE	131	Co-op Work Experience III	0	0	0	10	1

- This is a Core Course and cannot be substituted.

Diploma Program (D35220)

Courses				Credit Hours
	CIS	110	Introduction to Computers	3
	ENG	102	Applied Communications II	3
■	ELC	112	DC/AC Electricity	5
	ELC	113	Basic Wiring I	4
■	ELC	115	Industrial Wiring	4
■	ELC	117	Motors & Controls	4
	ELC	118	National Electrical Code	2
	ELC	119	NEC Calculations	2
	ELC	125	Diagrams & Schematics	2
	ELC	126	Electrical Computations	3
	ELC	128	Introduction to PLC	3
	PSY	101	Applied Psychology	3
Total Semester Hours Credit:				38

- This is a Core Course and cannot be substituted.

Certificate Programs (C35220)

Courses			Credit Hours
Industrial Motor Control Certificate (C35220MO)			
ELC	112	DC/AC Electricity	5
ELC	117	Motors & Controls	4
ELC	125	Diagrams & Schematics	2
ELC	126	Electrical Computations	3
ELC	128	Introduction to PLC	3
Total Semester Hours Credit:			17
Wiring and the NEC Certificate (C35220NE)			
ELC	113	Basic Wiring I	4
ELC	115	Industrial Wiring	4
ELC	118	National Electrical Code	2
ELC	119	NEC Calculations	2
Total Semester Hours Credit:			12

2010 – 2011 Electronics Engineering Technology (40200)
Program of Study

Description: The Electronics Engineering Technology curriculum prepares individuals 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. A broad-based core of courses, including basic electricity, solid-state fundamentals, digital concepts, and microprocessors, ensures the student will develop the skills necessary to perform entry-level tasks. Emphasis is placed on developing the student's ability to analyze and troubleshoot electronic systems. Graduates should qualify for employment as engineering assistants or electronic technicians with job titles such as electronics engineering technician, field service technician, maintenance technician, electronic tester, electronic systems integrator, bench technician, and production control technician.

Award(s): A40200 - Associate in Applied Science Degree

Additional Information: Students who desire to pursue a BS degree in any engineering technology field are strongly recommended to:

- Substitute MAT 175 for MAT 121,
- Select SOC 210 and HUM 211 for the Social/Behavioral Sciences/ Humanities/Fine Arts Elective
- Substitute PHY 151/152 for PHY 131/132

Contact Information: The Electronics Engineering Technology program is in the Industrial and Engineering Technologies department. For additional information regarding this program, contact Program Head Michele Chance at (704) 216-3905 or **michelle.chance@rccc.edu**.

Course Requirements: The following is a suggested program of study for completing this program in five semesters. Some students' programs of study may be different, depending on their enrollment status (day, evening, full-time, or part-time).

Associate in Applied Science Degree (A40200)								
			Title	Class	Lab	Clinical	Work Exp.	Credits
First Year (Fall)								
	CIS	110	Introduction to Computers	2	2	0	0	3
■	ELC	138	DC Circuit Analysis	2	3	0	0	3
■	ELC	139	AC Circuit Analysis	2	3	0	0	3
	ELN	150	CAD for Electronics	1	3	0	0	2
	EGR	131	Intro to Electronics Tech	1	2	0	0	2
			Total	**7**	**13**	**0**	**0**	**13**
First Year (Spring)								
■	ELN	131	Semiconductor Applications	3	3	0	0	4
■	ELN	133	Digital Electronics	3	3	0	0	4
	ENG	111	Expository Writing	3	0	0	0	3

	MAT	121	Algebra/Trigonometry I	2	2	0	0	3
	---	---	Humanities/Fine Arts Elective	3	0	0	0	3
			Total	**14**	**8**	**0**	**0**	**17**
First Year (Summer)								
	ELN	132	Linear IC Applications	3	3	0	0	4
■	ELN	232	Introduction to Microprocessors	3	3	0	0	4
	---	---	Social/Behavioral Sciences Elective	3	0	0	0	3
			Total	**9**	**6**	**0**	**0**	**11**
Second Year (Fall)								
	CSC	134	C++ Programming	2	3	0	0	3
	ELN	229	Industrial Electronics	2	4	0	0	4
	ELN	234	Communication Systems	3	3	0	0	4
	MAT	122	Algebra/Trigonometry II	2	2	0	0	3
	PHY	131	College Physics - Mechanics	3	2	0	0	4
			Total	**13**	**13**	**0**	**0**	**18**
Second Year (Spring)								
	EGR	285	Design Project	0	4	0	0	2
	ELN	135	Electronic Circuits	2	3	0	0	3
	ENG	114	Professional Research & Reporting	3	0	0	0	3
	PHY	132	Physics – Electricity & Magnetism	3	2	0	0	4
	---	---	Major Elective*	0-2	0-3	0	0-30	3
			Total	**8-10**	**9-12**	**0**	**0-30**	**15**
Total Semester Hours Credit (SHC) in Program:								73

■ This is a Core Course and cannot be substituted.

*Major Electives:
Select 3 semester hour credits from the following courses. This may include up to 3 SHC from COE course/combination of courses.

		Title	Class	Lab	Clinical	Work Exp.	Credits
ALT	120	Renewable Energy Tech	2	2	0	0	3
COE	111	Co-op Work Experience I	0	0	0	10	1
COE	112	Co-op Work Experience I	0	0	0	20	2
COE	113	Co-op Work Experience I	0	0	0	30	3
COE	121	Co-op Work Experience II	0	0	0	10	1
COE	122	Co-op Work Experience II	0	0	0	20	2
COE	131	Co-op Work Experience III	0	0	0	10	1
ELC	128	Introduction to PLC	2	3	0	0	3

2010 – 2011 Fire Protection Technology (55240)

Program of Study

*** PENDING SACS APPROVAL ***

Description: The Fire Protection Technology curriculum is designed to provide individuals with technical and professional knowledge to make decisions regarding fire protection for both public and private sectors. It also provides a sound foundation for continuous higher learning in fire protection, administration, and management.

Coursework includes classroom and laboratory exercises to introduce the student to various aspects of fire protection. Students will learn technical and administrative skills such as hydraulics, hazardous materials, arson investigation, fire protection safety, fire suppression management, law, and codes. Graduates should qualify for employment or advancement in governmental agencies, industrial firms, insurance rating organizations, educational organizations, and municipal fire departments. Employed persons should have opportunities for skilled and supervisory-level positions within their current organizations.

Award(s): A55240 - Associate in Applied Science Degree

Contact Information: The Fire Protection Technology program is in the Industrial and Engineering Technologies department. For additional information regarding this program, contact Program Head Franklin Merrell at 704-216-3920 or franklin.merrell@rccc.edu.

Course Requirements: The following is a suggested program of study for completing this program in five semesters. Some students' programs of study may be different, depending on their enrollment status (day, evening, full-time, or part-time).

Associate in Applied Science Degree (A55240)								
			Title	Class	Lab	Clinical	Work Exp.	Credits
First Year (Fall)								
	CIS	110	Introduction to Computers	2	2	0	0	3
	ENG	111	Expository Writing	3	0	0	0	3
■	FIP	120	Introduction to Fire Protection	3	0	0	0	3
■	FIP	128	Detection & Investigation	3	0	0	0	3
	MAT	121	Algebra/Trigonometry I	2	2	0	0	3
			OR					
	MAT	161	College Algebra	3	0	0	0	3
			Total	**13-14**	**2-4**	**0**	**0**	**15**
First Year (Spring)								
	ENG	114	Professional Research & Reporting	3	0	0	0	3
■	FIP	124	Fire Prevention & Public Education	3	0	0	0	3
■	FIP	132	Building Construction	3	0	0	0	3
	FIP	136	Inspections & Codes	3	0	0	0	3
	MAT	122	Algebra/Trigonometry II	2	2	0	0	3
			OR					
	MAT	151	Statistics I *AND*	3	0	0	0	3
	MAT	151A	Statistics I - Lab	0	2	0	0	1
			Total	**14-15**	**2**	**0**	**0**	**15-16**
First Year (Summer)								
	FIP	164	OSHA Standards	3	0	0	0	3
			OR					
	FIP	229	Fire Dynamics & Combustibles	3	0	0	0	3
	--	--	Major Electives*	2-10	0-6	0	10-30	1-10

			Total	**5-13**	**0-6**	**0**	**0-30**	**4-13**
Second Year (Fall)								
	FIP	140	Industrial Fire Protection	3	0	0	0	3
	FIP	152	Fire Protection Law	3	0	0	0	3
	FIP	230	Chemistry of Hazardous Materials I	5	0	0	0	5
	SOC	210	Introduction to Sociology	3	0	0	0	3
	--	--	Humanities/Fine Arts Elective	2-3	0-2	0	0	3
			Total	**16-17**	**0-2**	**0**	**0**	**17**
Second Year (Spring)								
■	FIP	220	Fire Fighting Strategies	3	0	0	0	3
	FIP	276	Managing Fire Services	3	0	0	0	3
	--	--	Major Electives*	2-10	0-6	0	10-30	1-10
			Total	**8-16**	**0-6**	**0**	**0-30**	**7-16**
Total Semester Hours Credit (SHC) in Program:								66-67

■ This is a Core Course and cannot be substituted.

*Major Electives:
Select a minimum of 12 semester hour credits (SHC) from the following electives (this may include up to 3 SHC from COE course/combination of courses):

		Title	Class	Lab	Clinical	Work Exp.	Credits
FIP	164	OSHA Standards	3	0	0	0	3
FIP	176	Haz-Mat: Operations	4	0	0	0	4
FIP	224	Instructional Methodology	4	0	0	0	4
FIP	229	Fire Dynamics & Combustibles	3	0	0	0	3
FIP	232	Hydraulic & Water Distribution	2	2	0	0	3
FIP	236	Emergency Management	3	0	0	0	3
FIP	264	Flame Prop & Mat. Rating	4	0	0	0	4
PHY	151	College Physics I*	3	2	0	0	4
PHY	152	College Physics II*	3	2	0	0	4
POL	110	Introduction to Political Science	3	0	0	0	3
COE	111	Co-op Work Experience I	0	0	0	10	1
COE	112	Co-op Work Experience I	0	0	0	20	2
COE	113	Co-op Work Experience I	0	0	0	30	3
COE	121	Co-op Work Experience II	0	0	0	10	1
COE	122	Co-op Work Experience II	0	0	0	20	2
COE	131	Co-op Work Experience III	0	0	0	10	1

If you plan to transfer to UNCC's Fire Safety Engineering Technology Program: Select FIP 229, Fire Dynamics and Combustibles, not FIP 164, OSHA Standards. Select the following electives (only 12 SHC of electives are required for RCCC's A55240 degree): FIP 232, Hydraulic & Water distribution, 3 SHC; FIP 264, Flame Prop & Mat Rating, 4 SHC; PHY 151, College Physics I, 4 SHC; PHY 152, College Physics II, 4 SHC; POL 110, Introduction to Political Science, 3 SHC *If PHY 151 and PHY 152 are selected for electives, MAT 151/151A and MAT 161 must be selected, not MAT 121 and MAT 122.

2010 – 2011 Industrial Engineering Technology (40240)
Program of Study

Description: The Industrial Engineering Technology curriculum prepares graduates to perform as technical leaders in manufacturing and service organizations. The curriculum incorporates the study and application of methods and techniques for developing, implementing, and improving integrated systems involving people, material, equipment, and information. The course work emphasizes analytical and problem-solving techniques for process development and improvement. The curriculum includes systems analysis, quality and productivity improvement techniques cost analysis, facilities planning, organizational management, effective communications, and computer usage as a problem-solving tool. Graduates of the curriculum should qualify for positions in a wide range of manufacturing and service organizations. Employment opportunities include industrial engineering technology, quality assurance, supervision, team leadership, and facilities management. Certification is available through organizations such as ASQ, SME, and APICS.

Award(s):
A40240 - Associate in Applied Science Degree
C40240 - Certificate Programs

Contact Information: The Industrial Engineering Technology program is in the Industrial and Engineering Technologies department. For additional information regarding this program, contact Program Head Franklin Merrell at 704-216-3920 or franklin.merrell@rccc.edu.

Course Requirements: The following is a suggested program of study for completing this program in five semesters. Some students' programs of study may be different, depending on their enrollment status (day, evening, full-time, or part-time).

Associate in Applied Science Degree (A40240)								
			Title	Class	Lab	Clinical	Work Exp.	Credits
First Year (Fall)								
■	BUS	137	Principles of Management	3	0	0	0	3
	EGR	125	Applications Software for Technology	1	2	0	0	2
	EGR	150	Intro to Engineering	1	2	0	0	2
	ENG	111	Expository Writing	3	0	0	0	3
■	ISC	112	Industrial Safety	2	0	0	0	2
	MAT	121	Algebra/Trigonometry I	2	2	0	0	3
			OR					
	MAT	161	College Algebra	3	0	0	0	3
			Total	**12-13**	**6**	**0**	**0**	**15**
First Year (Spring)								
■	DFT	170	Engineering Graphics	2	2	0	0	3
	ENG	114	Professional Research and Reporting	3	0	0	0	3
■	ISC	136	Productivity Analysis I	2	3	0	0	3
	MAT	151	Statistics I	3	0	0	0	3
	MAT	151A	Statistics I - Lab	0	2	0	0	1

	---	---	Humanities/Fine Arts Elective	3	0	0	0	3
			Total	**13**	**7**	**0**	**0**	**16**
First Year (Summer)								
	ISC	214	Job Analysis/Wages & Salary	2	3	0	0	3
	ECO	251	Principles of Microeconomics	3	0	0	0	3
			OR					
	ECO	252	Principles of Macroeconomics	3	0	0	0	3
			Total	**5**	**3**	**0**	**0**	**6**
Second Year (Fall)								
	CIV	240	Project Management	2	3	0	0	3
■	ISC	132	Manufacturing Quality Control	2	3	0	0	3
■	ISC	243	Productivity & Operational Mgmt. I	2	3	0	0	3
	---	---	Technical Electives*	1-6	0-13	0	0-30	6
			Total	**7-12**	**9-19**	**0**	**0-30**	**15**
Second Year (Spring)								
	ISC	255	Engineering Economy	2	2	0	0	3
■	MEC	242	Value/Supply Chain Management	3	0	0	0	3
	---	---	Technical Elective*	3-9	0-10	0	0-30	9
			Total	**8-14**	**2-13**	**0**	**0-30**	**15**
Total Semester Hours Credit (SHC) in Program:								67

■ This is a Core Course and cannot be substituted.

*Technical Electives:
Select 15 semester hour credits from one of the following options. This may include up to 3 SHC from COE course/combination of courses.

		Title	Class	Lab	Clinical	Work Exp.	Credits
Biotechnology Option:							
BIO	111	General Biology I	3	3	0	0	4
BTC	181	Basic Lab Techniques *	3	3	0	0	4
BTC	281	Bioprocess Technique	2	6	0	0	4
CHM	132	Organic and Biochemistry	3	3	0	0	4
CHM	151	General Chemistry I	3	3	0	0	4
* BTC 181 is required.							
Manufacturing/Services Option:							
BUS	217	Employment Law & Regulations	3	0	0	0	3
ISC	121	Environmental Health & Safety	3	0	0	0	3
ISC	225	Facility Layout	3	2	0	0	4
ISC	237	Quality Management	2	3	0	0	3
MEC	111	Machine Processes I	1	4	0	0	3
PHY	151	College Physics I	3	2	0	0	4
Logistics/Warehousing Option:							
ISC	225	Facility Layout	3	2	0	0	4
ISC	237	Quality Management	2	3	0	0	3
OMT	240	Customers & Products	3	0	0	0	3
OMT	241	Logistics	3	0	0	0	3
OMT	243	Support Functions	3	0	0	0	3
Construction Option:							

CMT	210	Professional Construction Supervision	3	0	0	0	3
CMT	212	Total Safety Performance	3	0	0	0	3
CMT	216	Costs and Productivity	3	0	0	0	3
CST	241	Planning/Estimating I	2	2	0	0	3
MEC	251	Statics	2	2	0	0	3
Three SHC may be selected from the following COE courses:							
COE	111	Co-op Work Experience I	0	0	0	10	1
COE	112	Co-op Work Experience I	0	0	0	20	2
COE	113	Co-op Work Experience I	0	0	0	30	3
COE	121	Co-op Work Experience II	0	0	0	10	1
COE	122	Co-op Work Experience II	0	0	0	20	2
COE	131	Co-op Work Experience III	0	0	0	10	1

Students who wish to transfer to a 4-year school should select PHY 151 and select MAT 161 instead of MAT 121. For students wishing to transfer to a 4-year school such as UNCC, MAT-122, MAT-175, or MAT-271 may be substituted for a technical elective (may require extra prerequisites).

Certificate Programs (C40240)			
Courses			Credit Hours
Safety Certificate (C40240SA)			
CMT	212	Total Safety Performance	3
EGR	125	Applications Software for Technology	2
ISC	112	Industrial Safety	2
ISC	121	Environmental Health & Safety	3
ISC	225	Facility Layout	4
Total Semester Hours Credit:			14
Quality Certificate (C40240QL)			
CIV	240	Project Management	3
DFT	170	Engineering Graphics	3
EGR	125	Applications Software for Technology	2
ISC	132	Manufacturing Quality Control	3
MEC	242	Value/Supply Chain Management	3
Total Semester Hours Credit:			14
Maintenance Management Certificate (C40240MM)			
BUS	137	Principles of Management	3
DFT	170	Engineering Graphics	3
ISC	112	Industrial Safety	2
ISC	225	Facility Layout	4
MEC	111	Machine Processes I	3
Total Semester Hours Credit:			15
The following courses are not required for the certificate but may be taken to enhance the student's skills:			
CIV	240	Project Management	3
ELC	112	DC/AC Electricity	5

MEC	242	Value/Supply Chain Management	3
Bioprocess Engineering Technology Certificate (C40240BP)			
BIO	111	General Biology I	4
BTC	181	Basic Lab Techniques	4
BTC	281	Bioprocess Technique	4
ISC	112	Industrial Safety	2
ISC	132	Manufacturing Quality Control	3
Total Semester Hours Credit:			21
Production Control Certificate (C40240PC)			
CIV	240	Project Management	3
ISC	136	Productivity Analysis I	3
ISC	243	Productivity & Operational Mgmt. I	3
ISC	255	Engineering Economy	3
Electives: (select one course)			
ECO	251	Principles of Microeconomics	3
ECO	252	Principles of Macroeconomics	3
EGR	125	Applications Software for Technology	2
MEC	242	Value/Supply Chain Management	3
Total Semester Hours Credit:			14-15
Manufacturing I Certificate (C40240MF)			
DFT	170	Engineering Graphics	3
EGR	125	Applications Software for Technology	2
ISC	132	Manufacturing Quality Control	3
MEC	111	Machine Processes I	3
MEC	242	Value/Supply Chain Management	3
Total Semester Hours Credit:			14
Management Certificate (C40240MC)			
BUS	217	Employment Law & Regulations	3
CIV	240	Project Management	3
EGR	125	Applications Software for Technology	2
ISC	243	Productivity & Operational Mgmt. I	3
ISC	255	Engineering Economy	3
Electives: (select one course)			
BUS	137	Principles of Management	3
ISC	136	Productivity Analysis I	3
ISC	214	Job Analysis/Wages & Salary	3
Total Semester Hours Credit:			17
Industrial Engineering Technology (C40240IE)			

EGR	125	Applications Software for Technology	2
ISC	112	Industrial Safety	2
ISC	132	Manufacturing Quality Control	3
ISC	136	Productivity Analysis I	3
ISC	225	Facility Layout	4
MEC	242	Value/Supply Chain Management	3
Total Semester Hours Credit:			17

2010 – 2011 Infant/Toddler Care (55290)
Program of Study

Description: 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.

Award(s): C55290 - Certificate Program

Additional Information:

Related Programs of Study:
Early Childhood Education - General Program (55220)
Early Childhood Education - Transfer Program (55220TR)
School-Age Education - General Program (55440)
School-Age Education - Transfer Program (55440TR)
Associate in Arts Pre-Majors:
Elementary Education (1010R)
Middle Grades Education (1010A)
Social Science Secondary Education (1010M)

Contact Information: The Early Childhood programs are in the Health and Public Services Department. For additional information regarding this program, contact Director Sandra Novick at 704-216-3728 or **sandra.novick@rccc**.edu.

Course Requirements: See below.

Certificate Program (C55290)								
			Title	Class	Lab	Clinical	Work Exp.	Credits
Fall Semester								
■	EDU	119	Intro. to Early Childhood Education	4	0	0	0	4
■	EDU	144	Child Development I	3	0	0	0	3
■	EDU	153	Health, Safety, & Nutrition	3	0	0	0	3
			Total	**10**	**0**	**0**	**0**	**10**
Spring Semester								
■	EDU	131	Children, Family, & Community	3	0	0	0	3
■	EDU	234	Infants, Toddlers, & Twos	3	0	0	0	3
			Total	**6**	**0**	**0**	**0**	**3**
Total Semester Hours Credit (SHC) in Program:								16

■ This is a Core Course and cannot be substituted.

2010 – 2011 Machining Technology (50300)

Programs of Study

*** AAS Degree PENDING SACS APPROVAL ***

Description: The Machining Technology curriculum is designed to develop skills in the theory and safe use of hand tools, power machinery, computerized equipment, and sophisticated precision inspection instruments. Students will learn to interpret blueprints, set up manual and CNC machines, perform basic and advanced machining operations, and make decisions to ensure that work quality is maintained. Employment opportunities for machining technicians exist in manufacturing industries, public institutions, governmental agencies, and in a wide range of specialty machining job shops.

Award(s):
A50300 - Associate in Applied Science Degree
D50300 - Diploma Program
C50300 - Certificate Programs

Contact Information: The Machining Technology program is in the Industrial and Engineering Technologies department. For additional information regarding this program, contact Program Head Jerry Hunt at 704-216-3915 or **jerry.hunt@rccc.edu**.

Course Requirements: The following is a suggested program of study for completing this program in five semesters. Some students' programs of study may be different, depending on their enrollment status (day, evening, full-time, or part-time).

Associate in Applied Science Degree (A50300)

			Title	Class	Lab	Clinical	Work Exp.	Credits
First Year (Fall)								
■	MAC	111	Machining Technology I	2	12	0	0	6
■	BPR	111	Blueprint Reading	1	2	0	0	2
	MAC	114	Introduction to Metrology	2	0	0	0	2
	MAC	151	Machining Calculations	1	2	0	0	2
	MEC	142	Physical Metallurgy	1	2	0	0	2
			Total	**7**	**18**	**0**	**0**	**14**
First Year (Spring)								
■	MAC	112	Machining Technology II	2	12	0	0	6
■	BPR	121	Blueprint Reading: Mechanical	1	2	0	0	2
■	MAC	122	CNC Turning	1	3	0	0	2
	MAC	152	Advanced Machining Calculations	1	2	0	0	2
■	MAC	124	CNC Milling	1	3	0	0	2
	MEC	110	Intro to CAD/CAM	1	2	0	0	2
			Total	**7**	**24**	**0**	**0**	**16**
First Year (Summer)								
	ISC	113	Industrial Specifications	1	0	0	0	1
■	MAC	113	Machining Technology III	2	12	0	0	6
	MAC	224	Advanced CNC Milling	1	3	0	0	2
	MEC	231	Comp-Aided Manufacturing I	2	3	0	0	3
			Total	**6**	**18**	**0**	**0**	**12**
Second Year (Fall)								
	ENG	111	Expository Writing	3	0	0	0	3
	MAC	222	Advanced CNC Turning	1	3	0	0	2
	MAT	121	Algebra & Trigonometry	2	2	0	0	3
	MEC	232	Comp-Aided Manufacturing II	2	3	0	0	3
	---	---	Social/Behavioral Sciences Elective	3	0	0	0	3
			Total	**11**	**8**	**0**	**0**	**14**
Second Year (Spring)								
	ENG	114	Professional Research & Reporting	3	0	0	0	3
			OR					
	COM	231	Public Speaking	3	0	0	0	3
	---	---	Technical Electives*	2	12	0	0	6
	---	---	Humanities/Fine Arts Elective	3	0	0	0	3
			Total	**8**	**12**	**0**	**0**	**12**
Total Semester Hours Credit (SHC) in Program:								68

■ This is a Core Course and cannot be substituted.

*Technical Electives:

		Title	Class	Lab	Clinical	Work Exp.	Credits
MAC	214	Machining Technology IV	2	12	0	0	6
MAC	229	CNC Programming	2	0	0	0	2
MAC	233	Applications in CNC Machining	2	12	0	0	6
MAC	248	Production Procedures	1	2	0	0	2
WLD	112	Basic Welding	1	3	0	0	2

Diploma Program (D50300)

			Title	Class	Lab	Clinical	Work Exp.	Credits
Fall Semester								
■	MAC	111	Machining Technology I	2	12	0	0	6
■	BPR	111	Blueprint Reading	1	2	0	0	2
	MAC	114	Introduction to Metrology	2	0	0	0	2
	MAC	151	Machining Calculations	1	2	0	0	2
	MEC	142	Physical Metallurgy	1	2	0	0	2
			Total	**7**	**18**	**0**	**0**	**14**
Spring Semester								
■	MAC	112	Machining Technology II	2	12	0	0	6
■	BPR	121	Blueprint Reading: Mechanical	1	2	0	0	2
■	MAC	122	CNC Turning	1	3	0	0	2
	MAC	152	Advanced Machining Calculations	1	2	0	0	2
■	MAC	124	CNC Milling	1	3	0	0	2
			Total	**6**	**22**	**0**	**0**	**14**
Summer Term								
	CIS	110	Introduction to Computers	2	2	0	0	3
	ENG	111	Expository Writing	3	0	0	0	3
■	MAC	113	Machining Technology III	2	12	0	0	6
			Total	**7**	**14**	**0**	**0**	**12**
Total Semester Hours Credit (SHC) in Program:								40

■ This is a Core Course and cannot be substituted.

Certificate Programs (C50300)

Courses			Credit Hours
Basic Certificate (C50300BA)			
BPR	111	Blueprint Reading	2
MAC	111	Machine Technology I	6
MAC	114	Introduction to Metrology	2
MAC	151	Machining Calculations	2
Total Semester Hours Credit:			12
Basic CNC Certificate (C50300CN)			
BPR	111	Blueprint Reading	2
MAC	114	Introduction to Metrology	2
MAC	122	CNC Turning	2
MAC	124	CNC Milling	2
MEC	110	Intro to CAD/CAM	2
MEC	142	Physical Metallurgy	2
Total Semester Hours Credit:			12
Conventional Machining Certificate (C50300CM)			
MAC	111	Machine Technology I	6

MAC	112	Machining Technology II	6
MAC	113	Machining Technology III	6
Total Semester Hours Credit:			18
CNC Operator Certificate (C50300OP)			
BPR	111	Blueprint Reading	2
MAC	111	Machine Technology I	6
MAC	114	Introduction to Metrology	2
MAC	122	CNC Turning	2
MAC	124	CNC Milling	2
MEC	110	Intro to CAD/CAM	2
Total Semester Hours Credit:			16
CAM Certificate (C50300CA)			
MAC	122	CNC Turning	2
MAC	124	CNC Milling	2
MEC	110	Intro to CAD/CAM	2
MEC	231	Computer-Aided Manufacturing I	3
MEC	232	Computer-Aided Manufacturing II	3
Total Semester Hours Credit:			12

2010 – 2011 Mechanical Drafting Technology (50340)

Program of Study

Description: The Mechanical Drafting Technology curriculum prepares technicians to produce drawings of mechanical parts, components of mechanical systems, and mechanisms. CAD and the importance of technically correct drawings and designs based on current standards are emphasized. Course work includes mechanical drafting, CAD, and proper drawing documentation. Concepts such as machine shop processes, basic materials, and physical sciences as they relate to the design process are also included. The use of proper dimensioning and tolerance techniques is stressed. Graduates should qualify for employment in mechanical areas such as manufacturing, fabrication, research and development, and service industries.

Award(s): D50340- Diploma Program
C50340- Certificate Program

Contact Information: The Mechanical Drafting Technology program is in the Industrial and Engineering Technologies department. For additional information regarding this program, contact Program Head George Barringer at 704-216-3901 **george.barringer@rccc.edu**.

Course

Requirements: See below.

Diploma Program (D50340)								
			Title	Class	Lab	Clinical	Work Exp.	Credits
First Year (Fall)								
	CIS	110	Introduction to Computers	2	2	0	0	3
■	DFT	111	Technical Drafting I	1	3	0	0	2
	DFT	111A	Technical Drafting I - Lab	0	3	0	0	1
■	DFT	151	CAD I	2	3	0	0	3
	MAT	121	Algebra/Trigonometry I	2	2	0	0	3
	MEC	111	Machine Processes I	1	4	0	0	3
			Total	**8**	**17**	**0**	**0**	**15**
First Year (Spring)								
■	DFT	112	Technical Drafting II	1	3	0	0	2
	DFT	112A	Technical Drafting II - Lab	0	3	0	0	1
	DFT	121	Intro. to Geometric Dimen. & Tol.	1	2	0	0	2
■	DFT	152	CAD II	2	3	0	0	3
	ENG	111	Expository Writing	3	0	0	0	3
	MAC	122	CNC Turning	1	3	0	0	2
	MAC	124	CNC Milling	1	3	0	0	2
			Total	**9**	**17**	**0**	**0**	**15**
First Year (Summer)								
	DDF	211	Design Process I	1	6	0	0	4
	DFT	153	CAD III	2	3	0	0	3
			Total	**3**	**9**	**0**	**0**	**7**
Total Semester Hours Credit (SHC) in Program:								37

■ This is a Core Course and cannot be substituted.

Certificate Program (C50340)			
Courses			Credit Hours
DFT	111	Technical Drafting I	2
DFT	111A	Technical Drafting I - Lab	1
DFT	112	Technical Drafting II	2
DFT	112A	Technical Drafting II - Lab	1
DFT	151	CAD I	3
DFT	152	CAD II	3
Total Semester Hours Credit:			12

2010 – 2011 Mechanical Engineering Technology (40320)
Program of Study

Description: The Mechanical Engineering Technology curriculum prepares graduates for employment as technicians in the diversified mechanical and manufacturing engineering fields. Mechanical Engineering technicians assist in design, development, testing, process design and improvement, and troubleshooting and repair of engineered systems. Emphasis is placed on the integration of theory and hands-on application of engineering principles. In addition to course work in engineering graphics, engineering fundamentals, materials and manufacturing processes, mathematics, and physics, students will study 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.

Award(s): A40320- Associate in Applied Science Degree

Contact Information: The Mechanical Drafting Technology program is in the Industrial and Engineering Technologies department. For additional information regarding this program, contact Program Head George Barringer at 704-216-3901 or **barringerg@rccc.edu**.

Course Requirements: The following is a suggested program of study for completing this program in five semesters. Some students' programs of study may be different, depending on their enrollment status (day, evening, full-time, or part-time).

Associate in Applied Science Degree (A40320)								
			Title	Class	Lab	Clinical	Work Exp.	Credits
First Year (Fall)								
	DFT	111	Technical Drafting I	1	3	0	0	2
	DFT	111A	Technical Drafting I - Lab	0	3	0	0	1
■	DFT	151	CAD I	2	3	0	0	3
■	MAC	114	Metrology	2	0	0	0	2
	MAT	121	Algebra/Trigonometry I	2	2	0	0	3
			OR					
	MAT	161	College Algebra	3	0	0	0	3
■	MEC	111	Machine Processes I	1	4	0	0	3
			Total	**8-9**	**13-15**	**0**	**0**	**14**
First Year (Spring)								
	CIS	110	Introduction to Computers	2	2	0	0	3
	DFT	112	Technical Drafting II	1	3	0	0	2
	DFT	112A	Technical Drafting II Lab	0	3	0	0	1
	DFT	121	Intro. to Geometric Dimen. & Tol.	1	2	0	0	2
■	DFT	152	CAD II	2	3	0	0	3
	MAT	122	Algebra/Trigonometry II	2	2	0	0	3

			OR					
	MAT	175	Pre - Calculus	4	0	0	0	4
	MEC	142	Physical Metallurgy	1	2	0	0	2
			Total	**9-11**	**15-17**	**0**	**0**	**16-17**
First Year (Summer)								
■	DDF	211	Design Process I	1	6	0	0	4
	DFT	153	CAD III	2	3	0	0	3
	PHY	131	Physics-Mechanics	3	2	0	0	4
			Total	6	11	0	0	11
Second Year (Fall)								
	ENG	111	Expository Writing	3	0	0	0	3
	MEC	275	Engineering Mechanisms	2	2	0	0	3
	---	---	Technical Elective*	Varies	Varies	0	Varies	10
			Total	**Varies**	**Varies**	**0**	**Varies**	**16**
Second Year (Spring)								
	ENG	114	Professional Research & Reporting	3	0	0	0	3
■	MEC	251	Statics	2	2	0	0	3
	---	---	Humanities/Fine Arts Elective	3	0	0	0	3
	---	---	Social/Behavioral Sciences Elective	3	0	0	0	3
			Total	**11**	**2**	**0**	**0**	**12**
Total Semester Hours Credit (SHC) in Program:								69-70

■ This is a Core Course and cannot be substituted.

*Technical Electives:
Select a minimum of 10 semester hour credits from the following electives (this may include up to 2 SHC from COE course/combination of courses):

BSET/MEET Transfer Option							
		Title	Class	Lab	Clinical	Work Exp.	Credits
CHM	151	General Chemistry I	3	3	0	0	4
CIS	115	Intro to Programming & Logic	2	2	0	0	3
CSC	134	C++Programming	2	3	0	0	3
CSC	139	Visual BASIC Programming	2	3	0	0	3
ELC	112	DC/AC Electricity	3	6	0	0	5
MAT	151	Statistics I	3	0	0	0	3
MAT	151A	Statistics I Lab	0	2	0	0	1
MAT	263	Brief Calculus	3	0	0	0	3
MAT	271	Calculus I	3	2	0	0	4
PHY	132	Physics-Electricity & Magnetism	3	2	0	0	4

Manufacturing Option							
		Title	Class	Lab	Clinical	Work Exp.	Credits
ELC	112	DC/AC Electricity	3	6	0	0	5
ELC	125	Diagrams and Schematics	1	2	0	0	2
ISC	112	Industrial Safety	2	0	0	0	2
ISC	132	Manufacturing Quality Control	2	3	0	0	3
MAC	122	CNC Turning	1	3	0	0	2
MAC	124	CNC Milling	1	3	0	0	2
WLD	110	Cutting Processes	1	3	0	0	2

WLD	115	SMAW (Stick) Plate	2	9	0	0	5
WLD	121	GMAW (MIG) FCAW/Plate	2	6	0	0	4
WLD	131	GTAW (TIG) Plate	2	6	0	0	4

Two (2) SHC may be selected from the following COE courses:

		Title	Class	Lab	Clinical	Work Exp.	Credits
COE	111	Co-op Work Experience I	0	0	0	10	1
COE	112	Co-op Work Experience I	0	0	0	20	2
COE	121	Co-op Work Experience II	0	0	0	10	1

2010 – 2011 Medical Office Administration (25310)

Program of Study

Description: This curriculum prepares individuals for employment in medical and other health-care related offices. Course work 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.

Award(s):
A25310- Associate in Applied Science Degree
D25310- Diploma Program
C25310- Certificate Program

Additional Information: This program does not certify students to be Medical Transcriptionists but does give students medical transcribing skills to transcribe medical documents.

Related Program(s) of Study:
Office Administration (25370)

Contact Information: The Medical Office Administration program is in the Information Technologies Department. For additional information regarding this program, contact Program Head Denise Askew at 704-216-3775 or **denise.askew@rccc.edu**.

Course Requirements: The following is a suggested program of study for completing this program in four semesters. Some students' programs of study may be different, depending on their enrollment status (day, evening, full-time, or part-time).

Associate in Applied Science Degree (A25310)								
			Title	Class	Lab	Clinical	Work Exp.	Credits
First Year (Fall)								
	COM	110	Introduction to Communications	3	0	0	0	3
			OR					
	COM	231	Public Speaking	3	0	0	0	3
	ENG	111	Expository Writing	3	0	0	0	3
■	OST	130	Comprehensive Keyboarding	2	2	0	0	3
	OST	136	Word Processing	2	2	0	0	3
■	OST	141	Medical Terminology I - Medical Office	3	0	0	0	3
■	OST	181	Introduction to Office Systems	2	2	0	0	3
			Total	**15**	**6**	**0**	**0**	**18**
First Year (Spring)								
	ENG	114	Professional Research & Reporting	3	0	0	0	3
■	OST	134	Text Entry & Formatting	2	2	0	0	3
■	OST	137	Office Software Applications	2	2	0	0	3
■	OST	142	Medical Terminology II – Med. Office	3	0	0	0	3
■	OST	148	Medical Coding, Billing & Insurance	3	0	0	0	3
■	OST	164	Text Editing Applications	3	0	0	0	3
			Total	**16**	**4**	**0**	**0**	**18**
Second Year (Fall)								
	ACC	115	College Accounting	3	2	0	0	4
	BIO	163	Basic Anatomy & Physiology	4	2	0	0	5
			OR					
	BIO	168	Anatomy & Physiology I	3	3	0	0	4
	OST	241	Medical Office Transcription I	1	2	0	0	2
	OST	247	CPT Coding in the Medical Office	1	2	0	0	2
	---	---	Social/Behavioral Sciences Elective	3	0	0	0	3
			Total	**11-12**	**8-9**	**0**	**0**	**15-16**
Second Year (Spring)								
■	OST	149	Medical Legal Issues	3	0	0	0	3
	OST	236	Advanced Word/Information Processing	2	2	0	0	3
	OST	242	Medical Office Transcription II	1	2	0	0	2
■	OST	243	Medical Office Simulation	2	2	0	0	3
	---	---	Humanities / Fine Arts Elective	3	0	0	0	3
	---	---	Major Elective(s)*	0-3	0-3	0	0-30	3-4
			Total	**12-15**	**4-7**	**0**	**0-30**	**17-18**
Total Semester Hours Credit (SHC) in Program:								68-70

■ This is a Core Course and cannot be substituted.

*Major Electives:
Select 3-4 semester hour credits from the following courses. This may include up to 3 SHC from COE course/combination of courses:

		Title	Class	Lab	Clinical	Work Exp.	Credits
BIO	169	Anatomy and Physiology II	3	3	0	0	4
BUS	121	Business Mathematics	2	2	0	0	3
BUS	137	Principles of Management	3	0	0	0	3
CIS	110	Introduction to Computers	2	2	0	0	3
CIS	165	Desktop Publishing I	2	2	0	0	3
OST	122	Office Computations Terms	1	2	0	0	2
OST	132	Keyboarding Skill Building	1	2	0	0	2
OST	135	Advanced Text Entry & Formatting	3	2	0	0	4
OST	165	Advanced Text Editing Applications	2	2	0	0	3
OST	184	Records Management	2	2	0	0	3
OST	244	Medical Document Production	1	2	0	0	2
OST	284	Emerging Technologies	1	2	0	0	2
OST	289	Administrative Office Management	2	2	0	0	3
COE	110	World of Work	1	0	0	0	1
COE	111	Co-op Work Experience I	0	0	0	10	1
COE	112	Co-op Work Experience I	0	0	0	20	2
COE	113	Co-op Work Experience I	0	0	0	30	3
COE	121	Co-op Work Experience II	0	0	0	10	1
COE	122	Co-op Work Experience II	0	0	0	20	2
COE	131	Co-op Work Experience III	0	0	0	10	1

Diploma Program (D25310)				
Courses				Credits Hours
	COM	110	Introduction to Communications	3
			OR	
	COM	231	Public Speaking	3
	ENG	111	Expository Writing	3
■	OST	130	Comprehensive Keyboarding	3
■	OST	134	Text Entry & Formatting	3
	OST	136	Word Processing	3
■	OST	137	Office Software Applications	3
■	OST	141	Medical Terminology I - Medical Office	3
■	OST	142	Medical Terminology II – Med. Office	3
■	OST	148	Medical Coding, Billing & Insurance	3
■	OST	149	Medical Legal Issues	3
■	OST	164	Text Editing Application	3
■	OST	181	Introduction to Office Systems	3
	OST	236	Advanced Word/Information Processing	3
■	OST	243	Medical Office Simulation	3
	OST	247	CPT Coding in the Medical Office	2
Total Semester Hours Credit:				44

- This is a Core Course and cannot be substituted.

Certificate Program (C25310)			
Courses			Credit Hours
OST	130	Comprehensive Keyboarding	3
OST	134	Text Entry & Formatting	3
OST	141	Medical Terminology I - Medical Office	3
OST	142	Medical Terminology II – Medical Office	3
OST	149	Medical Legal Issues	3
Total Semester Hours Credit:			15

2010 – 2011 Motorsports Management Technology (60270)

Program of Study

Description: The Motorsports Management Technology curriculum is designed to provide students with the knowledge and skills necessary to perform mid-management level functions in motorsports-related companies. Course work includes instruction in general studies, motorsports, fundamentals, principles of management, computer applications, accounting, business mathematics, marketing, advertising and sales promotion, and human relations. Graduates should qualify for employment/advancement in jobs related to management of motorsports teams/events/activities, as well as production and distribution of motorsports products and services.

Award(s):
A60270- Associate in Applied Science Degree
C60270- Certificate Program

Additional Information: Students who desire to pursue a BS degree in Manufacturing Systems, Motorsports, through North Carolina A&T State University, are strongly recommended to take MAT 161 for the Math/Natural Sciences elective and either (a) CHM 151 or (b) PHY 151 as an approved substitution for an elective.

Contact Information: The Motorsports Management Technology program is in the Industrial and Engineering Technologies department. For additional information regarding this program, contact Program Head Richmond Gage at 704-216-3918 or richmond.gage@rccc.edu.

Course Requirements: The following is a suggested program of study for completing this program in five semesters. Some students' programs of study may be different, depending on their enrollment status (day, evening, full-time, or part-time).

Associate in Applied Science Degree (A60270)								
			Title	Class	Lab	Clinical	Work Exp.	Credits
First Year (Fall)								
■	BUS	137	Principles of Management	3	0	0	0	3
	CIS	110	Introduction to Computers	2	2	0	0	3
	ENG	111	Expository Writing	3	0	0	0	3
■	MSM	110	Intro. to Motorsports Management	3	0	0	0	3
■	MSM	112	Engine/Drivetrain Fundamentals	1	2	0	0	2
			Total	**12**	**4**	**0**	**0**	**14**
First Year (Spring)								
	BUS	121	Business Mathematics	2	2	0	0	3
	CTS	130	Spreadsheet	2	2	0	0	3
	ENG	114	Professional Research & Reporting	3	0	0	0	3
■	MSM	216	Organization Mobility	2	0	0	0	2
	---	---	Mathematics/Natural Science Elective*	2-4	0-2	0	0	3-4
			Total	**11-13**	**4-6**	**0**	**0**	**14-15**
First Year (Summer)								
	---	---	Major Elective**	0-3	0-3	0	0-20	3
	---	---	Major Elective**	0-3	0-3	0	0-20	3
	---	---	Humanities/Fine Arts Elective	3	0	0	0	3
			Total	**3-9**	**0-6**	**0**	**0-20**	**9**
Second Year (Fall)								
	BUS	280	REAL Small Business	4	0	0	0	4
■	MSM	210	Motorsports Marketing	3	0	0	0	3
■	MSM	212	Chassis/Handling Fundamentals	2	2	0	0	3
	---	---	Social/Behavioral Sciences Elective	3	0	0	0	3
	---	---	Major Elective**	0-3	0-3	0	0-20	3
			Total	**12-15**	**2-5**	**0**	**0-20**	**16**
Second Year (Spring)								
	ACC	120	Principles of Financial Accounting	3	2	0	0	4
	BUS	253	Leadership & Management Skills	3	0	0	0	3
	COM	231	Public Speaking	3	0	0	0	3
■	MSM	214	Fabrication Fundamentals	1	2	0	0	2
■	MSM	218	Safety/Environment	2	0	0	0	2
			Total	**12**	**4**	**0**	**0**	**14**
Total Semester Hours Credit (SHC) in Program:								67-68

■ This is a Core Course and cannot be substituted.

*Mathematics/Natural Sciences Electives: Select 3-4 semester hour credits from the following.

		Title	Class	Lab	Clinical	Work Exp.	Credits
BIO	140	Environmental Biology	3	0	0	0	3
		OR					
PHY	110	Conceptual Physics	3	0	0	0	3
		OR					
MAT	140	Survey of Mathematics	3	0	0	0	3

		OR					
MAT	121	Algebra/Trigonometry I	2	2	0	0	3
		OR					
MAT	161	College Algebra	3	0	0	0	3
		OR					
MAT	175	Pre-Calculus	4	0	0	0	4

For students who choose a Natural Sciences elective, the requirement for meeting basic mathematical computation skills must be met. This can be accomplished by receiving an acceptable score on the basic math section of the placement test or successfully completing MAT 060.

**Major Electives:
Select 9 semester hour credits from the following courses. This may include up to 2 SHC from COE course/combination of courses:

		Title	Class	Lab	Clinical	Work Exp.	Credits
BUS	115	Business Law I	3	0	0	0	3
BUS	153	Human Resource Management	3	0	0	0	3
BUS	240	Business Ethics	3	0	0	0	3
BUS	260	Business Communication	3	0	0	0	3
JOU	110	Introduction to Journalism	3	0	0	0	3
MKT	220	Advertising and Sales Promotion	3	0	0	0	3
MSM	220	Advanced Chassis Analysis	1	2	0	0	2
MSM	285	Motorsports Capstone Project	1	3	0	0	2
PHY	151	College Physics I	3	2	0	0	4
WLD	112	Basic Welding Process	1	3	0	0	2
COE	110	World of Work	1	0	0	0	1
COE	111	Co-op Work Experience I	0	0	0	10	1
COE	112	Co-op Work Experience I	0	0	0	20	2
COE	121	Co-op Work Experience II	0	0	0	10	1

Certificate Program (C60270)			
Courses			Credit Hours
MSM	110	Intro. to Motorsports Management	3
MSM	112	Engine/Drivetrain Fundamentals	2
Select eight (8) hours from the following courses:			
CIS	110	Introduction to Computers	3
COE	111	Co-op Work Experience I	1
COE	112	Co-op Work Experience I	2
MSM	212	Chassis/Handling Fundamentals	3
MSM	214	Fabrication Fundamentals	2
MSM	216	Organization Mobility	2
MSM	218	Safety/Environment	2
MSM	210	Motorsports Marketing	3
MSM	220	Advanced Chassis Analysis	2
WLD	112	Basic Welding Process	2
Total Semester Hours Credit:			13

2010 – 2011 Networking Technology (25340)
Program of Study

Description: 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.

Award(s):
A25340- Associate in Applied Science Degree
D25340- Diploma Program
C25340- Certificate Programs

Additional Information:

Related Program(s) of Study:
Computer Information Technology (25260)
Computer Programming (25130)
Information Systems Security (25270)
Web Technologies (25290)

Contact Information: The Networking Technology program is in the Information Technologies Department. For additional information regarding this program, contact Program Head John Brand at 704-216-3751 or **john.brand@rccc.edu**.

Course Requirements: The following is a suggested program of study for completing this program in five semesters. Some students' programs of study may be different, depending on their enrollment status (day, evening, full-time, or part-time).

Associate in Applied Science Degree (A25340)								
			Title	Class	Lab	Clinical	Work Exp.	Credits
First Year (Fall)								
■	CIS	110	Introduction to Computers	2	2	0	0	3
	ENG	111	Expository Writing	3	0	0	0	3
■	NET	125	Networking Basics	1	4	0	0	3
■	NET	126	Routing Basics	1	4	0	0	3
■	NOS	110	Operating System Concepts	2	3	0	0	3
			Total	**8**	**13**	**0**	**0**	**15**
First Year (Spring)								
	ENG	114	Professional Research & Reporting	3	0	0	0	3

■	NET	225	Routing & Switching I	1	4	0	0	3
■	NET	226	Routing & Switching II	2	4	0	0	3
■	NOS	130	Windows Single User	2	2	0	0	3
■	NOS	230	Windows Administration I	2	2	0	0	3
			Total	**9**	**12**	**0**	**0**	**15**
First Year (Summer)								
■	BUS	110	Introduction to Business	3	0	0	0	3
	---	---	Humanities/Fine Arts Elective	3	0	0	0	3
			Total	**6**	**0**	**0**	**0**	**6**
Second Year (Fall)								
■	CIS	115	Introduction to Programming & Logic	2	3	0	0	3
■	NOS	120	Linux/UNIX Single User	2	2	0	0	3
■	SEC	110	Security Concepts	3	0	0	0	3
	---	---	Social/Behavioral Science Elective	3	0	0	0	3
	---	---	Major Elective*	0-5	0-5	0	0-40	6
			Total	10-15	5-10	0	0-40	18
Second Year (Spring)								
■	CTS	120	Hardware/Software Support	2	3	0	0	3
■	DBA	110	Database Concepts	2	3	0	0	3
■	NET	289	Networking Project	1	4	0	0	3
	MAT	115	Mathematical Models	2	2	0	0	3
			OR					
	MAT	140	Survey of Mathematics	3	0	0	0	3
			OR					
	MAT	161	College Algebra	3	0	0	0	3
	---	---	Major Elective*	0-3	0-3	0	0-40	3
			Total	**7-11**	**10-15**	**0**	**0-40**	**15**
Total Semester Hours Credit (SHC) in Program:								69

■ This is a Core Course and cannot be substituted.

*Major Electives:
Select 9 semester hour credits from the following courses. This may include up to 4 SHC from COE course/combination of courses:

		Title	Class	Lab	Clinical	Work Exp.	Credits
CTS	210	Computer Ethics	3	0	0	0	3
CTS	220	Advanced Hardware/Software Support	2	3	0	0	3
NET	175	Wireless Technology	2	2	0	0	3
NOS	231	Windows Administration II	2	2	0	0	3
SEC	160	Secure Administration I	2	2	0	0	3
SEC	210	Intrusion Detection	2	2	0	0	3
COE	110	World of Work	1	0	0	0	1
COE	111	Co-Op Work Experience I	0	0	0	10	1

COE	112	Co-Op Work Experience I	0	0	0	20	2
COE	113	Co-Op Work Experience I	0	0	0	30	3
COE	114	Co-Op Work Experience I	0	0	0	40	3
COE	121	Co-Op Work Experience II	0	0	0	10	1
COE	122	Co-Op Work Experience II	0	0	0	20	2
COE	123	Co-Op Work Experience II	0	0	0	30	3
COE	131	Co-Op Work Experience III	0	0	0	10	1
COE	211	Co-Op Work Experience IV	0	0	0	10	1

Diploma Program (D25340)				
Courses				Credits Hours
■	CIS	110	Introduction to Computers	3
■	CTS	120	Hardware/Software Support	3
	CTS	220	Advanced Hardware/Software Support	3
	ENG	111	Expository Writing	3
■	NET	125	Networking Basics	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
	---	---	Major Elective*	3
■	NET	126	Routing Basics	3
■	NET	225	Routing & Switching I	3
■	NET	226	Routing & Switching II	3
■	SEC	110	Security Concepts	3
Total Semester Hours Credit:				42

■ This is a Core Course and cannot be substituted.

A diploma offered for this program must have a minimum of 12 SHC extracted from the core courses of the AAS degree. 12 SHC of these courses cannot be substituted.

Certificate Programs (C25340)			
Courses			Credit Hours
Networking -- Microsoft Track Certificate (C25340MS)			
CIS	110	Introduction to Computers	3
NOS	110	Operating System Concepts	3
NOS	130	Windows Single User	3
NOS	230	Windows Administration I	3
NOS	231	Windows Administration II	3
Total Semester Hours Credit:			15
Networking -- Cisco Track Certificate (C25340CS)			
NET	125	Networking Basics	3
NET	126	Routing Basics	3
NET	225	Routing & Switching I	3

NET	226	Routing & Switching II	3
Total Semester Hours Credit:			12

2010 – 2011 Practical Nursing (45660)
Program of Study

Description: The Practical Nursing curriculum prepares individuals with the knowledge and skills to provide nursing care to children and adults. Students will participate in assessment, planning, implementing, and evaluating nursing care. Graduates of this program are eligible to apply to take the National Council Licensure Examination (NCLEX-PN) which is required for practice as a Practical Nurse. Employment opportunities include hospitals, rehabilitation/long-term care/home health facilities, clinics, and physician's offices.

Award(s): D45660- Diploma

Additional Information:

The following Program Admission Requirements are subject to change:
▪ Checklist for Practical Nursing.
▪ Health Information Sessions (Part of the admission requirements is attending an information session in your field of interest - students are required to attend one health information session the year prior to admission.)
▪ Admission Requirements for Practical Nursing.

Important Policies:
LPN Philosophy
LPN Competency Standards
NUR Clinical Behavior Policy

Estimated Cost by Semester is available online.

Related Programs of Study:
Associate Degree Nursing (45110)
Associate in Arts Pre-Major: Nursing (1010I)

Contact Information: The Practical Nursing program is in the Health and Public Services Department. For additional information regarding this program, contact Director Cathy Norris at 704-216-3701 or **cathy.norris@rccc.edu.**

Course Requirements: See below.

Diploma Program (D45660)								
			Title	Class	Lab	Clinical	Work Exp.	Credits
Fall Semester								
**	BIO	163	Basic Anatomy & Physiology	4	2	0	0	5
■	NUR	101	Practical Nursing I	7	6	6	0	11
**	PSY	110	Life Span Development	3	0	0	0	3
			Total	**14**	**8**	**6**	**0**	**19**
Spring Semester								
	ENG	111	Expository Writing	3	0	0	0	3
■	NUR	102	Practical Nursing II	8	0	12	0	12
			Total	**11**	**0**	**12**	**0**	**15**
Summer Term								
■	NUR	103	Practical Nursing III	6	0	12	0	10
			Total	**6**	**0**	**12**	**0**	**10**
Total Semester Hours Credit (SHC) in Program:								44

■ This is a Core Course and cannot be substituted.

****Students planning to transfer to the ADN Completion program** should take the following: **BIO 168, BIO 169, PSY 150**, and **PSY 241**. **Note:** Class sessions and clinical rotations in NUR courses may be scheduled during weekdays, evenings, or weekends. **Note:** For students enrolled in the Associate Degree Nursing and Practical Nursing Programs, numerical grades below 80 (C) in all required nursing courses and 77 (C) in all non-nursing courses are considered unsatisfactory attainment of course competencies.

2010 – 2011 Radiography (45700)

Program of Study

Description: 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.

Award(s): A45700 - Associate in Applied Science Degree

Additional Information:

The following Admission Requirements are subject to change:
■ Checklist for Radiography.
■ Health Information Sessions

(Part of the admission requirements is attending an information session in your field of interest - students are required to attend one health information session the year prior to admission.)

- Admission Requirements for Radiography.

MISSION STATEMENT:

The Radiography program will offer a five semester competency-based education in medical imaging which will prepare all students to successfully provide quality radiographic care and duties to patients, health care consumers, colleagues, employers and all members of the health care team in the college's regional community and beyond.

Program Values

The Radiography program at Rowan-Cabarrus Community College values:

- Compassion
- Clinical Skills
- Knowledge
- Ethical Professionalism
- Service

Program Goals

- The program will continually monitor its overall effectiveness.
- Graduates/students will be clinically competent.
- Graduates/students will effectively problem-solve and critically think.
- Graduates/students will effectively communicate.
- Graduates/students will demonstrate professional development and growth.

Contact Information: The Radiography program is in the Health and Public Services Department. For additional information regarding this program, contact Program Head Frankie Lyons at 704-216-3719 or **frankie.lyons@rccc.edu**.

Course Requirements: See below.

Associate in Applied Science Degree (A45700)								
			Title	Class	Lab	Clinical	Work Exp.	Credits
First Year (Fall)								
	BIO	168	Anatomy and Physiology I	3	3	0	0	4
■	RAD	110	Radiography Intro. & Patient Care	2	3	0	0	3
■	RAD	111	Radiographic Procedures I	3	3	0	0	4
■	RAD	151	RAD Clinical Education I	0	0	6	0	2
	MAT	140	Survey of Mathematics	3	0	0	0	3
			OR					
	MAT	161	College Algebra	3	0	0	0	3

			Total	11	9	6	0	16
First Year (Spring)								
	BIO	169	Anatomy and Physiology II	3	3	0	0	4
	ENG	111	Expository Writing	3	0	0	0	3
■	RAD	112	Radiographic Procedures II	3	3	0	0	4
■	RAD	121	Radiographic Imaging I	2	3	0	0	3
■	RAD	161	RAD Clinical Education II	0	0	15	0	5
			Total	**11**	**9**	**15**	**0**	**19**
First Year (Summer)								
■	RAD	122	Radiographic Imaging II	1	3	0	0	2
■	RAD	131	Radiographic Physics I	1	3	0	0	2
■	RAD	171	RAD Clinical Education III	0	0	12	0	4
			Total	**2**	**6**	**12**	**0**	**8**
Second Year (Fall)								
	PSY	150	General Psychology	3	0	0	0	3
■	RAD	211	Radiographic Procedures III	2	3	0	0	3
■	RAD	231	Radiographic Physics II	1	3	0	0	2
■	RAD	241	Radiobiology Protection	2	0	0	0	2
■	RAD	251	RAD Clinical Education IV	0	0	21	0	7
			Total	**8**	**6**	**21**	**0**	**17**
Second Year (Spring)								
	COM	231	Public Speaking	3	0	0	0	3
■	RAD	245	Radiographic Quality Management	1	3	0	0	2
■	RAD	261	RAD Clinical Education V	0	0	21	0	7
■	RAD	271	Radiography Capstone	0	3	0	0	1
	---	---	Humanities/Fine Arts Elective	3	0	0	0	3
			Total	**7**	**6**	**21**	**0**	**16**
Total Semester Hours Credit (SHC) in Program:								76

■ This is a Core Course and cannot be substituted.

2010 - 2011 School-Age Education Transfer Program (55440TR)

Program of Study - *Pfeiffer University Elementary Education and Special Education Transfer Program*

Description: This curriculum prepares individuals to work with children in elementary through middle grades in diverse learning environments. Students will combine learned theories with practice in actual settings with school-age children under the supervision of qualified teachers. Course work includes child growth/development; computer technology in education; physical/nutritional needs of school-age children; care and guidance of school-age children; and communication skills with families and children. Students will foster the cognitive/language, physical/motor, social/emotional, and creative development of school-age populations. Graduates are prepared to plan and implement developmentally appropriate programs in school-aged environments. Employment opportunities include school-age teachers in child care programs,

before/after-school programs, paraprofessional positions in public/ private schools, recreational centers, and other programs that work with school-age populations. A **criminal background check** will be required prior to students entering into **EDU 285**. A negative report may prevent students from participating in this required course which means that the student cannot complete the program requirements. Please contact the Director of Early Childhood Education Programs if you have any questions.

Award(s): A55440TR - Associate in Applied Science Degree

Additional Information:

Related Programs of Study:
Early Childhood Education - General Program (55220)
Early Childhood Education - Transfer Program (55220TR)
Infant/Toddler Care (55290)
School-Age Education - General Program (55440)
Associate in Arts Pre-Majors:
Elementary Education (1010R)
Middle Grades Education (1010A)
Social Science Secondary Education (1010M)

Contact Information: The Early Childhood programs are in the Health and Public Services Department. For additional information regarding this program, contact Director Sandra Novick at 704-216-3728 or **sandra.novick@rccc.edu**.

Course Requirements: The following is a suggested program of study for completing this program in five semesters. Some students' programs of study may be different, depending on their enrollment status (day, evening, full-time, or part-time).

Associate in Applied Science Degree (A55440TR)								
			Title	Class	Lab	Clinical	Work Exp.	Credits
First Year (Fall)								
■	EDU	118	Principles & Practices of Instructional Ass't.	3	0	0	0	3
■	EDU	144	Child Development I	3	0	0	0	3
	EDU	151	Creative Activities	3	0	0	0	3
■	EDU	271	Educational Technology	2	2	0	0	3
	HIS	111	World Civilizations I	3	0	0	0	3
			OR					
	HIS	112	World Civilizations II	3	0	0	0	3
			Total	14	2	0	0	15
First Year (Spring)								
■	EDU	131	Children, Family, & Community	3	0	0	0	3
■	EDU	145	Child Development II	3	0	0	0	3
	EDU	281	Instructional Reading & Writing	2	2	0	0	3
	ENG	111	Expository Writing	3	0	0	0	3

	HIS	131	American History I	3	0	0	0	3
			OR					
	HIS	132	American History II	3	0	0	0	3
			Total	14	2	0	0	15
First Year (Summer)								
	PSY	150	General Psychology	3	0	0	0	3
	ENG	114	Professional Research & Reporting	3	0	0	0	3
			Total	**6**	**0**	**0**	**0**	**6**
Second Year (Fall)								
	BIO	111	General Biology I	3	3	0	0	4
■	EDU	163	Classroom Management and Instruction	3	0	0	0	3
■	EDU	221	Children with Exceptionalities	3	0	0	0	3
	EDU	254	Music & Movement	1	2	0	0	2
	---	---	Religion Elective*	3	0	0	0	3
			Total	**13**	**3**	**0**	**0**	**15**
Second Year (Spring)								
	EDU	282	Early Childhood Literature	3	0	0	0	3
■	EDU	285	Internship Experiences – School Age	1	9	0	0	4
■	EDU	289	Advanced Issues / School Age	2	0	0	0	2
	BIO	112	General Biology II	3	3	0	0	4
	MAT	140	Survey of Mathematics	3	0	0	0	3
			Total	**12**	**12**	**0**	**0**	**16**
Total Semester Hours Credit (SHC) in Program:								67

■ This is a Core Course and cannot be substituted.

* Religion Electives (select one course from the following):

		Title	Class	Lab	Clinical	Work Exp.	Credits
REL	110	World Religions	3	0	0	0	3
REL	211	Introduction to Old Testament	3	0	0	0	3
REL	212	Introduction to New Testament	3	0	0	0	3
REL	221	Religion in America	3	0	0	0	3

2010 – 2011 Web Technologies (25290)
Program of Study

Description: 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. Course work 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.

Award(s):

A25290- Associate in Applied Science Degree
D25290- Diploma Program
C25290- Certificate Programs

Additional Information:

Related Program(s) of Study:
Computer Information Technology (25260)
Computer Programming (25130)
Information Systems Security (25270)
Networking Technology (25340)

Contact Information: The Web Technologies program is in the Information Technologies Department. For additional information regarding this program, contact Program Head Scott Nason at 704-216-3784 or **scott.nason@rccc.edu**.

Course Requirements: The following is a suggested program of study for completing this program in five semesters. Some students' programs of study may be different, depending on their enrollment status (day, evening, full-time, or part-time).

Associate in Applied Science Degree (A25290)								
			Title	Class	Lab	Clinical	Work Exp.	Credits
First Year (Fall)								
	ACA	111	College Study Skills	1	0	0	0	1
			OR					
	ACA	122	College Transfer Success	1	0	0	0	1
■	CIS	110	Introduction to Computers	2	2	0	0	3
■	NOS	110	Operating System Concepts	2	3	0	0	3
■	WEB	110	Internet/Web Fundamentals (2nd 8 Weeks)	2	2	0	0	3
	WEB	119	Web Technologies Program Orientation (1st 8 Weeks)	1	2	0	0	2
	---	---	Humanities / Fine Arts Elective	3	0	0	0	3
			Total	**11**	**9**	**0**	**0**	**15**

First Year (Spring)								
■	DBA	110	Database Concepts	2	3	0	0	3
■	NET	110	Networking Concepts	2	2	0	0	3
■	WEB	115	Web Markup and Scripting	2	2	0	0	3
■	WEB	120	Introduction to Internet Multimedia	2	2	0	0	3
	MAT	140	Survey of Mathematics	3	0	0	0	3
			OR					
	MAT	161	College Algebra	3	0	0	0	3
			Total	11	9	0	0	15
First Year (Summer)								
■	BUS	110	Introduction to Business	3	0	0	0	3
	ENG	111	Expository Writing	3	0	0	0	3
■	WEB	140	Web Development Tools	2	2	0	0	3
■	WEB	230	Implementing Web Services	2	2	0	0	3
			Total	10	4	0	0	12
Second Year (Fall)								
■	CIS	115	Introduction to Programming & Logic	2	3	0	0	3
	ENG	114	Professional Research & Reporting	3	0	0	0	3
■	WEB	210	Web Design	2	2	0	0	3
■	WEB	250	Database Driven Websites	2	2	0	0	3
	---	---	Major Elective*	0-2	0-2	0	0-40	3
			Total	9-11	7-9	0	0-40	15
Second Year (Spring)								
■	SEC	110	Security Concepts	3	0	0	0	3
	WEB	260	E-Commerce Infrastructure	2	2	0	0	3
	WEB	287	Web E-Portfolio	1	2	0	0	2
	---	---	Major Elective*	0-2	0-2	0	0-40	3
	---	---	Social/Behavioral Sciences Elective	3	0	0	0	3
			Total	B	4-6	0	0-40	14
Total Semester Hours Credit (SHC) in Program:								71-72

■ This is a Core Course and cannot be substituted.

* Major Electives:
Select 6 semester hour credits from the following courses. This may include up to 6 SHC from COE course/combination of courses:

		Title	Class	Lab	Clinical	Work Exp.	Credits
CSC	134	C++Programming	2	3	0	0	3
CSC	151	JAVA Programming	2	3	0	0	3
CSC	251	Advanced JAVA Programming	2	3	0	0	3
CTS	240	Project Management	2	2	0	0	3
NET	125	Networking Basics	1	4	0	0	3
NET	126	Routing Basics	1	4	0	0	3
NOS	120	Linux/UNIX Single User	2	2	0	0	3

NOS	130	Windows Single User	2	2	0	0	3
NOS	220	Linux/UNIX Administration I	2	2	0	0	3
NOS	230	Windows Administration I	2	2	0	0	3
SGD	111	Introduction to SGD	2	3	0	0	3
SGD	112	SGD Design	2	3	0	0	3
SGD	113	SGD Programming	2	3	0	0	3
SGD	212	SGD Design II	2	3	0	0	3
SGD	289	SGD Project	2	3	0	0	3
WEB	111	Introduction to Web Graphics	2	2	0	0	3
WEB	211	Advanced Web Graphics	2	2	0	0	3
WEB	289	Internet Technologies Project	1	4	0	0	3
COE	110	World of Work	1	0	0	0	1
COE	111	Co-Op Work Experience I	0	0	0	10	1
COE	112	Co-Op Work Experience I	0	0	0	20	2
COE	113	Co-Op Work Experience I	0	0	0	30	3
COE	114	Co-Op Work Experience I	0	0	0	40	3
COE	121	Co-Op Work Experience II	0	0	0	10	1
COE	122	Co-Op Work Experience II	0	0	0	20	2
COE	123	Co-Op Work Experience II	0	0	0	30	3
COE	131	Co-Op Work Experience III	0	0	0	10	1
COE	211	Co-Op Work Experience IV	0	0	0	10	1

Diploma Program (25290)				
Courses				Credits Hours
■	CIS	110	Introduction to Computers	3
	ENG	111	Expository Writing	3
	HUM	110	Technology and Society	3
■	NET	110	Networking Concepts	3
	SEC	110	Security Concepts	3
■	WEB	110	Internet/Web Fundamentals	3
	WEB	111	Introduction to Web Graphics	3
■	WEB	115	Web Markup and Scripting	3
	WEB	119	Web Technologies Program Orientation	2
■	WEB	120	Introduction to Internet Multimedia	3
■	WEB	140	Web Development Tools	3
■	WEB	210	Web Design	3
	WEB	211	Advanced Web Graphics	3
Total Semester Hours Credit:				38

■ This is a Core Course and cannot be substituted.

Certificate Programs (C25290)			
Courses			Credit Hours
E-Commerce Certificate (C25290EC)			
CTS	240	Project Management	3
DBA	110	Database Concepts	3

WEB	250	Database Driven Websites	3
WEB	260	E-Commerce Infrastructure	3
Total Semester Hours Credit:			12
Internet Technologies Certificate (C25290IN)			
CIS	110	Introduction to Computers	3
WEB	110	Internet/Web Fundamentals	3
WEB	115	Web Markup and Scripting	3
NET	110	Networking Concepts	3
		OR	
NET	125	Networking Basics	3
Total Semester Hours Credit:			12
Web Designer Certificate (C25290DS)			
WEB	110	Internet/Web Fundamentals	3
WEB	115	Web Markup and Scripting	3
WEB	140	Web Development Tools	3
WEB	210	Web Design	3
Total Semester Hours Credit:			12
Web Graphics Certificate (C25290GR)			
WEB	110	Internet/Web Fundamentals	3
WEB	111	Introduction to Web Graphics	3
WEB	120	Introduction to Internet Multimedia	3
WEB	211	Advanced Web Graphics	3
Total Semester Hours Credit:			12
Website Designer Certificate (C25290WD)			
WEB	110	Internet/Web Fundamentals	3
WEB	111	Introduction to Web Graphics	3
WEB	115	Web Markup and Scripting	3
WEB	230	Implementing Web Services	3
Total Semester Hours Credit:			12
Website Programming Certificate (C25290WP)			
CSC	134	C++Programming	3
CSC	151	JAVA Programming	3
CSC	251	Advanced JAVA Programming	3
WEB	115	Web Markup and Scripting	3
WEB	140	Web Development Tools	3
Total Semester Hours Credit:			15

Simulation and Gaming Fundamentals Certificate (C25290GF)			
SGD	111	Introduction to SGD	3
SGD	112	SGD Design	3
SGD	113	SGD Programming	3
WEB	111	Introduction to Web Graphics	3
Total Semester Hours Credit:			12
Simulation and Gaming Design Certificate (C25290GD)			
SGD	112	SGD Design	3
SGD	212	SGD Design II	3
SGD	289	SGD Project	3
WEB	111	Introduction to Web Graphics	3
WEB	211	Advanced Web Graphics	3
Total Semester Hours Credit:			15

2010 – 2011 Welding Technology (50420)

Programs of Study

Description: 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 provides 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.

Award(s): D50420 - Diploma Program
C50420 - Certificate Programs

Contact Information: The Welding Technology program is in the Industrial and Engineering Technologies department. For additional information regarding this program, contact Program Head Robert Simpson at 704-216-3921 or **robert.simpson@rccc.edu**.

Course Requirements: The following is a suggested program of study for completing this program in three semesters. Some students' programs of study may be different, depending on their enrollment status (day, evening, full-time, or part-time).

Diploma Program (D50420)								
			Title	Class	Lab	Clinical	Work Exp.	Credits
Fall Semester: Basic Certificate (C50420BC)								
	CIS	110	Introduction to Computers	2	2	0	0	3
■	WLD	110	Cutting Processes	1	3	0	0	2

▪	WLD	115	SMAW (Stick) Plate	2	9	0	0	5
▪	WLD	131	GTAW (TIG) Plate	2	6	0	0	4
			Total	7	20	0	0	14
Spring Semester: Intermediate Certificate (C50420IN)								
	WLD	116	SMAW (Stick) Plate/Pipe	1	9	0	0	4
▪	WLD	121	GMAW (MIG) FCAW/Plate	2	6	0	0	4
	WLD	132	GTAW (TIG) Plate/Pipe	1	6	0	0	3
▪	WLD	141	Symbols & Specifications	2	2	0	0	3
			Total	6	23	0	0	14
Summer Term: Advanced Certificate (C50420AD)								
*	ENG	102	Applied Communications II	3	0	0	0	3
			OR					
*	ENG	111	Expository Writing	3	0	0	0	3
	MAT	115	Mathematical Models	2	2	0	0	3
			OR					
	PHY	110	Conceptual Physics	3	0	0	0	3
	WLD	122	GMAW (MIG) Plate/Pipe	1	6	0	0	3
	---	---	Major Elective*	1	3-9	0	0	2-4
			Total	8-9	12-14	0	0	11-13
Total Semester Hours Credit (SHC) in Program:								39-41

- This is a Core Course and cannot be substituted.

* Major Electives:
Select 2-4 semester hour credits from the following courses.

		Title	Class	Lab	Clinical	Work Exp.	Credits
WLD	151	Fabrication I	2	6	0	0	4
WLD	215	SMAW (Stick) Pipe	1	9	0	0	4
WLD	231	GTAW (TIG) Pipe	1	6	0	0	3
WLD	261	Certification Practices	1	3	0	0	2

* It is suggested that students take **ENG 102** or **ENG 111** and the math/science requirement prior to Summer Term, if possible.

For students not wishing to follow the program of study sequence listed above to earn a diploma, it is suggested that **WLD 110 - Cutting Processes** be taken in the first semester. **WLD 110 - Cutting Processes** will benefit students taking other welding classes.

Upon successful completion of the Basic, Intermediate, and Advanced Certificates, students may apply for a **Diploma** in **Welding Technology**. Upon completion of any of the welding certificates or diploma, students with an average grade point of 3.0 or higher in the welding classes will be given the opportunity to take the Welder Qualification Test (certification test) to applicable codes used in this program.

Certificate Programs (C50420)			
Courses			Credits Hours
Stick Welding Certificate (C50420ST)			
WLD	110	Cutting Processes	2
WLD	115	SMAW (Stick) Plate	5
WLD	116	SMAW (Stick) Plate/Pipe	4
WLD	141	Symbols and Specifications	3

Total Semester Hours Credit:			14
TIG Welding Certificate (C50420TI)			
WLD	110	Cutting Processes	2
WLD	131	GTAW (TIG) Plate	4
WLD	132	GTAW (TIG) Plate/Pipe	3
WLD	141	Symbols and Specifications	3
Total Semester Hours Credit:			12
MIG Welding Certificate (C50420MI)			
WLD	110	Cutting Processes	2
WLD	121	GMAW (MIG) FCAW/Plate	4
WLD	122	GMAW (MIG) Plate/Pipe	3
WLD	141	Symbols and Specifications	3
Total Semester Hours Credit:			12
High Performance Fabrication Certificate (C50420HP)			
WLD	110	Cutting Processes	2
WLD	121	GMAW (MIG) FCAW/Plate	4
WLD	131	GTAW (TIG) Plate	4
WLD	141	Symbols and Specifications	3
Total Semester Hours Credit:			13

2010 – 2011 Course Descriptions

Courses

The courses listed in this web site constitute the content of the curriculum programs of the college. The course prefixes are listed in alphabetical order.

Credit Hours

Credit Hours are awarded as follows:

- Credit of one semester hour is awarded for each 16 hours of 'class work'. Class work is lecture and other classroom instructions. Class Work is under the supervision of an instructor.
- Credit of one semester hour is awarded for each 32 hours of 'experiential laboratory work.' Experiential laboratory work means instruction given to a student by an instructor to increase the student's knowledge and skills without immediate student application.
- Credit of one semester hour is awarded for each 48 hours of 'faculty directed laboratory work.' Faculty directed laboratory work involves structured and coordinated demonstration by an instructor with an immediate student application.
- Credit of one semester hour is awarded for each 48 hours of 'clinical practice.' Clinical practice is a structured, faculty – directed learning experience in a health science program which develops job proficiency. Clinical practice requires significant preparation, coordination and scheduling by the facility and is under the supervision of an instructor or preceptor who is qualified for the particular program.
- Credit of one semester hours is awarded for each 160 hours of 'work experience' such as cooperative education, practicums, and internships. Work experience involves the development of job skills by providing the student with employment that is directly related to, and coordinated with, the educational program. Student activity in work experience is planned and coordinated by a college representative, and the employer is responsible for the control and supervision of the student on the job.

Contact Hours

The contact hours for a course are the sum of the lecture hours and lab/clinical/work experience.

Writing Intensive Courses

Writing intensive courses are course in which students write to learn. Writing assignments may range from highly informal, such as journals, to the highly formal, such as research papers. Normally, a writing intensive course will contain a mixture of informal and formal writing assignments which will account for at least seventy percent of a student's overall evaluation in the course. It is important to note that the catalog's designation of a course as 'writing intensive' indicates only Rowan-Cabarrus Community College's internal curriculum designation of that course as writing intensive. Students intending to transfer credit to other colleges and universities should consult with those institutions to determine if the course in question will be accepted as writing intensive.

Developmental/Non-Credit Courses

Non-Credit courses are numbered below 100. Students may be required to take one or more developmental course because their placements scores are not at the level of proficiency required for success in a given curriculum, or they may choose developmental courses if they feel the need for a refresher course. Developmental courses are designed to prepare students for college level work and will not satisfy credit hours for any degree, diploma, or certificate program. They will not transfer to a four-year institution, but will transfer to any of the community colleges within the NC Community College System. Credit earned for tehse courses will only satisfy the prerequisites for entry into a curriculum level course.

2010 - 2011 Course Descriptions

ACA - Academic Related

ACA 085 – Improving Study Skills

This course is designed to improve academic study skills and introduce resources that will complement developmental courses and engender success in college-level courses. Topics include basic study skills, memory techniques, note-taking strategies, test-taking techniques, library skills, personal improvement strategies, goal setting, and learning resources. Upon completion, students should be able to apply the techniques learned to improve performance in college-level classes.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 1

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

ACA 111 – College Student Success

This course introduces the college's physical, academic, and social environment and promotes the person 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 completions, students should be able to function effectively within the college environment to meet their education objectives. *This course is also available through the Virtual Learning Community (VCL)*

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 1

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

ACA 115 – Success & Study Skills

This course provides an orientation to the campus resources and academic skills necessary to achieve educational objectives. Emphasis is placed on an exploration of facilities and services, study skills, library skills, self-assessment, wellness, goal-setting, and critical thinking. Upon completion, students should be able to manage their learning experiences to successfully meet educational goals.

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 1

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

ACA 122 – College Transfer Success

This course provides information and strategies necessary to develop clear academic and professional goals beyond the community college experience. Topics include the CAA, college 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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 1

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

ACC – Accounting

ACC 115 - College Accounting

This course introduces basic accounting principles for a business. Topics include the complete accounting cycle with end-of-period statements, bank reconciliation, payrolls, and petty cash. Upon completion, students should be able to demonstrate an understanding of accounting principles and apply those skills to a business organization.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

ACC 120 - Principles of Financial Accounting

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: MAT 070 or appropriate placement score or successful completion of a 100 level MAT course; CTS 080 or acceptable score on the Computer Skills Inventory (Local)
Co-requisites: CIS110 (Local)
Course Modalities: Traditional, Internet, Hybrid

ACC 121 - Principles of Managerial Accounting

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: ACC 120
Co-requisites: None
Course Modalities: Traditional, Internet, Hybrid

ACC 129 - Individual Income Taxes

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet, Hybrid

ACC 132 - NC Business Taxes

This course introduces the relevant laws governing North Carolina taxes as they apply to business. Topics include sales taxes, income taxes for business entities, payroll taxes, unemployment taxes, and other taxes pertaining to the State of North Carolina. Upon completion, students should be able to maintain a company's records to comply with the laws governing North Carolina business taxes.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet, Hybrid

ACC 140 - Payroll Accounting

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.

Class Hours: 1 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 2 Spring
Credit Hours: 2

Prerequisites: ACC 115 or ACC 120
Co-requisites: None
Course Modalities: Traditional, Internet, Hybrid

ACC 149 - Intro. to Accounting Spreadsheets

This course provides a working knowledge of computer spreadsheets and their use in accounting. Topics include pre-programmed problems, model-building problems, beginning-level macros, graphics, and what-if analysis enhancements of template problems. Upon completion, students should be able to use a computer spreadsheet to complete many of the tasks required in accounting.

Class Hours: 1 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 2 On Demand
Credit Hours: 2

Prerequisites: ACC 115 or ACC 120
Co-requisites: None
Course Modalities: Traditional, Internet, Hybrid

ACC 150 - Accounting Software Applications

This course introduces computer 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 software package to solve accounting problems.

Class Hours: 1 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 2 Spring
Credit Hours: 2

Prerequisites: ACC 115 or ACC 120
Co-requisites: None
Course Modalities: Traditional, Internet, Hybrid

ACC 175 - Hotel and Restaurant Accounting

This course covers generally accepted accounting principles and the uniform system of accounts for small hotels and motels of the American Hotel and Motel Association. Emphasis is placed on the accounting cycle, analysis of financial statements, and payroll procedures including treatment of tips. Upon completion, students should be able to demonstrate competence in the accounting principles and procedures used in hotels and restaurants.

Class Hours: 3 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 2 On Demand
Credit Hours: 4

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet, Hybrid

ACC 215 - Ethics in Accounting

This course introduces students to professional codes of conduct and ethics adopted by professional associations and state licensing boards for accountants, auditors, and fraud examiners. Topics include research and discussions of selected historical and contemporary ethical cases and issues as they relate to accounting and business. Upon completion, students should be able to apply codes, interpret facts and circumstances, as they relate to accounting firms and business activities.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: ACC 121
Co-requisites: None
Course Modalities: Traditional, Internet, Hybrid

ACC 220 - Intermediate Accounting I

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 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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: ACC 120
Co-requisites: None
Course Modalities: Traditional, Internet, Hybrid

ACC 221 - Intermediate Accounting II

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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: ACC 220
Co-requisites: None
Course Modalities: Traditional, Internet, Hybrid

ACC 225 - Cost Accounting

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.

Class Hours: 3 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 0 Fall
Credit Hours: 3

Prerequisites: ACC 221
Co-requisites: None
Course Modalities: Traditional, Internet, Hybrid

ACC 227 - Practices in Accounting

This course provides an advanced in-depth study of selected topics in accounting using case studies and individual and group problem solving. Topics include cash flow, financial statement analysis, individual and group problem solving, and practical approaches to dealing with clients, ethics, and critical thinking. Upon completion, students should be able to demonstrate competent analytical skills and effective communication of their analysis in written and/or oral presentations.

Class Hours: 3 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 0 Spring
Credit Hours: 3

Prerequisites: ACC 220
Co-requisites: None
Course Modalities: Traditional, Internet, Hybrid

ACC 240 - Government & Non-Profit Accounting

This course introduces principles and procedures applicable to governmental and not-for-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.

Class Hours: 3 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 0 Fall
Credit Hours: 3

Prerequisites: ACC 121
Co-requisites: None
Course Modalities: Traditional, Internet, Hybrid

ACC 250 - Advanced Accounting

This course is designed to analyze special accounting issues, which may include business combinations, partnerships, international accounting, estates, and trusts. Emphasis is placed on analyzing transactions and preparing working papers and financial statements. Upon completion, students should be able to solve a wide variety of problems by advanced application of accounting principles and procedures.

Class Hours: 3 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 0 Spring
Credit Hours: 3

Prerequisites: ACC 220
Co-requisites: None

Course Modalities: Traditional, Internet, Hybrid

ACC 268 - Information Systems & Internal Controls

This course covers the design and operation of accounting information systems, with emphasis placed upon transaction cycles and the necessary controls for reliable data. Topics include accounting procedures; authorizing, documentation, and monitoring; flowcharting, data flow diagrams, and scheduling; and some auditing concepts. Upon completion, students should be able to demonstrate an analytical problem-solving ability and to communicate effectively their analysis in written or oral presentations.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: ACC 221
Co-requisites: None
Course Modalities: Traditional, Internet, Hybrid

ACC 269 - Auditing & Assurance Services

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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: ACC 220
Co-requisites: None
Course Modalities: Traditional, Internet, Hybrid

AGR – Agriculture

AGR 160- Plant Science

This course introduces the basic principles of botany that pertain to agricultural production. Emphasis is placed on the anatomy and physiology of flowering plants. Upon completion, students should be able to identify and explain plant systems.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

AGR 214 - Agricultural Marketing

This course covers basic marketing principles for agricultural products. Topics include buying, selling, processing, standardizing, grading, storing, and marketing of agricultural

commodities. Upon completion, students should be able to construct a marketing plan for an agricultural product.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

AHR - Air Conditioning, Heating, and Refrigeration

AHR 110 - Introduction to Refrigeration

This course introduces the basic refrigeration process used in mechanical refrigeration and air conditioning systems. Topics include terminology, safety, 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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 5

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

AHR 111 - HVACR Electricity

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

AHR 112 - Heating Technology

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 4

Semester(s) Course Schedule to be Offered:
Fall

Credit Hours: 4

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

AHR 113 - Comfort Cooling

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 4
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: AHR 110
Co-requisites: None
Course Modalities: Traditional

AHR 114 Heat Pump Technology

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 4
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Summer

Prerequisites: AHR 110 or AHR 113
Co-requisites: None
Course Modalities: Traditional

AHR 115 - Refrigeration Systems

This course introduces refrigeration systems and applications. Topics include defrost methods, safety and operational control, refrigerant piping, refrigerant recovery and charging, and leak testing. Upon completion, students should be able to assist in installing and testing refrigeration systems and perform simple repairs.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: AHR 110
Co-requisites: None
Course Modalities: Traditional

AHR 130 - HVAC Controls

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: AHR 111 or ELC 111
Co-requisites: None
Course Modalities: Traditional

AHR 151 - HVAC Duct Systems I

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.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

AHR 152 - HVAC Duct Systems II

This course introduces the techniques used to lay out and fabricate more advanced types of duct work found in HVAC systems. Emphasis is place on the skills required to work with complex rectangular and round fittings and transitions. Upon completions students should be able to lay out and fabricate complex rectangular and round fittings.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: AHR 151
Co-requisites: None
Course Modalities: Traditional

AHR 160 - Refrigerant Certification

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.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 1

Semester(s) Course Schedule to be Offered:
Summer

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

AHR 180 - HVACR Customer Relations

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.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 1

Semester(s) Course Schedule to be Offered:
Summer

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

AHR 211 - Residential System Design

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Summer

Prerequisites: None
Co-requisites: None

Course Modalities: Traditional

AHR 212 - Advanced Comfort Systems

This course covers water-cooled comfort systems, water-source/geothermal heat pumps, and high efficiency heat pump systems including variable speed drives and controls. Emphasis is placed on the application, installation, and servicing of water-source systems and the mechanical and electronic control components of advanced comfort systems. Upon completion, students should be able to test, analyze, and troubleshoot water-cooled comfort systems, water-source/geothermal heat pumps, and high efficiency heat pumps.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: AHR 114

Co-requisites: AHR 250 (Local)
Course Modalities: Traditional

AHR 215 - Commercial HVAC Controls

This course introduces HVAC control systems used in commercial applications. Topics include electric/electronic control systems, pneumatic control systems, DDC temperature sensors, humidity sensors, pressure sensors, wiring, controllers, actuators, and controlled devices. Upon completion, students should be able to verify or correct the performance of common control systems with regard to sequence of operation and safety.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: AHR 111 or ELC 111; AHR 130 (Local)
Co-requisites: None
Course Modalities: Traditional

AHR 220 - Commercial Building Codes

This course covers the appropriate sections of the North Carolina State Building Code that govern the installation of commercial comfort, refrigeration, and mechanical systems. Emphasis is placed on using and understanding applications sections of the North Carolina State Building Code. Upon completion, students should be able to use the North Carolina State Building Code to locate information regarding the installation of commercial systems.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Summer

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

AHR 225 - Commercial System Design

This course covers the principles of commercial refrigeration system operation and design. Topics include walk-in coolers, walk-in freezers, system components, load calculations, equipment selection, defrost systems, refrigerant line sizing, and electric controls. Upon completion, students should be able to design, adjust, and perform routine service procedures on a commercial refrigeration system.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: AHR 211
Co-requisites: None
Course Modalities: Traditional

AHR 235 - Refrigeration Design

This course covers the principles of commercial refrigeration system operation and design.

Topics include walk-in coolers, walk-in freezers, system components, load calculations, equipment selection, defrost systems, refrigerant line sizing, and electric controls. Upon completion, students should be able to design, adjust, and perform routine service procedures on a commercial refrigeration system.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Summer

Prerequisites: AHR 110

AHR 250 - HVAC System Diagnostics

This course is a comprehensive study of air conditioning, heating, and refrigeration system diagnostics and corrective measures. Topics include advanced system analysis, measurement of operating efficiency, and inspection and correction of all major system components. Upon completion, students should be able to restore a residential or commercial AHR system so that it operates at or near manufacturers' specifications.

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 4
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Summer

Prerequisites: None
Co-requisites: AHR 212
Course Modalities: Traditional

AHR 255 - Indoor Air Quality

This course introduces the techniques of assessing and maintaining the quality of the indoor environment in residential and commercial structures. Topics include handling and investigating complaints, filter selection, humidity control, testing for sources of carbon monoxide, impact of mechanical ventilation, and building and duct pressures. Upon completion, students should be able to assist in investigating and solving common indoor air quality problems.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: AHR 211 (Local)
Co-requisites: None
Course Modalities: Traditional

ALT - Alternative Energy Technology

ALT 120 - Renewable Energy Tech

This course provides an introduction to multiple technologies that allow for the production and conservation of energy from renewable sources. Topics include hydroelectric, wind power, passive and active solar energy, tidal energy, appropriate building techniques, and energy conservation methods. Upon completion, students should be able to demonstrate

an understanding of renewable energy production and its impact on humans and their environment.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

ANT – Anthropology

ANT 210 - General Anthropology

This course introduces the physical, archaeological, linguistic, and ethnological fields of anthropology. Topics include human origins, genetic variations, archaeology, linguistics, primatology, and contemporary cultures. Upon completion, students should be able to demonstrate an understanding of the four major fields of anthropology. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. This course is also available through the Virtual Learning Community (VLC). This course may satisfy a general education requirement for Catawba College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet

ANT 220 - Cultural Anthropology

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet

ANT 221 - Comparative Cultures

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3
Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

Semester(s) Course Schedule to be Offered:
On Demand

ANT 230 - Physical Anthropology

This course introduces the scientific study of human evolution and adaptation. Emphasis is placed on evolutionary theory, population genetics, bio cultural 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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

Semester(s) Course Schedule to be Offered:
On Demand

ANT 230A - Physical Anthropology Lab

This course provides laboratory work that reinforces the material presented in ANT 230. Emphasis is placed on laboratory exercises which may include fossil identification, genetic analysis, skeletal comparisons, forensics, computer simulations, and field observations. Upon completion, students should be able to demonstrate an understanding of the analytical skills employed by anthropologists in the study of primate evolution and variation. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 1

Prerequisites: None
Co-requisites: ANT 230
Course Modalities: Traditional

Semester(s) Course Schedule to be Offered:
On Demand

ANT 240 - Archaeology

This course introduces the scientific study of the unwritten record of the human past. Emphasis is placed on the process of human cultural evolution as revealed through archaeological methods of excavation and interpretation. Upon completion, students

should be able to demonstrate an understanding of how archaeologists reconstruct the past and describe the variety of past human cultures. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet

ANT 240A - Archaeology Field Lab

This course provides practical applications of archaeological methods. Emphasis is placed on basic archaeological methods and techniques required in site surveys, site classification, excavation, recording, processing, presentation, chronometry, and analysis of materials. Upon completion, students should be able to participate in applying archaeological methods and techniques to the excavation of a specific site. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 4
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: ANT 240
Course Modalities: Traditional

ANT 245 - World Prehistory

This course provides an introduction to the prehistory of the Old and New world. Emphasis is placed on archaeological evidence from origins of human culture to the beginning of recorded history. Upon completion, students should be able to demonstrate knowledge of the variability of ancient human societies and the development of agriculture and urbanism. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

ART – Art

ART 111 - Art Appreciation

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may satisfy a general education requirement for Catawba College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3
Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

ART 114 - Art History Survey I

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet

ART 115 - Art History Survey II

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet

ART 116 - Survey of American Art

This course covers the development of American art forms from colonial times to the present. Emphasis is placed on architecture, painting, sculpture, graphics, and the decorative arts. Upon completion, students should be able to demonstrate understanding of the history of the American creative experience. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may satisfy a general education requirement for Catawba*

College.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

ART 121 - Design I

This course introduces the elements and principles of design as applied to two-dimensional art. Emphasis is placed on the structural elements, the principles of visual organization, and the theories of color mixing and interaction. Upon completion, students should be able to understand and use critical and analytical approaches as they apply to two-dimensional visual art. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

ART 122 - Design II

This course introduces basic studio problems in three-dimensional visual design. Emphasis is placed on the structural elements and organizational principles as applied to mass and space. Upon completion, students should be able to apply three-dimensional design concepts. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: ART 121
Co-requisites: None
Course Modalities: Traditional

ART 131 - Drawing I

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 0

Semester(s) Course Schedule to be Offered:

Lab/Clinical/Work Exp. Hours: 6 On Demand
Credit Hours: 3

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

ART132 - Drawing II

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. T*his course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 0 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 6 On Demand
Credit Hours: 3

Prerequisites: ART 131
Co-requisites: None
Course Modalities: Traditional

ART 135 - Figure Drawing I

This course introduces rendering the human figure with various drawing materials. Emphasis is placed on the use of the visual elements, anatomy, and proportion in the representation of the draped and undraped figure. Upon completion, students should be able to demonstrate competence in drawing the human figure. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement*.

Class Hours: 0 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 6 On Demand
Credit Hours: 3

Prerequisites: ART 131
Co-requisites: None
Course Modalities: Traditional

ART 212 - Gallery Assistantship I

This course covers the practical application of display techniques. Emphasis is placed on preparation of artwork for installation, hardware systems, and exhibition graphics. Upon completion, students should be able to demonstrate basic gallery exhibition skills. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 0 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 2 On Demand
Credit Hours: 1

Prerequisites: None

Co-requisites: None
Course Modalities: Traditional

ART 214 - Portfolio and Résumé

This course covers résumé writing, interview skills, and the preparation and presentation of an art portfolio. Emphasis is placed on the preparation of a portfolio of original artwork, the preparation of a photographic portfolio, approaches to résumé writing, and interview techniques. Upon completion, students should be able to mount original art for portfolio presentation, photograph and display a professional slide portfolio, and write an effective résumé. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement*.

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 1

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

ART 235 - Figure Drawing II

This course extends the study and rendering of the draped and undraped human figure. Emphasis is placed on the exploration of materials and approaches to drawing. Upon completion, students should be able to demonstrate creativity in the representation of the figure. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: ART 135
Co-requisites: None
Course Modalities: Traditional

ART 240 - Painting I

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

ART 241 - Painting II

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: ART 240
Co-requisites: None
Course Modalities: Traditional

ART 244 - Watercolor

This course introduces basic methods and techniques used in watercolor. Emphasis is placed on application, materials, content, and individual expression. Upon completion, students should be able to demonstrate a variety of traditional and nontraditional concepts used in watercolor media. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

ART 261 - Photography I

This course introduces photographic equipment, theory, and processes. Emphasis is placed on camera operation, composition, darkroom technique, and creative expression. Upon completion, students should be able to successfully expose, develop, and print a well-conceived composition. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

ART 264 - Digital Photography I

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 4
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

ART 265 - Digital Photography II

This course provides exploration of the concepts and processes of photo manipulation through complex composite images, special effects, color balancing and image/text integration. Emphasis is placed on creating a personal vision and style. Upon completion, students should be able to produce well-executed images using a variety of photographic and photo manipulative approaches. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 4
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: ART 264
Co-requisites: None
Course Modalities: Traditional

ART 281 - Sculpture I

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 variety of sculptural approaches. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement*.

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

ART 288 – Studio

This course provides the opportunity for advanced self-determined work beyond the limits of regular studio course sequences. Emphasis is placed on creative self-expression and in-depth exploration of techniques and materials. Upon completion, students should be able

to create original projects specific to media, materials, and techniques. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

AST – Astronomy

AST 111 - Descriptive Astronomy

This course introduces an overall view of modern astronomy. Topics include an overview of the solar system, the sun, stars, galaxies, and the larger universe. Upon completion, students should be able to demonstrate an understanding of the universe around them. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet, Hybrid

AST 111A - Descriptive Astronomy (Lab)

This course is a laboratory to accompany AST 111. Emphasis is placed on laboratory experiences which enhance the materials presented in AST 111 and which provide practical experience. Upon completion, students should be able to demonstrate an understanding of the universe around them. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 1

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: AST 111
Course Modalities: Traditional

AST 151 - General Astronomy I

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course may satisfy a general*

education requirement for Catawba College.

Class Hours: 3 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 0 Fall, Spring, Summer
Credit Hours: 3
Prerequisites: MAT 070 or acceptable placement test score (Local)
Co-requisites: None
Course Modalities: Traditional, Internet, Hybrid

AST 151A - General Astronomy I (Lab)

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course may satisfy a general education requirement for Catawba College.*

Class Hours: 0 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 2 Fall, Spring, Summer
Credit Hours: 1

Prerequisites: None
Co-requisites: AST 151
Course Modalities: Traditional, Internet

AST 152 - General Astronomy II

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course may satisfy a general education requirement for Catawba College.*

Class Hours: 3 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 0 Fall, Spring, Summer
Credit Hours: 3

Prerequisites: AST 151
Co-requisites: None
Course Modalities: Traditional, Internet, Hybrid

AST 152A - General Astronomy II (Lab)

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course may satisfy a general education requirement for Catawba College.*

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 1

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: AST 151; and AST 151A (Local)
Co-requisites: AST 152
Course Modalities: Traditional, Internet

AST 251 - Observational Astronomy

This course covers the operation of the telescope and related observatory equipment. Emphasis is placed on the use of the telescope and related observatory equipment, including techniques of data collection, measurements, and data analysis. Upon completion, students should be able to set up a telescope and use the coordinate system to locate objects, collect data, and make measurements with the telescope. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: AST 111 or AST 152; and AST 152A (Local)
Co-requisites: None
Course Modalities: Traditional

AUT – Automotive

AUT 110 - Introduction to Automotive Technology

This course covers workplace safety, hazardous material and environmental regulations, use of hand tools, service information resources, basic concepts, systems, and terms of automotive technology. Topics include familiarization with vehicle systems along with identification and proper use of various automotive hand and power tools. Upon completion, students should be able to describe safety and environmental procedures, terms associated with automobiles, and identify and use basic tools and shop equipment.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

AUT 113 - Automotive Servicing I

This course is a lab used as an alternative to co-op placement. Emphasis is placed on shop operations, troubleshooting, testing, adjusting, repairing, and replacing components using

appropriate test equipment and service information. Upon completion, students should be able to perform a variety of automotive repairs using proper service procedures and to operate appropriate equipment.

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Summer

Prerequisites: AUT 181, AUT 183; AUT 141, AUT 151, AUT 163 (Local)
Co-requisites: None
Course Modalities: Traditional

AUT 116 - Engine Repair

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: AUT 116A (Local)
Course Modalities: Traditional

AUT 116A - Engine Repair - Lab

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.

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 1

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: AUT 116
Course Modalities: Traditional

AUT 141 - Suspension & Steering Systems

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: None
Co-requisites: AUT 141A (Local)
Course Modalities: Traditional

AUT 141A - Suspension & Steering - Lab

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.

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 1

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: None
Co-requisites: AUT 141
Course Modalities: Traditional

AUT 151 - Brake Systems

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: None
Co-requisites: AUT 151A (Local)
Course Modalities: Traditional

AUT 151A - Brake Systems - Lab

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.

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 1

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: None
Co-requisites: AUT 151
Course Modalities: Traditional

AUT 161 - Basic Automotive Electricity

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.

Class Hours: 4
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 5

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

AUT 163 - Advanced Automotive Electricity

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: AUT 161
Co-requisites: AUT 163A (Local)
Course Modalities: Traditional

AUT 163A - Advanced Automotive Electricity Lab

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.

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 1

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: AUT 163
Course Modalities: Traditional

AUT 171 - Automotive Climate Control

This course covers the theory of refrigeration and heating, electrical/electronic/pneumatic

controls, and diagnosis/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 describe the operation, diagnose, and safely service climate control systems using appropriate tools, equipment, and service information.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 4
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Summer

Prerequisites: AUT 161 (Local)
Co-requisites: None
Course Modalities: Traditional

AUT 181 - Engine Performance I

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 drivability problems using appropriate test equipment/ service information.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Day: Spring

Prerequisites: AUT 161 (Local)
Co-requisites: AUT 181A (Local)
Course Modalities: Traditional

AUT 181A - Engine Performance I Lab

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 drivability problems using appropriate test equipment/service information.

Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 1

Spring

Prerequisites: None
Co-requisites: AUT 181
Course Modalities: Traditional

AUT 183 - Engine Performance II

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Summer

Prerequisites: AUT 181
Co-requisites: None
Course Modalities: Traditional

AUT 186 - PC Skills for Automotive Techs

This course introduces students to personal computer literacy and Internet literacy with an emphasis on the automotive 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 automotive technology and perform word processing.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Summer

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

AUT 221 - Automotive Transmission / Transaxles

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: AUT 161 (Local)
Co-requisites: AUT 221A (Local)
Course Modalities: Traditional

AUT 221A - Automotive Transmission / Transaxles Lab

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.

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 1

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: None
Co-requisites: AUT 221
Course Modalities: Traditional

AUT 231 - Manual Transmission / Axles / Drive Trains

This course covers the operation, diagnosis, and repair of manual transmissions/ transaxles, clutches, drive shafts, axles, and final drives. Topics include theory of torque, power flow, and manual drive train servicing 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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: AUT 161 (Local)
Co-requisites: AUT 231A (Local)
Course Modalities: Traditional

AUT 231A - Manual Transmission / Axles / Drive Trains Lab

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.

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 1

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: AUT 231
Course Modalities: Traditional

AUT 285 - Introduction to Alternative Fuels

This course is an overview of alternative fuels and alternative fueled vehicles. Topics include composition and use of alternative fuels, including compressed natural gas, propane, biodiesel, ethanol, electric, hydrogen, synthetic fuels, and vehicles that use alternative fuels. Upon completion, students should be able to identify alternative fuel vehicles, explain how each alternative fuel delivery system works, and make minor repairs.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: AUT 141, AUT 151, AUT 163, AUT 181, and AUT 183 (Local)
Co-requisites: None
Course Modalities: Traditional

BIO – Biology

BIO 106 - Intro. to Anatomy / Physiology / Microbiology

This course covers the fundamental and principle concepts of human anatomy and physiology and microbiology. Topics include an introduction to the structure and function of cells, tissues, and human organ systems, and an overview of microbiology, epidemiology, and control of microorganisms. Upon completion, students should be able to identify structures and functions of the human body and describe microorganisms and their significance in health and disease.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3
Prerequisites: None
Co-requisites: None
Course Modalities: Hybrid

Semester(s) Course Schedule to be Offered:
Summer

BIO 110 - Principles of Biology

This course provides a survey of fundamental biological principles for non-science majors. Emphasis is placed on basic chemistry, cell biology, metabolism, genetics, taxonomy, evolution, ecology, diversity, and other related topics. Upon completion, students should be able to demonstrate increased knowledge and better understanding of biology as it applies to everyday life. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 4

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

Semester(s) Course Schedule to be Offered:
On Demand

BIO 111 - General Biology I

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 4

Prerequisites: RED 090 or appropriate placement test score (Local)
Co-requisites: None
Course Modalities: Hybrid

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

BIO 112 - General Biology II

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course may satisfy a general education requirement for Catawba College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: BIO 111
Co-requisites: None
Course Modalities: Hybrid

BIO 140 - Environmental Biology

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 contemporary environmental issues. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring, Summer

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

BIO 140A - Environmental Biology (Lab)

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 contemporary environmental issues. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/ mathematics.*

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 1

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: None
Co-requisites: BIO 140
Course Modalities: Traditional

BIO 163 - Basic Anatomy & Physiology

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 4
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 5

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: RED 090 or acceptable placement test score (Local)
Co-requisites: None
Course Modalities: Traditional

BIO 168 - Anatomy and Physiology I

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, 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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: RED 090 or acceptable placement test score (Local)
Co-requisites: None
Course Modalities: Traditional, Hybrid

BIO 169 - Anatomy and Physiology II

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: BIO 168 with a grade of "C" or better
Co-requisites: None
Course Modalities: Traditional, Hybrid

BIO 250 - Genetics

This course covers principles of prokaryotic and eukaryotic cell genetics. Emphasis is placed on the molecular basis of heredity, chromosome structure, and 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. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: BIO 112
Co-requisites: None
Course Modalities: Traditional

BIO 275 - Microbiology

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: BIO 110 or BIO 112 or BIO 163 or BIO 165 or BIO 168
Co-requisites: None
Course Modalities: Traditional

BIO 280 - Biotechnology

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: BIO 111 or CHM 131 or CHM 151
Co-requisites: None
Course Modalities: Traditional

BPR - Blueprint Reading

BPR 111 - Blueprint Reading

This course introduces the basic principles of blueprint reading. Topics include line types, orthographic projections, dimensioning methods, and notes. Upon completion, students should be able to interpret basic blueprints and visualize the features of a part.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

BPR 121 - Blueprint Reading: Mechanical

This course covers the interpretation of intermediate blueprints. Topics include tolerancing, auxiliary views, sectional views, and assembly drawings. Upon completion, students should be able to read and interpret a mechanical working drawing.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: BPR 111 or MAC 131
Co-requisites: None
Course Modalities: Traditional

BPR 130 - Blueprint Reading/Construction

This course covers the interpretation of blueprints and specifications that are associated with the construction trades. Emphasis is placed on interpretation of details for foundations, floor plans, elevations, and schedules. Upon completion, students should be able to read and interpret a set of construction blueprints.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Day: Fall

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

BPR 230 – Commercial Blueprints

This course covers blueprints specific to commercial structures and requires basic blueprint reading skills and/or a commercial construction background. Topics include site, structural,

mechanical, electrical, and plumbing blueprints and specifications. Upon completion, students should be able to interpret commercial blueprints and specifications.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Day: Fall

Prerequisites: BPR-130
Co-requisites: None
Course Modalities: Traditional

BTC – Biotechnology

BTC 150 – Bioethics

This course introduces the current ethics issues surrounding the biotechnology industries. Topics will include risk assessment, the relationships between science, technology, and society, and the effects of new biotechnology products upon the natural world. Upon completion, students should be able to demonstrate knowledge and critical thinking skills in decision-making related to bioethical issues.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: RED 090
Course Modalities: Traditional

BTC 181 - Basic Lab Techniques

This course introduces the basic skills and knowledge necessary in a biological or chemical laboratory. Emphasis is placed on good manufacturing practices, safety, solution preparation, and equipment operation and maintenance following standard operating procedures. Upon completion, students should be able to prepare and perform basic laboratory procedures using lab ware, solutions, and equipment according to prescribed protocols.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: MAT 070 or appropriate placement test score (Local)
Co-requisites: None
Course Modalities: Traditional, Hybrid

BTC 270 - Recombinant DNA Tech

This course covers basic methods in biotechnology for the manipulation of nucleic acids. Emphasis is placed on topics concerning techniques used in recombinant DNA technology, including PCR, restriction digests, mapping, cloning, and forensics. Upon completion, students should have an understanding of the theory, practice, and application of

recombinant DNA techniques.

Class Hours:3
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: (BTC 250 or BIO 250) and BTC 181
Co-requisites: None
Course Modalities: Traditional

BTC 281 - Bioprocess Techniques

This course covers processes used in the production of biomolecules. Emphasis is placed on the production, characterization, and purification of biological products using fermentation, centrifugation, filtration, electrophoresis, and other techniques used in industry. Upon completion, students should be able to produce biological products using the various methods of bioprocessing.

Class Hours:2
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: BTC 181
Co-requisites: None
Course Modalities: Traditional

BTC 282 - Biotech Fermentation I

This course provides an introduction to fermentor classification and configuration for small-scale laboratory processes utilizing prokaryotic organisms to demonstrate techniques used in fermentation procedures. Topics include batch process records, fermentor design, fermentation theory, and medium formulation, as well as techniques used for cell harvesting, cell disruption and fractionation methods. Upon completion, students should be able to set up a fermentor; grow prokaryotic cells, and isolate and collect various fractions derived from fermentation.

Class Hours:2
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: BTC 181
Co-requisites: None
Course Modalities: Traditional

BTC 283 - Biotech Fermentation II

This course introduces techniques for recovery of fermentation products to include removal of insolubles, product isolation, high resolutions techniques and product polishing using eukaryotic cells. Topics include filter design, separation processes such as flocculation, coagulation, distillation, liquid-liquid extraction, different types of chromatography and emerging technologies for product recovery. Upon completion, students should be able to perform eukaryotic cell cultivation and various separation techniques used in small-scale fermentation with an understanding of scale-up procedures.

Class Hours:2
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: BTC 282
Co-requisites: None
Course Modalities: Traditional

BTC 285 - Cell Culture

This course introduces the theory and practices required to successfully initiate and maintain plant and animal cell cultures. Topics include aseptic techniques, the growth environment, routine maintenance of cell cultures, specialized culture techniques, and various applications. Upon completion, students should be able to demonstrate the knowledge and skills required to grow, maintain, and manipulate cells in culture.

Class Hours:2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: BIO 175 or BIO 275
Co-requisites: None
Course Modalities: Traditional

BTC 286 - Immunological Techniques

This course covers the principles and practices of modern immunology, including the interactions between the various cellular and chemical components of the immune response. Topics include antigens, humoral immunity, cellular immunity, complement, immunological assays, and hybridoma use and production. Upon completion, students should be able to discuss the immune response, perform immunological assays, and make monoclonal antibody-producing hybridomas.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: BTC 285
Co-requisites: None

Course Modalities: Traditional

BTC 288 - Biotech Lab Experience

This course provides an opportunity to pursue an individual laboratory project in biotechnology. Emphasis is placed on developing, performing, and maintaining records of a project in a specific area of interest. Upon completion, students should be able to complete the project with accurate records and demonstrate an understanding of the process.

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Summer

Prerequisites: BIO 250 or BTC 270 and BTC 281, BTC 285 or BTC 286
Co-requisites: None
Course Modalities: Traditional

BUS – Business

BUS 110 - Introduction to Business

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall , Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet

BUS 115 - Business Law I

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet

BUS 121 - Business Mathematics

This course covers fundamental mathematical operations and their application to business problems. Topics include payroll, pricing, interest and discount, commission, taxes, and other pertinent uses of mathematics in the field of business. Upon completion, students should be able to apply mathematical concepts to business.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: MAT 060 or acceptable placement test score
Co-requisites: None
Course Modalities: Traditional, Internet

BUS 125 - Personal Finance

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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet

BUS 137 - Principles of Management

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet

BUS 153 - Human Resource Management

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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet

BUS 217 - Employment Law and Regulations

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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet

BUS 225 Business Finance

This course provides an overview of business financial management. Emphasis is placed on financial statement analysis, time value of money, management of cash flow, risk and return, and sources of financing. Upon completion, students should be able to interpret and apply the principles of financial management.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: ACC 120
Co-requisites: None
Course Modalities: Traditional, Internet

BUS 230 - Small Business Management

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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

BUS 240 - Business Ethics

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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet

BUS 253 - Leadership and Management Skills

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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet

BUS 260 - Business Communication

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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: ENG 111
Co-requisites: None
Course Modalities: Traditional, Internet

BUS 280 - REAL Small Business

This course introduces hands-on techniques and procedures for planning and opening a small business, including the personal qualities needed for entrepreneurship. Emphasis is placed on market research, finance, time management, and day-to-day activities of owning/operating a small business. Upon completion, students should be able to write and implement a viable business plan and seek funding.

Class Hours: 4
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

CAR – Carpentry

CAR 120 – Commercial Carpentry I

This course introduces the theory and construction methods associated with general construction, including framing, materials, tools, and equipment. Topics include safety, hand/power tool use, blueprints, rigging, construction framing, windows, exterior doors, and other related topics. Upon completion, students should be able to safely demonstrate

basic general carpentry skills with supervision.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 12
Credit Hours: 6

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

CAR 125 – Commercial Carpentry II

This course covers the advanced theory and construction methods associated with the building industry including concrete framing, reinforcing, and placement. Topics include safety, hand/power tool use, blueprints, concrete construction methods, light equipment operation, and other related topics. Upon completion, students should be able to safely demonstrate concrete construction skills with supervision.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 12
Credit Hours: 6

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: CAR 120
Co-requisites: None
Course Modalities: Traditional

CAR 135 – Commercial Carpentry IV

This course covers more advanced construction practices and procedures, as well as management concepts. Topics include safety, hand/power tool use, stairs, walls, floors, welding, metal building assembly, management and supervision, measurement and layout, and other related topics. Upon completion, students should be able to demonstrate skills in advanced construction procedures and processes with supervision.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 12
Credit Hours: 6

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: CAR 120
Co-requisites: None
Course Modalities: Traditional

CAR 150 – Concrete Construction

This course covers methods of erecting forms and placing concrete. Topics include safety, hand/power tool use, blueprints, rigging, form construction, reinforcement, and placement. Upon completion, students should be able to demonstrate skills in concrete construction procedures and processes with supervision.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 9
Credit Hours: 5

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

CHM – Chemistry

CHM 090 - Chemistry Concepts

This course provides a non-laboratory based introduction to basic concepts of chemistry. Topics include measurements, matter, energy, atomic theory, bonding, molecular structure, nomenclature, balancing equations, stoichiometry, solutions, acids and bases, gasses, and basic organic chemistry. Upon completion, students should be able to understand and apply basic chemical concepts and demonstrate basic laboratory skills necessary for success in college-level science courses. This course is designed to prepare students for college level work and will not satisfy **Credit Hours** for any degree, diploma or certificate program. This course will not transfer to a four-year institution but will transfer to any of the community colleges within the N.C. Community College System; however, it will not satisfy any degree, diploma or certificate requirements at the receiving institution. Credit earned for this course will only satisfy the **Prerequisites** for entry into a curriculum level course.

Class Hours: 4
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: ENG 111 and MAT 070 or RED 090 and MAT 070 or acceptable placement test score (Local)
Co-requisites: None
Course Modalities: Traditional, Hybrid

CHM 131 - Introduction to Chemistry

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. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course may satisfy a general education requirement for Catawba College.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: ENG 111 and MAT 070 or RED 090 and MAT 070 or acceptable placement test score (Local)
Co-requisites: None
Course Modalities: Traditional

CHM 131A - Introduction to Chemistry (Lab)

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course may satisfy a general education requirement for Catawba College.*

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 1

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: None
Co-requisites: CHM 131
Course Modalities: Traditional

CHM 132 - Organic and Biochemistry

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: CHM 131 and CHM 131A or CHM 151
Co-requisites: None
Course Modalities: Traditional

CHM 151 - General Chemistry I

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. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course may satisfy a general education requirement for Catawba College.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: High school chemistry or equivalent within the last five years and MAT 080and RED 090 or acceptable placement test score (Local)
Co-requisites: MAT 161 (Local)

Course Modalities: Traditional

CHM 152 - General Chemistry II

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. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course may satisfy a general education requirement for Catawba College.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: CHM 151 with a grade of "C" or better
Co-requisites: None
Course Modalities: Traditional

CHM 263 - Analytical Chemistry

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 4
Credit Hours: 5

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: CHM 132
Co-requisites: None
Course Modalities: Traditional

CIS - Information Systems

CIS 110 - Introduction to Computers

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics (Quantitative Option).This course is also available through the Virtual Learning Community (VLC). This course may satisfy a general education*

requirement for Catawba College.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: CTS 080, or acceptable score on the Computer Skills Inventory, or successful completion of any Internet or Hybrid courses (Local); and RED 090 or appropriate placement test score(Local)
Co-requisites: None
Course Modalities: Traditional, Internet, Hybrid

CIS 115 - Intro. to Programming & Logic

This course introduces computer programming and problem solving in a structured program logic environment. Topics include language syntax, data types, program organization, and 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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics (Quantitative Option).*

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: MAT 070, MAT 080, MAT 090, MAT 095, MAT 120, MAT 121, MAT 161, MAT 171, or MAT 175 or acceptable placement test score; and CTS 080 or acceptable score on the Computer Skills Inventory; and RED 090 or acceptable placement test score.
Co-requisites: None
Course Modalities: Traditional, Internet, Hybrid

CIS 165 - Desktop Publishing I

This course provides an introduction to desktop publishing software capabilities. Emphasis is placed on efficient use of a page layout software package to create, design, and print publications; hardware/software compatibility; and integration of specialized peripherals. Upon completion, students should be able to prepare publications given design specifications. *This course is also available through the Virtual Learning Community (VLC).*

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

CIV - Civil Engineering

CIV 110 - Statics/Strength of Materials

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, connections, and combined stresses. Upon completion, students should be able to analyze simple structures.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 4

Prerequisites: MAT 121
Co-requisites: None
Course Modalities: Traditional

Semester(s) Course Schedule to be Offered:
On Demand

CIV 111 – Soils and Foundations

This course presents an overview of soil as a construction material using both analysis and testing procedures. Topics include index properties, classification, stress analysis, compressibility, compaction, dewatering, excavation, stabilization, settlement, and foundations. Upon completion, students should be able to perform basic soil tests and analyze engineering properties of soil.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Prerequisites: CIV 110 or MEC 250
Co-requisites: None
Course Modalities: Traditional

Semester(s) Course Schedule to be Offered:
On Demand

CIV 115 – Geotechnical Engineering

This course introduces soil origin, classification, composition, and mechanics, for the purpose of determining strength and stability. Topics include analyzing and testing soil chemistry, taxonomy, permeability, compression, stress analysis, stabilization, and settlement. Upon completion, students should be able to demonstrate an understanding of soils, subsurface exploration techniques, science of earth materials, and fundamental concepts of particulate mechanics.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 4

Prerequisites: CIV 110 or MEC 250
Co-requisites: None
Course Modalities: Traditional

Semester(s) Course Schedule to be Offered:
On Demand

CIV 210 - Engineering Materials

This course covers the behavior and properties of Portland cement and asphaltic concretes and laboratory and field-testing. Topics include cementing agents and aggregates; water and admixtures; proportioning, production, placing, consolidation, and curing; and

inspection methods. Upon completion, students should be able to proportion concrete mixes to attain predetermined strengths and other properties and perform standard control tests.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

CIV 222 – Reinforced Concrete

This course introduces the basic elements of reinforced concrete and masonry structures. Topics include analysis and design of reinforced concrete beams, slabs, columns, footings, and retaining walls; load-bearing masonry walls; and ACI manuals and codes. Upon completion, students should be able to analyze and design components of a structure using reinforced concrete and masonry elements and utilize appropriate ACI publications.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: CIV 110 or MEC 250
Co-requisites: None
Course Modalities: Traditional

CIV 230 - Construction Estimating

This course covers quantity take-offs of labor, materials, and equipment and calculation of direct and overhead costs for a construction project. Topics include the interpretation of working drawings and specifications, types of contracts and estimates, building codes, bidding techniques and procedures, and estimating software. Upon completion, students should be able to prepare a detailed cost estimate and bid documents for a construction project.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring, On Demand

Prerequisites: ARC 111 or CIS 110 or CIS 111 or EGR 115
Co-requisites: None
Course Modalities: Traditional

CIV 240 - Project Management

This course introduces construction planning and scheduling techniques and project management software. Topics include construction safety, operation analysis, construction scheduling, construction control systems, claims and dispute resolutions, project records, and documentation. Upon completion, students should be able to demonstrate an understanding of the roles of construction project participants, maintain construction records, and prepare construction schedules.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

CJC - Criminal Justice

CJC 100 - Basic Law Enforcement Training

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-specific. 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.*

Class Hours: 9
Lab/Clinical/Work Exp. Hours: 30
Credit Hours: 19

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

CJC 111 - Introduction to Criminal

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: None
Co-requisites: None

Course Modalities: Traditional, Internet

CJC 112 - Criminology

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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

CJC 113 - Juvenile Justice

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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

CJC 121 - Law Enforcement Operations

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

CJC 131 - Criminal Law
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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None

Co-requisites: None
Course Modalities: Traditional

CJC 132 - Court Procedure & Evidence

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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

CJC 141 – Corrections

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

CJC 160 - Terrorism: Underlying Issues

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 scenes; 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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None

Co-requisites: None
Course Modalities: Traditional

CJC 212 - Ethics & Community Relations

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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: ENG 112 (Local)
Course Modalities: Traditional

CJC 214 - Victimology

This course introduces the study of victims. Emphasis is placed on roles/characteristics of victims, victim interaction with the criminal justice system and society, current victim assistance programs, and other related topics. Upon completion, students should be able to discuss and identify victims, the uniqueness of victims' roles, and current victim assistance programs.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

CJC 221 - Investigative Principles

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 court-room presentation.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

CJC 222 - Criminalistics

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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

CJC 223 - Organized Crime

This course introduces the evolution of traditional and non-traditional organized crime and its effect on society and the criminal justice system. Topics include identifying individuals and groups involved in organized crime, areas of criminal activity, legal and political responses to organized crime, and other related topics. Upon completion, students should be able to identify the groups and activities involved in organized crime and the responses of the criminal justice system.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

CJC 225 - Crisis Intervention

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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

CJC 231 - Constitutional Law

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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

CJC 233 - Correctional Law

This course introduces statutory/case law pertinent to correctional concepts, facilities, and related practices. Topics include examination of major legal issues encompassing incarceration, probation, parole, restitution, pardon, restoration of rights, and other related topics. Upon completion, students should be able to identify/discuss legal issues which directly affect correctional systems and personnel.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

CJC 241 - Community-Based Corrections

This course covers programs for convicted offenders that are used both as alternatives to incarceration and in post-incarceration situations. Topics include offenders, diversion, house arrest, restitution, community service, probation and parole, including both public and private participation, and other related topics. Upon completion, students should be able to identify/discuss the various programs from the perspective of the criminal justice professional, the offender, and the community.

Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

CMT - Construction Management

CMT 210 - Prof. Construction Supervision

This course introduces the student to the fundamentals of effective supervision emphasizing professionalism through knowledge and applied skills. Topics include safety, planning and scheduling, contract, problem solving, communications, conflict resolution, recruitment, employment laws and regulations, leadership, motivation, teamwork, discipline, setting objectives, and training. Upon completion, the student should be able to demonstrate the basic skills necessary to be successful as a supervisor in the construction industry.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

CMT 212 - Total Safety Performance

This course covers the importance of managing safety and productivity equally by encouraging people to take individual responsibility for safety and health in the workplace. Topics include safety management, controlling construction hazards, communicating and enforcing policies, OSHA compliance, personal responsibility and accountability, safety planning, training, and personal protective equipment. Upon completion, students should be able to supervise safety at a construction job site and qualify for the OSHA Training Certification.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: CMT 210
Course Modalities: Traditional

CMT 214 - Planning and Scheduling

This course covers the need for the process of planning construction projects, as well as the mechanics and vocabulary of project scheduling. Topics include project preplanning, scheduling format, planning for production, short interval planning, schedule updating and revising and computer-based planning and scheduling. Upon completion, the student should be able to understand the need for planning and scheduling, the language and logic of scheduling, and use of planning skills.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: CMT 210 and BPR 130
Co-requisites: None
Course Modalities: Traditional

CMT 216 - Costs and Productivity

This course covers the relationships between time, work completed, work-hours spent,

schedule duration, equipment hours, and materials used. Topics include production rates, productivity unit rates, work method improvements, and overall total project cost control. Upon completion, the student should be able to demonstrate an understanding of how costs may be controlled and productivity improved on a construction project.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: CMT 210
Co-requisites: None
Course Modalities: Traditional

CMT 218 - Human Relations Issues

This course provides instruction on human relations issues as they relate to construction project supervision. Topics include relationships, human behavior, and project staffing issues, teamwork, effective communication networks, laws and regulations, and identifying and responding to conflict, crisis, and discipline. Upon completion, the student will demonstrate an understanding of the importance of human relations in the success of a construction project.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: CMT 210
Co-requisites: None

Course Modalities: Traditional

COE - Cooperative Education

COE 110 - World of Work

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.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 1

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

COE 111 - Co-op Work Experience I

This course provides work 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.

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 10
Credit Hours: 1

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: Completion of 12 **Credit Hours** with at least a 2.25 cumulative GPA
Co-requisites: None
Course Modalities: Traditional

COE 112 - Co-op Work Experience I

This course provides work 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.

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 20
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: Completion of 12 **Credit Hours** with at least a 2.25 cumulative GPA
Co-requisites: None
Course Modalities: Traditional

COE 113 - Co-op Work Experience I

This course provides work 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.

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 30
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: Completion of 12 **Credit Hours** with at least a 2.25 cumulative GPA
Co-requisites: None
Course Modalities: Traditional

COE 114 - Co-op Work Experience I

This course provides work 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.

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 40
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: Completion of 12 **Credit Hours** with at least a 2.25 cumulative GPA
Co-requisites: None
Course Modalities: Traditional

COE 121 - Co-op Work Experience II

This course provides work 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.

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 10
Credit Hours: 1

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: COE 111 or COE 112 or COE 113 or COE 114 (Local)
Co-requisites: None
Course Modalities: Traditional

COE 122 - Co-op Work Experience II

This course provides work 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.

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 20
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: COE 111 or COE 112 or COE 113 or COE 114 (Local)
Co-requisites: None
Course Modalities: Traditional

COE 123 - Co-op Work Experience II

This course provides work 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.

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 30
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: COE 111 or COE 112 or COE 113 or COE 114(Local)
Co-requisites: None
Course Modalities: Traditional

COE 131 - Co-op Work Experience III

This course provides work 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.

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 10
Credit Hours: 1

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: COE 121 or COE 122 or COE 123 (Local)
Co-requisites: None
Course Modalities: Traditional

COE 132 - Co-op Work Experience III

This course provides work 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.

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 20
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: COE 121 or COE 122 or COE 123 (Local)
Co-requisites: None
Course Modalities: Traditional

COE 211 - Co-op Work Experience IV

This course provides work 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.

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 10
Credit Hours: 1

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: COE 131 or COE 132 (Local)
Co-requisites: None
Course Modalities: Traditional

COM – Communication

COM 110 - Introduction to Communication

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts (substitute). This course may satisfy a general education requirement for Catawba College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet, Hybrid, Telecourse

COM 120 - Introduction to Interpersonal Communication

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts (substitute).*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet

COM 130 - Nonverbal Communication
This course introduces the contemporary study of nonverbal communication in daily life. Topics include haptics, kinesics, proxemics, facial displays, and appearance. Upon completion, students should be able to analyze/interpret nonverbal communication and demonstrate greater awareness of their own nonverbal communication habits. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: COM 110 or COM 120
Co-requisites: None
Course Modalities: Traditional

COM 140 - Introduction to Intercultural Communication

This course introduces techniques of cultural research, definitions, functions, characteristics, and impacts of cultural differences in public address. Emphasis is placed on how diverse backgrounds influence the communication act and how cultural perceptions and experiences determine how one sends and receives messages. Upon completion, students should be able to demonstrate an understanding of the principles and skills needed to become effective in communicating outside one's primary culture. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

COM 150 - Introduction to Mass Communication

This course introduces print and electronic media and the new information technologies in terms of communication theory and as economic, political, and social institutions. Emphasis is on the nature, history, functions, and responsibilities of mass communication industries in a global environment and their role and impact in American society. Upon completion, students should have an awareness of the pervasive nature of the mass media and how the media operate in an advanced post-industrial society. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: ENG 111
Co-requisites: ENG 112, ENG 113 or ENG 114
Course Modalities: Traditional, Internet

COM 160 - Small Group Communication

This course provides an overview of the theory, practice, and critical analysis of communication in the small group setting. Emphasis is placed on group development, conflict, and conformity; leadership skills and styles; group roles and ranks; and decision making, problem solving, and conflict resolution. Upon completion, students should be able to apply topics of gender, culture, and social-emotional functions within group settings. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

COM 231 - Public Speaking

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts (substitute). This course may satisfy a general education requirement for Catawba College*.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet , Hybrid

COM 232 - Election Rhetoric

This course provides an overview of communication styles and topics characteristic of election campaigns. Topics include election speeches, techniques used in election campaigns, and election speech topics. Upon completion, students should be able to identify and analyze techniques and styles typically used in election campaigns. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet

COM 233 - Persuasive Speaking

This course introduces theory and history of persuasive speaking, covering critical thinking skills in analyzing problems, assessing solutions, and communicating the information to an audience. Emphasis is placed on analysis, evidence, reasoning, and library and field research used to enhance persuasive public speaking skills. Upon completion, students should be able to apply the principles of persuasive speaking in a public setting. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: ENG 112 or ENG 113
Co-requisites: None
Course Modalities: Traditional

COM 251 - Debate I

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

COM 252 - Debate II

This course continues the study of debate begun in COM 251. Emphasis is placed on argument, refutation, research, and logic. Upon completion, students should be able to demonstrate proficiency in research skills, logic, and presentation of ideas within the context of formal debate. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: COM 251
Co-requisites: None
Course Modalities: Traditional

COS – Cosmetology

COS 111 - Cosmetology Concepts I

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.

Class Hours: 4
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: None
Co-requisites: COS 112
Course Modalities: Traditional

COS 112 - Salon I

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.

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 24
Credit Hours: 8

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: None
Co-requisites: COS 111
Course Modalities: Traditional

COS 113 - Cosmetology Concepts II

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.

Class Hours: 4
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: COS 111 (Local)
Co-requisites: COS 114
Course Modalities: Traditional

COS 114 - Salon II

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.

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 24
Credit Hours: 8

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: COS 112 (Local)
Co-requisites: COS 113
Course Modalities: Traditional

COS 115 - Cosmetology Concepts III

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.

Class Hours: 4
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Summer

Prerequisites: COS 111 (Local)
Co-requisites: COS 116
Course Modalities: Traditional

COS 116 - Salon III

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.

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 12
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Summer

Prerequisites: COS 112 (Local)
Co-requisites: COS 115
Course Modalities: Traditional

COS 117 - Cosmetology Concepts IV

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: COS 115 (Local)
Co-requisites: COS 118
Course Modalities: Traditional

COS 118 - Salon IV

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.

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 21
Credit Hours: 7

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: COS 116 (Local)
Co-requisites: COS 117
Course Modalities: Traditional

COS 119 - Esthetics Concepts I

This course covers the concepts of esthetics. Topics include orientation, anatomy, physiology, hygiene, sterilization, first aid, chemistry, basic dermatology, and professional ethics. Upon completion, students should be able to demonstrate an understanding of the concepts of esthetics and meet course requirements.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: COS 120 (Local)
Course Modalities: Traditional

COS 120 - Esthetics Salon I

This course covers the techniques of esthetics in a comprehensive experience in a simulated salon setting. Topics include client consultation, facials, body treatments, hair removal, make-up applications, and color analysis. Upon completion, students should be able to safely and competently demonstrate esthetic services on clients in a salon setting.

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 18
Credit Hours: 6

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: COS 119 (Local)
Course Modalities: Traditional

COS 121 - Manicure/Nail Technology I

This course covers techniques of nail technology, hand and arm massage, and recognition of nail diseases and disorders. Topics include OSHA/safety, sanitation, bacteriology, product knowledge, salesmanship, manicures, artificial applications, pedicures, massage, and other related topics. Upon completion, students should be able to safely and competently perform nail care, including manicures, pedicures, massage, decorating, and artificial applications in a salon setting.

Class Hours: 4
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 6

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

COS 125 - Esthetics Concepts II

This course covers more comprehensive esthetics concepts. Topics include nutrition, business management, make-up, and color analysis. Upon completion, students should be able to demonstrate an understanding of the advanced esthetics concepts and meet course requirements.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 0

Semester(s) Course Schedule to be Offered:
Spring

Credit Hours: 2

Prerequisites: COS 119 & COS 120 (Local)
Co-requisites: COS 126 (Local)
Course Modalities: Traditional

COS 126 - Esthetics Salon II

This course provides experience in a simulated esthetics setting. Topics include machine facials, aroma therapy, massage therapy, electricity, and apparatus. Upon completion, students should be able to demonstrate competence in program requirements and the areas covered on the Cosmetology Licensing Examination for Estheticians.

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 18
Credit Hours: 6

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: COS 119 & COS 120 (Local)
Co-requisites: COS 125 (Local)
Course Modalities: Traditional

COS 222 - Manicure/Nail Technology II

This course covers advanced techniques of nail technology and hand and arm massage. Topics include OSHA/safety, product knowledge, customer service, salesmanship, artificial applications, nail art, and other related topics. Upon completion, students should be able to demonstrate competence necessary for the licensing examination, including advanced nail care, artificial enhancements, and decorations.

Class Hours: 4
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 6

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: COS 121
Co-requisites: None
Course Modalities: Traditional

COS 223 - Contemporary Hair Coloring

This course covers basic color concepts, hair coloring problems, and application techniques. Topics include color theory, terminology, contemporary techniques, product knowledge, and other related topics. Upon completion, students should be able to identify a client's color needs and safely and competently perform color applications and correct problems.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: COS 111 and COS 112 ; and COS 115 and COS116 (Local)
Co-requisites: COS 240 (Local)
Course Modalities: Traditional

COS 240 - Contemporary Design

This course covers methods and techniques for contemporary designs. Emphasis is placed on contemporary designs and other related topics. Upon completion, students should be able to demonstrate and apply techniques associated with contemporary design.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: COS 111 and COS 112; COS 115/116 (Local)
Co-requisites: COS 223 (Local)
Course Modalities: Traditional

COS 251 - Manicuring Instructor Concepts

This course introduces manicuring instructional concepts. Topics include orientation, theories of education, unit planning, daily lesson planning, laboratory management, student assessment, record keeping, and other related topics. Upon completion, students should be able to identify theories of education, develop lesson plans, demonstrate supervision techniques, and assess student classroom performance.

Class Hours: 8
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 8

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: Current North Carolina Manicurist or Cosmetologist License and six months experience as a licensed cosmetologist or manicurist. (Local)
Co-requisites: COS 252 (Local)
Course Modalities: Traditional

COS 252 - Manicuring Instructor Practicum

This course covers supervisory and instructional skills for teaching manicuring students in a laboratory setting. Topics include demonstrations of services, supervision, student assessment, and other related topics. Upon completion, students should be able to demonstrate competence in the areas covered by the Manicuring Instructor Licensing Examination and meet program completion requirements.

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 15
Credit Hours: 5

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: Current North Carolina Manicurist or Cosmetologist License and six months experience as a licensed cosmetologist or manicurist. (Local)
Co-requisites: COS 251
Course Modalities: Traditional

COS 253 - Esthetics Instructor Concepts I

This course introduces esthetic instructional concepts and skills. Topics include orientation, theories of education, unit planning, daily lesson plans, laboratory management, and student assessment in a laboratory setting. Upon completion, students should be able to demonstrate esthetic services and instruct and objectively assess student performance in a classroom setting.

Class Hours: 6

Semester(s) Course Schedule to be Offered:

Lab/Clinical/Work Exp. Hours: 15 On Demand
Credit Hours: 11

Prerequisites: Current North Carolina Cosmetologist or Esthetician License and six months experience as a licensed esthetician or cosmetologist. (Local)
Co-requisites: None
Course Modalities: Traditional

COS 254 - Esthetics Instructor Concepts II

This course covers advanced esthetic instructional concepts and skills. Topics include practical demonstrations, lesson planning, lecture techniques, development and administration of assessment tools, record keeping and other related topics. Upon completion, students should be able to demonstrate competencies in the areas covered by the Esthetics Instructor Licensing Examination and meet program requirements.

Class Hours: 6 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 15 On Demand
Credit Hours: 11

Prerequisites: Current North Carolina Cosmetologist or Esthetician License and six months experience as a licensed esthetician or cosmetologist. (Local)
Co-requisites: None
Course Modalities: Traditional

COS 271 - Instructor Concepts I

This course introduces the basic cosmetology instructional concepts. Topics include orientation, theories of education, unit planning, daily lesson planning, laboratory management, student assessment, record keeping, and other related topics. Upon completion, students should be able to identify theories of education, develop lesson plans, demonstrate supervisory techniques, and assess student performance in a classroom setting.

Class Hours: 5 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 0 On Demand
Credit Hours: 5

Prerequisites: Current North Carolina Cosmetologist License and six months' experience as a licensed cosmetologist. (Local)
Co-requisites: COS 272
Course Modalities: Traditional

COS 272 - Instructor Practicum I

This course covers supervisory and instructional skills for teaching entry-level cosmetology students in a laboratory setting. Topics include demonstrations of services, supervision, and entry-level student assessment. Upon completion, students should be able to demonstrate salon services and instruct and objectively assess the entry-level student.

Class Hours: 0 ***Semester(s) Course Schedule to be Offered:***

Lab/Clinical/Work Exp. Hours: 21 On Demand
Credit Hours: 7

Prerequisites: Current North Carolina Cosmetologist License and six months' experience as a licensed cosmetologist. (Local)
Co-requisites: COS 271
Course Modalities: Traditional

COS 273 - Instructor Concepts II

This course covers advanced cosmetology instructional concepts. Topics include practical demonstrations, lesson planning, lecture techniques, development and administration of assessment tools, record keeping, and other related topics. Upon completion, students should be able to develop lesson plans, demonstrate supervision techniques, assess student performance in a classroom setting, and keep accurate records.

Class Hours: 5 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 0 On Demand
Credit Hours: 5

Prerequisites: COS 271 and COS 272
Co-requisites: COS 274
Course Modalities: Traditional

COS 274 - Instructor Practicum II

This course is designed to develop supervisory and instructional skills for teaching advanced cosmetology students in a laboratory setting. Topics include practical demonstrations, supervision, and advanced student assessment. Upon completion, students should be able to demonstrate competence in the areas covered by the Instructor Licensing Examination and meet program completion requirements.

Class Hours: 0 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 21 On Demand
Credit Hours: 7

Prerequisites: COS 271 and COS 272
Co-requisites: COS 273
Course Modalities: Traditional

CSC - Computer Science

CSC 134 - C++ Programming

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: MAT 070, MAT 080, MAT 090, MAT 095, MAT 120, MAT 121, MAT 161, MAT 171, or MAT 175 or acceptable placement test score; and CTS 080 or acceptable score on the Computer Skills Inventory (Local); and RED 080 or appropriate placement test score (Local)
Co-requisites: CIS 115 or ELN 133 (Local)
Course Modalities: Traditional, Internet, Hybrid

CSC 135 - COBOL Programming

This course introduces computer programming using the COBOL 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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: CTS 080 or acceptable score on the Computer Skills Inventory (Local); and RED 090 or appropriate placement test score (Local)
Co-requisites: None
Course Modalities: Traditional

CSC 139 - Visual BASIC Programming

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. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: MAT 070, MAT 080, MAT 090, MAT 095, MAT 120, MAT 121, MAT 161, MAT 171, or MAT 175 or acceptable placement test score; and CTS 080 or acceptable score on the Computer Skills Inventory (Local); and RED 080 or appropriate placement test score (Local)
Co-requisites: CIS 115 or ELN 133 (Local)
Course Modalities: Traditional

CSC 151 - JAVA Programming

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement*

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: MAT 070, MAT 080, MAT 090, MAT 095, MAT 120, MAT 121, MAT 161, MAT 171, or MAT 175 or acceptable placement test score; and CTS 080 or acceptable score on the Computer Skills Inventory (Local); and RED 080 or appropriate placement test score (Local)
Co-requisites: ELN 133 or CIS 115 (Local)
Course Modalities: Traditional

CSC 153 - C# Programming

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, debug, and implement objects using the appropriate environment at the beginning level.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: MAT 070, MAT 080, MAT 090, MAT 095, MAT 120, MAT 121, MAT 161, MAT 171, or MAT 175 or acceptable placement test score; and CTS 080 or acceptable score on the Computer Skills Inventory (Local); and RED 080 or appropriate placement test score (Local)
Co-requisites: CIS 115 (Local)
Course Modalities: Internet, Hybrid

CSC 234 - Advanced C++ Programming

This course is a continuation of CSC 134 using the C++ programming language with standard programming principles. Emphasis is placed on advanced arrays and tables, file management and 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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: CIS 115 (Local); CSC 134
Co-requisites: None
Course Modalities: Internet, Hybrid

CSC 235 - Advanced COBOL Programming

This course is a continuation of CSC 135 using the COBOL 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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: CSC 135
Co-requisites: None
Course Modalities: Traditional

CSC 239 - Advanced Visual BASIC Programming

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. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: CIS 115 (Local); CSC 139
Co-requisites: None
Course Modalities: Internet, Hybrid

CSC 251 - Advanced JAVA Programming

This course is a continuation of CSC 151 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. Upon completion, students should be able to design, code, test, debug, and implement objects using the appropriate environment.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: CIS 115 (Local); CSC 151
Co-requisites: None
Course Modalities: Traditional, Internet, Hybrid

CSC 289 - Programming Capstone Project

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.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 4
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: CTS 285, CIS 115, CSC 134, CSC 139, and completion of 36 **Credit Hours**
Co-requisites: None
Course Modalities: Internet, Hybrid

CST – Construction

CST 110 – Intro to Construction

This course introduces construction terminology, materials, and practices found at a construction worksite. Emphasis is placed on common and innovative practices, methods, materials, and other related topics of the construction industry. Upon completion, students should be able to successfully identify various practices, methods, and materials used in the construction industry.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Spring, On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

CST 131 – OSHA/Safety/Certification

This course covers the concepts of work site safety. Topics include OSHA regulations, tool safety, and certifications which relate to the construction industry. Upon completion, students should be able to identify and maintain a safe working environment based on OSHA regulations and maintain proper records and certifications.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

CST 231 – Soils and Site Work

This course covers site conditions and soil types and their physical properties. Topics include site preparation, access, mechanical analysis, classification of soils, and hydrostatics of groundwater. Upon completion, students should be able to adequately

prepare a building site according to plans and specifications.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 4
Course Modalities: Traditional

Semester(s) Course Schedule to be Offered:
On Demand

CST 241 - Planning/Estimating I

This course covers the procedures involved in planning and estimating a residential structure. Topics include labor and equipment with emphasis placed on quantity take-off of materials necessary to construct a residential structure. Upon completion, students should be able to accurately complete a take-off of materials and equipment needs and plan the labor to construct a residential structure.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: BPR 130 or MAT 120, MAT 121, MAT 161, MAT 171 or MAT 175
Co-requisites: None
Course Modalities: Traditional

CTS - Computer Information Technology

CTS 080 - Computing Fundamentals

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. *This course is designed to prepare students for college level work and will not satisfy **Credit Hours** for any degree, diploma or certificate program. This course will not transfer to a four-year institution but will transfer to any of the community colleges within the N.C. Community College System; however, it will not satisfy any degree, diploma or certificate requirements at the receiving institution. Credit earned for this course will only satisfy the **Prerequisites** for entry into a curriculum level course.*

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

CTS 120 - Hardware/Software Support

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: CIS 110 or CIS 111
Co-requisites: None
Course Modalities: Hybrid

CTS 125 - Presentation Graphics

This course provides hands-on experience with a graphics presentation package. Topics include terminology, effective chart usage, design and layout, integrating hardware components, and enhancing presentations with text, graphics, audio and video. Upon completion, students should be able to design and demonstrate an effective presentation.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: CIS 110 or CIS 111
Co-requisites: None
Course Modalities: Traditional, Internet, Hybrid

CTS 130 - Spreadsheet

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. Students will use the Excel software package in this course.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: MAT 060 or appropriate placement score (local) and CIS 110 or CIS 111 or OST 137
Co-requisites: None
Course Modalities: Traditional, Internet

CTS 135 - Integrated Software Introduction

This course instructs students in the Windows or Linux based program suites for word processing, spreadsheet, database, personal information manager, and presentation software. This course prepares students for introductory level skills in database, spreadsheet, personal information manager, word processing, and presentation applications to utilize data sharing. Upon completion, students should be able to design

and integrate data at an introductory level to produce documents using multiple technologies.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 4
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Summer

Prerequisites: CIS 110 or CIS 111
Co-requisites: None
Course Modalities: Hybrid

CTS 155 - Technical Support Functions

This course introduces a variety of diagnostic and instructional tools that are used to evaluate the performance of technical support technologies. Emphasis is placed on technical support management techniques and support technologies. Upon completion, students should be able to determine the best technologies to support and solve actual technical support problems.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Hybrid

CTS 210 - Computer Ethics

This course introduces the student to current legal and ethical issues in the computer/ engineering field. Topics include moral reasoning, ethical standards, intellectual property, social issues, encryption, software piracy, constitutional issues, and public policy in related matters. Upon completion, students should be able to demonstrate an understanding of the moral and social responsibilities and public policy issues facing an industry.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: CIS 110 or CIS 111 or Net 110 or TNE 111
Co-requisites: None
Course Modalities: Traditional

CTS 220 - Adv. Hardware/Software Support

This course provides advanced knowledge and competencies in hardware and operating system technologies for computer technicians to support personal computers. Emphasis is placed on: configuring and upgrading; diagnosis and troubleshooting; as well as preventive maintenance of hardware and system software. Upon completion, students should be able to install, configure, diagnose, perform preventive maintenance, and maintain basic networking on personal computers.

Class Hours: 2

Semester(s) Course Schedule to be Offered:

Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

On Demand

Prerequisites: CIS 120
Co-requisites: None
Course Modalities: Hybrid

CTS 230 - Advanced Spreadsheet

This course covers advanced spreadsheet design and development. Topics include advanced functions and statistics, charting, macros, databases, and linking. Upon completion, students should be able to demonstrate competence in designing complex spreadsheets. Students will use the Excel software package in this course.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:

On Demand

Prerequisites: CIS 130
Co-requisites: None
Course Modalities: Internet, Hybrid

CTS 240 - Project Management

This course introduces computerized project management software. Topics include identifying critical paths, cost management, and problem solving. Upon completion, students should be able to plan a complete project and project time and costs accurately.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:

Fall

Prerequisites: CIS 110 or CIS 111
Co-requisites: None
Course Modalities: Traditional, Hybrid

CTS 285 - Systems Analysis & Design

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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:

On Demand

Prerequisites: CIS 115
Co-requisites: None
Course Modalities: Traditional, Hybrid

CTS 289 - System Support Project

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. This course must be completed at Rowan-Cabarrus Community College for graduation credit.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 4
Credit Hours: 3

Semester(s) Course Schedule to be Offered:

Spring

Prerequisites: CTS 285
Co-requisites: DBA 115, CTS 120, CTS 135, CTS 240, and NET 110 (Local)
Course Modalities: Hybrid

DBA - Database Management Technology

DBA 110 - Database Concepts

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:

Fall

Prerequisites: CIS 110 (Local)
Co-requisites: None
Course Modalities: Traditional, Internet, Hybrid

DBA 115 - Database Application

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:

Spring

Prerequisites: DBA 110 with a grade of "C" or higher
Co-requisites: None
Course Modalities: Traditional, Hybrid

DDF - Design Drafting

DDF 211 - Design Process I

This course emphasizes design processes for finished products. Topics include data collection from manuals and handbooks, efficient use of materials, design sketching, specifications, and vendor selection. Upon completion, students should be able to research and plan the design process for a finished product.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Summer

Prerequisites: DFT 112 (Local)
Co-requisites: None
Course Modalities: Traditional

DEN - Dental

DEN 100 - Basic Orofacial Anatomy

This course provides a basic introduction to 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 demonstrate knowledge of normal structures and development and how they relate to the practice of dental assisting. *This is a diploma-level course.*

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: Enrollment in the Dental Assisting Program (Local)
Co-requisites: None
Course Modalities: Internet, Hybrid

DEN 101 - Preclinical Procedures

This course provides instruction in procedures for the clinical dental assistant as specified by the North Carolina Dental Practice Act. Emphasis is placed on orientation to the profession; infection control techniques; instruments; related expanded functions; and diagnostic, operative, and specialty procedures. Upon completion, students should be able to demonstrate proficiency in clinical dental assisting procedures. *This is a diploma-level course.*

Class Hours: 4
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 7

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: Enrollment in the Dental Assisting Program (Local)
Co-requisites: None

Course Modalities: Hybrid

DEN 102 - Dental Materials

This course provides instruction in identification, properties, evaluation of quality, principles, and procedures related to manipulation and storage of operative and specialty dental materials. Emphasis is placed on the understanding and safe application of materials used in the dental office and laboratory. Upon completion, students should be able to demonstrate proficiency in the laboratory and clinical application of routinely used dental materials. *This is a diploma-level course.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 4
Credit Hours: 5

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: Enrollment in the Dental Assisting Program (Local)
Co-requisites: None
Course Modalities: Hybrid

DEN 103 - Dental Sciences

This course is a study of oral pathology, pharmacology, and dental office emergencies. Topics include oral pathological conditions, dental therapeutics, and management of emergency situations. Upon completion, students should be able to recognize abnormal oral conditions, identify classifications, describe actions and effects of commonly prescribed drugs, and respond to medical emergencies. *This is a diploma-level course.*

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: Enrollment in the Dental Assisting Program (Local)
Co-requisites: None
Course Modalities: Internet

DEN 104 - Dental Health Education

This course covers the study of preventive dentistry to prepare dental assisting students for the role of dental health educator. Topics include etiology of dental diseases, preventive procedures, and patient education theory and practice. Upon completion, students should be able to demonstrate proficiency in patient counseling and oral health instruction in private practice or public health settings. *This is a diploma-level course.*

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: Enrollment in the Dental Assisting Program (Local)
Co-requisites: None
Course Modalities: Hybrid

DEN 105 - Practice Management

This course provides a study of principles and procedures related to management of the dental practice. Emphasis is placed on maintaining clinical and financial records, patient scheduling, and supply and inventory control. Upon completion, students should be able to demonstrate fundamental skills in dental practice management. *This is a diploma-level course.*

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: Enrollment in the Dental Assisting Program (Local)
Co-requisites: None
Course Modalities: Internet

DEN 106 - Clinical Practice I

This course is designed to provide experience assisting in a clinical setting. Emphasis is placed on the application of principles and procedures of four-handed dentistry and laboratory and clinical support functions. Upon completion, students should be able to utilize classroom theory and laboratory and clinical skills in a dental setting. *This is a diploma-level course.*

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 12
Credit Hours: 5

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: DEN 101 Enrollment in the Dental Assisting Program (Local)
Co-requisites: None
Course Modalities: Hybrid

DEN 107 - Clinical Practice II

This course is designed to increase the level of proficiency in assisting in a clinical setting. Emphasis is placed on the application of principles and procedures of four-handed dentistry and laboratory and clinical support functions. Upon completion, students should be able to combine theoretical and ethical principles necessary to perform entry-level skills including functions delegable to a DA II. *This is a diploma-level course.*

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 12
Credit Hours: 5

Semester(s) Course Schedule to be Offered:
Summer

Prerequisites: DEN 106 Enrollment in the Dental Assisting Program (Local)
Co-requisites: None
Course Modalities: Hybrid

DEN 111 - Infection/Hazard Control

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: Enrollment in the Dental Assisting Program (Local)
Co-requisites: None
Course Modalities: Internet

DEN 112 - Dental Radiography

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: Enrollment in the Dental Assisting Program (Local)
Co-requisites: None
Course Modalities: Hybrid

DFT – Drafting

DFT 111 - Technical Drafting I

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.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: DFT 111A (Local)
Course Modalities: Traditional

DFT 111A - Technical Drafting I (Lab)

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.

Class Hours: 0

Semester(s) Course Schedule to be Offered:

Lab/Clinical/Work Exp. Hours: 3 Fall
Credit Hours: 1

Prerequisites: None
Co-requisites: DFT 111 and DFT 151 (Local)
Course Modalities: Traditional

DFT 112 - Technical Drafting II

This course provides for advanced drafting practices and procedures. Topics include detailed working drawings, hardware, fits and tolerances, assembly and subassembly, geometric dimensioning and tolerancing, intersections, and developments. Upon completion, students should be able to produce detailed working drawings.

Class Hours: 1 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 3 Spring
Credit Hours: 2

Prerequisites: DFT 111
Co-requisites: DFT 112A (Local)
Course Modalities: Traditional

DFT 112A - Technical Drafting II (Lab)

This course provides a laboratory setting to enhance advanced drafting skills. Emphasis is placed on practical experiences that enhance the topics presented in DFT 112. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in DFT 112.

Class Hours: 0 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 3 Spring
Credit Hours: 1

Prerequisites: None
Co-requisites: DFT 112
Course Modalities: Traditional

DFT 121 – Introduction to GD&T

This course introduces basic geometric dimensioning and tolerancing principles. Topics include symbols, annotation, theory, and applications. Upon completion, students should be able to interpret and apply basic geometric dimensioning and tolerancing principles to drawings.

Class Hours: 1 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 2 On Demand
Credit Hours: 2

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

DFT 151 – CAD I

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

DFT 152 – CAD II

This course introduces extended CAD applications. Emphasis is placed upon intermediate applications of CAD skills. Upon completion, students should be able to use extended CAD applications to generate and manage drawings.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None

Course Modalities: Traditional

DFT 153 – CAD III

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.

Class Hours: 2

Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

DFT 170 – Engineering Graphics

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. *DFT-170 has been approved for transfer under the Comprehensive Articulation Agreement as a pre-major and/or elective course requirement.*

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2

Semester(s) Course Schedule to be Offered:
On Demand

Credit Hours: 3

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

DRA – Drama

DRA 111 - Theatre Appreciation

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet

DRA 112 - Literature of the Theatre

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet

DRA 122 - Oral Interpretation

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

DRA 126 - Storytelling

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

ECO – Economics

ECO 151 - Survey of Economics

This course introduces basic concepts of micro- and macroeconomics. Topics include supply and demand, optimizing economic behavior, prices and wages, money, interest rates, banking system, unemployment, inflation, taxes, government spending, and international trade. Upon completion, students should be able to explain alternative solutions for economic problems faced by private and government sectors. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: MAT 080 or acceptable placement test score or successful completion of a 100 level MAT course (Local)
Co-requisites: None
Course Modalities: Traditional, Internet, Hybrid

ECO 251 - Principles of Microeconomics

This course introduces economic analysis of individual, business, and industry choices 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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in*

social/behavioral sciences. This course may satisfy a general education requirement for Catawba College.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: MAT 080 or acceptable placement test score or successful completion of a 100 level MAT course (Local)
Co-requisites: None
Course Modalities: Traditional, Internet, Hybrid

ECO 252 - Principles of Macroeconomics

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring, Spring

Prerequisites: MAT 080 or acceptable placement test score or successful completion of a 100 level MAT course (Local)
Co-requisites: None
Course Modalities: Traditional, Internet, Hybrid

EDU – Education

EDU 118 - Principles & Practices of Instructional Assistants

This course covers the instructional assistant's role in the educational system. Topics include history of education, professional responsibilities and ethics, cultural diversity, communication skills, and identification of the optimal learning environment. Upon completion, students should be able to describe the supporting role of the instructional assistant, demonstrate positive communication skills, and discuss educational philosophy.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: Take one set:
Set 1: ENG 080 and RED 080 or appropriate placement test score
Set 2: ENG 085 or appropriate placement test score
Co-requisites: None
Course Modalities: Traditional

EDU 119 - Intro. to Early Childhood Education

This course includes the theories of child development, needs, milestones, and factors that influence development, from conception through approximately 36 months. 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. *This course is also available through the Virtual Learning Community (VLC). This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement. This course may satisfy a major course for the Birth-Kindergarten Education Major at Catawba College, UNC-Charlotte, and Livingstone College.*

Class Hours: 4
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

EDU 131 - Children, Family, and Community

This course covers the development of partnerships between culturally and linguistically diverse families, children, schools and communities. Emphasis is placed on developing skills and identifying benefits for establishing, supporting, and maintaining respectful, collaborative relationships between diverse families, programs/schools, and community agencies/resources. Upon completion, students should be able to explain appropriate relationships between families, educators, and professionals that enhance development and educational experiences of all children. *This course is also available through the Virtual Learning Community (VLC). This course may satisfy a major course for the Birth-Kindergarten Education Major at Catawba College, UNC-Charlotte, and Livingstone College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: Take one set:
Set 1: ENG 080 and RED 080 or appropriate placement test score
Set 2: ENG 085 or appropriate placement test score
Co-requisites: None
Course Modalities: Traditional, Internet

EDU 144 - Child Development I

This course includes the theories of child development, needs, milestones, and factors that influence development, from conception through approximately 36 months. 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. *This course is also available through the Virtual Learning Community (VLC). This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective*

course requirement. This course may satisfy a major course for the Birth-Kindergarten Education Major at Catawba College, UNC-Charlotte, and Livingstone College.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: Take one set:
Set 1: ENG 080 and RED 080 or appropriate placement test score
Set 2: ENG 085 or appropriate placement test score
Co-requisites: None
Course Modalities: Traditional, Internet

EDU 145 - Child Development II

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. *This course is also available through the Virtual Learning Community (VLC). This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement. This course may satisfy a major course for the Birth-Kindergarten Education Major at Catawba College, UNC-Charlotte, and Livingstone College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: Take one set:
Set 1: ENG 080 and RED 080 or appropriate placement test score
Set 2: ENG 085 or appropriate placement test score
Co-requisites: None
Course Modalities: Traditional, Internet

EDU 146 - Child Guidance

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. *This course is also available through the Virtual Learning Community (VLC). This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement. This course may satisfy a major course for the Birth-Kindergarten Education Major at Catawba College, UNC-Charlotte, and Livingstone College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0

Semester(s) Course Schedule to be Offered:
Spring

Credit Hours: 3

Prerequisites: Take one set:
Set 1: ENG 080 and RED 080 or appropriate placement test score
Set 2: ENG 085 or appropriate placement test score
Co-requisites: None
Course Modalities: Traditional, Internet

EDU 151 - Creative Activities

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, adapt, implement and evaluate developmentally supportive learning materials, experiences and environments. *This course may satisfy a major course for the Birth-Kindergarten Education Major at Catawba College, UNC-Charlotte, and Livingstone College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: Take one set:
Set 1: ENG 080 and RED 080 or appropriate placement test score
Set 2: ENG 085 or appropriate placement test score
Co-requisites: None
Course Modalities: Traditional, Hybrid

EDU 153 - Health, Safety, and Nutrition

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. *This course may satisfy a major course for the Birth-Kindergarten Education Major at Catawba College, UNC-Charlotte, and Livingstone College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: Take one set:
Set 1: ENG 080 and RED 080 or appropriate placement test score
Set 2: ENG 085 or appropriate placement test score
Co-requisites: None
Course Modalities: Traditional, Internet

EDU 162 - Observation & Assessment in ECE

This course introduces the research, benefits, goals, and ethical considerations associated with observation and assessment in Early Childhood environments. Emphasis is placed on the implementation of multiple observation/assessment strategies including anecdotal records, event samples, rating scales, and portfolios to create appropriate learning experiences. Upon completion, students should be able to practice responsible assessment and use assessments to enhance programming and collaboration for children and families.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: Take one set:
Set 1: ENG 080 and RED 080 or appropriate placement test score
Set 2: ENG 085 or appropriate placement test score
Co-requisites: None
Course Modalities: Traditional

EDU 163 - Classroom Management & Instruction

This course covers management and instructional techniques with school-age populations. Topics include classroom management and organization, teaching strategies, individual student differences and learning styles, and developmentally appropriate classroom guidance techniques. Upon completion, students should be able to utilize developmentally appropriate behavior management and instructional strategies that enhance the teaching/learning process and promote students' academic success.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: Take one set:
Set 1: ENG 080 and RED 080 or appropriate placement test score
Set 2: ENG 085 or appropriate placement test score
Co-requisites: None
Course Modalities: Traditional

EDU 184 - Early Childhood Introductory Practicum

This course introduces students to early childhood settings and applying skills in a three star (minimum) or NAEYC accredited or equivalent, quality early childhood environment. Emphasis is placed on observing children and assisting in the implementation of developmentally appropriate activities/environments for all children; and modeling reflective/professional practices. Upon completion, students should be able to demonstrate developmentally appropriate interactions with children and ethical/professional behaviors as indicated by assignments and onsite faculty visits. Students in the School-Age Education A55440 program will be placed in a Kindergarten - 2nd grade public school classroom.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: Take one set:
Set 1: ENG 080 and RED 080 or appropriate placement test score and EDU 119
Set 2: ENG 085 or appropriate placement test score and EDU 119

Co-requisites: None
Course Modalities: Traditional

EDU 221 - Children with Exceptionalities

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement at select institutions only. This course may satisfy a major course for the Birth-Kindergarten Education Major at Catawba College, UNC-Charlotte, and Livingstone College.* Please note that this course is a writing intensive course.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: Take one set:
Set 1: ENG 090, RED 090 or appropriate placement test score and EDU 144 and EDU 145
Set 2: ENG 090, RED 090 or appropriate placement test score and PSY 244 and PSY 245
Set 3: ENG 095 or appropriate placement test score and EDU 144 and EDU 145
Set 4: ENG 095 or appropriate placement test score and PSY 244 and PSY 245
Co-requisites: None
Course Modalities: Traditional, Internet

EDU 234 - Infants, Toddlers, and Twos

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. *This course may satisfy a major course for the Birth-Kindergarten Education Major at Catawba College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: Take one set:
Set 1: ENG 090, RED 090 or appropriate placement test score and EDU 119
Set 2: ENG 095 or appropriate placement test score and EDU 119
Co-requisites: None
Course Modalities: Traditional, Internet

EDU 235 - School-Age Development & Programs

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 aged five to twelve and plan and implement developmentally-appropriate activities.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: Take one set:
Set 1: ENG 090, RED 090 or appropriate placement test score
Set 2: ENG 095 or appropriate placement test score
Co-requisites: None
Course Modalities: Internet

EDU 247 - Sensory & Physical Disabilities

This course covers characteristics, intervention strategies, assistive technologies, and inclusive practices for children with sensory and physical disabilities. Topics include inclusive placement options, utilization of support services, other health impairments and family involvement for children with sensory and physical disabilities. Upon completion, students should be able to identify and utilize intervention strategies and service delivery options for those specific disabilities.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: Take one set:
Set 1: ENG 090, RED 090 or appropriate placement test score and EDU 144 and EDU 145
Set 2: ENG 090, RED 090 or appropriate placement test score and PSY 244 and PSY 245
Set 3: ENG 095 or appropriate placement test score and EDU 144 and EDU 145
Set 4: ENG 095 or appropriate placement test score and PSY 244 and PSY 245
Co-requisites: None
Course Modalities: Hybrid

EDU 251 - Exploration Activities

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. *This course may satisfy a major course for the Birth-Kindergarten Education Major at Catawba College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: Take one set:
Set 1: ENG 090 and RED 090 or appropriate placement test score
Set 2: ENG 095 or appropriate placement test score
Co-requisites: None
Course Modalities: Traditional, Hybrid

EDU 254 - Music and Movement for Children

This course covers the use of music and creative movement for children. Topics include a general survey of the basic elements of music and planning, designing, and implementing music and movement experiences for creative learning. Upon completion, students should be able to use voice and various musical instruments to provide musical and movement activities for children.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: Take one set:
Set 1: ENG 090 and RED 090 or appropriate placement test score
Set 2: ENG 095 or appropriate placement test score
Co-requisites: None
Course Modalities: Traditional

EDU 259 - Curriculum Planning

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. *This course may satisfy a major course for the Birth-Kindergarten Education Major at Catawba College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: Take one set:
Set 1: ENG 090 and RED 090 or appropriate placement test score and EDU 119
Set 2: ENG 095 or appropriate placement test score and EDU 119
Co-requisites: None
Course Modalities: Traditional, Internet

EDU 261 - Early Childhood Admin. I

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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: Take one set:
Set 1: ENG 090 and RED 090 or appropriate placement test score
Set 2: ENG 095 or appropriate placement test score

Co-requisites: EDU 119
Course Modalities: Traditional

EDU 262 - Early Childhood Admin. II

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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: Take one set:
Set 1: ENG 090 and RED 090 or appropriate placement test score and EDU 261
Set 2: ENG 095 or appropriate placement test score and EDU 261
Co-requisites: EDU 119
Course Modalities: Traditional

EDU 271 - Educational Technology

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. *This course is also available through the Virtual Learning Community (VLC). This course may satisfy a major course for the Birth- Kindergarten Education Major at Catawba College.*

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: Take one set:
Set 1: ENG 090 and RED 090 or appropriate placement test score
Set 2: ENG 095 or appropriate placement test score
Co-requisites: None
Course Modalities: Traditional, Internet

EDU 280 - Language & Literacy Experiences

This course is designed to expand students' understanding of children's language and literacy development and provides strategies for enhancing language/literacy experiences in an enriched environment. Topics include selection of diverse literature and interactive media, the integration of literacy concepts throughout the curriculum, appropriate observations/assessments and inclusive practices. Upon completion, students should be able to select, plan, implement and evaluate developmentally appropriate and diverse

language/literacy experiences. *This course is also available through the Virtual Learning Community (VLC). This course may satisfy a major course for the Birth-Kindergarten Education Major at Catawba College, UNC-Charlotte, and Livingstone College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: Take one set:
Set 1: ENG 090 and RED 090 or appropriate placement test score
Set 2: ENG 095 or appropriate placement test score
Co-requisites: None
Course Modalities: Traditional, Internet

EDU 281 - Instructional Strategies/Reading & Writing

This course covers concepts, resources, and methods for teaching reading and writing to elementary through middle-grade children. Topics include the importance of literacy, learning styles, skills assessment, various reading and writing approaches and instructional strategies. Upon completion, students should be able to assess, plan, implement and evaluate school-age literacy experiences as related to the North Carolina Standard Course of Study.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
None

Prerequisites: Take one set:
Set 1: ENG 090 and RED 090 or appropriate placement test score
Set 2: ENG 095 or appropriate placement test score
Co-requisites: None
Course Modalities: Traditional

EDU 282 - Early Childhood Literature

This course covers the history, selection, and integration of literature and language in the early childhood curriculum. Topics include the history and selection of developmentally appropriate children's literature and the use of books and other media to enhance language and literacy in the classroom. Upon completion, students should be able to select appropriate books for storytelling, reading aloud, puppetry, flannel board use, and other techniques. Please note that this course is a writing intensive course.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: Take one set:
Set 1: ENG 090 and RED 090 or appropriate placement test score
Set 2: ENG 095 or appropriate placement test score
Co-requisites: None
Course Modalities: Traditional

EDU 284 - Early Childhood Capstone Practicum

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 onsite faculty visits. *This course may satisfy a major course for the Birth-Kindergarten Education Major at Catawba College, UNC-Charlotte, and Livingstone College.*

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 9
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: Take one set:
Set 1: ENG 090 and RED 090 or appropriate placement test and EDU 119, EDU 144, EDU 145, EDU 146 and EDU 151
Set 2: ENG 090, RED 090, or appropriate placement test score, EDU 119, PSY 244, PSY 245, EDU 146,and EDU 151
Set 3: ENG 090, RED 090, or appropriate placement test score, EDU 119, PSY 245, EDU 144, EDU 146, and EDU 151
Set 4: ENG 090, RED 090, , or appropriate placement test score, EDU 119, PSY 244, EDU 145, EDU 146, and EDU 151
Set 5: ENG 095 , or appropriate placement test score, EDU 119, EDU 144, EDU 145, EDU 146, and EDU 151
Set 6: ENG 095, or appropriate placement test score, EDU 119, PSY 244, PSY 245, EDU 146, and EDU 151
Set 7: ENG 095, or appropriate placement test score, EDU 119, PSY 245, EDU 144, EDU 146, and EDU 151
Set 8: ENG 095, or appropriate placement test score, EDU 119, PSY 244, EDU 145, EDU 146, and EDU 151
Co-requisites: None
Course Modalities: Traditional

EDU 285 - Internship Experience-School Age

This course is designed to allow students to apply skills in a quality public or private school 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 lesson plans/assessments, appropriate guidance techniques, ethical/professional behaviors as indicated by assignments and onsite faculty visits.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 9
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: Take one set:
Set 1: ENG 090 and RED 090 or appropriate placement test and EDU 119, EDU 144, EDU 145, EDU 146 and EDU 151
Set 2: ENG 090, RED 090, or appropriate placement test score, EDU 119, PSY 244, PSY 245, EDU 146,and EDU 151
Set 3: ENG 090, RED 090, or appropriate placement test score, EDU 119, PSY 245, EDU 144,

EDU 146, and EDU 151
Set 4: ENG 090, RED 090, , or appropriate placement test score, EDU 119, PSY 244, EDU 145, EDU 146, and EDU 151
Set 5: ENG 095 , or appropriate placement test score, EDU 119, EDU 144, EDU 145, EDU 146, and EDU 151
Set 6: ENG 095, or appropriate placement test score, EDU 119, PSY 244, PSY 245, EDU 146, and EDU 151
Set 7: ENG 095, or appropriate placement test score, EDU 119, PSY 245, EDU 144, EDU 146, and EDU 151
Set 8: ENG 095, or appropriate placement test score, EDU 119, PSY 244, EDU 145, EDU 146, and EDU 151
Co-requisites: None
Course Modalities: Traditional

EDU 289 - Advanced Issues/School Age

This course covers advanced topics and issues that relate to school-age programs. Emphasis is placed on current advocacy issues, emerging technology, professional growth, ethics, and organizations for providers/teachers working with school-age populations. Upon completion, students should be able to list, discuss, and explain advanced current topics and issues surrounding school-aged populations.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: Take one set:
Set 1: ENG 090 and RED 090 or appropriate placement test score
Set 2: ENG 095 or appropriate placement test score
Co-requisites: None
Course Modalities: Hybrid

EGR – Engineering

EGR 115 - Introduction to Technology

This course introduces the basic skills and career fields for technicians. Topics include career options, technical vocabulary, dimensional analysis, measurement systems, engineering graphics, calculator applications, professional ethics, safety practices, and other related topics. Upon completion, students should be able to demonstrate an understanding of the basic technologies, prepare drawings and sketches, and perform computations using a scientific calculator.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

EGR 125 - Applications Software for Tech.

This course introduces personal computer software and teaches students how to customize the software for technical applications. Emphasis is placed on the use of common office applications software such as spreadsheets, word processing, graphics, and

Internet access. Upon completion, students should be able to demonstrate competency in using applications software to solve technical problems and communicate the results in text and graphical formats.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

EGR 131 - Intro to Electronics Tech

This course introduces the basic skills required for electrical/electronic technicians. Topics include soldering/de-soldering, safety practices, test equipment, scientific calculators, AWG wire table, the resistor color code, electronic devices, problem solving, and use of hand tools. Upon completion, students should be able to solder/de-solder, operate test equipment, apply problem-solving techniques, and use a scientific calculator.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

EGR 150 - Intro to Engineering

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*. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

EGR 285 - Design Project

This course provides the opportunity to design and construct an instructor-approved project using previously acquired skills. Emphasis is placed on selection, proposal, design, construction, testing, and documentation of the approved project. Upon completion, students should be able to present and demonstrate operational projects.

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 4
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: ELN 131 and ELN 133 (Local)
Co-requisites: None
Course Modalities: Traditional

ELC – Electricity

ELC 112 - DC/AC Electricity

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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 5

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: ELC 126 (Local)
Course Modalities: Traditional

ELC 113 - Basic Wiring I

This course introduces the care/usage of tools and materials used in electrical installations and the requirements of the National Electrical Code. Topics include NEC, electrical safety, and electrical blueprint reading; planning and layout; 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 basic electrical installations.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: ELC 118 (Local)
Course Modalities: Traditional

ELC 115 - Industrial Wiring

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Summer

Prerequisites: ELC 113 and ELC 117 (Local)
Co-requisites: None
Course Modalities: Traditional

ELC 117 - Motors and Controls

This course introduces the fundamental concepts of motors and motor controls. Topics include ladder diagrams, pilot devices, contactors, motor starters, motors, and other control devices. Upon completion, students should be able to properly select, connect, and troubleshoot motors and control circuits.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: ELC 111 or ELC 112 or ELC 131 (Local)
Co-requisites: None
Course Modalities: Traditional

ELC 118 - National Electrical Code

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.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

ELC 119 - NEC Calculations

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.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Summer

Prerequisites: ELC 118 (Local)
Co-requisites: None
Course Modalities: Traditional

ELC 125 - Diagrams and Schematics

This course covers the interpretation of electrical diagrams, schematics, and drawings common to electrical applications. Emphasis is placed on reading and interpreting electrical diagrams and schematics. Upon completion, students should be able to read and interpret electrical diagrams and schematics.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

ELC 126 - Electrical Computations

This course introduces the fundamental applications of mathematics which are used by an electrical/electronic technician. Topics include whole numbers, fractions, decimals, powers, roots, simple electrical formulas, and usage of a scientific calculator. Upon completion, students should be able to solve simple electrical mathematical problems.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

ELC 128 - Introduction to PLC

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: ELC 125 or ELC 117 (Local)
Co-requisites: None
Course Modalities: Traditional

ELC 138 - DC Circuit Analysis

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: MAT 050 or appropriate placement test score (Local)
Co-requisites: None
Course Modalities: Traditional

ELC 139 - AC Circuit Analysis

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

ELC 215 - Electrical Maintenance

This course introduces the theory of maintenance and the skills necessary to maintain electrical equipment found in industrial and commercial facilities. Topics include maintenance theory, predictive and preventive maintenance, electrical equipment operation and maintenance, and maintenance documentation. Upon completion, students should be able to perform maintenance on electrical equipment in industrial and commercial facilities.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: ELC 117 (Local)
Co-requisites: None
Course Modalities: Traditional

ELC 228 - PLC Applications

This course covers programming and applications of programmable logic controllers. Emphasis is placed on programming techniques, networking, specialty I/O modules, and system troubleshooting. Upon completion, students should be able to specify, implement, and maintain complex PLC controlled systems.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: ELC 128 (Local)
Co-requisites: None

Course Modalities: Traditional

ELN – Electronics

ELN 131 - Semiconductor Applications

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 discrete component circuits using appropriate techniques and test equipment.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: None
Co-requisites: ELC 139 (Local)
Course Modalities: Traditional

ELN 132 - Linear IC Applications

This course introduces the characteristics and applications of linear integrated circuits. Topics include op-amp circuits, waveform generators, active filters, IC voltage regulators and other related topics. Upon completion, students should be able to construct, analyze, verify, and troubleshoot linear integrated circuits using appropriate techniques and test equipment.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Summer

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

ELN 133 - Digital Electronics

This course covers combinational and sequential logic circuits. Topics include number systems, Boolean algebra, logic families, MSI and LSI circuits, AD, DA 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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: None

Co-requisites: None
Course Modalities: Traditional

ELN 135 - Electronic Circuits

This course covers discrete component amplifiers, power supplies, wave-shaping, oscillators, and special purpose ICs. Topics include feedback, analog arithmetic circuits, current and voltage sources, amplifiers, timers, filters, regulators, and other related circuits. Upon completion, students should be able to determine, by the configuration, the function of common analog circuits and troubleshoot circuits based on service information.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: ELN 131 (Local)
Co-requisites: None
Course Modalities: Traditional

ELN 150 - CAD for Electronics

This course introduces computer-aided drafting (CAD) with an emphasis on applications in the electronics field. Topics include electronics industry standards (symbols, schematic diagrams, and layouts); drawing electronic circuit diagrams; and specialized electronic drafting practices and components such as resistors, capacitors, and ICs. Upon completion, students should be able to prepare electronic drawings with CAD software.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

ELN 229 - Industrial Electronics

This course covers semiconductor devices used in industrial applications. Topics include the basic theory, application, and operating characteristics of semiconductor devices (filters, rectifiers, FET, SCR, Diac, Triac, Op-amps, etc.). Upon completion, students should be able to install and/or troubleshoot these devices for proper operation in an industrial electronic circuit.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: ELC 139 (Local)
Co-requisites: None
Course Modalities: Traditional

ELN 232 - Introduction to Microprocessors

This course introduces microprocessor architecture and microcomputer systems, including memory and input/output interfacing. Topics include low level language programming, bus

architecture, I/O systems, memory systems, interrupts, and other related topics. Upon completion, students should be able to interpret, analyze, verify, and troubleshoot fundamental microprocessor circuits and programs using appropriate techniques and test equipment.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Summer

Prerequisites: None
Co-requisites: None
Course Modalities: Hybrid

ELN 234 - Communication Systems

This course introduces the fundamentals of electronic communication systems. Topics include the frequency spectrum, electrical noise, and 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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: ELN 131 (Local)
Co-requisites: None
Course Modalities: Traditional

ENG – English

ENG 080 - Writing Foundations

This course introduces the writing process and stresses effective sentences. Emphasis is placed on applying the conventions of written English, reflecting standard usage and mechanics in structuring a variety of sentences. Upon completion, students should be able to write correct sentences and a unified, coherent paragraph. This course does not satisfy the developmental reading and writing prerequisite for ENG 111 or ENG 111A. *This course is designed to prepare students for college level work and will not satisfy **Credit Hours** for any degree, diploma or certificate program. This course will not transfer to a four-year institution but will transfer to any of the community colleges within the N.C. Community College System; however, it will not satisfy any degree, diploma or certificate requirements at the receiving institution. Credit earned for this course will only satisfy the **Prerequisites** for entry into a curriculum level course.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: ENG 070 or ENG 075 or appropriate placement test score

Co-requisites: None
Course Modalities: Traditional

ENG 085 - Reading & Writing Foundations

This course uses whole language to develop proficiency in reading and writing for college. Emphasis is placed on applying analytical and critical reading skills to a variety of texts and on introducing the writing process. Upon completion, students should be able to recognize and use various patterns of text organization and compose effective paragraphs. This course integrates ENG 080 and RED 080. This course does not satisfy the developmental reading and writing **Prerequisites** for ENG 111 or ENG 111A. This course is designed to prepare students for college level work and will not satisfy **Credit Hours** for any degree, diploma or certificate program. *This course will not transfer to a four-year institution but will transfer to any of the community colleges within the N.C. Community College System; however, it will not satisfy any degree, diploma or certificate requirements at the receiving institution. Credit earned for this course will only satisfy the **Prerequisites** for entry into a curriculum level course.*

Class Hours: 5
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 5

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: ENG 070 and RED 070 or ENG 075 or appropriate placement test score
Co-requisites: None
Course Modalities: Traditional

ENG 090 - Composition Strategies

This course provides practice in the writing process and stresses effective paragraphs. Emphasis is placed on learning and applying the conventions of standard written English in developing paragraphs within the essay. Upon completion, students should be able to compose a variety of paragraphs and a unified, coherent essay. This course satisfies the developmental writing requirement for ENG 111 and ENG 111A. This course is designed to prepare students for college level work and will not satisfy **Credit Hours** for any degree, diploma or certificate program. *This course will not transfer to a four-year institution but will transfer to any of the community colleges within the N.C. Community College System; however, it will not satisfy any degree, diploma or certificate requirements at the receiving institution. Credit earned for this course will only satisfy the **Prerequisites** for entry into a curriculum level course.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring , Summer

Prerequisites: ENG 080 or ENG 085 or appropriate placement test score
Co-requisites: None
Course Modalities: Traditional

ENG 095 - Reading & Comp Strategies

This course uses whole language to strengthen proficiency in reading and writing for college. Emphasis is placed on applying critical reading skills to narrative and expository texts and on using the writing process. Upon completion, students should be able to comprehend, analyze, and evaluate college texts and to compose essays in preparation for

college writing. This course integrates ENG 090 and RED 090. This course satisfies the developmental reading and writing **Prerequisites** for ENG 111 and ENG 111A. *This course is designed to prepare students for college level work and will not satisfy **Credit Hours** for any degree, diploma or certificate program. This course will not transfer to a four-year institution but will transfer to any of the community colleges within the N.C. Community College System; however, it will not satisfy any degree, diploma or certificate requirements at the receiving institution. Credit earned for this course will only satisfy the **Prerequisites** for entry into a curriculum level course.*

Class Hours: 5
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 5

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: ENG 080 and RED 080; or ENG 085 or appropriate placement test score
Co-requisites: None
Course Modalities: Traditional

ENG 102 - Applied Communications II

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. *This is a diploma-level course.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

ENG 111 - Expository Writing

This course is the required first course in a series of two designed to develop the ability to produce clear expository prose. Emphasis is placed on the writing process including audience analysis, topic selection, thesis support and development, editing, and revision. Upon completion, students should be able to produce unified, coherent, and well-developed essays using standard written English. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in English composition.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: ENG 090 and RED 090 or appropriate placement test score; or ENG 095 or appropriate placement test score
Co-requisites: None
Course Modalities: Traditional, Internet, Hybrid, Telecourse

ENG 112 - Argument-Based Research

This course, the second in a series of two, introduces research techniques, documentation styles, and argumentative strategies. Emphasis is placed on analyzing data and incorporating research findings into documented, argumentative essays and research projects. Upon completion, students should be able to summarize, paraphrase, interpret, and synthesize information from primary and secondary sources using standard research format and style. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in English composition. This course may satisfy a general education requirement for Catawba College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: ENG 111
Co-requisites: None
Course Modalities: Traditional, Internet, Telecourse

ENG 113 - Literature-Based Research

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in English composition. This course may satisfy a general education requirement for Catawba College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: ENG 111
Co-requisites: None
Course Modalities: Traditional, Internet

ENG 114 - Professional Research & Reporting

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. Students planning to transfer should take ENG 111 and ENG 112 or ENG 111 and ENG 113 and should check with the university of their choice to make sure that they complete the appropriate English course. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in English composition. This course may satisfy a general education requirement for Catawba College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: ENG 111
Co-requisites: None
Course Modalities: Traditional, Internet

ENG 125 - Creative Writing I

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.* Please note that this course is a writing intensive course.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: ENG 111
Co-requisites: None
Course Modalities: Traditional, Internet, Hybrid

ENG 126 - Creative Writing II

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.* Please note that this course is a writing intensive course.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: ENG 125
Co-requisites: None
Course Modalities: Traditional, Internet

ENG 131 - Introduction to Literature

This course introduces the principle 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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may satisfy a general education requirement for Catawba College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: ENG 111 (Either ENG 112 or ENG 113 or ENG 114 is a required prerequisite for the ENG 131 course taught via Telecourse).
Co-requisites: ENG 112 or ENG 113 or ENG 114

Course Modalities: Traditional, Internet, Hybrid, Telecourse

ENG 132 - Introduction to Drama

This course provides intensive study of drama as a literary form, based on close reading of representative texts. Emphasis is placed on the development and analysis of drama. Upon completion, students should be able to interpret, analyze, and discuss the distinguishing features of drama. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: ENG 111
Co-requisites: ENG 112 or ENG 113 or ENG 114
Course Modalities: Traditional

ENG 231 - American Literature I

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may satisfy a general education requirement for Catawba College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: ENG 112 or ENG 113 or ENG 114
Co-requisites: None
Course Modalities: Traditional, Internet

ENG 232 - American Literature II

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may satisfy a general education requirement for Catawba College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: ENG 112 or ENG 113 or ENG 114
Co-requisites: None
Course Modalities: Traditional, Internet, Hybrid

ENG 235 - Survey of Film as Literature

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: ENG 113
Co-requisites: None
Course Modalities: Traditional

ENG 241 - British Literature I

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may satisfy a general education requirement for Catawba College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: ENG 112 or ENG 113 or ENG 114
Co-requisites: None
Course Modalities: Traditional

ENG 242 - British Literature II

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may satisfy a general education requirement for Catawba College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: ENG 112 or ENG 113 or ENG 114
Co-requisites: None
Course Modalities: Traditional

ENG 243 - Major British Writers

This course provides an intensive study of the works of several major British authors. Emphasis is placed on British history, culture, and the literary merits. Upon completion, students should be able to interpret, analyze, and evaluate the works studied. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: ENG 112 or ENG 113 or ENG 114
Co-requisites: None
Course Modalities: Traditional

ENG 251 - Western World Literature I

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may satisfy a general education requirement for Catawba College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: ENG 112 or ENG 113 or ENG 114
Co-requisites: None
Course Modalities: Traditional, Telecourse

ENG 252 - Western World Literature II

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: ENG 112 or ENG 113 or ENG 114
Co-requisites: None
Course Modalities: Traditional

ENG 261 - World Literature I

This course introduces selected works from the Pacific, Asia, Africa, Europe, and the Americas from their literary beginnings through the seventeenth century. 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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: ENG 112, ENG 113, or ENG 114
Co-requisites: None
Course Modalities: Traditional

ENG 262 - World Literature II

This course introduces selected works from the Pacific, Asia, Africa, Europe, and the Americas from the eighteenth century 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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may satisfy a general education requirement for Catawba College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: ENG 112 or ENG 113 or ENG 114
Co-requisites: None
Course Modalities: Traditional, Internet

ENG 272 - Southern Literature

This course provides an analytical study of the works of several Southern authors. Emphasis is placed on the historical and cultural contexts, themes, aesthetic features of individual works, and biographical backgrounds of the authors. Upon completion, students should be able to interpret, analyze, and discuss selected works. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: ENG 112 or ENG 113 or ENG 114
Co-requisites: None
Course Modalities: Traditional

ENG 273 - African-American Literature

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: ENG 112 or ENG 113 or ENG 114
Co-requisites: None
Course Modalities: Traditional, Internet

ENG 274 - Literature by Women

This course provides an analytical study of the works of several women authors. Emphasis is placed on the historical and cultural contexts, themes and aesthetic features of individual works, and biographical backgrounds of the authors. Upon completion, students should be able to interpret, analyze, and discuss selected works. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: ENG 112 or ENG 113 or ENG 114
Co-requisites: None
Course Modalities: Traditional, Internet

FIP - Fire Protection

FIP 120 - Intro to Fire Protection

This course provides an overview of the history, development, methods, systems, and regulations as they 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. *This course is also available through the Virtual Learning Community (VLC).*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

FIP 124 - Fire Prevention and Public Ed

This course introduces fire prevention concepts as they relate to community and industrial operations. 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, meeting NFPA 1021.*Â This course is also available through the Virtual Learning Community (VLC).*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

FIP 128 - Detection & Investigation

This course covers procedures for determining the origin and cause of accidental and incendiary fires. 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, meeting NFPA 1021.Â This *course is also available through the Virtual Learning Community (VLC).*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

FIP 132 - Building Construction

This course covers the principles and practices 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 meeting NFPA 1021. *This course is also available through the Virtual Learning Community (VLC).*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

FIP 136 - Inspection & Codes

This course covers the fundamentals of fire and building codes and procedures to conduct an inspection. 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, meeting NFPA 1021.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

FIP 140 - Industrial Fire Protection

This course covers fire protection systems in industrial facilities. Topics include applicable health and safety standards, insurance carrier regulations, and other regulatory agencies, hazards of local industries, fire brigade operation, and loss prevention programs. Upon completion, students should be able to plan, organize, and evaluate an industrial facility's fire protection, which meet elements of NFPA 1021 for Fire Officer I and II.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

FIP 152 -Fire Protection Law

This course covers fire protection law. 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. *This course is also available through the Virtual Learning Community (VLC).*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

FIP 164 -OSHA Standards

This course covers public and private sector OSHA work site requirements. Emphasis is placed on accident prevention and reporting, personal safety, machine operation, 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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0

Semester(s) Course Schedule to be Offered:
On Demand

Credit Hours: 3

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

FIP 176 – Haz-Mat – Operations

This course is designed to increase first responder awareness of the type, nature, physiological effects of, and defensive techniques for mitigation of HazMat incidents. Topics include recognition, identification, regulations and standards, zoning, resource usage, defensive operations, and other related topics. Upon completion, students should be able to recognize and identify the presence of hazardous materials and use proper defensive techniques for incident mitigation.

Class Hours: 4
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

FIP 220 - Fire Fighting Strategies

This course provides preparation for command of initial incident operations involving emergencies within both the public and private sector. 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, meeting NFPA 1021. *This course is also available through the Virtual Learning Community (VLC).*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

FIP 224 -Instructional Methodology

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 NFPA 1041 and NFPA 1021.

Class Hours: 4
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

FIP 229 - Fire Dynamics and Combust

This course covers the theories and fundamentals of how and why fires start and spread, and how they are safely controlled. Topics include components of fire, fire sources, fire behavior, and 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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

FIP 230 - Chemistry of Hazardous Mat I

This course covers the evaluation of hazardous materials. 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.

Class Hours: 5
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 5

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

FIP 232 - Hydraulics & Water Distribution

This course covers the flow of fluids through fire hoses, nozzles, appliances, pumps, standpipes, water mains, and other devices. Emphasis is placed on supply and delivery systems, fire flow testing, hydraulic calculations, and other related topics. Upon completion, students should be able to perform hydraulic calculations, conduct water availability tests, and demonstrate knowledge of water distribution systems.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: MAT 115, MAT 120, MAT 121, MAT 140, MAT 151, MAT 161, MAT 171, or MAT 175
Co-requisites: None
Course Modalities: Traditional

FIP 236 - Emergency Management

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 knowledge of comprehensive emergency management and the integrated emergency management system.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

FIP 264 - Flame Prop & Mat Rating

This course covers the role of interior finishes in fires, smoke obscuration and density, flame spread, pyrolysis, and other related topics. Emphasis is placed on testing equipment which includes Rack Impingement, Bench Furnace, and the two-foot tunnel. Upon completion, students should be able to understand the operation of the testing equipment and compile a reference notebook.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 4
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

FIP 276 - Managing Fire Services

This course provides an overview of fire department operative services. 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, meeting NFPA 1021.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

FRE – French

FRE 111 - Elementary French I

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts; however, this course does not meet the SACS humanities/fine arts requirement in A.A.S. or diploma programs that require only one humanities/fine arts course. This course may satisfy a general education requirement for Catawba College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

FRE 112 - Elementary French II

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts; however, this course does not meet the SACS humanities/fine arts requirement in A.A.S. or diploma programs that require only one humanities/fine arts course. This course may satisfy a general education requirement for Catawba College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: FRE 111
Co-requisites: None
Course Modalities: Traditional

GEO – Geography

GEO 111 - World Regional Geography

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

GEO 112 - Cultural Geography

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

GEO 113 - Economic Geography

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences*.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

GEO 121 - North Carolina Geography

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement, and meets the SACS social/behavioral sciences requirement in AAS and diploma programs.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

GEO 130 - General Physical Geography

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

GER – German

GER 111 - Elementary German I

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts; however, this course does not meet the SACS humanities/fine arts requirement in A.A.S. or diploma programs that require only one humanities/fine arts course.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

GER 112 - Elementary German II

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts; however, this course does not meet the SACS humanities/fine arts requirement in A.A.S. or diploma programs that require only one humanities/fine arts course.*

Class Hours: 3 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 0 On Demand
Credit Hours: 3

Prerequisites: GER 111
Co-requisites: None
Course Modalities: Traditional

HEA – Health

HEA 110 - Personal Health/Wellness

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

Class Hours: 3 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 0 On Demand
Credit Hours: 3

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet

HIS – History

HIS 111 - World Civilizations I

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. This course may satisfy a general education requirement for Catawba College.*

Class Hours: 3 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 0 On Demand
Credit Hours: 3

Prerequisites: RED 090 or appropriate placement test scores or ENG 111(Local)
Co-requisites: None
Course Modalities: Traditional

HIS 112 - World Civilizations II

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. This course may satisfy a general education requirement for Catawba College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: RED 090 or appropriate placement test scores or ENG 111 (Local)
Co-requisites: None
Course Modalities: Traditional

HIS 121 - Western Civilization I

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. This course may satisfy a general education requirement for Catawba College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Summer

Prerequisites: RED 090 or appropriate placement test scores or ENG 111 (Local)
Co-requisites: None
Course Modalities: Traditional, Internet, Telecourse

HIS 122 - Western Civilization II

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. This course may satisfy a general education requirement for Catawba College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: RED 090 or appropriate placement test scores or ENG 111 (Local)
Co-requisites: None
Course Modalities: Traditional, Internet, Telecourse

HIS 131 - American History I

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. Certain sections of this course may be Writing Intensive. Please consult individual semester schedules for Writing Intensive sections. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. This course may satisfy a general education requirement for Catawba College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: RED 090 or appropriate placement test scores or ENG 111 (Local)
Co-requisites: None
Course Modalities: Traditional, Internet, Telecourse

HIS 132 - American History II

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. Certain sections of this course may be Writing Intensive. Please consult individual semester schedules for Writing Intensive sections. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. This course may satisfy a general education requirement for Catawba College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: RED 090 or appropriate placement test scores or ENG 111 (Local)
Co-requisites: None
Course Modalities: Traditional, Internet, Telecourse

HIS 163 - The World Since 1945

This course surveys world developments since the end of World War II. Topics include the Cold War, nationalism, colonialism, the Third World, the arms race, and global capitalism and regionalism. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in the world since 1945. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: RED 090 or appropriate placement test scores or ENG 111 (Local)
Co-requisites: None
Course Modalities: Traditional

HIS 226 - The Civil War

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: RED 090 or appropriate placement test scores or ENG 111 (Local)
Co-requisites: None
Course Modalities: Traditional

HIS 236 - North Carolina History

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Summer

Prerequisites: RED 090 or appropriate placement test scores or ENG 111 (Local)
Co-requisites: None
Course Modalities: Traditional

HOR – Horticulture

HOR 134 - Greenhouse Operations

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None

Course Modalities: Traditional

HOR 168 - Plant Propagation

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

HUM – Humanities

HUM 110 - Technology and Society

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet

HUM 115 - Critical Thinking

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for general education core requirement in humanities/fine arts. This course <u>may</u> meet the SACS humanities requirement for AAS degree programs.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: ENG 095 or RED 090 and ENG 090
Co-requisites: None
Course Modalities: Traditional

HUM 120 - Cultural Studies

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

HUM 122 - Southern Culture

This course explores the major qualities that make the South a distinct region. Topics include music, politics, literature, art, religion, race relations, and the role of social class in historical and contemporary contexts. Upon completion, students should be able to identify the characteristics that distinguish Southern culture. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

HUM 130 - Myth in Human Culture

This course provides an in-depth study of myths and legends. Topics include the varied sources of myths and their influence on the individual and society within diverse cultural contexts. Upon completion, students should be able to demonstrate a general familiarity with myths and a broad-based understanding of the influence of myths and legends on modern culture. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet

HUM 150 - American Women's Studies

This course provides an inter-disciplinary study of the history, literature, and social roles of American women from Colonial times to the present. Emphasis is placed on women's roles as reflected in American language usage, education, law, the workplace, and mainstream culture. Upon completion, students should be able to identify and analyze the roles of women as reflected in various cultural forms. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course is also available through the Virtual Learning Community (VLC).*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

HUM 160 - Introduction to Film

This course introduces the fundamental elements of film artistry and production. Topics include film styles, history, and production techniques, as well as the social values reflected in film art. Upon completion, students should be able to critically analyze the elements covered in relation to selected films. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

HUM 161 - Advanced Film Studies

This course provides an advanced study of film art and production, building on skills learned in HUM 160. Topics include film production techniques, film genres, examination of master directors' styles, and the relation of film to culture. Upon completion, students should be able to recognize and critically analyze advanced elements of film production. *This course has been approved to satisfy the Comprehensive Articulation Agreement core requirement in humanities/fine arts.*

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: HUM 160
Co-requisites: None
Course Modalities: Traditional

HUM 211 - Humanities I

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: ENG 111
Co-requisites: None
Course Modalities: Traditional, Internet

HUM 212 - Humanities II

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 early modern times to the present. Upon completion, students should be able to identify significant figures and cultural contributions of the periods studied. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: ENG 111
Co-requisites: None
Course Modalities: Traditional

INT - International Business

INT 110 - International Business

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, multi-national corporations, personnel management, and international marketing. Upon completion, students should be able to describe the foundation of international business.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet

INT 115 - Global Communications

This course introduces principles and techniques basic to intercultural business communications. Topics include selected cultural values and customs, verbal and nonverbal communication skills, and global etiquette. Upon completion students should be able to demonstrate beginning skills in effective verbal and nonverbal intercultural communications.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Internet

ISC - Industrial Science

ISC 112 - Industrial Safety

This course introduces the principles of industrial safety. Emphasis is placed on industrial safety, OSHA, and environmental regulations. Upon completion, students should be able to demonstrate knowledge of a safe working environment and OSHA compliance. A fundamental study of accident costs and causes, safety records, accident investigation, development of safeguards, job safety analysis, facility inspection, and safety communication will be covered.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: None
Course Modalities: Internet

ISC 113 - Industrial Specifications

This course introduces industrial specifications. Emphasis is placed on using machinist reference materials. Upon completion, students should be able to use and interpret charts and data found in reference materials.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 1

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

ISC 121 - Environmental Health & Safety

This course covers workplace environmental health and safety concepts. Emphasis is placed on managing the implementation and enforcement of environmental health and safety regulations and on preventing accidents, injuries, and illnesses. Upon completion, students should be able to demonstrate an understanding of basic concepts of environmental health and safety.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, even-numbered years

Prerequisites: None
Co-requisites: None
Course Modalities: Internet

ISC 132 - Manufacturing Quality Control

This course introduces quality concepts and techniques used in industry. Topics include elementary statistics and probability, process control, process capability, and quality improvement tools. Upon completion, students should be able to demonstrate an understanding of the concepts and principles of quality and apply them to the work environment.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

ISC 136 - Productivity Analysis I

This course covers methods of measuring, analyzing, and improving productivity. Topics include methods analysis, standardized practices, process analysis, and human factors. Upon completion, students should be able to apply productivity improvement techniques.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

ISC 214 - Job Analysis/Wages & Salary

This course covers job analysis and evaluation as a basis for determining equitable wages and salaries. Topics include selection and definition of job factors, relative values of factors,

preparation of job specifications and descriptions, and determination of wage/ salary structure. Upon completion, students should be able to prepare job specifications and descriptions, evaluate jobs by four commonly accepted methods, and calculate costs of wage curves.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Summer

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

ISC 225 - Facility Layout

This course provides a practical study of facility planning with emphasis on a structured approach to solving layout problems. Emphasis is placed on investigating and designing an effective facility layout. Upon completion, students should be able to design a basic work area, indicating effective use of allowable resources.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Internet

ISC 237 - Quality Management

This course covers the process by which successful manufacturing organizations achieve customer satisfaction in all processes in the organization. Topics include quality models and approaches, such as MBNQA, ISO 9000, benchmarking, and Deming's 14 Points, and the incorporation of SPC improvement techniques. Upon completion, students should be able to integrate SPC techniques with successful management practices for a comprehensive understanding of continuous quality improvement.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Internet

ISC 243 - Productivity & Operational Mgmt. I

This course introduces concepts used to analyze and solve productivity and operational problems. Topics include operations strategy, forecasting, resource allocation, and materials management. Upon completion, students should be able to recognize, analyze, and solve a variety of productivity and operational problems.

Class Hours: 2

Semester(s) Course Schedule to be Offered:

Lab/Clinical/Work Exp. Hours: 3 Fall
Credit Hours: 3

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

ISC 255 - Engineering Economy

This course covers the process of economic evaluation of manufacturing industrial alternatives such as equipment selection, replacement studies, and cost reduction proposals. Topics include discounted cash flows, time value of money, income tax considerations, internal rates of return, and comparison of alternatives using computer programs. Upon completion, students should be able to analyze complex manufacturing alternatives based on engineering economy principles.

Class Hours: 2 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 2 Spring
Credit Hours: 3

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

JOU – Journalism

JOU 110 - Introduction to Journalism

This course presents a study of journalistic news, features, 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, features, and sports articles. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.* Please note that this course is a writing intensive course.

Class Hours: 3 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 0 On Demand
Credit Hours: 3

Prerequisites: ENG 111 (Local)
Co-requisites: None
Course Modalities: Traditional

JOU 216 - Writing for Mass Media

This course is an introduction to news writing for newspapers and other print media including the techniques of news gathering, reporting, and interviewing. Emphasis is placed on basic methods of gathering information, conducting interviews, organizing a story, writing leads, writing clear, concise copy, and upon developing research skills. Upon completion, students should be able to write clear, concise, accurate, complete, balanced

and readable news stories according to guidelines set by industry standards. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

JOU 217 - Feature/Editorial Writing

This course covers the basics of persuasive writing for community newspapers and other print media. Emphasis is placed on writing features, reviews, and editorials including audience analysis, appropriate language, effective supporting details, completeness, and accuracy. Upon completion, students should be able to write effective feature stories, reviews, and editorials. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement*

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: ENG 111
Co-requisites: None
Course Modalities: Traditional

JOU 242 - Intro to Multi Media

This course is an introduction to the basic formatting skills necessary to create messages for the multimedia environment such as web-based and other digital formats. Emphasis is on the use of computers to present and combine text, graphics, audio, and video. Upon completion, students should be able to create state-of-the-art multimedia presentations. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: CIS 110
Co-requisites: None
Course Modalities: Traditional

MAC – Machining

MAC 111 - Machining Technology I

This course introduces machining operations as they relate to the metalworking industry. Topics include machine shop safety, measuring tools, lathes, drilling machines, saws, milling machines, bench grinders, and layout instruments. Upon completion, students should be able to safely perform the basic operations of measuring, layout, drilling, sawing, turning, and milling.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 12
Credit Hours: 6

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: BPR 111 and MAC 114 (Local)
Course Modalities: Traditional

MAC 112 - Machining Technology II

This course provides additional instruction and practice in the use of precision measuring tools, lathes, milling machines, and grinders. Emphasis is placed on setup and operation of machine tools, including the selection and use of work holding devices, speeds, feeds, cutting tools, and coolants. Upon completion, students should be able to perform basic procedures on precision grinders and advanced operations of measuring, layout, drilling, sawing, turning, and milling.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 12
Credit Hours: 6

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: MAC 111
Co-requisites: None
Course Modalities: Traditional

MAC 113 - Machining Technology III

This course provides an introduction to advanced and special machining operations. Emphasis is placed on working to specified tolerances with special and advanced setups. Upon completion, students should be able to produce a part to specifications.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 12
Credit Hours: 6

Semester(s) Course Schedule to be Offered:
Summer

Prerequisites: MAC 112
Co-requisites: None
Course Modalities: Traditional

MAC 114 - Introduction to Metrology

This course introduces the care and use of precision measuring instruments. Emphasis is placed on the inspection of machine parts and use of a wide variety of measuring instruments. Upon completion, students should be able to demonstrate the correct use of measuring instruments.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 0

Semester(s) Course Schedule to be Offered:
On Demand

Credit Hours: 2

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

MAC 122 - CNC Turning

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.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: MAC 121 or MAC 111 or MEC 111 or test (contact Machining Advisor for an interview and administration of test) (Local)
Co-requisites: None
Course Modalities: Traditional

MAC 124 - CNC Milling

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.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: MAC 121 or MAC 111 or MEC 111 or test (contact Machining Advisor for an interview and administration of test) (Local)
Co-requisites: None
Course Modalities: Traditional

MAC 151 - Machining Calculations

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.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

MAC 152 - Advanced Machining Calculations

This course combines mathematical functions with practical machine shop applications and problems. Emphasis is placed on gear ratios, lead screws, indexing problems, and their applications in the machine shop. Upon completion, students should be able to calculate solutions to machining problems.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: MAC 151 (Local)
Co-requisites: None
Course Modalities: Traditional

MAC 214 - Machining Technology IV

This course provides advanced applications and practical experience in the manufacturing of complex parts. Emphasis is placed on inspection, gaging, and the utilization of machine tools. Upon completion, students should be able to manufacture complex assemblies to specifications.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 12
Credit Hours: 16

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: MAC 112
Co-requisites: None
Course Modalities: Traditional

MAC 222 - Advanced CNC Turning

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.

Class Hours: 1

Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: MAC 122
Co-requisites: None
Course Modalities: Traditional

MAC 224 - Advanced CNC Milling

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.

Class Hours: 1

Semester(s) Course Schedule to be Offered:

Lab/Clinical/Work Exp. Hours: 3 On Demand
Credit Hours: 2

Prerequisites: MAC 124
Co-requisites: None
Course Modalities: Traditional

MAC 229 - CNC Programming

This course provides concentrated study in advanced programming techniques for working with modern CNC machine tools. Topics include custom macros and subroutines, canned cycles, and automatic machining cycles currently employed by the machine tool industry. Upon completion, students should be able to program advanced CNC functions while conserving machine memory.

Class Hours: 2 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 0 On Demand
Credit Hours: 2

Prerequisites: MAC 121, MAC 122, MAC 124, or MAC 226
Co-requisites: None
Course Modalities: Traditional

MAC 233 - Applications in CNC Machining

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.

Class Hours: 2 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 12 On Demand
Credit Hours: 6

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

MAC 248 - Production Procedures

This course covers product planning and control and scheduling and routing of operations. Topics include cost-effective production methods, dimensional and statistical quality control, and the tooling and machines required for production. Upon completion, students should be able to plan, set up, and produce cost-effective quality machined parts.

Class Hours: 1 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 2 On Demand
Credit Hours: 2

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

MAT – Mathematics

MAT 050 - Basic Math Skills

This course is designed to strengthen basic math skills. Topics include properties, rounding, estimating, comparing, converting, and computing whole numbers, fractions, and decimals. Upon completion, students should be able to perform basic computations and solve relevant mathematical problems. *This course is designed to prepare students for college level work and will not satisfy **Credit Hours** for any degree, diploma or certificate program. This course will not transfer to a four-year institution but will transfer to any of the community colleges within the N.C. Community College System; however, it will not satisfy any degree, diploma, or certificate requirements at the receiving institution. Credit earned for this course will only satisfy the **Prerequisites** for entry into a curriculum level course.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

MAT 060 - Essential Mathematics

This course is a comprehensive study of mathematical skills which should provide a strong mathematical foundation to pursue further study. Topics include principles and applications of decimals, fractions, percent, ratio and proportion, order of operations, geometry, measurement, and elements of algebra and statistics. Upon completion, students should be able to perform basic computations and solve relevant, multi-step mathematical problems using technology where appropriate. *This course is designed to prepare students for college level work and will not satisfy **Credit Hours** for any degree, diploma or certificate program. This course will not transfer to a four-year institution but will transfer to any of the community colleges within the N.C. Community College System; however, it will not satisfy any degree, diploma, or certificate requirements at the receiving institution. Credit earned for this course will only satisfy the **Prerequisites** for entry into a curriculum level course.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: MAT 050 or appropriate placement test score
Co-requisites: None
Course Modalities: Traditional

MAT 070 - Introductory Algebra

This course establishes a foundation in algebraic concepts and problem solving. Topics include signed numbers, exponents, and order of operations, simplifying expressions, solving linear equations and inequalities, graphing, formulas, polynomials, factoring, and

elements of geometry. Upon completion, students should be able to apply the above concepts in problem solving using appropriate technology. *This course is also available through the Virtual Learning Community (VLC).* A graphing calculator is required of all students enrolled in this course. *This course is designed to prepare students for college level work and will not satisfy **Credit Hours** for any degree, diploma, or certificate program. This course will not transfer to a four-year institution but will transfer to any of the community colleges within the N.C. Community College System; however, it will not satisfy any degree, diploma or certificate requirements at the receiving institution. Credit earned for this course will only satisfy the **Prerequisites** for entry into a curriculum level course. Online sections require students to take all tests in an approved college testing center.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: MAT 060 or appropriate placement test score
Prerequisite for Online Sections: MAT 060 (completed with an "A" or "B") or appropriate placement test score
Co-requisites: RED 080 or ENG 085 or appropriate placement test score
Course Modalities: Traditional, Internet

MAT 080 - Intermediate Algebra

This course continues the study of algebraic concepts with emphasis on applications. Topics include factoring; rational expressions; rational exponents; rational, radical, and quadratic equations; systems of equations; inequalities; graphing; functions; variations; complex numbers; and elements of geometry. Upon completion, students should be able to apply the above concepts in problem solving using appropriate technology. A graphing calculator is required of all students enrolled in this course. *This course is designed to prepare students for college level work and will not satisfy **Credit Hours** for any degree, diploma or certificate program. This course will not transfer to a four-year institution but will transfer to any of the community colleges within the N.C. Community College System; however, it will not satisfy any degree, diploma, or certificate requirements at the receiving institution. Credit earned for this course will only satisfy the **Prerequisites** for entry into a curriculum level course. Online sections require students to take all tests in an approved college testing center.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: MAT 070 or appropriate placement test score
Prerequisite for Online Sections: MAT 070 (completed with an "A" or "B") or appropriate placement test score
Co-requisites: RED 080 or ENG 085
Course Modalities: Traditional, Internet

MAT 115 - Mathematical Models

This course develops the ability to utilize mathematical skills and technology to solve problems at a level found in non-mathematics-intensive programs. Topics include applications to percent, ratio and proportion, formulas, statistics, function notation, linear functions, probability, sampling techniques, scatter plots, and modeling. Upon completion students should be able to solve practical problems, reason and communicate with

mathematics, and work confidently, collaboratively, and independently. *This course is also available through the Virtual Learning Community.* A graphing calculator is required of all students enrolled in this course.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: MAT 070, MAT 080, MAT 090, MAT 095, MAT 120, MAT 121, MAT 161, MAT 171, or MAT 175 or appropriate placement test score
Co-requisites: None
Course Modalities: Traditional

MAT 121 - Algebra/Trigonometry I

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. A graphing calculator is required of all students enrolled in this course.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: MAT 070, MAT 080, MAT 090, MAT 095 or appropriate placement test score
Co-requisites: None
Course Modalities: Traditional

MAT 122 - Algebra/Trigonometry II

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. A graphing calculator is required of all students enrolled in this course.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: MAT 121, MAT 161, MAT 171, or MAT 175
Co-requisites: None
Course Modalities: Traditional

MAT 140 - Survey of Mathematics

This course provides an introduction in a non-technical setting to selected topics in mathematics. Topics may include, but are not limited to, sets, logic, probability, statistics, matrices, mathematical systems, geometry, topology, mathematics of finance, and modeling. Upon completion, students should be able to understand a variety of

mathematical applications, think logically, and be able to work collaboratively and independently. A graphing calculator is required of all students enrolled in this course. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course is also available through the Virtual Learning Community. This course does not meet the math requirement for many majors. Students should check with the university of their choice to make sure that they complete the appropriate math course. Online sections require students to take all tests in an approved college testing center.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: MAT 070, MAT 080, MAT 090, MAT 095, MAT 120, MAT 121, MAT 161, MAT 171, or MAT 175 or appropriate placement test score
Prerequisite for Online Sections: MAT 070 (completed with an "A" or "B") or appropriate placement test score
Co-requisites: None
Course Modalities: Traditional, Internet

MAT 151 - Statistics I

This course provides a project-based approach to the study of basic probability, descriptive and inferential statistics, and decision making. Emphasis is placed on measures of central tendency and dispersion, correlation, regression, discrete and continuous probability distributions, quality control, population parameter estimation, and hypothesis testing. Upon completion, students should be able to describe important characteristics of a set of data and draw inferences about a population from sample data. A graphing calculator is required of all students enrolled in this course. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics (Quantitative Option).*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: MAT 080, MAT 090, MAT 095, MAT 120, MAT 121, MAT 161, MAT 171, or MAT 175 or appropriate placement test score
Co-requisites: MAT 151A (Local)
Course Modalities: Traditional

MAT 151A - Statistics I Lab

This course is a laboratory for MAT 151. Emphasis is placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to solve problems, apply critical thinking, work in teams, and communicate effectively. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 1

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: MAT 080, MAT 090, MAT 095, MAT 120, MAT 121,MAT 161, MAT 171, or MAT 175 or appropriate placement test score

Co-requisites: MAT 151
Course Modalities: Traditional

MAT 161 - College Algebra

This course provides an integrated technological approach to algebraic topics used in problem solving. Emphasis is placed on applications involving equations and inequalities; polynomial, rational, exponential and logarithmic functions; and graphing and data analysis/modeling. Upon completion, students should be able to choose an appropriate model to fit a data set and use the model for analysis and prediction. A graphing calculator is required of all students enrolled in this course. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics for the Associate in Arts degree. This course is also available through the Virtual Learning Community. This course may satisfy a general education requirement for Catawba College. Online sections require students to take all tests in an approved college testing center.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: MAT 080, MAT 090, MAT 095 or appropriate placement test score
Prerequisite for Online Sections: MAT 080 (completed with an "A" or "B") or appropriate placement test score
Co-requisites: None
Course Modalities: Traditional, Internet

MAT 175 - Pre-Calculus

This course provides an intense study of the topics which are fundamental to the study of calculus. Emphasis is placed on functions and their graphs with special attention to polynomial, rational, exponential, and logarithmic and trigonometric functions, and analytic trigonometry. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and prediction. A graphing calculator is required of all students enrolled in this course. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

Class Hours: 4
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: MAT 080 or appropriate placement test score (Local)
Co-requisites: None
Course Modalities: Traditional

MAT 263 - Brief Calculus

This course introduces concepts of differentiation and integration and their applications to solving problems. The course is designed for students needing one semester of calculus. Topics include functions, graphing, differentiation, and integration with emphasis on applications drawn from business, economics, 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. A

graphing calculator is required for this course. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course may satisfy a general education requirement for Catawba College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: MAT 161, MAT 171, or MAT 175
Co-requisites: None
Course Modalities: Traditional

MAT 271 - Calculus I

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. A graphing calculator is required of all students enrolled in this course. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: MAT 172 or MAT 175
Co-requisites: None
Course Modalities: Traditional

MAT 272 - Calculus II

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. A graphing calculator is required of all students enrolled in this course. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: MAT 271
Co-requisites: None
Course Modalities: Traditional

MAT 273 - Calculus III

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. A graphing calculator is required of all students enrolled in this course. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/ mathematics.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: MAT 272
Co-requisites: None
Course Modalities: Traditional

MEC - Mechanical

MEC 110 - Intro to CAD/CAM

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.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

MEC 111 - Machine Processes I

This course introduces shop safety, hand tools, machine processes, measuring instruments, and the operation of machine shop equipment. Topics include use and care of tools, safety, measuring tools, and the basic setup and operation of common machine tools. Upon completion, students should be able to safely machine simple parts to specified tolerances.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 4
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

MEC 142 - Physical Metallurgy

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.

Class Hours: 1

Semester(s) Course Schedule to be Offered:

Lab/Clinical/Work Exp. Hours: 2 Spring
Credit Hours: 2

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

MEC 231 - Computer-Aided Manufacturing I

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.

Class Hours: 1 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 4 On Demand
Credit Hours: 3

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

MEC 232 - Computer-Aided Manufacturing II

This course provides an in-depth study of CAM applications and concepts. Emphasis is placed on the manufacturing of complex parts using computer-aided manufacturing software. Upon completion, students should be able to manufacture complex parts using CAM software.

Class Hours: 1 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 4 On Demand
Credit Hours: 3

Prerequisites: MEC-231
Co-requisites: None
Course Modalities: Traditional

MEC 242 – Value/Supply Chain Management

This course covers the design and operation of supply/value chains in use by organizations. Topics include supply chain strategies and management, lean logistics, quality within the supply chain, resource planning and forecasting, and information technology use within value chains. Upon completion, students should be able to demonstrate an understanding of supply chain management and describe value chain processes.

Class Hours: 3 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 0 On Demand
Credit Hours: 3

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

MEC 251 - Statics

This course covers the concepts and principles of statics. Topics include systems of forces and moments on structures in two- and three-dimensions in equilibrium. Upon completion, students should be able to analyze forces and moments on structures.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: PHY 131 or PHY 151 (Local)
Co-requisites: None
Course Modalities: Traditional

MEC 275 - Engineering Mechanisms

This course covers plane motion and devices used to generate plane motion. Topics include analysis of displacement, velocity, acceleration, gears, cams, and other mechanical systems. Upon completion, students should be able to graphically and mathematically analyze a plane motion system.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: DFT 151 and PHY 131 or PHY 151
Co-requisites: None
Course Modalities: Traditional

MKT - Marketing/Retailing

MKT 120 - Principles of Marketing

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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet, Telecourse

MKT 122 - Visual Merchandising

This course introduces basic layout design and commercial display in retail and service organizations. Topics include an analysis of display as a visual merchandising medium and an examination of the principles and applications of display and design. Upon completion, students should be able to plan, build, and evaluate designs and displays. This course is a unique concentration requirement of the Marketing and Retailing concentration in the Business Administration program.

Class Hours: 3 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 0 Fall, Spring
Credit Hours: 3

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet

MKT 123 - Fundamentals of Selling

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.

Class Hours: 3 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 0 Fall, Spring
Credit Hours: 3

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet, Telecourse

MKT 125 - Buying and Merchandising

This course includes an analysis of the organization for buying-what, when and how to buy-and the principles of effective inventory and stock control. Topics include organization for buying, analysis of buyers' responsibilities, pricing, inventory control, planning, cost effectiveness, and vendor relationships. Upon completion, students should be able to demonstrate an understanding of the concepts covered through application.
Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0 ***Semester(s) Course Schedule to be Offered:***
Credit Hours: 3 On Demand
Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

MKT 220 - Advertising and Sales Promotion

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.

Class Hours: 3 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 0 Fall, Spring
Credit Hours: 3

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet

MKT 221 - Consumer Behavior

This course is designed to describe consumer behavior as applied to the exchange processes involved in acquiring, consuming, 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. This course is also available through the Virtual Learning Community.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Internet, Hybrid

MKT 223 - Customer Service

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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

MKT 224 - International Marketing

This course covers the basic concepts of international marketing activity and theory. Topics include product promotion, placement, and pricing strategies in the international marketing environment. Upon completion, students should be able to demonstrate a basic understanding of the concepts covered.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

MKT 225 - Marketing Research

This course provides information for decision making by providing guidance in developing, analyzing, and using data. Emphasis is placed on marketing research as a tool in decision making. Upon completion, students should be able to design and conduct a marketing research project and interpret the results. *This course is a unique concentration requirement of the Marketing and Retailing concentration in the Business Administration program.*

Class Hours: 3

Semester(s) Course Schedule to be Offered:

Lab/Clinical/Work Exp. Hours: 0 Fall, Spring
Credit Hours: 3

Prerequisites: MKT 120
Co-requisites: None
Course Modalities: Traditional, Internet, Hybrid

MKT 226 - Retail Applications

This course is designed to develop occupational competence through participation in case studies, group work, and simulations. Emphasis is placed on all aspects of store ownership and operation, including securing financial backing and a sufficient market share. Upon completion, students should be able to demonstrate an understanding of concepts covered through application. *This course is a unique concentration requirement of the Marketing and Retailing concentration in the Business Administration program.*

Class Hours: 3 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 0 Fall, Spring
Credit Hours: 3

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet, Hybrid

MSM - Motorsports Management

MSM 110 - Intro. to Motorsports Mgmt.

This course provides a survey of the motorsports industry. Topics include history and scope of motorsports, sanctioning bodies, types and characteristics of vehicles, related businesses, job opportunities, and economics of the industry. Upon completion, students should be able to demonstrate a general knowledge of the motorsports industry and evaluate career choices and direction.

Class Hours: 3 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 0 Fall
Credit Hours: 3

Prerequisites: None
Co-requisites: None
Course Modalities: Internet

MSM 112 - Engine/Drivetrain Fundamentals

This course introduces the principles of internal combustion engines and drivetrains. Topics include types of engines used in motorsports, basic physics of engine operation, terminology related to engines/drivetrains, tools/equipment, and functions of components and accessories. Upon completion, students should be able to identify basic parts of

engines/drivetrains, identify shop tools/equipment, and explain how power is generated, transmitted, and controlled.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: None
Course Modalities: Internet

MSM 210 - Motorsports Marketing

This course introduces principles and problems of marketing goods and services especially related to the motorsports industry. Topics include promotion, placement, and pricing strategies for motorsports products and services; importance/significance of media on product image; and the human relations element in marketing. Upon completion, students should be able to develop marketing and media plans for a motorsports product or service.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: None
Course Modalities: Internet

MSM 212 - Chassis/Handling Fundamentals

This course introduces chassis design/handling features for super speedways, short tracks, and road courses. Topics include spring rates, caster/camber settings, aerodynamics, tire construction, tire pressure, stagger, corner and cross weights, chassis flex, steering geometry, and effects of track design on chassis handling and tire wear. Upon completion, students should be able to demonstrate a basic understanding of chassis design and the critical factors involved in chassis setups.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

MSM 214 - Fabrication Fundamentals

This course introduces the basic elements of race vehicle fabrication. Topics include chassis design (driver safety, “crush” zones, energy absorption, flex); selection of materials, material forming, and fundamentals of mig, tig, and arc welding. Upon completion, students should be able to demonstrate basic knowledge of fabrication and be able to perform elementary fabrication procedures.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

MSM 216 - Organization Mobility

This course covers the processes and procedures involved in moving complex operations from one location to another in a short time span. Topics include budgeting/coordination of transport/housing/subsistence of personnel; transport of vehicles/equipment or products (including adherence to DOT regulations); facility acquisition; and cost accounting. Upon completion, students should be able to plan and execute a mock both-way move of a complex operation.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Internet

MSM 218 - Safety/Environment

This course covers safety and environment information related to motorsports management. Topics include local, state, and federal regulations as applied to workplace safety, handling/disposal of certain materials, safe transport of products/vehicles, and processing of required paperwork. Upon completion, students should be able to identify the source and describe general regulations pertaining to safety/environment related to motorsports.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

MSM 220 - Advanced Chassis Analysis

This course introduces students to the principles of static and dynamic chassis calculations. Topics include basic understanding of the building and testing of shocks, basic applications of dynamic weight transfer, and use of software programs for chassis setups. Upon completion, students should be able to explain the effect and/or reaction of certain suspension and chassis changes using advanced technology.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: MSM 212
Co-requisites: None
Course Modalities: Traditional

MSM 285 - Motorsports Capstone Project

This course provides a capstone experience for the Motorsports Management Technology student. Topics include planning, preparing, and developing a specific motorsports simulated project, including all aspects related to the management of the project. Upon completion, students should be able to document and defend a project, such as a new team startup, major event management, or major sales promotion.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: MSM 110 and BUS 137
Co-requisites: None
Course Modalities: Traditional

MUS - Music

MUS 110 - Music Appreciation

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may satisfy a general education requirement for Catawba College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet

MUS 113 - American Music

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0

Semester(s) Course Schedule to be Offered:
On Demand

Credit Hours: 3

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

MUS 131 - Chorus I

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 has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 1

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

MUS 210 - History of Rock Music

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

MUS 213 - Opera and Musical Theatre

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 affect 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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None

Co-requisites: None
Course Modalities: Traditional

NET - Networking Technologies

NET 110 - Networking Concepts

This course introduces students to the networking field. Topics include 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, sub-netting, and TCP/IP Protocols.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: CIS 110 (Local)
Co-requisites: None
Course Modalities: Internet, Hybrid

NET 125 - Networking Basics

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, sub-netting, and TCP/IP Protocols..

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 4
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

NET 126 - Routing Basics

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.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 4
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: NET 125
Co-requisites: None
Course Modalities: Traditional

NET 175 - Wireless Technology

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Summer

Prerequisites: NET 110 or NET 125; and NET 126 (Local)
Co-requisites: None
Course Modalities: Hybrid

NET 225 - Routing & Switching I

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.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 4
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: NET 126
Co-requisites: None
Course Modalities: Traditional

NET 226 - Routing & Switching II

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, and 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.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 4
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: NET 225
Co-requisites: None
Course Modalities: Traditional

NET 289 - Network Project

This course provides an opportunity to complete a significant networking 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 a project from the definition phase through implementation.

Class Hours:1
Lab/Clinical/Work Exp. Hours: 4
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: None
Co-requisites: NET 226
Course Modalities: Hybrid

NOS - Networking Operating System

NOS 110 - Operating Systems Concepts

This course introduces students to a broad range of operating system concepts, including installation and maintenance. Emphasis is place on operating system concepts, management, maintenance, and resources required. Upon completion of this course, students will have an understanding of OS concepts, installation, management, and maintenance, using a variety of operating systems.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet, Hybrid

NOS 120 - Linux/UNIX Single User

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: NOS 110
Co-requisites: None
Course Modalities: Hybrid

NOS 130 - Windows Single User

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: NOS 110
Co-requisites: None
Course Modalities: Hybrid

NOS 220 - Linux/UNIX Administration I

This course introduces the Linux file system, group administration, and system hardware controls. Topics include installation, creation and maintaining file systems, NIS client and DHCP client configuration, NFS, SMB/Samba, Configure X, Gnome, KDE, basic memory, processes, and security. Upon completion, students should be able to perform system administration tasks including installation, configuring and attaching a new Linux workstation to an existing network.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: NOS 120
Co-requisites: None
Course Modalities: Hybrid

NOS 230 - Windows Administration I

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: NOS 130
Co-requisites: None
Course Modalities: Hybrid

NOS 231 - Windows Administration II

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.

Class Hours: 2

Semester(s) Course Schedule to be Offered:

Lab/Clinical/Work Exp. Hours: 2 Fall
Credit Hours: 3

Prerequisites: NOS 230
Co-requisites: None
Course Modalities: Traditional, Hybrid

NUR – Nursing

NUR 101 - Practical Nursing I

This course introduces concepts as related to the practical nurse's caregiver and discipline-specific roles. Emphasis is placed on the nursing process, legal/ethical/professional issues, wellness/illness patterns, and basic nursing skills. Upon completion, students should be able to demonstrate beginning understanding of the nursing process to promote/maintain/restore optimum health for diverse clients throughout the life span. Clinical/laboratory experiences will focus on the development of basic skills, medication administration, and understanding the nursing process in the care of medical/surgical clients. *This is a diploma-level course.*

Class Hours: 7 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 12 Fall
Credit Hours: 11

Prerequisites: Admission to the Practical Nursing Program
Co-requisites: BIO 163 or BIO 168 or BIO 169 and PSY 110 or PSY 150 or PSY 241 (Local)
Course Modalities: Traditional, Hybrid

NUR 102 - Practical Nursing II

This course includes more advanced concepts as related to the practical nurse's caregiver and discipline-specific roles. Emphasis is placed on the nursing process, delegation, cost effectiveness, legal/ethical/professional issues, and wellness/illness patterns. Upon completion, students should be able to begin participating in the nursing process to promote/maintain/restore optimum health for diverse clients throughout the life span. Clinical experiences will focus on discipline-specific roles in the care of medical and surgical clients. *This is a diploma-level course.*

Class Hours: 8 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 12 Spring
Credit Hours: 12

Prerequisites: NUR 101, BIO 163, and PSY 110 (Local)
Co-requisites: ENG 111 (Local)
Course Modalities: Traditional, Hybrid

NUR 103 - Practical Nursing III

This course focuses on use of nursing/related concepts by practical nurses as providers of

care/members of discipline in collaboration with health team members. Emphasis is placed on the nursing process, wellness/illness patterns, entry-level issues, accountability, and advocacy, professional development, evolving technology, and changing health care delivery systems. Upon completion, students should be able to use the nursing process to promote/maintain/restore optimum health for diverse clients throughout the life span. *This is a diploma-level course.* Clinical experiences include geriatrics, medical-surgical, obstetrical and a medical-surgical preceptorship experience in long-term care setting. *This is a diploma-level course.*

Class Hours: 6
Lab/Clinical/Work Exp. Hours: 12
Credit Hours: 10

Semester(s) Course Schedule to be Offered:
Summer

Prerequisites: NUR 102 and ENG 111 (Local)
Co-requisites: None
Course Modalities: Traditional, Hybrid

NUR 111 - Introduction to Health Concepts

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.

Class Hours: 4
Lab/Clinical/Work Exp. Hours: 12
Credit Hours: 8

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: Admission to the Associate Degree Nursing program
Co-requisites: ENG 111, BIO 168, and PSY 150 (Local)
Course Modalities: Traditional, Hybrid

NUR 112 - Health-Illness Concepts

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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 5

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: NUR 111; and ENG 111, BIO 168, and PSY 150 (Local)
Co-requisites: NUR 211AB, ENG 112, BIO 169, and PSY 241
Course Modalities: Traditional, Hybrid

NUR 113 - Family Health Concepts

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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 5

Semester(s) Course Schedule to be Offered:
Summer

Prerequisites: NUR 111; and NUR 112, NUR 211AB, ENG 112, BIO 169, and PSY 241 (Local)
Co-requisites: NUR 211BB (Local)
Course Modalities: Traditional

NUR 114 - Holistic Health Concepts

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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 5

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: NUR 111; and NUR 112, NUR 211 and NUR 113 (Local)
Co-requisites: NUR 212, BIO 275 (Local)
Course Modalities: Traditional

NUR 211 - Health-Illness Concepts

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.

NUR-211 will be taught in two parts: NUR-211AB in the Spring semester and NUR-211BB in the Summer Term; hours will split between the two courses.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 5

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: NUR 111
Co-requisites: None
Course Modalities: Traditional

NUR 212 - Health System Concepts

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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 5

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: NUR 111; and NUR 112, NUR 211 and NUR 113
Co-requisites: NUR 114 and BIO 275
Course Modalities: Traditional

NUR 213 - Complex Health Concepts

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.

Class Hours: 4
Lab/Clinical/Work Exp. Hours: 18
Credit Hours: 10

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: NUR 111, NUR 112, NUR 113, NUR 114, NUR 211, and NUR 212; and BIO 275 (Local)
Co-requisites: Humanities/Fine Arts Elective
Course Modalities: Traditional

OMT - Operations Management

OMT 240 - Customers and Products

This course relates to the design, marketing, and service of a product from recognition of need to the end of its life cycle. Topics include marketing and sales, field service, product design and development, and their interrelationships. Upon completion, students should be able to demonstrate an understanding of customers and products and be prepared for the APICS CIRM examination.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet

OMT 241 - Logistics

This course presents the market-driven activities necessary to plan and procure materials, control manufacturing, and distribute products to customers throughout the supply chain. Topics include production and inventory control, procurement, distribution, and their interrelationships. Upon completion, students should be able to demonstrate an understanding of logistics and be prepared for the APICS CIRM examination.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet

OMT 243 - Support Functions

This course covers the broader activities an organization undertakes to assist its own internal departments. Topics include Total Quality Management, human resources, finance and accounting, information systems, and their interrelationships. Upon completion, students should be able to demonstrate an understanding of support functions and be prepared for the APICS CIRM examination.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet

OST - Office Systems Technologies

OST 122 - Office Computations

This course introduces the keypad and the touch method using the electronic calculator. Topics include mathematical functions in business applications. Upon completion, students should be able to use the electronic calculator to solve a wide variety of problems commonly encountered in business.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

OST 130 - Comprehensive Keyboarding

This course is designed to develop keyboarding skills and introductory document formatting. Emphasis is placed on keyboarding techniques and formatting basic business documents. Upon completion, students should be able to create documents in an ever-changing workplace. .Students must make a grade of "C" or better to continue OST 132 or OST 134.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

OST 131 - Keyboarding

This course covers basic keyboarding skills. Emphasis is placed on the touch system, correct techniques, and development of speed and accuracy. Upon completion, students should be able to key at an acceptable speed and accuracy level using the touch system. An acceptable speed is at least 25 WPM and no more than five errors.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

OST 132 - Keyboard Skill Building

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.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: OST 130 (Local)
Co-requisites: None
Course Modalities: Traditional

OST 134 - Text Entry & Formatting

This course is designed to provide the skills needed to increase speed, improve accuracy, and format documents. Topics include letters, memos, tables, and business reports. Upon completion, students should be able to produce documents and key timed writings at speeds commensurate with employability.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2

Semester(s) Course Schedule to be Offered:
Fall, Spring

Credit Hours: 3

Prerequisites: OST 130 with a grade of "C" or better (Local)
Co-requisites: None
Course Modalities: Traditional

OST 135 - Adv. Text Entry & Formatting

This course is designed to incorporate computer application skills in the generation of office documents. Emphasis is placed on advanced document production. Upon completion, students should be able to make independent decisions regarding planning, style, and method of presentation.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: OST 134
Co-requisites: None
Course Modalities: Traditional

OST 136 - Word Processing

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. Students will use the most current Word software package in this course. Students must pass OST 136 with a grade of “C” or better to continue to OST 236.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet

OST 137 - Office Software Applications

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. Students will use the most current Microsoft Office software package in this course. Students must make a grade of “C” or better to pass this course.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: OST 130 or OST 136 (Local)
Co-requisites: None
Course Modalities: Traditional, Internet

OST 141 - Medical Terminology I-Med. Office

This course uses a language-structure approach to present the terminology and vocabulary that will be encountered in medical office settings. Topics include word parts that relate to systemic components, conditions, pathology, and disorder remediation in approximately one-half of the systems of the human body. Upon completion, students should be able to relate words to systems, pluralize, define, pronounce, and construct sentences with the included terms. *This course is also available through the Virtual Learning Community.* Student MUST make a grade of "C" or better on mid-term exam (Dean Vaughn 350 words) to continue in the course and must make a grade of "C" or better to go to OST 142.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet

OST 142 - Medical Term. II-Med. Office

This course is a continuation of OST 141 and continues the study, using a language-structure approach of medical office terminology and vocabulary. Topics include word parts that relate to systemic components, conditions, pathology, and disorder remediation in the remaining systems of the human body. Upon completion, students should be able to relate words to systems, pluralize, define, pronounce, and construct sentences with the included terms.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet

OST 148 - Medical Coding, Billing, and Insurance

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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: OST 141 (Local)
Co-requisites: None
Course Modalities: Traditional

OST 149 - Medical Legal Issues

This course introduces the complex legal, moral, and ethical issues involved in providing healthcare 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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: OST 164 (Local)
Co-requisites: None
Course Modalities: Traditional, Internet

OST 164 - Text Editing Applications

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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

OST 165 - Advanced Text Editing Applications

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: OST 164
Co-requisites: None
Course Modalities: Traditional

OST 181 - Introduction to Office Systems

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet

OST 184 - Records Management

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

OST 223 - Administrative Office Transcription I

This course provides experience in transcribing documents. Emphasis is placed on appropriate formatting, advanced text editing skills, and transcription techniques. Upon completion, students should be able to transcribe office documents. Students must make a grade of "C" or better to pass this course.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: OST 164; and OST 134 or OST 136
Co-requisites: None
Course Modalities: Traditional

OST 224 - Administrative Office Transcription II

This course provides instruction and practice in advanced transcription skills. Emphasis is placed on specialized transcription features. Upon completion, students should be able to transcribe complex business documents.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: OST 223
Co-requisites: None
Course Modalities: Traditional

OST 236 - Adv. Word/Information Processing

This course develops proficiency in the utilization of advanced word/information processing functions. Emphasis is placed on advanced word processing features. Upon completion, students should be able to produce a variety of complex business documents. Students will use the most current Word software package in this course.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: OST 136
Co-requisites: None
Course Modalities: Traditional, Internet

OST 241 - Medical Office Transcription I

This course introduces machine transcription techniques as applied to medical documents. Emphasis is placed on accurate transcription, proofreading, and use of reference materials as well as vocabulary building. Upon completion, students should be able to prepare accurate and usable transcripts of voice recordings in the covered specialties. Students will use the most current Word software package in this course. Students must make a grade of "C" or better to pass this course.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: OST 164 (Local); MED 121 or OST 141
Co-requisites: OST 136 (Local)
Course Modalities: Traditional

OST 242 - Medical Office Transcription II

This course continues building transcription techniques as applied to medical documents. Emphasis is placed on accurate transcription and text editing, efficient use of reference materials, increasing transcription speed and accuracy, and improving understanding of medical terminology. Upon completion, students should be able to display competency in accurately transcribing medical documents.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: OST 241
Co-requisites: None
Course Modalities: Traditional

OST 243 - Medical Office Simulation

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: OST 130, OST 142 (Local), and OST 148
Co-requisites: None
Course Modalities: Traditional

OST 244 - Medical Document Production

This course provides production-level skill development in processing medical documents. Emphasis is placed on producing documents through the use of medical-related materials. Upon completion, students should be able to perform competently in preparing accurate, correctly formatted, and usable documents.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: OST 134; and OST 142 and OST 241 (Local)
Co-requisites: None
Course Modalities: Traditional

OST 247 - Procedure Coding

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.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: MED 121 or OST 141
Co-requisites: None
Course Modalities: Traditional

OST 284 - Emerging Technologies

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

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

OST 289 - Administrative Office Management

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: OST 164 and either OST 134 or OST 136
Co-requisites: None
Course Modalities: Traditional, Internet

PED - Physical Education

PED 110 - Fit and Well for Life

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

PED 111 - Physical Fitness I

This course provides an individualized approach to physical fitness, utilizing the five major components. Emphasis is placed on the scientific basis for setting up and engaging in personalized physical fitness programs. Upon completion, students should be able to set up and implement an individualized physical fitness program. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement. This course may satisfy a general education requirement for Catawba College.*

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 1

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None

Co-requisites: None
Course Modalities: Traditional

PED 113 - Aerobics I

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 1

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

PED 117 - Weight Training I

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 1

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

PED 121 - Walk, Jog, Run

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 1

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None

Course Modalities: Traditional

PED 122 - Yoga I

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 1

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

PED 128 - Golf - Beginning

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 knowledge of the rules and etiquette of golf. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement*.

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 1

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

PED 142 - Lifetime Sports

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 1

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

PED 217 - Pilates I

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 the 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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 1

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

PHI – Philosophy

PHI 210 - History of Philosophy

This course introduces fundamental philosophical issues through a 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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: ENG 111
Co-requisites: None
Course Modalities: Traditional, Telecourse

PHI 220 - Western Philosophy I

This course covers Western intellectual and philosophic thought from the early Greeks through the medievalists. Emphasis is placed on such figures as the pre-Socratics, Plato, Aristotle, Epicurus, Epictetus, Augustine, Suarez, Anselm, and Aquinas. Upon completion, students should be able to trace the development of leading ideas regarding reality, knowledge, reason, and faith. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: ENG 111
Co-requisites: None
Course Modalities: Traditional

PHI 221 - Western Philosophy II

This course covers Western intellectual and philosophic thought from post-medievalists through recent thinkers. Emphasis is placed on such figures as Descartes, Spinoza, Leibnitz, Locke, Berkeley, Hume, Kant, Hegel, Marx, Mill, and representatives of pragmatism, logical positivism, and existentialism. Upon completion, students should be able to trace the development of leading ideas concerning knowledge, reality, science, society, and the limits of reason. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: ENG 111
Co-requisites: None
Course Modalities: Traditional

PHI 230 - Introduction to Logic

This course introduces basic concepts and techniques for distinguishing between good and bad reasoning. Emphasis is placed on deduction, induction, validity, soundness, syllogisms, truth functions, predicate logic, analogical inference, common fallacies, and scientific methods. Upon completion, students should be able to analyze arguments, distinguish between deductive and inductive arguments, test validity, and appraise inductive reasoning. *This course has been approved to satisfy the Comprehensive Articulation general education core requirement in humanities/fine arts. This course may meet the SACS humanities requirement for AAS degree programs.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: ENG 111; and MAT 070 or acceptable placement test score (Local)
Co-requisites: None
Course Modalities: Traditional, Internet

PHI 240 - Introduction to Ethics

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: ENG 111
Co-requisites: None
Course Modalities: Traditional, Internet

PHY - Physics

PHY 110 - Conceptual Physics

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: MAT 060 or appropriate placement test score (Local)
Co-requisites: None
Course Modalities: Traditional, Internet

PHY 110A - Conceptual Physics (Lab)

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 1

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: None
Co-requisites: PHY 110
Course Modalities: Traditional

PHY 131 - Physics-Mechanics

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, and 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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: MAT 121, MAT 161, MAT 171, or MAT 175
Co-requisites: None
Course Modalities: Traditional

PHY 132 - Physics-Electricity & Magnetism

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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: PHY 131
Co-requisites: None
Course Modalities: Traditional

PHY 151 - College Physics I

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: MAT 161or MAT 171 or MAT 175
Co-requisites: None
Course Modalities: Traditional

PHY 152 - College Physics II

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course may satisfy a general education requirement for Catawba College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: PHY 151
Co-requisites: None
Course Modalities: Traditional

PHY 251 - General Physics I

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course may satisfy a general education requirement for Catawba College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: MAT 271
Co-requisites: MAT 272
Course Modalities: Traditional

PHY 252 - General Physics II

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course may satisfy a general education requirement for Catawba College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: MAT 272 and PHY 251
Co-requisites: None
Course Modalities: Traditional

POL - Political Science

POL 110 - Introduction to Political Science

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

Class Hours: 3 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 0 On Demand
Credit Hours: 3

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

POL 120 - American Government

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/ behavioral sciences.*

Class Hours: 3 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 0 Fall, Spring, Summer
Credit Hours: 3

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet

POL 130 - State & Local Government

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 0 On Demand
Credit Hours: 3

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

POL 210 - Comparative Government

This course provides a cross-national perspective on the government and politics of contemporary nations such as Great Britain, France, Germany, and Russia. Topics include each country's historical uniqueness, key institutions, attitudes and ideologies, patterns of interaction, and current political problems. Upon completion, students should be able to identify and compare various nations' governmental structures, processes, ideologies, and capacity to resolve major problems. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

Class Hours: 3 ***Semester(s) Course Schedule to be Offered:***

Lab/Clinical/Work Exp. Hours: 0 On Demand
Credit Hours: 3

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

POL 220 - International Relations

This course provides a study of the effects of ideologies, trade, armaments, and alliances on relations among nation-states. Emphasis is placed on regional and global cooperation and conflict, economic development, trade, non-governmental organizations, and international institutions such as the World Court and UN. Upon completion, students should be able to identify and discuss major international relationships, institutions, and problems. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

Class Hours: 3 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 0 On Demand
Credit Hours: 3

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

PSY – Psychology

PSY 110 - Life Span Development

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.

Class Hours: 3 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 0 Fall
Credit Hours: 3

Prerequisites: RED 090 or appropriate placement test score (Local)
Co-requisites: None
Course Modalities: Traditional
PSY 118 - Interpersonal Psychology

This course introduces the basic principles of psychology as they relate to personal and professional development. Emphasis is placed on personality traits, communication/ leadership styles, effective problem solving, and cultural diversity as they apply to personal and work environments. Upon completion, students should be able to demonstrate an understanding of these principles of psychology as they apply to personal and professional development. This course meets the SACS social/behavioral sciences requirement in AAS and diploma programs.

Class Hours: 3 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 0 Spring

Credit Hours: 3

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

PSY 150 - General Psychology

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/ behavioral sciences. This course may satisfy a general education requirement for Catawba College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: RED 090 or appropriate placement test score (Local)
Co-requisites: None
Course Modalities: Traditional, Internet, Telecourse

PSY 211 - Psychology of Adjustment

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: PSY 150
Co-requisites: None
Course Modalities: Traditional, Internet

PSY 215 - Positive Psychology

This course is an overview of the scientific study of human strengths. Topics include resilience, optimism, vital engagement (flow), positive relationships, creativity, wisdom, happiness, empathy, emotional intelligence, and other relevant topics. Upon completion, students should be able to demonstrate an understanding of the psychological factors relevant to enhancing well-being. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0

Semester(s) Course Schedule to be Offered:
On Demand

Credit Hours: 3

Prerequisites: PSY 150
Co-requisites: None
Course Modalities: Traditional

PSY 231 - Forensic Psychology

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: PSY 150
Co-requisites: None
Course Modalities: Traditional

PSY 237 - Social Psychology

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: PSY 150 or SOC 210
Co-requisites: None
Course Modalities: Traditional, Internet

PSY 239 - Psychology of Personality

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/ behavioral sciences.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0

Semester(s) Course Schedule to be Offered:
On Demand

Credit Hours: 3

Prerequisites: PSY 150
Co-requisites: None
Course Modalities: Traditional, Internet

PSY 241 - Developmental Psychology

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: PSY 150
Co-requisites: None
Course Modalities: Traditional, Telecourse, Internet

PSY 243 - Child Psychology

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: PSY 150
Co-requisites: None
Course Modalities: Traditional

PSY 246 - Adolescent Psychology

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3

Semester(s) Course Schedule to be Offered:

Lab/Clinical/Work Exp. Hours: 0 On Demand
Credit Hours: 3

Prerequisites: PSY 150
Co-requisites: None
Course Modalities: Traditional

PSY 249 - Psychology of Aging

This course covers the particular needs and behaviors of the maturing adult. Emphasis is placed on psychosocial processes; biological and intellectual aspects of aging; adjustments to retirement, dying, bereavement; and the stereotypes and misconceptions concerning the elderly. Upon completion, students should be able to show an understanding of the psychological factors related to the aging process. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 0 On Demand
Credit Hours: 3

Prerequisites: PSY 150
Co-requisites: None
Course Modalities: Traditional

PSY 259 - Human Sexuality

This course provides the biological, psychological, and sociocultural aspects of human sexuality and related research. Topics include reproductive biology, sexual and psychosexual development, sexual orientation, contraception, sexually transmitted diseases, sexual disorders, theories of sexuality, and related issues. Upon completion, students should be able to demonstrate an overall knowledge and understanding of human sexuality. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

Class Hours: 3 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 0 Fall, Spring, Summer
Credit Hours: 3

Prerequisites: PSY 150
Co-requisites: None
Course Modalities: Traditional, Internet

PSY 271 - Sports Psychology

This course provides an overview of the field of sports and exercise psychology. Topics include concentration, goal setting, arousal level, exercise psychology, mental imagery, confidence, and other issues related to sport and exercise performance. Upon completion, students should be able to demonstrate knowledge of psychological factors involved in sport and exercise. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 0 On Demand

Credit Hours: 3

Prerequisites: PSY 150
Co-requisites: None
Course Modalities: Traditional

PSY 275 - Health Psychology

This course covers the bio-psychosocial 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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: PSY 150
Co-requisites: None
Course Modalities: Traditional

PSY 281 - Abnormal Psychology

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/ behavioral sciences.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: PSY 150
Co-requisites: None
Course Modalities: Traditional, Internet

RAD – Radiography

RAD 110 - RAD Intro. & Patient Care

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Credit Hours: 3

Prerequisites: None
Co-requisites: RAD 111 and RAD 151
Course Modalities: Traditional

RAD 111 - RAD Procedures I

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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: RAD 110 and RAD 151
Course Modalities: Traditional

RAD 112 - RAD Procedures II

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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: RAD 110, RAD 111, and RAD 151
Co-requisites: None
Course Modalities: Traditional

RAD 121 - Radiographic Imaging I

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: RAD 110, RAD 111, and RAD 151
Co-requisites: None
Course Modalities: Traditional

RAD 122 - Radiographic Imaging II

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.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Summer

Prerequisites: RAD 112, RAD 121, and RAD 161
Co-requisites: RAD 131 and RAD 171
Course Modalities: Traditional

RAD 131 - Radiographic Physics I

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.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Summer

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

RAD 151 - RAD Clinical Ed I

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

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: Enrollment in the Radiography program (local)
Co-requisites: RAD 110 and RAD 111
Course Modalities: Traditional

RAD 161 - RAD Clinical Ed II

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.

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 15
Credit Hours: 5

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: RAD 110, RAD 111, and RAD 151
Co-requisites: RAD 112 and RAD 121
Course Modalities: Traditional

RAD 171 - RAD Clinical Ed III

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.

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 12
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Summer

Prerequisites: RAD 112 and RAD 121 , and RAD 161
Co-requisites: RAD 122 and RAD 131
Course Modalities: Traditional

RAD 211 - RAD Procedures III

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 an understanding of these areas.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: RAD 122
Co-requisites: RAD 231, RAD 241, and RAD 251
Course Modalities: Traditional

RAD 231 - Radiographic Physics II

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.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: RAD 171 or RAD 131
Co-requisites: None
Course Modalities: Traditional

RAD 241 - Radiobiology Protection

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: RAD 122, RAD 131, and RAD 171
Co-requisites: RAD 211, RAD 231, and RAD 251
Course Modalities: Internet

RAD 245 – Image Analysis

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.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: RAD 211, RAD 231, RAD 241 and RAD 251
Co-requisites: RAD 261
Course Modalities: Traditional

RAD 251 - RAD Clinical Ed IV

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.

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 21
Credit Hours: 7

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: RAD 122, RAD 131, and RAD 171
Co-requisites: RAD 211, RAD 231, and RAD 241
Course Modalities: Traditional

RAD 261 - RAD Clinical Ed V

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.

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 21

Semester(s) Course Schedule to be Offered:
Spring

Credit Hours: 7

Prerequisites: RAD 251
Co-requisites: RAD 245
Course Modalities: Traditional

RAD 271 - Radiography Capstone

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.

Class Hours: 0
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 1

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: RAD 211, RAD 231, RAD 241, RAD 251
Co-requisites: RAD 245, RAD 261
Course Modalities: Traditional

RED - Reading

RED 080 - Introduction to College Reading

This course introduces effective reading and inferential thinking skills in preparation for RED 090. Emphasis is placed on vocabulary, comprehension, and reading strategies. Upon completion, students should be able to determine main ideas and supporting details, recognize basic patterns of organization, draw conclusions, and understand vocabulary in context. This course does not satisfy the developmental reading prerequisite for ENG 111 or ENG 111A. This course is designed to prepare students for college level work and will not satisfy **Credit Hours** for any degree, diploma or certificate program. This course will not transfer to a four-year institution but will transfer to any of the community colleges within the N.C. Community College System; however, it will not satisfy any degree, diploma or certificate requirements at the receiving institution. Credit earned for this course will only satisfy the **Prerequisites** for entry into a curriculum level course.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: RED 070 or ENG 075 or appropriate placement test score
Co-requisites: None
Course Modalities: Traditional

RED 090 - Improved College Reading

This course is designed to improve reading and critical thinking skills. Topics include vocabulary enhancement; extracting implied meaning; analyzing the author's purpose, tone, and style; and drawing conclusions and responding to written material. Upon completion, students should be able to comprehend and analyze college-level reading

material. This course satisfies the developmental reading prerequisite for ENG 111 or ENG 111A. This course is designed to prepare students for college level work and will not satisfy **Credit Hours** for any degree, diploma or certificate program. This course will not transfer to a four-year institution but will transfer to any of the community colleges within the N.C. Community College System; however, it will not satisfy any degree, diploma or certificate requirements at the receiving institution. Credit earned for this course will only satisfy the **Prerequisites** for entry into a curriculum level course.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall, Spring , Summer

Prerequisites: RED 080 or ENG 085 or appropriate placement test score
Co-requisites: None
Course Modalities: Traditional

REL – Religion

REL 110 - World Religions

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may satisfy a general education requirement for Catawba College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet

REL 211 - Introduction to Old Testament

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may satisfy a general education requirement for Catawba College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: None

Course Modalities: Traditional

REL 212 - Introduction to New Testament

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may satisfy a general education requirement for Catawba College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet

REL 221 - Religion in America

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

SEC - Information Systems Security

SEC 110 - Security Concepts

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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: None
Co-requisites: None
Course Modalities: Internet

SEC 150 - Secure Communications

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: SEC 110 and NET 110 or NET 125
Co-requisites: None
Course Modalities: Internet

SEC 160 - Secure Administration I

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Summer

Prerequisites: SEC 110 and NET 110 or NET 125; and NET 226 (Local)
Co-requisites: None
Course Modalities: Hybrid

SEC 210 - Intrusion Detection

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: SEC 160
Co-requisites: None
Course Modalities: Hybrid

SEC 220 - Defense In-Depth

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. *This course is restricted to the Information Systems Security, the Information Systems Security/Operating Systems, and the Information Systems Security/Security Hardware curriculums.*

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: SEC 160
Course Modalities: Hybrid

SEC 289 - Security Capstone Project

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. *This course is restricted to the Information Systems Security, the Information Systems Security/Operating Systems, and the Information Systems Security/Security Hardware curriculums.*

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 4
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: SEC 220
Co-requisites: None
Course Modalities: Hybrid

SGD - Simulation and Game Development

SGD 111 - Introduction to SGD

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours:3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: None

Course Modalities: Internet

SGD 112 - SGD Design

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours:3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Internet

SGD 113 - SGD Programming

This course introduces the fundamentals of programming languages and tools employed in simulation and game development. Emphasis is placed on programming concepts used to create simulations and games. Upon completion, students should be able to program simple games and/or simulations.

Class Hours: 2
Lab/Clinical/Work Exp. Hours:3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Internet

SGD 212 - SGD Design II

The course covers the advanced principles of simulation and game design. Topics include advanced design concepts in simulation and game development. Upon completion, students should be able to design an advanced simulation or game.

Class Hours: 2
Lab/Clinical/Work Exp. Hours:3
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: SGD 112
Co-requisites: None
Course Modalities: Internet

SGD 289 - SGD Project

This course provides students with the opportunity to create a functional simulation or game with minimal instructor support. Emphasis is placed upon verbal and written communication, skill documentation, professional presentation and user training. Upon completion, students should be able to create and professionally present a fully functional simulation or game.

Class Hours: 2

Semester(s) Course Schedule to be Offered:

Lab/Clinical/Work Exp. Hours:3 Spring
Credit Hours: 3

Prerequisites: SGD 212, SGD 213, SGD 214 and SGD 285
Co-requisites: None
Course Modalities: Internet

SOC – Sociology

SOC 210 - Introduction to Sociology

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. This course is also available through the Virtual Learning Community (VLC).*

Class Hours: 3 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 0 Fall, Spring, Summer
Credit Hours: 3

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet

SOC 213 - Sociology of the Family
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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. This course is also available through the Virtual Learning Community (VLC).*

Class Hours: 3 ***Semester(s) Course Schedule to be Offered:***
Lab/Clinical/Work Exp. Hours: 0 Fall, Spring, Summer
Credit Hours: 3

Prerequisites: None
Co-requisites: None

SOC 220 - Social Problems

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. This course is also available through the Virtual Learning Community (VLC).*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet

SOC 225 - Social Diversity

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. This course is also available through the Virtual Learning Community (VLC).*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

SOC 230 - Race and Ethnic Relations

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

SOC 234 - Sociology of Gender

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

SOC 240 - Social Psychology

This course examines the influence of culture and social groups on individual behavior and personality. Emphasis is placed on the process of socialization, communication, conformity, deviance, interpersonal attraction, intimacy, race and ethnicity, small group experiences, and social movements. Upon completion, students should be able to identify and analyze cultural and social forces that influence the individual in a society. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet

SOC 242 - Sociology of Deviance

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional, Internet

SOC 245 - Drugs and Society

This course covers the impact of drugs on society and human behavior. Emphasis is placed on the construction of a modern social problem from contrasting historical responses to mind-altering substances. Upon completion, students should be able to apply sociological analysis in evaluating drug use as a societal and interpersonal problem. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring, Summer

Prerequisites: None
Co-requisites: None

Course Modalities: Traditional

SOC 250 - Sociology of Religion

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

SPA – Spanish

SPA 111 - Elementary Spanish I

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts; however, this course does not meet the SACS humanities/fine arts requirement in A.A.S. or diploma programs that require only one humanities/fine arts course. This course is also available through the Virtual Learning Community (VLC). This course may satisfy a general education requirement for Catawba College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: RED 090 or appropriate placement test score (Local)
Co-requisites: None
Course Modalities: Traditional, Internet, Hybrid

SPA 112 - Elementary Spanish II

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts; however, this course does not meet the SACS humanities/fine arts requirement in A.A.S. or diploma programs that require only one humanities/fine arts course. This course may satisfy a general education requirement for Catawba College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: SPA 111
Co-requisites: None
Course Modalities: Traditional, Internet , Hybrid

SPA 120 - Spanish for the Workplace

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.

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

SPA 211 - Intermediate Spanish I

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may satisfy a general education requirement for Catawba College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: SPA 112
Co-requisites: None
Course Modalities: Traditional

SPA 212 - Intermediate Spanish II

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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may satisfy a general education requirement for Catawba College.*

Class Hours: 3
Lab/Clinical/Work Exp. Hours: 0
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: SPA 211
Co-requisites: None
Course Modalities: Traditional

SRV – Surveying

SRV 110 - Surveying I

This course introduces the theory and practice of plane surveying. Topics include measuring distances and angles, differential and profile leveling, compass applications, topography, and mapping. Upon completion, students should be able to use/care for surveying instruments, demonstrate field note techniques, and apply the theory and practice of plane surveying.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

SRV 111 - Surveying II

This course introduces route surveying and roadway planning and layout. Topics include simple, compound, reverse, spiral, and vertical curves; geometric design and layout; planning of cross-section and grade line; drainage; earthwork calculations; and mass diagrams. Upon completion, students should be able to calculate and lay out highway curves; prepare roadway plans, profiles, and sections; and perform slope staking.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: SRV-110
Co-requisites: None

WEB - Web Technologies

WEB 110 - Internet/Web Fundamentals

This course introduces basic markup language, various navigational tools and services of the Internet. Topics include creating web pages, using Internet protocols, search engines,

and file compression/decompression, FTP, E-mail, list servers, and other related topics. Upon completion, students should be able to deploy a website created with basic markup language, retrieve/decompress files, e-mail, FTP, and utilize other Internet tools

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: None
Co-requisites: CIS 110 (Local)

WEB 111 - Introduction to Web Graphics

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: None
Course Modalities: Internet

WEB 115 - Web Markup and Scripting

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, style sheets, validation, accessibility, standards, browsers, and basic Java Scripting. 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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Internet

WEB 119 - Web Technologies Program Orientation

This course provides an opportunity for students to develop the knowledge and skills required to succeed in the Web Technologies program. Emphasis is placed on introducing students to the tools and resources available for Web Technologies. Upon completion, students should be able to use the tools, resources, and services available.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: None
Course Modalities: Internet

WEB 120 - Introduction of Internet Multimedia

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Internet

WEB 140 - Web Development Tools

This course provides an introduction to web development software suites. Topics include the creation of web sites and applets using web development software. Upon completion, students should be able to create entire web sites and supporting applets.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Summer

Prerequisites: None
Co-requisites: None
Course Modalities: Internet

WEB 210 - Web Design

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall, Spring

Prerequisites: WEB 115 (Local)
Co-requisites: None
Course Modalities: Internet

WEB 211 - Advanced Web Graphics

This course is the second of two courses covering web graphics. Topics include graphics acquisition using scanners and digital cameras, graphics optimization, use of masks, advanced special effects, GIF animation, and other related topics. Upon completion, students should be able to create graphics optimized for size, graphic file type, properly converted from digitized sources and create useful animated graphics.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: WEB 111
Co-requisites: None
Course Modalities: Internet

WEB 230 - Implementing Web Services

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Summer

Prerequisites: NET 110 or NET 125
Co-requisites: None
Course Modalities: Internet

WEB 250 - Database Driven Websites

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: DBA 110
Co-requisites: CIS 115 (Local)
Course Modalities: Internet

WEB 260 - E-Commerce Infrastructure

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 set up a working e-commerce

Internet web site.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: WEB 250
Co-requisites: None
Course Modalities: Internet

WEB 287 - Web E-Portfolio

This course covers the creation and organization of a web-based e-portfolio that includes a resume, references, and comprehensive academic and work samples. Emphasis is placed on creating an e-portfolio with solid design and demonstrable content, the production of a resume and self-promotional materials, and interview techniques. Upon completion, students should be able to present their own domain with included professional e-portfolio elements of resume, sample work, and related self-promotional materials.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites None
Co-requisites: None
Course Modalities: Internet

WEB 289 - Internet Technologies Project

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.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 4
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: WEB 230 and WEB 250
Co-requisites: None
Course Modalities: Internet

WLD – Welding

WLD 110 - Cutting Processes

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.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

WLD 112 - Basic Welding Processes

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.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

WLD 115 - SMAW (Stick) Plate

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 9
Credit Hours: 5

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: WLD 110 Local
Course Modalities: Traditional

WLD 116 - SMAW (Stick) Plate/Pipe

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.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 9
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: WLD 115

Co-requisites: WLD 110 (Local)

Course Modalities: Traditional

WLD 121 - GMAW (MIG) FCAW/Plate

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: None
Co-requisites: WLD 110 (Local)
Course Modalities: Traditional

WLD 122 - GMAW (MIG) Plate/Pipe

This course is designed to enhance skills with the gas metal arc (MIG) welding process. Emphasis is placed on advancing skills with the GMAW process, and making groove welds on carbon steel plate and pipe in various positions. Upon completion, students should be able to perform groove welds with prescribed electrodes on various joint geometry.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: WLD 121
Co-requisites: WLD 110 (Local)
Course Modalities: Traditional

WLD 131 - GTAW (TIG) Plate

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
Fall

Prerequisites: None
Co-requisites: WLD 110 (Local)
Course Modalities: Traditional

WLD 132 - GTAW (TIG) Plate/Pipe

This course is designed to enhance skills with the gas tungsten arc (TIG) welding process. Topics include setup, joint preparation, and electrode selection with emphasis on manipulative skills in all welding positions on plate and pipe. Upon completion, students

should be able to perform GTAW welds with prescribed electrodes and filler materials on various joint geometry.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: WLD 131
Co-requisites: WLD 110 (Local)
Course Modalities: Traditional

WLD 141 - Symbols & Specifications

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.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 2
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
Spring

Prerequisites: None
Co-requisites: None
Course Modalities: Traditional

WLD 151 - Fabrication I

This course introduces the basic principles of fabrication. Emphasis is placed on safety, measurement, layout techniques, and the use of fabrication tools and equipment. Upon completion, students should be able to perform layout activities and operate various fabrication and material handling equipment.

Class Hours: 2
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: WLD 110, WLD 115, WLD 131, WLD 121, and WLD 141 (Local)
Co-requisites: None
Course Modalities: Traditional

WLD 215 - SMAW (Stick) Pipe

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

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 9
Credit Hours: 4

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: WLD 115 or WLD 116; WLD 115 and WLD 116 (Local)

Co-requisites: None
Course Modalities: Traditional

WLD 231 - GTAW (TIG) Pipe

This course covers gas tungsten arc welding on pipe. Topics include joint preparation and fit up with emphasis placed on safety, GTAW welding technique, bead application, and joint geometry. Upon completion, students should be able to perform GTAW welds to applicable codes on pipe with prescribed electrodes and filler materials in various pipe positions.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 6
Credit Hours: 3

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: WLD 132
Co-requisites: None
Course Modalities: Traditional

WLD 261 - Certification Practices

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.

Class Hours: 1
Lab/Clinical/Work Exp. Hours: 3
Credit Hours: 2

Semester(s) Course Schedule to be Offered:
On Demand

Prerequisites: WLD 115, WLD 121, and WLD 131
Co-requisites: None
Course Modalities: Traditional