# Catalog \& Student Handbook 



# Rowan-Cabarrus Community College 

## Directory <br> General College Information <br> Phone: 704-216-RCCC (7222)

Hours of Access:
Mon. - Thurs.: 7:30 a.m. - 8 p.m.
Fri. 7:30 a.m. -5 p.m.
An automated attendant is available after hours.
See the college website for campus directory of specific RCCC phone listings.

## College Mailing Address:

Rowan-Cabarrus Community College
P.O. Box 1595

Salisbury, N.C. 28145

## College Package Delivery:

(Unless specified otherwise)
Rowan-Cabarrus Community College
1531 Trinity Church Rd.
Concord, NC 28027
College Internet Address:
www.rccc.edu

## Locations:

Cabarrus Business and Technology Ctr. Campus
660 Concord Parkway Drive, Concord, NC 28027
Cloverleaf Cosmetology Center
988 Cloverleaf Plaza, Kannapolis, NC 28081

## Cloverleaf Extension Center Campus

Cloverleaf Plaza, Kannapolis, NC 28081

## North Carolina Research Campus

399 Biotechnology Lane, Kannapolis, NC 28081
North Campus
1333 Jake Alexander Blvd., Salisbury, NC 28146

## South Campus

1531 Trinity Church Road, Concord, NC 28027

All Campus Locations are Tobacco Free.

## Rowan-Cabarrus Community College

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## Academic Calendar

Fall Semester 2012

| Aug. 15 | W | Classes Begin <br> Aug. 15-Oct. 15 |
| :--- | :--- | :--- |
| First Minimester |  |  |
| Aug. 24 | F | Deadline for Refunds <br> Sept. 03 |
| Labor Day Holiday* |  |  |
| Oct. 08-10 | M | Student Break Days <br> Oct. 16-Dec. 14 |
| Nov. 01 | TH | Second Minimester <br> Last Day to Withdraw <br> Nov. 12 |
| Nov. 21 | W | Veterans Day Holiday* |
| Nov. 22, 23 | TH,F | Student Break Day |
| Dec. 10-14 | M-F | Examksgiving Holidays* |
| Dec. 14 | F | Semester Ends days) |
| Dec. 19-31 | W-M | Winter Holidays* |

## Spring Semester 2013

| Jan. 01 | T | New Year's Holiday* <br> Jan. 07 |
| :--- | :--- | :--- |
| Classes Begin |  |  |
| Jan. 07- Mar. 01 |  | First Minimester <br> Jan. 21 |
| Jan. 21 | TH | Deadline for Refunds <br> Martin Luther King Jr., Holiday* <br> Mar. 04-08 |
| M | M-F | Spring Break* <br> Mar. 13-May 07 |
| Second Minimester |  |  |
| Mar. 28 | TH | Last Day to Withdraw <br> Mar. 29 |
| May 01-07 | F | Spring Holiday* |
| May 07 | T | Exam Week (5 days) <br> Semester Ends |
| May 11 | S | Graduation |

## Summer Semester 2013

| May 16 | TH | Classes Begin |
| :--- | :--- | :--- |
| May 22 | W | Deadline for Refunds |
| May 27 | M | Memorial Day Holiday* |
| June 20 | TH | First 5 Week Session Ends |
| June 21 | F | Second 5 week Session Begins |
| July 04 | TH | 4th of July Holiday* |
| July 05 | F | Student Break Day |
| July 29 | M | Classes End |

Fall Semester 2013

| Aug. 19 |  |  |
| :--- | :--- | :--- |
| Aug. 19-Oct. 11 | M | Classes Begin <br> First Minimester <br> Sept. 02 |
| TBA | Deadline for Refunds <br> Oct. 14-16 |  |
| Labor Day Holiday* |  |  |
| Oct. 21-Dec. 18 |  | Student Break Days <br> Nov. |
| TBA | Second Minimester <br> Last Day to Withdraw |  |
| Nov. 11 27 | M | Veterans Day Holiday* |
| Nov. 28, 29 | W | TH,F |$\quad$ Student Break Day | Thanksgiving Holidays* |
| :--- |
| Dec. 12-18 |
| Dec. 18 |

Spring Semester 2014

| Jan. 01 | T | New Year's Holiday* |
| :---: | :---: | :---: |
| Jan. 13 | M | Classes Begin |
| Jan. 13- Mar. 07 |  | First Minimester |
| Jan. | TBA | Deadline for Refunds |
| Jan. 20 | M | Martin Luther King Jr., Holiday* |
| Mar. 10-14 | M-F | Spring Break* |
| Mar. 19-May 13 |  | Second Minimester |
| Mar. | TBA | Last Day to Withdraw |
| Apr. 18 | F | Spring Holiday* |
| May 07-13 | W-T | Exam Week (5 days) |
| May 13 | T | Semester Ends |
|  | S | Graduation |

Summer Semester 2014

| May 21 | W | Classes Begin |
| :--- | :--- | :--- |
| May 22 | TBA | Deadline for Refunds <br> May 26 |
| Mune 25 | W | Memorial Day Holiday* |
| Junst 5 Week Session Ends |  |  |
| June 26 | TH | Fecond 5 week Session Begins |
| July 04 | F | 4th of July Holiday* |
| July 31 | TH | Classes End |

## Disclaimer Statements for Calendars

*Rowan-Cabarrus is closed on holidays listed above.
The calendar is subject to change. For the most current version, consult the online calendar at:
http://www.rccc.edu/events/category/academic-calendar-2012-2013/
College Course Advisement Weeks and Registration dates for each term will be announced in the Rowan-Cabarrus Student Planner Spring Break Days will be used as make-up days for inclement weather, if necessary.

Corporate and Continuing Education registration is ongoing throughout the term.
For additional information, call the Rowan-Cabarrus OneStop at 704-216-RCCC (7222).

## General Information



## General Information

Rowan-Cabarrus Community College reserves the right to change its regulations, policies, fees and programs without notice.

## Equal Opportunity/Affirmative Action

Rowan-Cabarrus Community College is an equal opportunity institution. All programs, activities and facilities are available to all on a non-discriminatory basis, without regard to race, color, religion, sex, age, handicap, or national origin. The college provides access, equal opportunity and reasonable accommodation in services, programs, activities, education and employment for individuals with disabilities. Reasonable accommodations will be provided to individuals with disabilities upon request, in advance of the event.

## Open Door Policy

Rowan-Cabarrus Community College has an open-door admission policy for applicants who are high school graduates, are at least 18 years of age or whose admission eligibility conforms to North Carolina law and North Carolina Community College system directives. The Board of Trustees reserves the right to amend the local admissions policy within the parameters permitted by the state of North Carolina and the State Board of Community College Code. Admission to the college is open without regard to race, creed, disability, national origin, sex or age to any student who meets the age or graduation requirements.

Some degree programs have specific requirements for admission. These requirements are available from the program head, department head or Student Services counselor.

## Tuition

Tuition is set by the North Carolina Legislature and the North Carolina State Board of Community Colleges. Tuition rates are subject to change without notice.

## Accreditation

Rowan-Cabarrus Community College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, GA 30033-4097, 404-679-4501) to award associate degrees, diplomas and certificates.

## Consumer Information

In compliance with federal law this information can be located on the college website: www.rccc.edu.

## Board of Trustees

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## Administration

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## 2011-2014 RCCC Strategic Plan

## Mission

RCCC improves lives and builds community through public higher education and workforce development.

## Values

We are committed to our college and our community through our values:

- Trust, integrity, inclusiveness and mutual respect
- Excellence and Innovation for 21 st Century education and workforce training
- Exemplary service-delivery experience
- Continuous improvement through lifelong learning and achievement
- Responsibility, sustainability and accountability
- Relationships, teamwork, and global citizenship


## Goals

- Prepare students for 21 st Century careers and opportunities that stimulate sustainable economic and workforce development.
- Produce exceptional learning that demonstrates academic excellence and student success.
- Provide excellent service delivery for current and prospective students to advance achievement.
- Acquire, develop, and manage human, fiscal, and infrastructure resources essential to the development and delivery of high-quality education and service.
- Serve as a catalyst for advancing the community.


## 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 became the first multi-campus institution in the state in 1991 when the South Campus opened its doors.

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 50 programs of study in business, health and public services, and industrial and engineering technologies. The college also offers the Associate in Arts, Associate in Fine Arts and Associate in Science degree programs for those students who intend to transfer to a four-year college or university.

Rowan-Cabarrus serves the residents of Cabarrus and Rowan counties at four campus locations (North, South, Cloverleaf Plaza and Cabarrus Business and Technology Center), multiple centers, and through online programs. In 2010, Rowan-Cabarrus opened a 62,000-square-foot classroom and laboratory building at the North Carolina Research Campus, in Kannapolis.

At the same time, a new 38,000-square-foot classroom building opened at the North Campus. This was Rowan-Cabarrus' first LEED building and the first completely new facility built on the North Campus in more than 30 years. The building is LEED Gold certified, a leader in its own right as the first LEED Gold building in Rowan or Cabarrus counties and the fourth in the NC Community College system.

In November 2010 Rowan County citizens approved a $\$ 12$ million bond referendum for capital improvement projects on the North Campus as a commitment to keep the college facilities updated to provide the highest quality and relevant instruction and training for our communities. These renovations are ongoing on the North Campus through 2014.

## Program/Services Overview



# Programs and Services Overview 

## Business, Engineering, Health, Public Services and Technical Programs:

(Associate in Applied Sciences or A.A.S.) The North Carolina Community College System (NCCCS) has offered two year degree, diploma and certificate programs for individuals whose career goals are to immediately enter the workforce in their chosen profession or trade. The program offerings in the Associate in Applied Sciences provide education and training in current and emerging careers in our regional service area and beyond. Some of the A.A.S. programs have established articulation agreements with private and public universities which accept some courses toward an undergraduate degree.

## Transfer Programs:

Rowan-Cabarrus offers three transfer program areas: Associate of Arts (A.A.), Associate of Fine Arts (A.F.A.), and Associate of Science (A.S.). The transfer programs offer degree completing students the opportunity to transfer 64 credit hours to the University of North Carolina system member institutions. Students may elect to earn a 32 hour diploma prior to transferring. Transferring to private universities or to colleges and universities outside of North Carolina requires additional research and planning by students while enrolled at Rowan-Cabarrus to ensure the best possible credit transition. See Comprehensive Articulation Agreement section.

## Associate in General Education:

The Associate in General Education (A.G.E.) is a degree program designed for students who want additional flexibility in designing a degree program to meet their educational and academic needs. The A.G.E. is not a transfer degree option, but some individual courses may be received by senior institutions if a student is interested in transferring.

## Comprehensive Articulation Agreement:

The Comprehensive Articulation Agreement became effective in 1997. This agreement addresses the transfer of credits between institutions in the North Carolina Community College System and from that system to constituent institutions of the University of North Carolina. Community college graduates of the A.A. and A.S. programs who have completed the general education transfer core will be considered to have fulfilled the institution wide, lower division general education requirements of receiving institution.

## Academic and Career Advising Centers (ACA Centers):

The ACA Centers are composed of Master Advisors, Faculty Master Advisors, and administrative support. The ACA Centers are dedicated to providing quality advising in an environment that is welcoming, professional, and supportive. Academic Advising is a cooperative effort between the student and the advisor that is an ongoing and developmental process, which extends beyond course planning and selection. While the ultimate responsibility for exploring choices and making decisions rests with the student, the ACA Centers are committed to facilitating this process so students can develop an educational plan, set career goals and achieve personal growth.

## Basic Skills Program:

An important function of the college is to provide educational programs on the pre-college level. Pre-college Studies offer adults the opportunity for meaningful social and occupational growth through Adult Basic Education (ABE), High School Equivalency Program (GED) and English as a Second Language (ESL) program. For additional information, please visit the Rowan-Cabarrus website at:
http://www.rccc.edu/precollege/about-abe-ged/

## Career and College Promise Program:

The Career and College Promise Program (CCP) began in January 2012 and allows qualified high school juniors and seniors to earn college credits toward a transfer degree or a technical education degree. The program has specific admission criteria and specific courses for program completion. High school students who are interested in this opportunity must consult with their high school counselor or, if in an approved homeschool, the student and principal may consult with the Director of Enrollment and Recruitment. For additional information, please visit the Rowan-Cabarrus website at:
http://www.rccc.edu/highschool/careercollegepromise/

## Corporate and Continuing Education Programs:

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 supports individual, organizational, and economic development by providing career-focused, educational programs and services to businesses and industries of Rowan and Cabarrus counties. For additional information, please visit the Rowan-Cabarrus website at: http://www.rccc.edu/corporatecontinuing/

## Counseling Services:

Professional counseling services are provided to students, prospective students, and the entire college community in the areas of personal, academic, career emergency needs, and disability services. Counseling services are confidential. Consistent with the college mission, counseling services focus on promoting individual growth, student success and retention. For additional information, please visit the Rowan-Cabarrus website at: http://www.rccc.edu/counseling/

## English as a Second Language (E.S.L):

ESL is offered as a Pre-College program. Please refer to the Basic Skills section. For additional information, please visit the RCCC website at: http://www.rccc.edu/precollege/about-the-english-as-a-second-language-program/

## Enrollment and Student Services:

Students can receive information about registration, general advising assistance, transcripts, financial aid, career counseling, academic counseling, veterans' benefits and graduation through the Student Services offices at North or South Campus. For additional information, please visit the RCCC website at: http://www.rccc.edu/studentservices/

## Financial Aid/Veteran's Administration Benefits/Federal Student Loans

Rowan-Cabarrus offers many types of financial assistance including federal and state grants, federal student loans, federal work study, and institutional scholarships. Initially, students should complete the federal financial aid application at: www.fafsa.gov to be considered for financial assistance. Veteran's benefits are available for qualified veterans and/or their designated family member. For additional information, please visit the Rowan-Cabarrus website at:
http://www.rccc.edu/financialaid/

## Learning Resource Centers (LRCs):

Learning Resource Centers (LRCs) are essential components 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. LRCs are available at North, South and CBTC. Services are available on demand at NCRC and Cloverleaf Campuses. For additional information, please visit the RowanCabarrus website at: http://www.rccc.edu/lrc/

## OneStop:

OneStop is more than a place... it's a philosophy. You come to Rowan Cabarrus Community College to learn and not to run from office to office taking care of the administrative details of your education. OneStop brings together a host of administrative services under one roof so that you can get back to the business of being a student! Start at the OneStop on-campus on online to start your success at Rowan-Cabarrus.

The OneStop offers extended hours at both our North and South Campuses to meet your needs. Individual services are scheduled by location. Please check out our website for details:
http://www.rccc.edu/onestop/

## R3 Career Services:

R3 Center and Career Counselors provides Rowan-Cabarrus Community College and the community with career exploration, career development and career information activities. Services are available on the primary campuses and at the R3 Center in Kannapolis. For additional information, please visit the RowanCabarrus website at: http://www.rccc.edu/r3/

## Student Government Association/ Student Life:

Student Life is a critical component of the student experience. Student Life at Rowan-Cabarrus continues to flourish with record participation in clubs, activities and events. The college calendar is jam-packed every week with service projects, blood drives, Open Mics, legislative visits, leadership conferences, and Wii Wednesdays - not to mention the Spring Fling, Fall Fest, Holiday Hoopla, and other traditional activities designed to engage large numbers of students. For additional information, please visit the Rowan-Cabarrus website at: http://www.rccc.edu/sga/ or http://www.rccc.edu/studentlife/

## Small Business Center:

The mission of the Small Business Center (SBC) 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. For additional information, please visit the RowanCabarrus website at:http://www.rccc.edu/sbc/

## Testing Center:

Placement testing is generally required of all students entering a curriculum program at Rowan-Cabarrus. The tests access your skills in the fundamentals of reading, writing, mathematics, and computer skills. Your scores are used to place you appropriately into courses that will enable you to succeed. For additional information, please visit the Rowan-Cabarrus website at: http:// www.rccc.edu/lrc/academic-testing-center/

## Tutoring Centers:

Tutoring services for students are available on North and South Campuses. Students can receive assistance on English, writing, reading, mathematics, business technology courses, most science classes, including Biotechnology and foreign language. For additional information, please visit the Rowan-Cabarrus website at: http://www.rccc.edu/tutoring/

## Admissions and Enrollment



# General Admission Information 


#### Abstract

Rowan-Cabarrus Community College and other institutions in the North Carolina Community College System operate under an Open Door policy. In accordance with the State Board of Community College 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 Rowan-Cabarrus Board of Trustees reserves the right to establish local admission policies as authorized within the parameters established by the State Board of Community College Code.

Rowan-Cabarrus offers education and training to meet the needs of the community. Different areas of the college have different admission criteria. Please read the section which applies to your educational interest or contact the One Stop for assistance in determining which admission information applies to you.


Individuals seeking accommodations related to enrollment, please refer to the section for Special Students.

## College Degree, Diploma and Certificate Program Admission

The degree, diploma, or certificate programs are taught at a level beyond high school. Therefore, a high school diploma or recognized equivalent is usually the minimal preparation. If you have not completed high school, the college provides GED programs through pre-college studies.

In order to assure that your educational experience will be successful; counselors will assist 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.

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

The Basic Law Enforcement Training program and 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 special admission section and the online catalog updates.

## Developmental Courses

Developmental courses (designed to improve reading, writing, spelling, mathematics and computer skills) are taught in small classes. If you completed the placement tests and your scores indicate that you needed to refresh your skills, you will need to take some developmental courses. 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. Academic advisors will assist you in planning your schedule.
Students register for developmental courses and pay tuition and fees as with any class. Developmental classes are considered noncredit 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 Rowan-Cabarrus:

- Apply for Admission: Once you have made the decision to take classes at Rowan-Cabarrus Community College, call or visit the One Stop or Student Services on any campus or go online to apply. It takes a minimum of two business days to process your application, depending on the date you apply.
- 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 office or registrar's office of your high school and any colleges you have attended and request an official copy of your transcript be sent to:

Student Services/Records 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 Rowan-Cabarrus 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 a) the COMPASS placement test, and b) 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 18 in English, a score of 21 in Reading, and a score of 22 in Math 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.
*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 Rowan-Cabarrus New Student Orientation Students are encouraged to complete New Student Orientation as part of the Rowan-Cabarrus admission process. This orientation is offered as an in-person session or can be completed online (through Blackboard). Both formats provide important information for all students. Please visit the website at: http://www.rccc.edu/onestop/228/new-student-orientation-general-information/

## Residency:

Student residency status is established by the initial application. The application for the North Carolina Residency can be found on our website at: http://www.rccc.edu/onestop/492/application-for-north-carolina-residency/
Appeals related to residency must be issued in writing in the first 10 class days of the semester. You can find more information related to our Residency Appeals Process at:
http://www.rccc.edu/onestop/457/residency-appeals-process/

## Out-of-State Student

A student who is determined to be a nonresident of North Carolina is subject to a significantly higher tuition charge than a resident. An initial residency decision is made during at the point of application to Rowan-Cabarrus. A student who is determined to be a nonresident based on information provided on the application may apply to have their status reviewed by completing the North Carolina Residence and Tuition Status Application. This application must be submitted no later than 10 business days after the first day of classes for the semester the student wishes their status to be reviewed. For more information on Out-of-State Residency Criteria please see our website at: http://www.rccc.edu/onestop/455/in-state-and-out-of-state-residency-criterial
Tuition rates are subject to change by action of the General Assembly.

## International Admissions

Rowan-Cabarrus Community College 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 the following information to admissions:

- 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 postsecondary institutions the student has attended, and official U.S. educational evaluation of the documents. All transcripts from schools outside the United States must be evaluated by a reputable evaluation service. A list may be obtained in Student Services
- Original financial documents are required along with 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 Enrollment and Recruitment, 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: Rowan-Cabarrus 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

## Career and College Promise

Currently enrolled high school juniors and seniors who wish to take college courses through Rowan-Cabarrus may participate in Career and College Promise Program. To participate in this program the high school student must begin the process through their high school guidance counselor or approved homeschool principal. In the Career and College Promise program students must select one of four College Transfer Certificate Pathways or may select a Career Technical Certificate Pathway.

To qualify for a College Transfer Certificate Pathway, a student must demonstrate college readiness in English, mathematics and reading using an approved assessment. They must also have a 3.0 or higher grade point average on their high school courses and continue to make progress towards graduation.

To qualify for a Career Technical Certificate Pathway, a student must have a 3.0 or higher grade point average or have the recommendation of a school official.

Career and College Promise students may take one or two courses each semester as long as they have met the course prerequisites. Developmental courses are not available to high school students.

For additional information, please visit the
Rowan-Cabarrus website at:
http://www.rccc.edu/highschool/careercollegepromise/

## Early College at Rowan-Cabarrus

Early College is an educational partnership between RowanCabarrus and school districts in Rowan and Cabarrus Counties. 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 County, Cabarrus County, or Kannapolis City Schools, please contact these school districts.


# General Admission Information for Corporate and Continuing Education <br> http://www.rccc.edu/corporatecontinuing/ 

Corporate and Continuing Education offers coursework in the following areas: Adult Basic Education, Compensatory Education, personal enrichment, and workforce development. Below are the general requirements for admission and registration to each area in Corporate and Continuing Education. Individuals seeking accommodations should refer to the Special Students section.

## Adult Basic Education Courses

Adult Basic Education consists of courses and laboratory work to prepare students for the GED exam. Incoming students must be at least 18 year old. Minors (age 16 or 17) may be enrolled on a "space available" basis only and with the dean's approval. People seeking admission to enter the GED program must contact the Pre-college studies office (704-216-3510) to get specific enrollment information. Those under age 18 must receive and complete an enrollment packet before meeting with the dean of Pre-college studies for approval to begin coursework.

## Compensatory Education

Compensatory Education is specifically designed to meet the needs of adults who have intellectual disabilities. Students in this program must be at least 17 years old. The purpose of the program is to compensate adults with intellectual disabilities for the lack of, or inadequate, education received earlier. The focus of the Compensatory Education program is on helping the individual become as independent as possible through acquiring basic and life skills needed to function successfully in daily living.

Eligibility Criteria: To be eligible to participate in the Compensatory Education program, an individual must be 17 or older, and (a) diagnosed with mental retardation or (b) functioning on a level equivalent to mental retardation resulting from head injury or brain damage.

Classes are offered at no cost to the student and are currently held at Rowan Vocational Opportunities in Rowan County, and at the South Campus in Cabarrus County. Admission and enrollment in this program are limited. For more information, contact Barbara Gainey (704-216-3508 or barbara.gainey@rccc.edu).

## English as a Second Language (ESL):

ESL classes are designed especially for adults whose native language is not English and who want to improve their English. Instruction is offered in listening, speaking, reading, and writing. ESL classes are provided on campus, in the community, and in workplace settings.

For more information, please contact Melody McGinnis (704-216-3521 or melody.mcginnis@ rccc.edu).

## Personal Enrichment

Personal enrichment courses are offered throughout the year in all areas of interest ranging from computer skills courses to physical fitness and wellness courses. Most of these courses have no admission criteria. People interested in taking these courses may register by contacting the One Stop for additional information about the dates, times, locations and costs associated with these courses. For additional information, please visit the Rowan-Cabarrus website at: http://www.rccc.edu/enrichment/

## Workforce Development Courses

Continuing Education offers a wide variety of workforce development courses to the community. Many of these courses provide not only continuing education credit, but also certification at local, state or national levels. Some examples of courses in this area are: CPR, Certified Nursing Assistant, EMT, Fire Safety, Law Enforcement certification and recertification, waste water treatment, and notary training.

Courses are offered throughout the year. Some courses have prerequisite training or certification which must be met before enrollment. Please check the college website or. For additional information, please contact the One Stop for the most current information related to the specific course or visit the RowanCabarrus website at: http://www.rccc.edu/corporatecontinuing/ Tuition and fees for these courses are also variable.

## Tuition and Fees

## Tuition, Fees and Related Costs Curriculum Courses

Tuition and registration fees are set by the North Carolina State Board of Community Colleges and the General Assembly and are subject to change. Any changes will be effective beginning each fall semester. Tuition and fees are due at each registration period by the payment date listed for each registration period. Please visit the Rowan-Cabarrus website for the payment dates: http:// www.rccc.edu/recordsregistration/web-advisor-registration-and-web-support-schedule/

## Tuition

Because the state helps pay the tuition of North Carolina residents out of tax dollars, tuition for North Carolina residents is $\$ 69.00$ per credit hour, up to and including 16 credit hours. There will be a maximum tuition charge of $\$ 1,104.00$ per semester. Tuition for nonresident students is charged at the rate of $\$ 261.00$ per credit hour with a maximum charge of $\$ 4,176.00$ per semester. These rates were effective at the time of printing. The college accepts American Express, Discover, MasterCard, VISA credit cards for registration payment. For current tuition rate information, please refer to: http://www.rccc.edu/onestop//466/ tuition-and-fees-for-academic-programs/

## 2012-2013 Tuition Rates

| North Carolina Residents: |  | Non-Resident Students: |  |
| :---: | :---: | :---: | :---: |
| Credit Hour | Tuition | Credit Hour | Tuition |
| 1 | \$ 69.00 | 1 | \$ 261.00 |
| 2 | \$ 138.00 | 2 | \$ 522.00 |
| 3 | \$ 207.00 | 3 | \$ 783.00 |
| 4 | \$ 276.00 | 4 | \$1,044.00 |
| 5 | \$ 345.00 | 5 | \$1,305.00 |
| 6 | \$ 414.00 | 6 | \$1,566.00 |
| 7 | \$ 483.00 | 7 | \$1,827.00 |
| 8 | \$ 552.00 | 8 | \$2,088.00 |
| 9 | \$ 621.00 | 9 | \$2,349.00 |
| 10 | \$ 690.00 | 10 | \$2,610.00 |
| 11 | \$ 759.00 | 11 | \$2,871.00 |
| 12 | \$ 828.00 | 12 | \$3,132.00 |
| 13 | \$ 897.00 | 13 | \$3,393.00 |
| 14 | \$ 966.00 | 14 | \$3,654.00 |
| 15 | \$1,035.00 | 15 | \$3,915.00 |
| 16 | \$1,104.00 | 16 | \$4,176.00 |

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 $\$ 20.00$ 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:
$7+$ credit hours ............................................ $\$ 16.00$ per
semester
$1-6$ credit hours .............................................. $\$ 8.00$ per semester

## Student Activity Fee

Students at Rowan-Cabarrus 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 Student Government Association (SGA). Students pay a $\$ 6.00$ activity fee for summer term, regardless of the number of credit hours for which the student is enrolled.

## Graduation Fee

All curriculum students seeking a degree, diploma or certificate will pay a $\$ 5.00$ fee per semester or term of enrollment. This fee will be used by the college to support graduation expenses including diploma covers, document production and venue rental. GED graduates will be charged a graduation fee if they participate in the ceremony. This fee is waived for the early college students.

## Lab Fee

Curriculum students will pay a lab fee for courses that have an associated lab. The fee will range from $\$ 5.00$ to $\$ 15.00$.

## 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 RowanCabarrus Cashier's Office can provide additional information about this fee.

## ART/Photography Fee

Students choosing to enroll in ART 261 - Photography I will be charge a material fee of $\$ 170$ to cover expenses including, but not limited to: Film, printing paper, chemistry and facility rental.

## Ceramics Fee

Students choosing to enroll in ART 283 will be charged $\$ 210.50$ to cover the cost of facility usage and materials.

## MSM/Motorsports Fee

Students choosing to enroll in specific MSM courses located in SMP will incur an additional \$80 lab fee to cover off-campus industry facility experience.

## Official Transcript Fee (third 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. This fee is non-refundable.

## 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. This fee does not apply to GED testing/ retesting. This fee is non-refundable.

## A.D.N. Testing Fee

All nursing students are required to pay a fee for testing services. This fee is billed for the NUR course at the time of registration. Please refer to the individual Nursing Programs of Study for estimated program costs by semester.

## 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 Student Services prior to or on the "10 percent" point 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 on the college website for the "10 percent" date of each semester. Refund information is available online at: http://www.rccc.edu/events/category/academic-calendar-2012-2013/

## Senior Citizens (age 65 and older)

Tuition shall be waived for up to six credit hours per academic semester for senior citizens age 65 or older who are qualified as legal residents of North Carolina. If an eligible senior citizen enrolls for more than six (6), but less than sixteen (16) credit hours in a given semester, he/she shall be charged the regular tuition rate for the maximum of 10 credit hours. Senior citizens will be charged fees as any other regularly enrolled student.

## Textbooks and Supplies

The cost of textbooks and supplies varies with the program of study. These items may be purchased from the college bookstore. The bookstore accepts MasterCard and VISA credit cards for payment of textbooks and other merchandise.

## Financial Aid and Veterans Benefits

## Financial Aid

Many students seek some form of financial aid to help meet their college expenses. Students seeking college degrees, diplomas and most certificates may qualify for state or federal assistance. Individuals taking continuing education coursework, certain curriculum certificate programs, and special credit majors (undeclared or non-degree seeking) are not eligible to receive state or federal grants or loans.

Financial aid programs are available in the form of scholarships, grants, loans 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 in an eligible programs as a student; and
- show eligibility by completion of the online FAFSA (Free Application for Federal Student Aid) form: www.fafsa.gov

Rowan-Cabarrus Community College's school code for the FAFSA is 005754 for all campuses. Check the Rowan-Cabarrus website for additional and detailed information:
http://www.rccc.edu/financialaid.
The college serves as a referral agency for:
Veterans Benefits
Social Security
Vocational Rehabilitation
Department of Social Services
Employment Security Commission
The college serves as a disbursing or coordinating agency for:
Federal Direct Student Loans
Federal Direct Parent Loans
Federal Supplemental Educational Opportunity Grants
(SEOG)
Federal Pell Grant
North Carolina Education Lottery Grant
North Carolina Community College Grant

## Scholarships

Various scholarship opportunities are available through RowanCabarrus Community College. Check the Rowan-Cabarrus website - http://www.rccc.edu/scholarships/ often for updated scholarship information. Most scholarship applications are available in the spring of each year for the following fall semester.

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 through the federal college work study programs on a part-time basis in offices, labs, libraries, or other campus locations. Work study compensation counts as part of your financial aid package.

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 Satisfactory Academic Progress.

For more information on financial aid, loans and scholarships, contact Financial Aid, 704-216-7222 (RCCC).

## Financial Aid and Scholarship Refunds

Students that have funds remaining after tuition, books, and fees charges are paid receive the remaining balance usually within in $6-8$ weeks of the beginning of the semester. Every curriculum student will receive a My RCCC Card in the mail from HigherOne. Upon activation of the card, students will receive the disbursement on the debit card or into their personal checking/ savings account depending on the preference the student selects when activating their My RCCC Card. Students receive the card at no charge however, replacement fees may apply.

## Textbook Purchases

Students with financial aid or scholarship awards may purchase textbooks and supplies through the on campus bookstore. Rental books for selected classes are available with a credit card on file. Rental options are not available for financial aid and scholarship recipients.

## U. S. Department of Veterans Affairs 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 only for 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, Hybrid or Internet courses may change your eligible credit hour certification.

Check the Rowan-Cabarrus Community College website http://www.rccc.edu/onestop/tag/veteran-benefits/ 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.

Rowan-Cabarrus is a Service-member Opportunity College (SOC). Students who may have transferable credit are encouraged to submit their documents to the Rowan-Cabarrus Records and Registration area of Student Services. Refer to the catalog section on Academic Policies and Procedures.

## OneStop

OneStop is more than a place... it's a philosophy. You come to Rowan-Cabarrus Community College to learn and not to run from office to office taking care of the administrative details of your education. OneStop brings together a host of administrative services under one roof so that you can get back to the business of being a student!

Stop here for everything you need to get registered and pay for your classes. We can help you every step of the way, from filing financial aid forms and understanding your payment options, to registering for classes, requesting a transcript, or completing an application for graduation. You can make an appointment with an academic advisor and find out about you holds and how to remove them. Are you having a life event and need to speak to someone, one of our counselors are here to listen.

The OneStop offer extended hours at both our North and South Campuses to meet your needs. Individual services are scheduled by location please check out our website for details:
http://www.rccc.edu/itsanswers/category/student-email/

## College Policies and Procedures



# Academic Policies and Procedures 

## Confidentiality of Student Records: FERPA


#### Abstract

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 Student Services at Rowan-Cabarrus Community College.


## Directory Information

Rowan-Cabarrus officials declare the following items as directory information which can be made available to the public unless the student notifies the director of records and registration in writing within the first five 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


## 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 enrollment and the student experience 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 Tuition and Fees section of this catalog for further details.

## 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. All students must attend class during the first week of classes or forfeit their seat in the course. Distance education students are expected to login to their distance education courses during the first week of classes and submit an assignment as required. Please refer to the Distance Education website for more information. 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 an academic term. The student must complete and submit a drop/withdrawal form either electronically or in person to Student Services when officially withdrawing from a class after the " 10 percent" point of the academic term.

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 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 traditional seated classes between 8 a.m. and 10 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 $10 \mathrm{p} . \mathrm{m}$. 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 at: www.rccc.edu. Non-credit Occupational Extension and Community Service courses are also offered both day and evening.

## Program Advisors

Each student enrolled in a program is assigned a program advisor or advising group who assists the student in planning course schedules. However, the student may seek assistance from any program advisor in his/her particular program of study. The program advisor assists the student in evaluating his/ her academic progress and suggests improvements or schedule changes. Program advisors and students are strongly encouraged to develop and educational plan of work.

## 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 WebAdvisor or by coming on campus for assistance at a WebAdvisor support session. Students wishing to make a change after this time must see their instructor and program chair.

## 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 student officially withdraws from the course by completing the necessary printed or web form available at the following website address: www.rccc.edu/studentservices/ dropform.php

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.

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 WebAdvisor 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 $\quad 1$ quality point per semester hour
F < 76 Failing 0 quality points-Student did not meet minimum requirements for 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 semester or term.
W Withdrawn
\(\left.$$
\begin{array}{ll}\begin{array}{l}\text { AU Audit, } \\
\text { registered } \\
\text { No Credit Earned } \\
\text { requested }\end{array} & 0 \text { quality points - Student } \\
\text { for the course and }\end{array}
$$ \quad \begin{array}{l}"AUDIT" status before the "10 <br>
percent" point of the semester. <br>

AUDIT STATUS IS NOT\end{array}\right]\) AFSIBLE | AFTER CENSUS DATE. |
| :--- |
| CE Credit by $\quad$E quality points - Student must <br> register for course |
| $\quad$Developmental <br> Course Repeat |
| 0 quality points - Student did not <br> meet the objectives of the course. <br> Course must be repeated. Student <br> must register and complete course <br> with a satisfactory grade. COURSE <br> 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 Appeal Procedure

Students may appeal a grade awarded in a course by using the grade appeal procedure found on the College website: http://www.rccc.edu/onestop/794/rccc-grade-appeal-request/. Students must issue the request for appeal within 10 business days of receiving a grade or forfeit the right to appeal.

## 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.

## 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.

## 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 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 enrollment and the student experience 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 enrollment and the student experience. 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 enrollment and the student experience 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.

## Scholastic Honors

The following academic honors lists are posted each semester on the Rowan- Cabarrus website:
http://www.rccc.edu/studentservices/scholastic-honors/.
More information on the following academic honors lists may be obtained from student services.

## 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 fulltime 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 RowanCabarrus 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 faculty 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 percent" 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 Rowan-Cabarrus 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

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.

A student who wishes to have transfer credit evaluated by Rowan-Cabarrus Community College should request an official transcript from the transferring institution be sent to student services. Courses submitted for transfer credit must be equivalent to offerings at Rowan-Cabarrus. Exceptions to the transfer of credits may be made by the appropriate program chair 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, Associate in Science, or Associate in Fine Arts degree from Rowan-Cabarrus 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.

Rowan-Cabarrus is a Service-members Opportunity College (SOC) which means members of the military may receive academic credit for education and training completed while in service. Students should provide the necessary documents to the student services, records and registration area for evaluation.

## 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 Rowan-Cabarrus 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.

Rowan-Cabarrus Programs of Study accepting appropriate Professional Certificates:

Air Conditioning
Heating and Refrigeration
Automotive Systems Technology
Computer Information Technology
Computer Programming
Construction Management
Electrical/Electronic Technology
Machining Technology
Medical Office Administration
Networking Technology
Office Systems Technology
Web Technologies
Welding Technology
Please check the Rowan-Cabarrus 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 Rowan-Cabarrus Community College. 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 student services.

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.

## 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 Rowan-Cabarrus, 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 student services.

For more information on graduation please see our website at: http://www.rccc.edu/admissions/graduation-information/

## Graduation Honors

Students who earn a grade-point average of 3.0 through 3.49 out of a possible 4.0 in 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.

## Student Records

Student services 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 student services. The request must bear the original signature in pen 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 a college or university. Phone requests are not accepted. The first two transcripts requested are free of charge. Any transcripts requested thereafter are charged $\$ 8.00$ per transcript. More information is provided on the Transcript Request Form which can be found on the Rowan-Cabarrus website:
http://www.rccc.edu/onestop/626/transcript-request-form/

## Special Students

## General Information about Special Students

All students are special at Rowan-Cabarrus Community College; however, some students have special needs. This section addresses the following: services for students with disabilities, enrollment and registration for senior citizens, enrollment and registration for sex offenders, special credit students, and undocumented persons.

## Disability Services

## Policies Regarding Students with Disabilities

Disability services at Rowan-Cabarrus 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 Rowan-Cabarrus 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 student services. Students may elect to disclose a disability at any time. Rowan-Cabarrus may not seek out and identify students with disabilities. Disability services provides support services in curriculum, continuing education and precollege 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, Rowan-Cabarrus 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.

Rowan-Cabarrus 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.
Rowan-Cabarrus 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 Rowan-Cabarrus 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 digital recorder or a volunteer classmate. Carbonless duplication paper is available upon request through disability services as well as a photocopy machine. Students are responsible for providing and operating the digital recorder 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 digital recorder is not successful, immediately contact disability services.

A volunteer note-taker or digital 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 digital 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 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 disability services with the approval of the vice president of enrollment and the student experience.

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 campuswide 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 enrollment and the student experience.

If a concern cannot be resolved to the student's satisfaction, the student should utilize the student grievance process as outlined in the Rowan-Cabarrus Catalog/Student Handbook.

## Program Evaluation and Development

In consultation with faculty and staff, the Rowan-Cabarrus counseling staff will be responsible for evaluating services at Rowan-Cabarrus for students with disabilities and recommending changes in policies, procedures and services as appropriate. The Rowan-Cabarrus counseling staff will provide guidance and support to both faculty and staff in providing services for students with disabilities.

The Rowan-Cabarrus counseling staff will provide in-service training and information to Rowan-Cabarrus 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

## Sex Offenders

Persons who are registered sex offenders are required by state and federal law to disclose to local law enforcement their interest in attending college, verifying the dates, times and locations of the coursework of interest. Offenders may or may not be permitted to enroll and register for courses pending approval of the local law enforcement agency. Offenders who fail to comply with the state and federal law will forfeit their educational opportunity with Rowan-Cabarrus even if otherwise qualified.

## 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 student services. 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.

## Undocumented Persons

Individuals who are not documented are eligible to take most courses in Continuing Education, and any course in Adult Basic Education and ESL without any restrictions. Enrollment in college credit courses is limited by the following guidelines from the NC Legislature:

- Must pay out of state tuition for the coursework selected.
- Must register at the last hour assuming space is available. Documented students have first priority for seat availability in all curricula.

Undocumented students who are public high schools students enrolled in approved college credit programs through Career and College Promise programs are not subject to this NC statute.

## Standards Governing Student Enrollment

## General Overview:

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:

## 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 the RowanCabarrus Internet connection.
- It is my responsibility to ensure that the performance of the Rowan-Cabarrus 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 understand and agree that Rowan-Cabarrus 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 RowanCabarrus 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 Rowan-Cabarrus email services or company machines;
- Dispersing corporate data to Rowan-Cabarrus customers or clients without authorization;
- Personal use that states or implies Rowan-Cabarrus sponsorship or endorsement of its message.

Rowan-Cabarrus 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 inclass testing.
- All tests will be taken in one sitting and returned to the Facilitator before leaving the ATC.
- The director of the 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 director of the LRC, if you have questions regarding this agreement or a testing concern before receiving the test.


## Campus Code of Conduct

http://www.rccc.edu/onestop/618/code-of-conduct/

## Campus Behavior Standards

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 patron's rights, but to protect the rights of individuals in their academic pursuits on the campus.

## 1. Academic Dishonesty

(a). 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.
(b). Network Files: Rowan-Cabarrus 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.

## 2. Behavior

(a). 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.
(b).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.
(c). 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.)
(d). 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.
(e). 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.

## 3. Use of College Property

(a). 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.
(b) 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.
(c) 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.
(d) 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.
(e). Presence on College Premises: 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.
(f). 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.
(g). 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 a college official.
(h). 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.

## 4. Drugs, Alcohol and Other Substances

(a). 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.
(b). 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.

## 5. 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 academic vice president.

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.

## 6. Use of Technology

(a). 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.
(b). 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.

## 7. Gambling and Gaming

The college prohibits gambling in any format on the campus. Rowan-Cabarrus 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.

## 8. Forgery

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

## 9. 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).

## 10. 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.

## 11. Violation of Rowan-Cabarrus Policy, Rule or Regulation

The college prohibits violation of any Rowan-Cabarrus policy, rule or regulation published in hard copy or available electronically on the Rowan-Cabarrus website (www.rccc.edu).

## 12. 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 Rowan-Cabarrus policies, or of North Carolina and federal laws while on campus or while off campus when participating in activities sponsored by Rowan-Cabarrus, subjects violators to appropriate sanctions. Charges that a student has violated behavior standards will be investigated by the vice president of enrollment management and the student experience (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 director of campus safety and security (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 the student experience (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 the student experience 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 the student experience.

Investigation and Decision: Within five (5) business days after the charge is filed, the vice president (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 vice president (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 vice president (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 the student experience. 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 the student experience 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 or 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.

## Loss of Academic Credit or Grade

Imposed as result of academic dishonesty.
Withholding grade reports, diplomas, right to register or participate in graduation ceremonies
Imposed when financial obligations are not met.

## 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 or 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 of enrollment management and the student experience or the academic vice president.

## Appeal of Disciplinary Sanctions

The disciplinary decision of the vice president of enrollment management and the student experience 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 vice president of enrollment management and the student experience. The appeal must include the student's reason for appeal, mitigating circumstances or evidence which needs to be considered. The associate vice president 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 vice president 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 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 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 chief financial officer of the college (or designee) 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.

## Campus Safety Information

## Campus Communication \& Safety Information

The following sections address the college procedures related to communication, inclement weather, safety and security.

## Campus Identification Cards (IDs)

Campus ID cards are multifunctional cards providing access to LRC services in addition to being a key component of campus safety. College students and employees are required to have Campus Identification Cards and be able to produce these on demand of any college security/safety officer or any college administrator. College IDs are produced by Rowan-Cabarrus student life during the semester with dedicated hours of service during the beginning of each academic term. Please consult the college website for specific dates and times of production.

## College Communication Tools

Rowan-Cabarrus has several methods of communicating with students and employees: college website, college email accounts, WebAdvisor Campus Connect messaging which includes text, email or phone message capabilities. Students and employees are responsible for providing current contact information (including emergency contacts) to insure that correct phone and mailing addresses are available to the college.

Rowan-Cabarrus Email Accounts are assigned to students and employees. The college email account is used for all written communication between service offices and students and employees, including notices of special events, registration, end of semester activities, and updates. College email addresses are assigned once the college application has been processed. For more information about your college email account use the following website address: http:/email.rccc.edu/student/.

Campus Connect messaging is a multi-functional system used by the college administration to notify students of college closing, safety concerns, and other time sensitive information. The phone numbers and emails used by this system are provided by the student or employee on the enrollment application or employment application. Students and employees are responsible for keeping their mailing address, phone number(s) and alternative email and other contact information current. Updates must be submitted to student services.

Campus Speaker Systems are available on South Campus and CBTC. These systems are used to make announcements related to drills, security concerns and safety issues.

WebAdvisor is a multifunctional tool for students and employees. Students use WebAdvisor to check their grades, register for courses, view transcripts and financial accounts with the college. Employees also have WebAdvisor accounts which will be increasingly important as the college continues to grow.

## 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.

Emergency Instruction Documents are available in every classroom, conference room, office and student use space (i.e., LRC, Student Center). These provide basic information related to action students, faculty and staff can take during a campus emergency.

## Reporting Emergencies on North 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.

Emergency Call posts are located in some parking lots and on some sidewalk areas on each campus. Emergency Call boxes are for the reporting of life-threatening situations, severe illnesses or injuries. These boxes are only operational during traditional campus hours Monday through Friday. College security and emergency response staff will communicate with the person(s) who activate the call box.

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.

CRIME STATISTICS - ROWAN COUNTY CAMPUS:
Jan. - Dec. 2010

| Offense | 2007 | 2008 | 2009 | 2010 |
| :--- | :---: | :---: | :---: | :---: |
| Murder | 0 | 0 | 0 | 0 |
| Sex Offense | 0 | 0 | 0 | 0 |
| Robbery | 0 | 0 | 0 | 0 |
| Aggravated Assault | 0 | 0 | 0 | 0 |
| Burglary | 0 | 0 | 0 | 0 |
| Arson | 0 | 0 | 0 | 0 |
| Hate Crimes | 0 | 0 | 0 | 0 |
| Negligent Manslaughter | 0 | 0 | 0 | 0 |
| Motor Vehicle Theft | 0 | 0 | 0 | 0 |

## Reporting Emergencies on South Campus

Red emergency phones are located in each building throughout the campus to report any fire, medical, or security emergency, or you may dial x7248 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 - CABARRUS COUNTY CAMPUSES: Jan. - Dec. 2010

| Offense | 2006 | 2007 | 2008 | 2009 | 2010 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Murder | 0 | 0 | 0 | 0 | 0 |
| Sex Offense | 1 | 0 | 0 | 0 | 0 |
| Robbery | 2 | 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 |
| Motor Vehicle Theft | 0 | 0 | 0 | 0 | 0 |

## Campus Sex Crimes Prevention Disclosure:

The "Campus Sex Crimes Prevention Act" is a federal law which requires institutions of higher education to issue a statement, in addition to other disclosures required under the act, advising the campus community where law enforcement agency information provided by a state concerning registered sex offenders may be obtained. It also requires sex offenders already required to register in a state to provide notice, as required under state law, of each institution of higher education in that state at which the person is employed, carries on a vacation, or is a student.

Information regarding individuals on the registered sex offenders' list can be obtained from the local sheriff's departments.
Rowan County Sheriff's Department
http://www.rowancountync.gov/GOVERNMENT/Departments/ SheriffsOffice/tabid/150/Default.aspx

Rowan-Cabarrus Community College's South Campus, Concord Business and Technology Center
(CBTC), and Cloverleaf Center are located in Cabarrus County.
Cabarrus County Sheriff's Department:
http://www.cabarruslaw.us/
North Carolina Department of Correction:
http://www.doc.state.nc.us/

This website provides access to search offender information about the offense committed; the county the offense was committed, the date of admission to a correctional facility, and the offender's status and release date.

## Programs of Study



## Electives for Associate in Applied Science and Diploma Programs

## Social and Behavioral Sciences Electives

| ANT | 210 | General Anthropology |
| :---: | :---: | :---: |
| ANT | 220 | Cultural Anthropology |
| ANT | 221 | Comparative Cultures |
| ANT | 230 | Physical Anthropology |
| ANT | 230A | Physical Anthropology Lab |
| ANT | 240 | Archaeology |
| ANT | 240A | Archaeology Field Lab |
| ECO | 151 | Survey of Economics |
| ECO | 251 | Principles of Microeconomics |
| ECO | 252 | Principles of Macroeconomics |
| GEO | 111 | World Regional Geography |
| GEO | 112 | Cultural Geography |
| GEO | 113 | Economic Geography |
| GEO | 121 | North Carolina Geography |
| GEO | 130 | General Physical Geography |
| HIS | 111 | World Civilizations I |
| HIS | 112 | World Civilizations II |
| HIS | 115 | Intro to Global History |
| HIS | 121 | Western Civilization I |
| HIS | 122 | Western Civilization II |
| HIS | 131 | American History I |
| HIS | 132 | American History II |
| HIS | 162 | Women and History |
| HIS | 163 | The World Since 1945 |
| HIS | 226 | The Civil War |
| HIS | 236 | North Carolina History |
| HIS | 260 | History of Africa |
| POL | 110 | Introduction to Political Science |
| POL | 120 | American Government |
| POL | 130 | State and Local Government |
| POL | 210 | Comparative Government |
| POL | 220 | International Relations |
| PSY | 110 | Life Span Development |
| PSY | 118 | Interpersonal Psychology |
| PSY | 150 | General Psychology |
| PSY | 211 | Psychology of Adjustment |
| PSY | 237 | Social Psychology |
| PSY | 239 | Psychology of Personality |
| PSY | 241 | Developmental Psychology |
| PSY | 243 | Child Psychology |
| PSY | 246 | Adolescent Psychology |
| PSY | 249 | Psychology of Aging |
| PSY | 259 | Human Sexuality |
| PSY | 271 | Sports Psychology |
| PSY | 275 | Health Psychology |
| PSY | 281 | Abnormal Psychology |
| SOC | 210 | Introduction to Sociology |
| SOC | 213 | Sociology of the Family |
| SOC | 220 | Social Problems |
| SOC | 225 | Social Diversity |
| SOC | 230 | Race and Ethnic Relations |
| SOC | 234 | Sociology of Gender |
| SOC | 240 | Social Psychology |
| SOC | 242 | Sociology of Deviance |
| SOC | 250 | Sociology of Religion |

Humanities and Fine Arts Electives

| ART | 111 | Art Appreciation | 3 |
| :---: | :---: | :---: | :---: |
| ART | 114 | Art History Survey I | 3 |
| ART | 115 | Art History Survey II | 3 |
| ART | 116 | Survey of American Art | 3 |
| ART | 121 | Two-Dimensional Design | 3 |
| ART | 131 | Drawing I | 3 |
| ART | 132 | Drawing II | 3 |
| ART | 240 | Painting I | 3 |
| ART | 241 | Painting II | 3 |
| ART | 244 | Watercolor | 3 |
| ART | 261 | Photography I | 3 |
| ART | 262 | Photography II | 3 |
| ART | 266 | Videography I | 3 |
| ART | 281 | Sculpture I | 3 |
| ART | 283 | Ceramics I | 3 |
| ART | 288 | Studio | 3 |
| DRA | 111 | Theatre Appreciation | 3 |
| DRA | 112 | Literature of the Theatre | 3 |
| DRA | 122 | Oral Interpretation | 3 |
| DRA | 126 | Storytelling | 3 |
| DRA | 130 | Acting I |  |
| ENG | 125 | Creative Writing I |  |
| ENG | 131 | Introduction to Literature | 3 |
| ENG | 132 | Introduction to Drama | 3 |
| ENG | 231 | American Literature I | 3 |
| ENG | 232 | American Literature II | 3 |
| ENG | 241 | British Literature I | 3 |
| ENG | 242 | British Literature II | 3 |
| ENG | 243 | Major British Writers | 3 |
| ENG | 251 | Western World Literature I | 3 |
| ENG | 252 | Western World Literature II | 3 |
| ENG | 261 | World Literature I | 3 |
| ENG | 262 | World Literature II | 3 |
| ENG | 272 | Southern Literature | 3 |
| ENG | 273 | African-American Literature | 3 |
| ENG | 274 | Literature by Women | 3 |
| HUM | 110 | Technology and Society | 3 |
| HUM | 115 | Critical Thinking | 3 |
| HUM | 120 | Cultural Studies | 3 |
| HUM | 122 | Southern Culture | 3 |
| HUM | 130 | Myth in Human Culture | 3 |
| HUM | 150 | American Womens Studies | 3 |
| HUM | 160 | Introduction to Film | 3 |
| HUM | 161 | Advanced Film Studies | 3 |
| HUM | 211 | Humanities I | 3 |
| HUM | 212 | Humanities II | 3 |
| MUS | 110 | Music Appreciation | 3 |
| MUS | 113 | American Music | 3 |
| MUS | 210 | History of Rock Music | 3 |
| MUS | 213 | Opera and Musical Theatre | 3 |
| PHI | 210 | History of Philosophy | 3 |
| PHI | 220 | Western Philosophy I | 3 |
| PHI | 221 | Western Philosophy II | 3 |
| PHI | 230 | Introduction to Logic | 3 |
| PHI | 240 | Introduction to Ethics | 3 |
| REL | 110 | World Religions | 3 |
| REL | 211 | Introduction to Old Testament | 3 |
| REL | 212 | Introduction to New Testament | 3 |
| REL | 221 | Religion in America |  |

## Additional Information

ENG courses denoted with the * symbol require a prerequisite or corequisite of ENG 112, ENG 113 or ENG 114. Automotive Systems Technology (A60160), Cosmetology (A55140), Radiography (A45700) and Welding Technology (A50420) do not require ENG 112, ENG 113 or ENG 114 in their program of study. Therefore, these ENG courses will not satisfy the Humanities and Fine Arts requirements for these programs. Early Childhood Education (A55220 and A55220TR) does not accept any ENG courses for the Humanities and Fine Arts requirement.

## Accounting (25100)

http://www.rccc.edu/catalog-2012-2013/?p=1039

## Description

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

## Awards

- Associate in Applied Science Degree (A25100)
- Diploma (D25100)
- Accounting E-Commerce Track Certificate (C25100EC)
- Accounting Systems Track Certificate (C25100AS)
- Government Track Certificate (C25100GT)
- Managerial Track Certificate (C25100MT)
- Personal Finances Certificate (C25100PF)
- Tax Track Certificate (C25100XT)
- Technical Track Certificate (C25100TT)


## Contact Information

The Accounting (25100) program is in the RCCC Department of Liberal Arts, Business Technologies and General Education. For additional information regarding this program, contact the program chair, Robin Turner (robin.turner@rccc.edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=1039)
The * symbol denotes a core course that may not be substituted.

## Associate in Applied Science Degree (A25100)

http://www.rccc.edu/catalog-2012-2013/?p=156

## Course Requirements

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

## First Year Fall

|  | ACA | 115 | Success and Study Skills | 1 |
| :--- | :--- | :--- | :--- | :--- |
| * | ACC | 120 |  | Principles of Financial Accounting |
| * | BUS | 115 |  | 4 |
| * | CIS | 110 | Insiness Law I | 3 |
|  | ENG | 111 | Expository Writing | 3 |
|  | Enction to Computers | 3 |  |  |

Take one of the following courses. MAT 171 requires MAT 171A.

| MAT | 140 | Survey of Mathematics | 3 |
| :--- | :--- | :--- | :--- |
| MAT | 161 | College Algebra | 3 |
| MAT | 171 | Precalculus Algebra | 3 |
| MAT | 171 A | Precalculus Algebra Lab | 1 |
| MAT | 175 | Precalculus | 4 |

Total SHC 17-18

## First Year Spring

| * | ACC | 121 | Principles of Managerial Accounting | 4 |
| :--- | :--- | :--- | :--- | :--- |
|  | ACC | 129 | Individual Income Taxes | 3 |
|  | ACC | 140 |  | Payroll Accounting |

Total SHC 18

## First Year Summer

| PSY | 150 | General Psychology | 3 |
| :--- | :--- | :--- | :--- |
| --- | --- | Humanities/Fine Arts Elective | 3 |

Total SHC 6

## Second Year Fall

| ACC | 221 | Intermediate Accounting II |
| :--- | :--- | :--- |

ACC 225 Cost Accounting 3

ACC 240 Government and Not-For Profit Accounting3
BUS 137 Principles of Management 3
--- --- Major Electives 3

Take one of the following courses.

| COM | 110 | Introduction to Communication | 3 |
| :--- | :--- | :--- | :--- |
| COM | 231 | Public Speaking | 3 |

Total SHC 19

## Second Year Spring

| ACC | 149 | Intro to Acc Spreadsheets | 2 |
| :--- | :--- | :--- | :--- |
| ACC | 250 | Advanced Accounting | 3 |
| ACC | 269 | Auditing and Assurance Services | 3 |
| --- | --- | Major Electives | 3 |

Take one of the following courses.

| * | ECO | 251 | Principles of Microeconomics | 3 |
| :--- | :--- | :--- | :--- | :--- |
| * | ECO | 252 | Principles of Macroeconomics | 3 |

Total SHC 14

## Major Electives

Take 6 SHC from the following courses. This may include up to 3 SCH from the COE course/combination of courses.

| ACC | 132 | NC Business Taxes | 2 |
| :--- | :--- | :--- | ---: |
| ACC | 175 | Hotel and Restaurant Accounting | 4 |
| ACC | 215 | Ethics in Accounting | 3 |
| ACC | 227 | Practices in Accounting | 3 |
| ACC | 268 | Information Systems and Internal Controls | 3 |
| BUS | 125 | Personal Finance | 3 |
| BUS | 217 | Employment Law and Regulations | 3 |
| BUS | 225 | Business Finance | 3 |
| BUS | 240 | Business Ethics | 3 |
| BUS | 260 | Business Communication | 3 |
| BUS | 280 | REAL Small Business | 4 |
| COE | 110 | World of Work | 1 |
| COE | 111 | Co-Op Work Experience I | 1 |
| COE | 112 | Co-Op Work Experience I | 2 |
| COE | 113 | Co-Op Work Experience I | 3 |
| COE | 121 | Co-Op Work Experience II | 1 |
| COE | 122 | Co-Op Work Experience II | 2 |
| COE | 131 | Co-Op Work Experience III | 1 |
| COE | 132 | Co-Op Work Experience III | 2 |
| CTS | 130 | Spreadsheet | 3 |
| DBA | 110 | Database Concepts | 3 |
| ECM | 210 | Introduction to E-Commerce | 3 |
| INT | 110 | International Business | 3 |
| WEB | 250 | Database Driven Websites | 3 |

Total semester hour credits to complete degree: 74

## Diploma (D25100)

http://www.rccc.edu/catalog-2012-2013/?p=166

| Courses |  |  |  |
| :--- | :--- | :--- | :--- |
| * | ACC | 120 |  |
| * | ACC | 121 |  |
| * Principles of Financial Accounting | 4 |  |  |
| * ACC | 129 |  | Individual Income Taxes |

## Total semester hour credits to complete diploma: 39

## Accounting E-Commerce Track Certificate (C25100EC)

http://www.rccc.edu/catalog-2012-2013/?p=191

## Courses

ACC 120 Principles of Financial Accounting 4
ACC 268 Information Systems and Internal Controls 3
DBA 110 Database Concepts 3
ECM 210 Introduction to E-Commerce 3
WEB 250 Database Driven Websites 3

## Total semester hour credits to complete certificate: 16

## Accounting Systems Track Certificate (C25100AS)

http://www.rccc.edu/catalog-2012-2013/?p=186

## Courses

| ACC | 120 | Principles of Financial Accounting | 4 |
| :--- | :--- | :--- | :--- |
| ACC | 121 | Principles of Managerial Accounting | 4 |
| ACC | 149 | Intro to Acc Spreadsheets | 2 |
| ACC | 268 | Information Systems and Internal Controls | 3 |
| DBA | 110 | Database Concepts | 3 |

## Total semester hour credits to complete certificate: 16

## Government Track Certificate (C25100GT)

http://www.rccc.edu/catalog-2012-2013/?p=177

## Courses

ACC 120 Principles of Financial Accounting 4
ACC 121 Principles of Managerial Accounting 4
ACC 132 NC Business Taxes 2
$\begin{array}{lll}\text { ACC } & 220 & \text { Intermediate Accounting I }\end{array}$
ACC 240 Government and Not-For Profit Accounting3

## Total semester hour credits to complete certificate: 17

## Managerial Track Certificate (C25100MT)

http://www.rccc.edu/catalog-2012-2013/?p=174

## Courses

ACC 120 Principles of Financial Accounting 4
ACC 121 Principles of Managerial Accounting 4
ACC 220 Intermediate Accounting I 4
ACC 225 Cost Accounting 3
ACC 269 Auditing and Assurance Services 3

## Total semester hour credits to complete certificate: 18

## Personal Finances Certificate (C25100PF)

http://www.rccc.edu/catalog-2012-2013/?p=183

## Courses

| ACC | 120 | Principles of Financial Accounting | 4 |
| :--- | :--- | :--- | :--- |
| ACC | 129 | Individual Income Taxes | 3 |
| ACC | 132 | NC Business Taxes | 2 |
| ACC | 140 | Payroll Accounting | 2 |
| BUS | 125 | Personal Finance | 3 |
| BUS | 217 | Employment Law and Regulations | 3 |

Total semester hour credits to complete certificate: 17

## Tax Track Certificate (C25100XT)

http://www.rccc.edu/catalog-2012-2013/?p=180

| Courses |  |  |  |
| :---: | :---: | :--- | :--- |
| ACC | 120 | Principles of Financial Accounting | 4 |
| ACC | 121 | Principles of Managerial Accounting | 4 |
| ACC | 129 | Individual Income Taxes | 3 |
| ACC | 132 | NC Business Taxes | 2 |
| ACC | 140 | Payroll Accounting | 2 |
| ACC | 150 | Accounting Software Applications | 2 |

Total semester hour credits to complete certificate: 17

## Technical Track Certificate (C25100TT)

http://www.rccc.edu/catalog-2012-2013/?p=169

## Courses

ACC $120 \quad$ Principles of Financial Accounting 4
ACC 121 Principles of Managerial Accounting 4
ACC 129 Individual Income Taxes 3
$\begin{array}{llll}\text { ACC } & 220 & \text { Intermediate Accounting I }\end{array}$
ACC 225 Cost Accounting 3
Total semester hour credits to complete certificate: 18

# Agricultural <br> Biotechnology (20110) 

The Agricultural Biotechnology (20110) program is not currently available.<br>http://www.rccc.edu/catalog-2012-2013/?p=1185

## Description

The agricultural 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, chemical and agricultural technology. The curriculum objectives are designed to prepare graduates to serve as a research assistant to a biologist or chemist; as a laboratory technician or instrumentation technician; or as a quality control or quality assurance technician. The curriculum will also serve to identify and create new areas of opportunity for farmers and other potential clients in rural North Carolina.
Course work emphasizes biology, plant tissue culturing, biotechnology, agriculture, chemistry, horticulture, mathematics and technical communication.
Graduates may find employment in various areas of industry and government, including research and Dev., manufacturing, sales, customer services and production of alternative (bioengineered) crops.

## Awards

- Associate in Applied Science Degree (A20110)


## Contact Information

The Agricultural Biotechnology (20110) program is in the RCCC Department of Science, Biotechnology, Mathematics and Information Technologies. For additional information regarding this program, contact the program chair, Carol Scherczinger (carol. scherczinger@rccc.edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=1185)
The * symbol denotes a core course that may not be substituted.

## Associate in Applied Science Degree (A20110)

http://www.rccc.edu/catalog-2012-2013/?p=1188

## Course Requirements

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

## First Year Fall

| BIO | 111 | General Biology I | 4 |
| :--- | :--- | :--- | :--- |
| BTC | 181 | Basic Lab Techniques | 4 |

ENG 111
MAT 151
MAT 151A
Expository Writing

Statistics I Lab 1

Take one of the following courses.

| ACA | 115 | Success and Study Skills | 1 |
| :--- | :--- | :--- | :--- |
| ACA | 122 | College Transfer Success | 1 |

$$
\text { ACA } 122 \quad \text { College Transfer Success }
$$

Total SHC 16

## First Year Spring

* AGR 160 Plant Science 3
BIO 112 General Biology II 4

Take one of the following courses. CHM 131 requires CHM 131A.

| CHM | 121 | Foundations of Chemistry | 3 |
| :--- | :--- | :--- | :--- |
| CHM | 131 | Introduction to Chemistry | 3 |
| CHM | 131 A | Introduction to Chemistry Lab | 1 |
| e one of the following courses. |  |  |  |
| ENG | 112 | Argument-Based Research | 3 |
| ENG | 114 | Professional Research and Reporting | 3 |

Total SHC 13-14

## First Year Summer

| BIO | 275 | Microbiology | 4 |
| :--- | :--- | :--- | :--- |
| CIS | 110 | Introduction to Computers | 3 |

Total SHC 7

| Second Year Fall |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | BIO | 250 | Genetics | 4 |
| $*$ | BIO | 280 | Biotechnology | 3 |
| $*$ | BTC | 285 | Cell Culture | 3 |
|  | CHM | 132 | Organic and Biochemistry | 4 |
| $*$ | HOR | 168 | Plant Propagation | 3 |

Total SHC 17

## Second Year Spring

| * | BTC | 150 | Bioethics | 3 |
| :--- | :--- | :--- | :--- | :--- |
| BTC | 270 | Recombinant DNA Technology | 4 |  |
| * | BTC | 286 | Immunological Techniques | 4 |

* BTC 286 Immunological Techniques 4

Take one of the following courses.

| AGR | 214 | Agricultural Marketing | 3 |
| :--- | :--- | :--- | :--- |
| HOR | 134 | Greenhouse Operations | 3 |

Take one of the following courses.
PSY 118 Interpersonal Psychology 3

PSY 150 General Psychology 3
Total SHC 17

## Second Year Summer

| * BTC | 288 | Biotech Lab Experience | 2 |
| :---: | :--- | :--- | :--- |
| --- | --- | Humanities/Fine Arts Elective | 3 |

Total SHC 5

## Total semester hour credits to complete degree: 75-76

# Air Conditioning, Heating and <br> Refrigeration Technology (35100) 

http://www.rccc.edu/catalog-2012-2013/?p=831

## Description

The air conditioning, heating and refrigeration technology curriculum provides the basic knowledge to develop skills necessary to work with residential and light commercial systems.
Topics include mechanical refrigeration, heating and cooling theory, electricity, controls, and safety. The diploma program covers air conditioning, furnaces, heat pumps, tools and instruments. In addition, the AAS degree covers residential building codes, residential system sizing and advanced comfort systems.
Diploma graduates should be able to assist in the start up, preventive maintenance, service, repair and/or installation of residential and light commercial systems. AAS degree graduates should be able to demonstrate an understanding of system selection and balance and advanced systems.

## Awards

- Associate in Applied Science Degree (A35100)
- Diploma (D35100)
- Diploma (D35100)
- AHR Basic Certificate (C35100BA)
- AHR Comfort Cooling Certificate (C35100CC)
- AHR Commercial Certificate (C35100CO)
- AHR Refrigeration Certificate (C35100RF)


## Contact Information

The Air Conditioning, Heating and Refrigeration Technology (35100) program is in the RCCC Department of Industrial and Engineering Technologies. For additional information regarding this program, contact the program chair, Fred Loving (fred. loving@rccc.edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=831) The * symbol denotes a core course that may not be substituted.

## Associate in Applied Science Degree (A35100)

http://www.rccc.edu/catalog-2012-2013/?p=1737

## Course Requirements

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

## First Year Fall

| * | AHR | 110 | Introduction to Refrigeration | 5 |
| :--- | :--- | :--- | :--- | :--- |
| * | AHR | 111 | HVACR Electricity | 3 |
| * | AHR | 112 | Heating Technology | 4 |

Total SHC 12

## First Year Spring

* AHR 114 Heat Pump Technology 4

AHR 115 Refrigeration Systems 2
AHR 130 HVAC Controls 3
AHR 160 Refrigerant Certification 1
CIS 110 Introduction to Computers 3
Total SHC 13

## First Year Summer

* AHR 113 Comfort Cooling 4
AHR 151 HVAC Duct Systems I 2
* AHR 211 Residential System Design 3

Total SHC 9

## Second Year Fall

* AHR 212 Advanced Comfort Systems 4

BUS 230 Small Business Management 3
ENG 111 Expository Writing 3
Take one of the following courses.

| AHR | 250 | HVAC System Diagnostics | 2 |
| :--- | :--- | :--- | :--- |

COE 112 Co-Op Work Experience I 2
Take one of the following courses.

| MAT | 115 | Mathematical Models | 3 |
| :--- | :--- | :--- | :--- |

PHY 110 Conceptual Physics 3
Total SHC 15

## Second Year Spring

| AHR | 215 | Commercial HVAC Controls | 2 |
| :--- | :--- | :--- | :--- |
| AHR | 255 | Indoor Air Quality | 2 |
| --- | --- | Humanities/Fine Arts Elective | 3 |
| --- | --- | Social/Behavioral Sciences Elective | 3 |

Take one of the following courses.

| COM | 231 | Public Speaking | 3 |
| :--- | :--- | :--- | :--- |
| ENG | 114 | Professional Research and Reporting | 3 |

Total SHC 13

## Second Year Summer

AHR 152 HVAC Duct Systems II 2

* AHR 220 Commercial Building Codes 2

AHR 225 Commercial System Design 3
AHR 235 Refrigeration Design 3
Total SHC 10
Total semester hour credits to complete degree: 72

## Diploma (D35100)

http://www.rccc.edu/catalog-2012-2013/?p=846

## Courses

| AHR | 110 | Introduction to Refrigeration |
| :--- | :--- | :--- |
| AHR | 111 | HVACR Electricity |
| AHR | 112 | Heating Technology |
| AHR | 113 | Comfort Cooling |
| AHR | 114 | Heat Pump Technology |
| AHR | 115 | Refrigeration Systems |
| AHR | 130 | HVAC Controls |
| AHR | 151 | HVAC Duct Systems I |
| AHR | 160 | Refrigerant Certification |
| AHR | 211 | Residential System Design |
| AHR | 220 | Commercial Building Codes |
| CIS | 110 | Introduction to Computers |

Take one English course.
ENG 102 Applied Communications II 3

ENG 111 Expository Writing 3
Take one of the following general education courses.

| COM | 231 | Public Speaking |
| :--- | :--- | :--- |
| ENG | 114 | Professional Research and Reporting |
| MAT | 115 | Mathematical Models |
| PHY | 110 | Conceptual Physics |
| --- | --- | Humanities and Fine Arts Elective |
| --- | --- | Social and Behavioral Science Elective |

ENG 114 Professional Research and Reporting 3
MAT 115 Mathematical Models 3
PHY 110 Conceptual Physics 3
--- --- Humanities and Fine Arts Elective 3
--- --- Social and Behavioral Science Elective 3

## Diploma (D35100)

http://www.rccc.edu/catalog-2012-2013/?p=1741

## Courses

| * | AHR | 110 | Introduction to Refrigeration | 5 |
| :--- | :--- | :--- | :--- | :--- |
| * | AHR | 111 |  | HVACR Electricity |
| * | AHR | 112 |  | Heating Technology |
| * | AHR | 113 | Comfort Cooling | 3 |
| * | AHR | 114 | Heat Pump Technology | 4 |
|  | AHR | 115 | Refrigeration Systems | 4 |
|  | AHR | 130 | HVAC Controls | 2 |
|  | AHR | 151 |  | HVAC Duct Systems I |

Take one of the following courses.

| ENG | 102 | Applied Communications II |
| :--- | :--- | :--- |
| ENG | 111 | Expository Writing |

## AHR Comfort Cooling Certificate (C35100CC)

http://www.rccc.edu/catalog-2012-2013/?p=1747

## Courses

| AHR | 113 | Comfort Cooling | 4 |
| :--- | :--- | :--- | :--- |
| AHR | 114 | Heat Pump Technology | 4 |
| AHR | 130 | HVAC Controls | 3 |
| AHR | 211 | Residential System Design | 3 |

## Total semester hour credits to complete certificate: 14

## AHR Commercial Certificate (C35100CO)

http://www.rccc.edu/catalog-2012-2013/?p=1751

## Courses

AHR 152
HVAC Duct Systems II
AHR 160
AHR 212
AHR 215
AHR 220
Refrigerant Certification

Take one of the following general education courses.

| COM | 231 | Public Speaking | 3 |
| :--- | :--- | :--- | :--- |
| ENG | 114 | Professional Research and Reporting | 3 |
| MAT | 115 | Mathematical Models | 3 |
| PHY | 110 | Conceptual Physics | 3 |
| --- | --- | Humanities and Fine Arts Elective | 3 |
| --- | --- | Social and Behavioral Science Elective | 3 |

Total semester hour credits to complete diploma: 42

## AHR Basic Certificate (C35100BA)

http://www.rccc.edu/catalog-2012-2013/?p=1745
Courses

| AHR | 110 | Introduction to Refrigeration | 5 |
| :--- | :--- | :--- | :--- |
| AHR | 111 | HVACR Electricity | 3 |
| AHR | 112 | Heating Technology | 4 |
| AHR | 151 | HVAC Duct Systems I | 2 |

## Total semester hour credits to complete

 certificate: 14AHR 225
3
2
AHR 255 Indoor Air Quality 2

## AHR Refrigeration Certificate (C35100RF)

http://www.rccc.edu/catalog-2012-2013/?p=1749

## Courses

| AHR | 110 | Introduction to Refrigeration | 5 |
| :--- | :--- | :--- | :--- |
| AHR | 115 | Refrigeration Systems | 2 |
| AHR | 160 | Refrigerant Certification | 1 |
| AHR | 220 | Commercial Building Codes | 2 |
| AHR | 235 | Refrigeration Design | 3 |

Total semester hour credits to complete certificate: 13

# Associate Degree Nursing (45110) 

http://www.rccc.edu/catalog-2012-2013/?p=1085

## Description

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

## Awards

- Associate in Applied Science Degree (A45110)
- LPN to ADN Transition Option (A45110C)


## Additional Information

Note 1 - For students enrolled in the Associate Degree Nursing, Associate Degree Nursing LPN to ADN Transition Option, or the Practical Nursing programs, numerical grades below 80 (C) in all required nursing courses and $77(\mathrm{C})$ in all non-nursing courses are considered unsatisfactory attainment of course completion. Note 2 - Class sessions and clinical rotations in NUR courses will be scheduled during weekdays, evenings or weekends.

## Nursing Education Checklist

http://www.rccc.edu/onestop/87/admissions-checklist-for-nurs-ing-programs/

## Health Information Sessions

http://www.rccc.edu/healthpublicservices/information-ses-sions-for-health-public-services-programs/

## Admission Requirements

http://www.rccc.edu/onestop/95/admission-require-ments-for-nursing-education-programs/
LPN to ADN Transition Option Requirements http://www.rccc.edu/onestop/148/lpn-to-adn-transition-op-tion-admission-requirements/

## ADN Philosophy

http://www.rccc.edu/healthpublicservices/associate-de-gree-nursing-program-philosophy/

## Attendance Requirements

http://www.rccc.edu/onestop/120/attendance-require-ments-for-nursing-programs/
Clinical Behavior Policy
http://www.rccc.edu/onestop/122/clinical-behavior-poli-cies-for-nursing-programs/

## Competency Standards

http://www.rccc.edu/onestop/124/competency-stan-
dards-and-progression-policy-for-nursing-programs/
Graduation Policy
http://www.rccc.edu/onestop/129/graduation-policy-for-nurs-ing-programs/

## Contact Information

The Associate Degree Nursing (45110) program is in the RCCC Department of Health and Public Services Technologies. For additional information regarding this program, contact the director, Cathy Norris (cathy.norris@rccc.edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=1085)
The * symbol denotes a core course that may not be substituted.

## Associate in Applied Science Degree (A45110)

http://www.rccc.edu/catalog-2012-2013/?p=1081

## First Year Fall

| BIO | 168 | Anatomy and Physiology I | 4 |
| :--- | :--- | :--- | :--- |
| *NG | 111 | Expository Writing | 3 |
| NUR | 111 | Introduction to Health Concepts | 8 |
| PSY | 150 | General Psychology | 3 |

## Total SHC 18

## First Year Spring

| BIO | 169 | Anatomy and Physiology II | 4 |  |
| :--- | :--- | :--- | :--- | :--- |
|  | ENG | 112 | Argument-Based Research | 3 |
| * | NUR | 112 | Health-Illness Concepts | 5 |
| * | NUR | 211 AB | Health Care Concepts, Part A | 3 |
|  | PSY | 241 | Dev.al Psychology | 3 |

Total SHC 17.5

## First Year Summer

* NUR 113 Family Health Concepts 5
* NUR 211BB Health Care Concepts, Part B 3

Total SHC 7.5

## Second Year Fall

|  | BIO | 275 | Microbiology | 4 |
| :--- | :--- | :--- | :--- | :--- |
| $*$ | NUR | 114 | Holistic Health Concepts | 5 |
| $*$ | NUR | 212 | Health System Concepts | 5 |

Total SHC 14

\section*{Second Year Spring <br> | * NUR | 213 | Complex Health Concepts | 10 |
| :--- | :--- | :--- | ---: |
| --- | --- | Humanities/Fine Arts Elective | 3 | <br> Total semester hour credits to complete degree: 70 <br> LPN to ADN Transition Option (A45110C)}

## Total SHC 13

http://www.rccc.edu/catalog-2012-2013/?p=1104

| First Year Spring |  |  |  |  |
| :---: | :--- | :--- | :--- | :---: |
| BIO | 169 | Anatomy and Physiology II | 4 |  |
| ENG | 112 | Argument-Based Research | 3 |  |
| * | NUR | 211 AB | Health Care Concepts, Part A |  |
| * | NUR | 214 | Nsg Transition Concepts |  |

Total SHC 16.5

## First Year Summer

| * | NUR | 113 | Family Health Concepts |
| :--- | :--- | :--- | :--- |

Total SHC 7.5

## First Year Fall

BIO 275 Microbiology 4

* NUR 114 Holistic Health Concepts 5
* NUR 212 Health System Concepts 5

Total SHC 14

## Second Year Spring

| * NUR | 213 | Complex Health Concepts | 10 |
| :--- | :--- | :--- | ---: |
| --- | -- | Humanities/Fine Arts Elective | 3 |

Total SHC 13
Total semester hour credits to complete degree: 61

## Transition Guidelines

Students are required to complete 10 credit hours of prerequisite courses prior to program entry. Please see the link in the associate degree nursing (45110) program description under additional information for LPN to ADN transition option guidelines.

# Associate in Arts (10100) 

http://www.rccc.edu/catalog-2012-2013/?p=1558

## 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 SHC of academic credit in approved transfer courses with a grade of
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 or 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.

## Awards

- Associate in Arts Degree (A10100)
- Diploma (D10100)


## Additional Information

In addition to the 44 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 Arts (10100) program is in the RCCC Department of Liberal Arts, Business Technologies and General Education. For additional information regarding this program, contact the dean, Carolyn Holbert (carolyn.holbert@rccc.edu).
The * symbol denotes a core course that may not be substituted.

## Associate in Arts Degree (A10100)

http://www.rccc.edu/catalog-2012-2013/?p=1560

## Success and Study Skills Requirement (1 SHC)

The following success and study skills course must be taken in the first semester by all students pursuing this degree. This course may not transfer to a senior institution.

ACA 122 College Transfer Success 1

## General Education Requirements (44 SHC)

## English Composition (6 SHC)

Take the following course.
ENG 111 Expository Writing
Take one of the following courses.

| ENG | 112 | Argument-Based Research | 3 |
| :--- | :--- | :--- | :--- |
| ENG | 113 | Literature-Based Research | 3 |
| ENG | 114 | Professional Research and Reporting | 3 |

## Humanities and Fine Arts (12 SHC)

Take four courses from at least three of the following discipline areas: art, drama, foreign languages, interdisciplinary humanities, literature, music, philosophy or religion.
At least one course must be a literature course.

| Literature |  |  |  |
| :---: | :--- | :--- | :--- |
| ENG | 131 | Introduction to Literature | 3 |
| ENG | 231 | American Literature I | 3 |
| ENG | 232 | American Literature II | 3 |
| ENG | 241 | British Literature I | 3 |
| ENG | 242 | British Literature II | 3 |
| ENG | 243 | Major British Writers | 3 |
| ENG | 251 | Western World Literature I | 3 |
| ENG | 252 | Western World Literature II | 3 |
| ENG | 261 | World Literature I | 3 |
| ENG | 262 | World Literature II | 3 |
|  |  |  |  |
| Art |  | Art Appreciation | 3 |
| ART | 111 | Art History Survey I | 3 |
| ART | 114 | Art History Survey II | 3 |
| ART | 115 | Survey of American Art | 3 |
| ART | 116 |  |  |
|  |  |  | 3 |
| Drama |  | Theatre Appreciation | 3 |
| DRA | 111 | Literature of the Theatre | 3 |
| DRA | 112 | Oral Interpretation | 3 |
| DRA | 122 | Storytelling |  |
| DRA | 126 |  |  |


| Foreign Languages |  |  |  |
| :---: | :---: | :---: | :---: |
| FRE | 111 | Elementary French I | 3 |
| FRE | 112 | Elementary French II | 3 |
| GER | 111 | Elementary German I | 3 |
| GER | 112 | Elementary German II | 3 |
| SPA | 111 | Elementary Spanish I | 3 |
| SPA | 112 | Elementary Spanish II | 3 |
| SPA | 211 | Intermediate Spanish I | 3 |
| SPA | 212 | Intermediate Spanish II | 3 |
| Interdisciplinary Humanities |  |  |  |
| HUM | 110 | Technology and Society | 3 |
| HUM | 115 | Critical Thinking | 3 |
| HUM | 120 | Cultural Studies | 3 |
| HUM | 122 | Southern Culture | 3 |
| HUM | 130 | Myth in Human Culture | 3 |
| HUM | 150 | American Womens Studies | 3 |
| HUM | 160 | Introduction to Film | 3 |
| HUM | 161 | Advanced Film Studies | 3 |
| HUM | 211 | Humanities I | 3 |
| HUM | 212 | Humanities II | 3 |
| Music |  |  |  |
| MUS | 110 | Music Appreciation | 3 |
| MUS | 113 | American Music | 3 |
| MUS | 210 | History of Rock Music | 3 |
| MUS | 212 | American Musical Theatre | 3 |
| MUS | 213 | Opera and Musical Theatre | 3 |
| Philosophy |  |  |  |
| PHI | 210 | History of Philosophy | 3 |
| PHI | 220 | Western Philosophy I | 3 |
| PHI | 221 | Western Philosophy II | 3 |
| PHI | 230 | Introduction to Logic | 3 |
| PHI | 240 | Introduction to Ethics | 3 |
| Religion |  |  |  |
| REL | 110 | World Religions | 3 |
| REL | 211 | Introduction to Old Testament | 3 |
| REL | 212 | Introduction to New Testament | 3 |
| REL | 221 | Religion in America | 3 |

## Speech and Communication

One of the following courses may substitute for three SHC of the humanities and fine arts requirement. Speech and communication courses may not substitute for the literature requirement.

| COM | 110 | Introduction to Communication | 3 |
| :--- | :--- | :--- | :--- |
| COM | 120 | Intro to Interpersonal Communication | 3 |
| COM | 231 | Public Speaking | 3 |

Social and Behavioral Sciences (12 SHC)
Take four courses from at least three of the following discipline areas: history, anthropology, economics, geography, political science, psychology or sociology.
At least one course must be a history course.

## History

HIS 111 World Civilizations I 3

HIS 112 World Civilizations II 3
HIS 115 Intro to Global History 3
HIS 121 Western Civilization I 3
HIS 122 Western Civilization II 3
HIS 131 American History I 3
HIS 132 American History II 3
Anthropology
ANT 210 General Anthropology 3
ANT 220 Cultural Anthropology 3
ANT 221 Comparative Cultures 3
ANT 230 Physical Anthropology 3
ANT 230A Physical Anthropology Lab 1
ANT 240 Archaeology 3

## Economics

ECO 251 Principles of Microeconomics 3
ECO 252 Principles of Macroeconomics 3
Geography
GEO 111 World Regional Geography 3
GEO 112 Cultural Geography 3
GEO 113 Economic Geography 3
GEO 130 General Physical Geography 3
Political Science
POL 110 Introduction to Political Science 3
POL 120 American Government 3
POL 210 Comparative Government 3
POL 220 International Relations 3
Psychology
PSY 150
Social Psychology 3
PSY 239 Psychology of Personality 3
PSY 241 Dev.al Psychology 3
PSY 281 Abnormal Psychology 3

## Sociology

SOC 210 Introduction to Sociology 3
SOC 213 Sociology of the Family 3
SOC 220 Social Problems 3
SOC 225 Social Diversity 3
SOC 230 Race and Ethnic Relations 3
SOC 240 Social Psychology 3

# Natural Science and Mathematics Requirement (14 SHC) 

## Natural Sciences Requirement

Take one of the following sets.

| Set One |  |  |  |
| ---: | :--- | :--- | :--- |
| AST | 151 | General Astronomy I | 3 |
| AST | 151 A | General Astronomy I Lab | 1 |
| AST | 152 | General Astronomy II | 3 |
| AST | 152 A | General Astronomy II Lab | 1 |
| Set Two |  |  |  |
| BIO | 111 | General Biology I | 4 |
| BIO | 112 | General Biology II | 4 |
| Set Three |  |  |  |
| CHM | 131 | Introduction to Chemistry | 3 |
| CHM | 131 A | Introduction to Chemistry Lab | 1 |
| CHM | 132 | Organic and Biochemistry | 4 |
| Set Four |  |  | 4 |
| CHM | 151 | General Chemistry I | 4 |
| CHM | 152 | General Chemistry II | 4 |
| Set Five |  |  | 4 |
| PHY | 151 | College Physics I | 4 |
| PHY | 152 | College Physics II | 4 |
| Set Six |  |  | 4 |
| PHY | 251 | General Physics I | 4 |
| PHY | 252 | General Physics II |  |

## Mathematics Requirement

Take one course from each set below.
Students should check with the university of their choice to make sure that they complete the appropriate mathematics course.

| Introductory Mathematics |  |  |  |  |
| :--- | :--- | :--- | :--- | :---: |
| MAT | 140 | Survey of Mathematics |  |  |
| MAT | 151 | Statistics I | 3 |  |
| MAT | 161 | College Algebra | 3 |  |
| MAT | 171 | Precalculus Algebra | 3 |  |
| MAT | 175 | Precalculus | 3 |  |
| Second Mathematics |  |  |  |  |
| CIS | 110 | Introduction to Computers | 4 |  |
| CIS | 115 | Intro to Programming and Logic | 3 |  |
| MAT | 151 | Statistics I | 3 |  |
| MAT | 172 | Precalculus Trigonometry | 3 |  |
| MAT | 263 | Brief Calculus | 3 |  |
| MAT | 271 | Calculus I | 3 |  |
| M |  |  |  |  |

## Diploma Requirements

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. Any courses not taken to satisfy the general education core requirement may be taken to satisfy the Other Required Hours.

| ACC | 120 | Principles of Financial Accounting |
| :---: | :---: | :---: |
| ACC | 121 | Principles of Managerial Accounting |
| ANT | 240A | Archaeology Field Lab |
| ANT | 245 | World Prehistory |
| ART | 121 | Two-Dimensional Design |
| ART | 122 | Three-Dimensional Design |
| ART | 131 | Drawing I |
| ART | 132 | Drawing II |
| ART | 135 | Figure Drawing I |
| ART | 212 | Gallery Assistantship I |
| ART | 214 | Portfolio and Resume |
| ART | 235 | Figure Drawing II |
| ART | 240 | Painting I |
| ART | 241 | Painting II |
| ART | 244 | Watercolor |
| ART | 261 | Photography I |
| ART | 262 | Photography II |
| ART | 264 | Digital Photography I |
| ART | 265 | Digital Photography II |
| ART | 266 | Videography I |
| ART | 267 | Videography II |
| ART | 281 | Sculpture I |
| ART | 282 | Sculpture II |
| ART | 283 | Ceramics I |
| ART | 288 | Studio |
| AST | 111 | Descriptive Astronomy |
| AST | 111A | Descriptive Astronomy Lab |
| AST | 251 | Observational Astronomy |
| BIO | 110 | Principles of Biology |
| BIO | 140 | Environmental Biology |
| BIO | 140A | Environmental Biology Lab |
| BIO | 163 | Basic Anatomy and Physiology |
| BIO | 168 | Anatomy and Physiology I |
| BIO | 169 | Anatomy and Physiology II |
| BIO | 250 | Genetics |
| BIO | 275 | Microbiology |
| BIO | 280 | Biotechnology |
| BUS | 110 | Introduction to Business |
| BUS | 115 | Business Law I |
| BUS | 137 | Principles of Management |
| CHM | 263 | Analytical Chemistry |
| CJC | 111 | Introduction to Criminal Justice |
| CJC | 121 | Law Enforcement Operations |
| CJC | 141 | Corrections |
| COM | 130 | Nonverbal Communication |
| COM | 140 | Intro. to Intercultural Communication |


| COM | 150 | Introduction to Mass Communication | 3 |
| :---: | :---: | :---: | :---: |
| COM | 160 | Small Group Communication | 3 |
| COM | 232 | Election Rhetoric | 3 |
| COM | 233 | Persuasive Speaking | 3 |
| COM | 251 | Debate I | 3 |
| COM | 252 | Debate II | 3 |
| CSC | 134 | C++ Programming | 3 |
| CSC | 139 | Visual BASIC Programming | 3 |
| CSC | 151 | JAVA Programming | 3 |
| CSC | 239 | Advanced Visual BASIC Programming | 3 |
| DFT | 170 | Engineering Graphics | 3 |
| DRA | 130 | Acting I | 3 |
| DRA | 170 | Play Production I | 3 |
| ECO | 151 | Survey of Economics | 3 |
| ENG | 125 | Creative Writing I | 3 |
| ENG | 126 | Creative Writing II | 3 |
| ENG | 132 | Introduction to Drama | 3 |
| ENG | 235 | Survey of Film As Lit | 3 |
| ENG | 272 | Southern Literature | 3 |
| ENG | 273 | African-American Literature | 3 |
| ENG | 274 | Literature by Women | 3 |
| GEO | 121 | North Carolina Geography | 3 |
| HEA | 110 | Personal Health/Wellness | 3 |
| HIS | 162 | Women and History | 3 |
| HIS | 163 | The World Since 1945 | 3 |
| HIS | 226 | The Civil War | 3 |
| HIS | 236 | North Carolina History | 3 |
| HIS | 260 | History of Africa | 3 |
| JOU | 110 | Introduction to Journalism | 3 |
| JOU | 216 | Writing for Mass Media | 3 |
| JOU | 217 | Feature/Editorial Writing | 3 |
| JOU | 242 | Introduction to Multimedia | 3 |
| MAT | 151A | Statistics I Lab | 1 |
| MAT | 171A | Precalculus Algebra Lab | 1 |
| MAT | 172A | Precalculus Trigonometry Lab | 1 |
| MAT | 272 | Calculus II | 4 |
| MAT | 273 | Calculus III | 4 |
| MUS | 131 | Chorus I | 1 |
| PED | 110 | Fit and Well for Life | 2 |
| PED | 111 | Physical Fitness I | 1 |
| PED | 113 | Aerobics I | 1 |
| PED | 117 | Weight Training I | 1 |
| PED | 121 | Walk, Jog, Run | 1 |
| PED | 122 | Yoga I | 1 |
| PED | 128 | Golf-Beginning | 1 |
| PED | 142 | Lifetime Sports | 1 |
| PED | 217 | Pilates I | 1 |
| PHY | 110 | Conceptual Physics | 3 |
| PHY | 110A | Conceptual Physics Lab | 1 |
| POL | 130 | State and Local Government | 3 |
| PSY | 211 | Psychology of Adjustment | 3 |
| PSY | 215 | Positive Psychology | 3 |
| PSY | 231 | Forensic Psychology | 3 |
| PSY | 243 | Child Psychology | 3 |
| PSY | 246 | Adolescent Psychology | 3 |


| PSY | 249 | Psychology of Aging | 3 |
| :--- | :--- | :--- | :--- |
| PSY | 259 | Human Sexuality | 3 |
| PSY | 271 | Sports Psychology | 3 |
| PSY | 275 | Health Psychology | 3 |
| SOC | 234 | Sociology of Gender | 3 |
| SOC | 242 | Sociology of Deviance | 3 |
| SOC | 245 | Drugs and Society | 3 |
| SOC | 250 | Sociology of Religion | 3 |

Total semester hour credits to complete diploma: 65

# Associate in Arts Pre-Major - Business Education and Marketing Education (1010C) 

http://www.rccc.edu/catalog-2012-2013/?p=1601

## Description

This program is designed for students who intend to major in business education and marketing education. Students who successfully complete this course of study and who meet the requirements for admission to the university are eligible to apply for admission to the major with junior standing.
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.
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 the University of North Carolina link under Additional Information. Students are encouraged to contact the senior institution to confirm degree offerings. Grade-point average requirements vary and admission is competitive across the several programs in business education. Admission to teacher licensure programs requires satisfactory scores on PRAXIS I and II. For information and registration for PRAXIS, go to the Praxis link under additional information or contact a counselor in student services

## Awards

- Associate in Arts Pre-Major Degree (A1010C)
- Diploma (D1010C)


## Additional Information

The University of North Carolina: A Multi-Campus University
http://www.northcarolina.edu/programs/index.php
Praxis
http://www.ets.org/praxis

## Contact Information

The Associate in Arts Pre-Major - Business Education and Marketing Education (1010C) program is in the RCCC Department of Liberal Arts, Business Technologies and General Education. For additional information regarding this program, contact the program chair, Garland Fulp (garland.fulp@rccc.edu).
The * symbol denotes a core course that may not be substituted.

## Associate in Arts Pre-Major Degree (A1010C)

http://www.rccc.edu/catalog-2012-2013/?p=1603

## Success and Study Skills Requirement (1 SHC)

The following success and study skills course must be taken in the first semester by all students pursuing this degree. This course may not transfer to a senior institution.

$$
\text { ACA } 122 \quad \text { College Transfer Success }
$$

1

## General Education Requirements (44 SHC)

## English Composition (6 SHC)

Take the following course.
ENG 111 Expository Writing
Take one of the following courses.

| ENG | 112 | Argument-Based Research | 3 |
| :--- | :--- | :--- | :--- |
| ENG | 113 | Literature-Based Research | 3 |
| ENG | 114 | Professional Research and Reporting | 3 |

## Humanities and Fine Arts (12 SHC)

Take four courses from at least three of the following discipline areas: art, drama, foreign languages, interdisciplinary humanities, literature, music, philosophy or religion.
At least one course must be a literature course.

| Literature |  |  |  |
| :---: | :--- | :--- | :--- |
| ENG | 131 | Introduction to Literature | 3 |
| ENG | 231 | American Literature I | 3 |
| ENG | 232 | American Literature II | 3 |
| ENG | 241 | British Literature I | 3 |
| ENG | 242 | British Literature II | 3 |
| ENG | 243 | Major British Writers | 3 |
| ENG | 251 | Western World Literature I | 3 |
| ENG | 252 | Western World Literature II | 3 |
| ENG | 261 | World Literature I | 3 |
| ENG | 262 | World Literature II | 3 |
|  |  |  |  |
| Art |  | Art Appreciation | 3 |
| ART | 111 | Art History Survey I | 3 |
| ART | 114 | Art History Survey II | 3 |
| ART | 115 | Survey of American Art | 3 |
| ART | 116 |  |  |
|  |  |  | 3 |
| Drama |  | Theatre Appreciation | 3 |
| DRA | 111 | Literature of the Theatre | 3 |
| DRA | 112 | Oral Interpretation | 3 |
| DRA | 122 | Storytelling |  |


| Foreign Languages |  |  |  |
| :---: | :---: | :---: | :---: |
| FRE | 111 | Elementary French I | 3 |
| FRE | 112 | Elementary French II | 3 |
| GER | 111 | Elementary German I | 3 |
| GER | 112 | Elementary German II | 3 |
| SPA | 111 | Elementary Spanish I | 3 |
| SPA | 112 | Elementary Spanish II | 3 |
| SPA | 211 | Intermediate Spanish I | 3 |
| SPA | 212 | Intermediate Spanish II | 3 |
| Interdisciplinary Humanities |  |  |  |
| HUM | 110 | Technology and Society | 3 |
| HUM | 115 | Critical Thinking | 3 |
| HUM | 120 | Cultural Studies | 3 |
| HUM | 122 | Southern Culture | 3 |
| HUM | 130 | Myth in Human Culture | 3 |
| HUM | 150 | American Womens Studies | 3 |
| HUM | 160 | Introduction to Film | 3 |
| HUM | 161 | Advanced Film Studies | 3 |
| HUM | 211 | Humanities I | 3 |
| HUM | 212 | Humanities II | 3 |
| Music |  |  |  |
| MUS | 110 | Music Appreciation | 3 |
| MUS | 113 | American Music | 3 |
| MUS | 210 | History of Rock Music | 3 |
| MUS | 212 | American Musical Theatre | 3 |
| MUS | 213 | Opera and Musical Theatre | 3 |
| Philosophy |  |  |  |
| PHI | 210 | History of Philosophy | 3 |
| PHI | 220 | Western Philosophy I | 3 |
| PHI | 221 | Western Philosophy II | 3 |
| PHI | 230 | Introduction to Logic | 3 |
| PHI | 240 | Introduction to Ethics | 3 |
| Religion |  |  |  |
| REL | 110 | World Religions | 3 |
| REL | 211 | Introduction to Old Testament | 3 |
| REL | 212 | Introduction to New Testament | 3 |
| REL | 221 | Religion in America | 3 |

## Speech and Communication

One of the following courses may substitute for three SHC of the humanities and fine arts requirement. Speech and communication courses may not substitute for the literature requirement.

| COM | 110 | Introduction to Communication | 3 |
| :--- | :--- | :--- | :--- |
| COM | 120 | Intro to Interpersonal Communication | 3 |
| COM | 231 | Public Speaking | 3 |

## Social and Behavioral Sciences (12 SHC)

Take four courses from at least three of the following discipline areas: anthropology, geography, political science, psychology or sociology.
At least one course must be a history course.

## History Requirement

Take one of the following courses.

| HIS | 111 | World Civilizations I | 3 |
| :--- | :--- | :--- | :--- |
| HIS | 112 | World Civilizations II | 3 |
| HIS | 115 | Intro to Global History | 3 |
| HIS | 121 | Western Civilization I | 3 |
| HIS | 122 | Western Civilization II | 3 |
| HIS | 131 | American History I | 3 |
| HIS | 132 | American History II | 3 |

## Pre-Major Requirement

The following course is required.
ECO 251 Principles of Microeconomics

## Remaining Requirements

Take two courses from at least one of the following discipline areas: anthropology, economics, geography, history, political science, psychology or sociology. PSY 150 and SOC 210 are recommended.

| Anthropology |  |  |
| :---: | :--- | :--- |
| ANT | 210 | General Anthropology |
| ANT 220 | Cultural Anthropology | 3 |
| ANT 221 | Comparative Cultures | 3 |
| ANT 230 | Physical Anthropology | 3 |
| ANT 230A | Physical Anthropology Lab | 3 |
| ANT 240 | Archaeology | 1 |
| Geography |  | 3 |
| GEO 111 | World Regional Geography | 3 |
| GEO 112 | Cultural Geography | 3 |
| GEO 113 | Economic Geography | 3 |
| GEO 130 | General Physical Geography | 3 |
| Political Science |  |  |
| POL $\quad 110$ | Introduction to Political Science | 3 |
| POL 120 | American Government | 3 |
| POL 210 | Comparative Government | 3 |
| POL 220 | International Relations | 3 |
| Psychology |  |  |
| PSY | 150 | General Psychology |
| PSY | 237 | Social Psychology |
| PSY | 239 | Psychology of Personality |


| Sociology |  |  |  |
| :---: | :--- | :--- | :--- |
| SOC | 210 | Introduction to Sociology | 3 |
| SOC | 213 | Sociology of the Family | 3 |
| SOC | 220 | Social Problems | 3 |
| SOC | 225 | Social Diversity | 3 |
| SOC | 230 | Race and Ethnic Relations | 3 |
| SOC | 240 | Social Psychology | 3 |

## Natural Science and Mathematics Requirement (14 SHC)

Natural Sciences Requirement
Take one of the following sets.

| Set One |  |  |  |
| ---: | :--- | :--- | :--- |
| AST | 151 | General Astronomy I | 3 |
| AST | 151 A | General Astronomy I Lab | 1 |
| AST | 152 | General Astronomy II | 3 |
| AST | 152 A | General Astronomy II Lab | 1 |
| Set Two |  |  | 4 |
| BIO | 111 | General Biology I | 4 |
| BIO | 112 | General Biology II |  |
| Set Three |  |  |  |
| CHM 131 <br> CHM 131 A | Introduction to Chemistry |  |  |
| CHM | 132 | Organic and Biochemistry | 1 |
| Set Four |  |  | 4 |
| CHM | 151 | General Chemistry I | 4 |
| CHM | 152 | General Chemistry II | 4 |
| Set Five |  |  | 4 |
| PHY | 151 | College Physics I | 4 |
| PHY | 152 | College Physics II | 4 |

## Mathematics Requirement

Take one course from each set below.
Students should check with the university of their choice to make sure that they complete the appropriate mathematics course.

Introductory Mathematics

| MAT | 161 | College Algebra | 3 |
| :--- | :--- | :--- | :--- |
| MAT | 171 | Precalculus Algebra | 3 |
| MAT | 175 | Precalculus | 4 |

## Second Mathematics

CIS
110
Introduction to Computers

## Diploma Requirements

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 (19-21 SHC)

## Required Courses

The following courses are required.

| ACC | 120 | Principles of Financial Accounting | 4 |
| :--- | :--- | :--- | :--- |
| CIS | 115 | Intro to Programming and Logic | 3 |
| ECO | 252 | Principles of Macroeconomics | 3 |

## Elective Courses

A minimum of 9-10 SHC of college transfer general education, elective, and/or pre-major courses is required. Any courses not taken to satisfy the general education core requirement may be taken to satisfy the Other Required Hours.

| ACC | 121 | Principles of Managerial Accounting | 4 |
| :--- | :--- | :--- | :--- |
| BUS | 110 | Introduction to Business | 3 |
| BUS | 115 | Business Law I | 3 |
| MAT | 151 | Statistics I | 3 |
| MAT | 151 A | Statistics I Lab | 1 |
| MAT | 171 A | Precalculus Algebra Lab | 1 |
| MUS | 131 | Chorus I | 1 |
| PED | 110 | Fit and Well for Life | 2 |
| PED | 111 | Physical Fitness I | 1 |
| PED | 113 | Aerobics I | 1 |
| PED | 117 | Weight Training I | 1 |
| PED | 121 | Walk, Jog, Run | 1 |
| PED | 122 | Yoga I | 1 |
| PED | 128 | Golf-Beginning | 1 |
| PED | 142 | Lifetime Sports | 1 |
| PED | 217 | Pilates I | 1 |

## Total semester hour credits to complete diploma: 65

# Associate in Arts Pre-Major - Business Administration, Accounting, Economics, Finance and Marketing (1010B) 

http://www.rccc.edu/catalog-2012-2013/?p=1562

## 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 successfully 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.
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 the University of North Carolina link under additional information. Students are encouraged to contact the senior institution to confirm degree offerings. Grade-point average requirements vary and admission is competitive across the several programs in business administration, accounting, economics, finance, and marketing.

## Awards

- Associate in Arts Pre-Major Degree (A1010B)
- Diploma (D1010B)


## Additional Information

The University of North Carolina: A Multi-Campus University
http://www.northcarolina.edu/programs/index.php

## Contact Information

The Associate in Arts Pre-Major - Business Administration, Accounting, Economics, Finance and Marketing (1010B) program is in the RCCC Department of Liberal Arts, Business Technologies and General Education. For additional information regarding this program, contact the program chair, Garland Fulp (garland. fulp@rccc.edu).
The * symbol denotes a core course that may not be substituted.

## Associate in Arts Pre-Major Degree (A1010B)

http://www.rccc.edu/catalog-2012-2013/?p=1564

## Success and Study Skills Requirement (1 SHC)

The following success and study skills course must be taken in the first semester by all students pursuing this degree. This course may not transfer to a senior institution.

ACA 122
College Transfer Success
1

## General Education Requirements (44 SHC)

English Composition (6 SHC)
Take the following course.

$$
\text { ENG } 111 \text { Expository Writing }
$$

Take one of the following courses.

| ENG | 112 | Argument-Based Research | 3 |
| :--- | :--- | :--- | :--- |
| ENG | 113 | Literature-Based Research | 3 |
| ENG | 114 | Professional Research and Reporting | 3 |

## Humanities and Fine Arts (12 SHC)

Take four courses from at least three of the following discipline areas: art, drama, foreign languages, interdisciplinary humanities, literature, music, philosophy or religion.
At least one course must be a literature course.

## Literature

ENG 131 Introduction to Literature 3
ENG 231
American Literature I 3
ENG 232 American Literature II 3
ENG 241 British Literature I 3
ENG 242 British Literature II 3
ENG 243 Major British Writers 3
ENG 251 Western World Literature I 3
ENG 252 Western World Literature II 3
ENG 261 World Literature I 3
ENG 262 World Literature II 3
Art
ART 111 Art Appreciation 3
ART 114 Art History Survey I 3
ART 115 Art History Survey II 3
ART 116 Survey of American Art 3

| Drama |  |  |  |
| :---: | :---: | :---: | :---: |
| DRA | 111 | Theatre Appreciation | 3 |
| DRA | 112 | Literature of the Theatre | 3 |
| DRA | 122 | Oral Interpretation | 3 |
| DRA | 126 | Storytelling | 3 |
| Foreign Languages |  |  |  |
| FRE | 111 | Elementary French I | 3 |
| FRE | 112 | Elementary French II | 3 |
| GER | 111 | Elementary German I | 3 |
| GER | 112 | Elementary German II | 3 |
| SPA | 111 | Elementary Spanish I | 3 |
| SPA | 112 | Elementary Spanish II | 3 |
| SPA | 211 | Intermediate Spanish I | 3 |
| SPA | 212 | Intermediate Spanish II | 3 |
| Interdisciplinary Humanities |  |  |  |
| HUM | 110 | Technology and Society | 3 |
| HUM | 115 | Critical Thinking | 3 |
| HUM | 120 | Cultural Studies | 3 |
| HUM | 122 | Southern Culture | 3 |
| HUM | 130 | Myth in Human Culture | 3 |
| HUM | 150 | American Womens Studies | 3 |
| HUM | 160 | Introduction to Film | 3 |
| HUM | 161 | Advanced Film Studies | 3 |
| HUM | 211 | Humanities I | 3 |
| HUM | 212 | Humanities II | 3 |
| Music |  |  |  |
| MUS | 110 | Music Appreciation | 3 |
| MUS | 113 | American Music | 3 |
| MUS | 210 | History of Rock Music | 3 |
| MUS | 212 | American Musical Theatre | 3 |
| MUS | 213 | Opera and Musical Theatre | 3 |
| Philosophy |  |  |  |
| PHI | 210 | History of Philosophy | 3 |
| PHI | 220 | Western Philosophy I | 3 |
| PHI | 221 | Western Philosophy II | 3 |
| PHI | 230 | Introduction to Logic | 3 |
| PHI | 240 | Introduction to Ethics | 3 |
| Religion |  |  |  |
| REL | 110 | World Religions | 3 |
| REL | 211 | Introduction to Old Testament | 3 |
| REL | 212 | Introduction to New Testament | 3 |
| REL | 221 | Religion in America | 3 |

## Speech and Communication

One of the following courses may substitute for three SHC of the humanities and fine arts requirement. Speech and communication courses may not substitute for the literature requirement.

| COM | 110 | Introduction to Communication | 3 |
| :--- | :--- | :--- | :--- |
| COM | 120 | Intro to Interpersonal Communication | 3 |
| COM | 231 | Public Speaking | 3 |

## Social and Behavioral Sciences (12 SHC)

Take four courses from at least three of the following discipline areas: anthropology, geography, political science, psychology or sociology.
At least one course must be a history course.

## History Requirement

Take one of the following courses.

| HIS | 111 | World Civilizations I | 3 |
| :--- | :--- | :--- | :--- |
| HIS | 112 | World Civilizations II | 3 |
| HIS | 115 | Intro to Global History | 3 |
| HIS | 121 | Western Civilization I | 3 |
| HIS | 122 | Western Civilization II | 3 |
| HIS | 131 | American History I | 3 |
| HIS | 132 | American History II | 3 |

## Pre-Major Requirement

The following course is required.
ECO 251 Principles of Microeconomics
3

## Remaining Requirements

Take two courses from at least one of the following discipline areas: anthropology, economics, geography, history, political science, psychology or sociology. POL 120, PSY 150 and SOC 210 are recommended.

## Anthropology

| ANT | 210 | General Anthropology | 3 |
| :--- | :--- | :--- | :--- |
| ANT | 220 | Cultural Anthropology | 3 |
| ANT | 221 | Comparative Cultures | 3 |
| ANT | 230 | Physical Anthropology | 3 |
| ANT | $230 A$ | Physical Anthropology Lab | 1 |
| ANT | 240 | Archaeology | 3 |

Geography
GEO 111 World Regional Geography 3

GEO 112 Cultural Geography 3
GEO 113 Economic Geography 3
GEO 130 General Physical Geography 3
Political Science
POL 110 Introduction to Political Science 3
POL 120 American Government 3
POL 210 Comparative Government 3
POL 220 International Relations 3
Psychology

| PSY | 150 | General Psychology | 3 |
| :--- | :--- | :--- | :--- |
| PSY | 237 | Social Psychology | 3 |
| PSY | 239 | Psychology of Personality | 3 |
| PSY | 241 | Dev.al Psychology | 3 |
| PSY | 281 | Abnormal Psychology | 3 |


| Sociology |  |  |  |
| :---: | :--- | :--- | :--- |
| SOC | 210 | Introduction to Sociology | 3 |
| SOC | 213 | Sociology of the Family | 3 |
| SOC | 220 | Social Problems | 3 |
| SOC | 225 | Social Diversity | 3 |
| SOC | 230 | Race and Ethnic Relations | 3 |
| SOC | 240 | Social Psychology | 3 |

## Natural Science and Mathematics Requirement (14 SHC)

## Natural Sciences Requirement

Take one of the following sets.

| Set One |  |  |  |
| ---: | :--- | :--- | :--- |
| AST | 151 | General Astronomy I | 3 |
| AST | 151 A | General Astronomy I Lab | 1 |
| AST | 152 | General Astronomy II | 3 |
| AST | 152 A | General Astronomy II Lab | 1 |
| Set Two |  |  | 4 |
| BIO | 111 | General Biology I | 4 |
| BIO | 112 | General Biology II |  |
| Set Three |  |  |  |
| CHM <br> CHM | 131 A | Introduction to Chemistry |  |
| CHM | 132 | Organic and Biochemistry |  |
| Set Four |  |  | 4 |
| CHM | 151 | General Chemistry I | 4 |
| CHM | 152 | General Chemistry II | 4 |
| Set Five |  |  | 4 |
| PHY | 151 | College Physics I | 4 |
| PHY | 152 | College Physics II | 4 |

## Mathematics Requirement

Take one course from each set below.
Students should check with the university of their choice to make sure that they complete the appropriate mathematics course.

## Introductory Mathematics

| MAT | 161 | College Algebra | 3 |
| :--- | :--- | :--- | :--- |
| MAT | 171 | Precalculus Algebra | 3 |
| MAT | 175 | Precalculus | 4 |


| Second Mathematics |  |  |  |
| :---: | :--- | :--- | :--- |
| MAT | 263 | Brief Calculus | 3 |
| MAT | 271 | Calculus I | 4 |

## Diploma Requirements

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)

## Required Courses

The following courses are required.

| ACC | 120 | Principles of Financial Accounting | 4 |
| :--- | :--- | :--- | :--- |
| ACC | 121 | Principles of Managerial Accounting | 4 |
| CIS | 110 | Introduction to Computers | 3 |
| ECO | 252 | Principles of Macroeconomics | 3 |
| MAT | 151 | Statistics I | 3 |

## Elective Courses

A minimum of 3 SHC of college transfer general education, elective, and/or pre-major courses is required. Any courses not taken to satisfy the general education core requirement may be taken to satisfy the Other Required Hours.

ANT 240A Archaeology Field Lab 2
ANT 245 World Prehistory 3
ART 121 Two-Dimensional Design 3
ART 122 Three-Dimensional Design 3
ART 131 Drawing I 3
ART 132 Drawing II 3
ART 135 Figure Drawing I 3
ART 212 Gallery Assistantship I 1
ART 214 Portfolio and Resume 1
ART 235 Figure Drawing II 3
ART 240 Painting I 3
ART 241 Painting II 3
ART 244 Watercolor 3
ART 261 Photography I 3
ART 262 Photography II 3
ART 264 Digital Photography I 3
ART 265 Digital Photography II 3
ART 266 Videography I 3
ART 267 Videography II 3
ART 281 Sculpture I 3
ART 282 Sculpture II 3
ART 283 Ceramics I 3
ART 288 Studio 3
AST 111 Descriptive Astronomy 3
AST 111A Descriptive Astronomy Lab 1
AST 251 Observational Astronomy 2
BIO 140 Environmental Biology 3
BIO 140A Environmental Biology Lab 1
BIO 163 Basic Anatomy and Physiology 5
BIO 250 Genetics 4
BIO 275 Microbiology 4
BIO 280 Biotechnology 3
BUS 110 Introduction to Business 3
BUS 115 Business Law I 3
BUS 137 Principles of Management 3
CHM 263 Analytical Chemistry 5
CJC 111 Introduction to Criminal Justice 3
CJC 121 Law Enforcement Operations 3
CJC 141 Corrections 3
COM 130 Nonverbal Communication 3
COM 140 Intro. to Intercultural Communication 3
$\begin{array}{lllll}\text { COM } & 150 & \text { Introduction to Mass Communication } & 3\end{array}$

| COM | 160 | Small Group Communication | 3 |
| :--- | :--- | :--- | :--- |


| COM | 232 | Election Rhetoric | 3 |
| :--- | :--- | :--- | :--- |

COM 233 Persuasive Speaking 3
COM 251 Debate I 3
COM 252 Debate II 3
$\begin{array}{llll}\text { CSC } & 139 & \text { Visual BASIC Programming } & 3 \\ \text { CSC } & 151 & \text { JAVA Programming } & 3 \\ \text { CSC } & 239 & \text { Advanced Visual BASIC Programming } & 3\end{array}$
CSC 239 Advanced Visual BASIC Programming 3
DFT 170 Engineering Graphics 3
DRA 130 Acting I 3
DRA $170 \quad 3$
ENG 125 Creative Writing I 3
ENG 126 Creative Writing II 3
ENG 132 Introduction to Drama
$\begin{array}{llll}\text { ENG } & 235 & \text { Survey of Film As Lit } & 3 \\ \text { ENG } & 272 & \text { Southern Literature } & 3\end{array}$
ENG 273 African-American Literature
$\begin{array}{lll}\text { GEO } & 121 & \text { North Carolina Geography }\end{array}$
$\begin{array}{llll}\text { HEA } & 110 & \text { Personal Health/Wellness } & 3 \\ \text { HIS } & 162 & \text { Women and History } & 3\end{array}$
HIS 163 The World Since 19453
HIS 226 The Civil War 3
HIS 236 North Carolina History 3
$\begin{array}{llll}\text { HIS } & 260 & \text { History of Africa } & 3 \\ \text { JOU } & 110 & \text { Introduction to Journalism } & 3\end{array}$
JOU 216 Writing for Mass Media 3
JOU 217 Feature/Editorial Writing 3
$\begin{array}{llll}\text { JOU } & 242 & \text { Introduction to Multimedia }\end{array}$
$\begin{array}{llll}\text { MAT } & 151 \mathrm{~A} & \text { Statistics I Lab } & 1\end{array}$
$\begin{array}{llll}\text { MAT } & 171 \mathrm{~A} & \text { Precalculus Algebra Lab } & 1\end{array}$
$\begin{array}{llll}\text { MAT } & 172 & \text { Precalculus Trigonometry } & 3\end{array}$
$\begin{array}{llll}\text { MAT } & 172 \mathrm{~A} & \text { Precalculus Trigonometry Lab } & 1\end{array}$
$\begin{array}{llll}\text { MUS } & 131 & \text { Chorus I } & 1\end{array}$
$\begin{array}{llll}\text { PED } & 110 & \text { Fit and Well for Life } & 2 \\ \text { PED } & 111 & \text { Physical Fitness I } & 1\end{array}$
PED 113 Aerobics I 1

PED 117 Weight Training I 1

| PED | 121 | Walk, Jog, Run | 1 |
| :--- | :--- | :--- | :--- |
| PED | 122 | Yoga I | 1 |

PED 128 Golf-Beginning 1

| PED | 142 | Lifetime Sports | 1 |
| :--- | :--- | :--- | :--- |
| PED | 217 | Pilates I | 1 |

PHY 110 Conceptual Physics 3
PHY 110A Conceptual Physics Lab 1
POL 130 State and Local Government 3

| PSY | 211 | Psychology of Adjustment | 3 |
| :--- | :--- | :--- | :--- |
| PSY | 215 | Positive Psychology | 3 |
| PSY | 231 | Forensic Psychology | 3 |
| PSY | 243 | Child Psychology | 3 |
| PSY | 246 | Adolescent Psychology | 3 |
| PSY | 249 | Psychology of Aging | 3 |
| PSY | 259 | Human Sexuality | 3 |
| PSY | 271 | Sports Psychology | 3 |


| PSY | 275 | Health Psychology | 3 |
| :--- | :--- | :--- | :--- |
| SOC | 234 | Sociology of Gender | 3 |
| SOC | 242 | Sociology of Deviance | 3 |
| SOC | 245 | Drugs and Society | 3 |
| SOC | 250 | Sociology of Religion | 3 |

Total semester hour credits to complete
degree: 65

# Associate in Arts Pre-Major - Criminal Justice (1010D) 

http://www.rccc.edu/catalog-2012-2013/?p=1576

## Description

This program is designed for students who intend to major in criminal justice. Students who successfully complete this course of study and who meet the requirements for admission to the university are eligible to apply for admission to the major with junior standing.
This program is not designed to provide entry-level skills for entry into a criminal justice occupation. Students interested in obtaining an entry-level job in a criminal justice occupation upon graduation should pursue the criminal justice A.A.S. degree or basic law enforcement training certificate program.
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 the link for The University of North Carolina under additional information. Students are encouraged to contact the senior institution to confirm degree offerings. Grade-point average requirements vary and admission is competitive across the several programs in criminal justice.

## Awards

- Associate in Arts Pre-Major Degree (A1010D)
- Diploma (D1010D)


## Additional Information

The University of North Carolina: A Multi-Campus University
http://www.northcarolina.edu/programs/index.php

## Contact Information

The Associate in Arts Pre-Major - Criminal Justice (1010D) program is in the RCCC Department of Health and Public Services Technologies. For additional information regarding this program, contact the director, Spencer Rummage (spencer.rummage@rccc. edu).
The * symbol denotes a core course that may not be substituted.

## Associate in Arts Pre-Major Degree (A1010D)

http://www.rccc.edu/catalog-2012-2013/?p=1578

## Success and Study Skills Requirement (1 SHC)

The following success and study skills course must be taken in the first semester by all students pursuing this degree. This course may not transfer to a senior institution.

## General Education Requirements (44 SHC)

## English Composition (6 SHC)

Take the following course.

$$
\text { ENG } 111 \quad \text { Expository Writing } 3
$$

Take one of the following courses.

| ENG | 112 | Argument-Based Research | 3 |
| :--- | :--- | :--- | :--- |
| ENG | 113 | Literature-Based Research | 3 |
| ENG | 114 | Professional Research and Reporting | 3 |

## Humanities and Fine Arts (12 SHC)

Take four courses from at least three of the following discipline areas: art, drama, foreign languages, interdisciplinary humanities, literature, music, philosophy or religion.
At least one course must be a literature course.

## Literature

ENG 131 Introduction to Literature 3
ENG 231 American Literature I 3
ENG 232 American Literature II 3
ENG 241 British Literature I 3
ENG 242 British Literature II 3
ENG 243 Major British Writers 3
ENG 251 Western World Literature I 3
ENG 252 Western World Literature II 3
ENG 261 World Literature I 3
ENG 262 World Literature II 3

## Art

ART 111 Art Appreciation 3
ART 114 Art History Survey I 3
ART 115 Art History Survey II 3
ART 116 Survey of American Art 3

## Drama

DRA 111 Theatre Appreciation 3
DRA 112 Literature of the Theatre 3
DRA 122 Oral Interpretation 3
DRA 126 Storytelling 3
Foreign Languages
FRE 111 Elementary French I 3
FRE 112 Elementary French II 3
GER 111 Elementary German I 3
GER 112 Elementary German II 3
SPA 111 Elementary Spanish I 3
SPA 112 Elementary Spanish II 3
SPA 211 Intermediate Spanish I 3
SPA 212 Intermediate Spanish II 3

| Interdisciplinary |  |  |  |
| :---: | :---: | :--- | :--- |
| HUM | 110 | Technology and Society | 3 |
| HUM | 115 | Critical Thinking | 3 |
| HUM | 120 | Cultural Studies | 3 |
| HUM | 122 | Southern Culture | 3 |
| HUM | 130 | Myth in Human Culture | 3 |
| HUM | 150 | American Womens Studies | 3 |
| HUM | 160 | Introduction to Film | 3 |
| HUM | 161 | Advanced Film Studies | 3 |
| HUM | 211 | Humanities I | 3 |
| HUM | 212 | Humanities II | 3 |

## Music

MUS 110 Music Appreciation 3
MUS 113 American Music 3
MUS 210 History of Rock Music 3
MUS 212 American Musical Theatre 3
MUS 213 Opera and Musical Theatre 3

| Philosophy |  |  |  |
| :---: | :---: | :--- | :--- |
| PHI | 210 | History of Philosophy | 3 |
| PHI | 220 | Western Philosophy I | 3 |
| PHI | 221 | Western Philosophy II | 3 |
| PHI | 230 | Introduction to Logic | 3 |
| PHI | 240 | Introduction to Ethics | 3 |

Religion

| REL | 110 | World Religions | 3 |
| :--- | :--- | :--- | :--- |
| REL | 211 | Introduction to Old Testament | 3 |
| REL | 212 | Introduction to New Testament | 3 |
| REL | 221 | Religion in America | 3 |

## Speech and Communication

One of the following courses may substitute for three SHC of the humanities and fine arts requirement. Speech and communication courses may not substitute for the literature requirement.

| COM | 110 | Introduction to Communication | 3 |
| :--- | :--- | :--- | :--- |
| COM | 120 | Intro to Interpersonal Communication | 3 |
| COM | 231 | Public Speaking | 3 |

Social and Behavioral Sciences (12 SHC)
Take four courses from at least three of the following discipline areas:
At least one course must be a history course.

## History Requirement

Take one of the following courses.

| HIS | 111 | World Civilizations I | 3 |
| :--- | :--- | :--- | :--- |
| HIS | 112 | World Civilizations II | 3 |
| HIS | 115 | Intro to Global History | 3 |
| HIS | 121 | Western Civilization I | 3 |
| HIS | 122 | Western Civilization II | 3 |
| HIS | 131 | American History I | 3 |
| HIS | 132 | American History II | 3 |

## Pre-Major Requirement

The following courses are required.

| POL | 120 | American Government | 3 |
| :--- | :--- | :--- | :--- |
| PSY | 150 | General Psychology | 3 |
| SOC | 210 | Introduction to Sociology | 3 |

## Natural Science and Mathematics Requirement (14 SHC)

## Natural Sciences Requirement

Take one of the following sets.

| Set One |  |  |  |
| ---: | :--- | :--- | :--- |
| AST | 151 | General Astronomy I | 3 |
| AST | 151 A | General Astronomy I Lab | 1 |
| AST | 152 | General Astronomy II | 3 |
| AST | 152 A | General Astronomy II Lab | 1 |
| Set Two |  |  |  |
| BIO | 111 | General Biology I | 4 |
| BIO | 112 | General Biology II | 4 |
| Set Three |  |  |  |
| CHM | 131 | Introduction to Chemistry |  |
| CHM | 131 A | Introduction to Chemistry Lab | 3 |
| CHM | 132 | Organic and Biochemistry | 1 |
| Set Four |  |  | 4 |
| CHM | 151 | General Chemistry I |  |
| CHM | 152 | General Chemistry II | 4 |
| Set Five |  |  | 4 |
| PHY | 151 | College Physics I |  |
| PHY | 152 | College Physics II | 4 |
| Set Six |  |  | 4 |
| PHY | 251 | General Physics I | 4 |
| PHY | 252 | General Physics II | 4 |

## Mathematics Requirement

Take one course from each set below.
Students should check with the university of their choice to make sure that they complete the appropriate mathematics course.

## Introductory Mathematics

MAT 161 College Algebra 3
MAT 171 Precalculus Algebra 3
MAT 175 Precalculus 4
Second Mathematics
MAT 151 Statistics I
3

## Diploma Requirements

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)

## Required Courses

The following courses are required.

| CJC | 111 | Introduction to Criminal Justice | 3 |
| :--- | :--- | :--- | :--- |
| CJC | 121 | Law Enforcement Operations | 3 |
| CJC | 141 | Corrections | 3 |

## Elective Courses

Take 11 SHC from the following courses.

| ACC | 120 | Principles of Financial Accounting | 4 |
| :---: | :---: | :---: | :---: |
| ACC | 121 | Principles of Managerial Accounting | 4 |
| ANT | 220 | Cultural Anthropology | 3 |
| ANT | 221 | Comparative Cultures | 3 |
| ANT | 230 | Physical Anthropology | 3 |
| ANT | 230A | Physical Anthropology Lab | 1 |
| ANT | 240 | Archaeology | 3 |
| ANT | 240A | Archaeology Field Lab | 2 |
| ANT | 245 | World Prehistory | 3 |
| ART | 121 | Two-Dimensional Design | 3 |
| ART | 122 | Three-Dimensional Design | 3 |
| ART | 131 | Drawing I | 3 |
| ART | 132 | Drawing II | 3 |
| ART | 135 | Figure Drawing I | 3 |
| ART | 212 | Gallery Assistantship I | 1 |
| ART | 214 | Portfolio and Resume | 1 |
| ART | 235 | Figure Drawing II | 3 |
| ART | 240 | Painting I | 3 |
| ART | 241 | Painting II | 3 |
| ART | 244 | Watercolor | 3 |
| ART | 261 | Photography I | 3 |
| ART | 262 | Photography II | 3 |
| ART | 264 | Digital Photography I | 3 |
| ART | 265 | Digital Photography II | 3 |
| ART | 266 | Videography I | 3 |
| ART | 267 | Videography II | 3 |
| ART | 281 | Sculpture I | 3 |
| ART | 282 | Sculpture II | 3 |
| ART | 283 | Ceramics I | 3 |
| ART | 288 | Studio | 3 |
| AST | 111 | Descriptive Astronomy | 3 |
| AST | 111 A | Descriptive Astronomy Lab | 1 |
| AST | 251 | Observational Astronomy | 2 |
| BIO | 110 | Principles of Biology | 4 |
| BIO | 140 | Environmental Biology | 3 |
| BIO | 140A | Environmental Biology Lab | 1 |
| BIO | 163 | Basic Anatomy and Physiology | 5 |
| BIO | 168 | Anatomy and Physiology I | 4 |
| BIO | 169 | Anatomy and Physiology II | 4 |
| BIO | 250 | Genetics | 4 |
| BIO | 275 | Microbiology | 4 |
| BIO | 280 | Biotechnology | 3 |
| BUS | 110 | Introduction to Business | 3 |
| BUS | 115 | Business Law I | 3 |
| BUS | 137 | Principles of Management | 3 |
| CHM | 263 | Analytical Chemistry | 5 |


| CIS | 110 | Introduction to Computers | 3 |
| :---: | :---: | :---: | :---: |
| CIS | 115 | Intro to Programming and Logic | 3 |
| COM | 130 | Nonverbal Communication | 3 |
| COM | 140 | Intro. to Intercultural Communication | 3 |
| COM | 150 | Introduction to Mass Communication | 3 |
| COM | 160 | Small Group Communication | 3 |
| COM | 232 | Election Rhetoric | 3 |
| COM | 233 | Persuasive Speaking | 3 |
| COM | 251 | Debate I | 3 |
| COM | 252 | Debate II | 3 |
| CSC | 139 | Visual BASIC Programming | 3 |
| CSC | 151 | JAVA Programming | 3 |
| CSC | 239 | Advanced Visual BASIC Programming | 3 |
| DFT | 170 | Engineering Graphics | 3 |
| DRA | 130 | Acting I | 3 |
| DRA | 170 | Play Production I | 3 |
| ECO | 151 | Survey of Economics | 3 |
| ENG | 125 | Creative Writing I | 3 |
| ENG | 126 | Creative Writing II | 3 |
| ENG | 132 | Introduction to Drama | 3 |
| ENG | 235 | Survey of Film As Lit | 3 |
| ENG | 272 | Southern Literature | 3 |
| ENG | 273 | African-American Literature | 3 |
| ENG | 274 | Literature by Women | 3 |
| GEO | 121 | North Carolina Geography | 3 |
| HEA | 110 | Personal Health/Wellness | 3 |
| HIS | 162 | Women and History | 3 |
| HIS | 163 | The World Since 1945 | 3 |
| HIS | 226 | The Civil War | 3 |
| HIS | 236 | North Carolina History | 3 |
| HIS | 260 | History of Africa | 3 |
| JOU | 110 | Introduction to Journalism | 3 |
| JOU | 216 | Writing for Mass Media | 3 |
| JOU | 217 | Feature/Editorial Writing | 3 |
| JOU | 242 | Introduction to Multimedia | 3 |
| MAT | 151A | Statistics I Lab | 1 |
| MAT | 171A | Precalculus Algebra Lab | 1 |
| MAT | 172 | Precalculus Trigonometry | 3 |
| MAT | 172A | Precalculus Trigonometry Lab | 1 |
| MAT | 271 | Calculus I | 4 |
| MAT | 272 | Calculus II | 4 |
| MUS | 131 | Chorus I | 1 |
| PED | 110 | Fit and Well for Life | 2 |
| PED | 111 | Physical Fitness I | 1 |
| PED | 113 | Aerobics I | 1 |
| PED | 117 | Weight Training I | 1 |
| PED | 121 | Walk, Jog, Run | 1 |
| PED | 122 | Yoga I | 1 |
| PED | 128 | Golf-Beginning | 1 |
| PED | 142 | Lifetime Sports | 1 |
| PED | 217 | Pilates I | 1 |
| POL | 110 | Introduction to Political Science | 3 |
| POL | 130 | State and Local Government | 3 |
| POL | 210 | Comparative Government | 3 |
| POL | 220 | International Relations | 3 |


| PSY | 211 | Psychology of Adjustment | 3 |
| :--- | :--- | :--- | :--- |
| PSY | 215 | Positive Psychology | 3 |
| PSY | 231 | Forensic Psychology | 3 |
| PSY | 237 | Social Psychology | 3 |
| PSY | 239 | Psychology of Personality | 3 |
| PSY | 241 | Dev.al Psychology | 3 |
| PSY | 243 | Child Psychology | 3 |
| PSY | 246 | Adolescent Psychology | 3 |
| PSY | 249 | Psychology of Aging | 3 |
| PSY | 259 | Human Sexuality | 3 |
| PSY | 271 | Sports Psychology | 3 |
| PSY | 275 | Health Psychology | 3 |
| PSY | 281 | Abnormal Psychology | 3 |
| SOC | 213 | Sociology of the Family | 3 |
| SOC | 220 | Social Problems | 3 |
| SOC | 225 | Social Diversity | 3 |
| SOC | 234 | Sociology of Gender | 3 |
| SOC | 240 | Social Psychology | 3 |
| SOC | 242 | Sociology of Deviance | 3 |
| SOC | 245 | Drugs and Society | 3 |
| SOC | 250 | Sociology of Religion | 3 |

## Total semester hour credits to complete degree: 65

# Associate in Arts Pre-Major - Elementary Education (1010R) 

http://www.rccc.edu/catalog-2012-2013/?p=1826

## Description

This program is designed for students who intend to major in elementary education.
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 the link for The University of North Carolina located below under additional information. Students are encouraged to contact the senior institution to confirm degree offerings. Grade-point average requirements vary and admission is competitive across the several programs in elementary education.
Minimum statewide requirements are (1) Minimum 2.5 gradepoint average on a 4.0 scale. (2) Satisfactory passing scores as established by the State Board of Education on PRAXES 1 - PPST-Reading; PPST-Writing; PPST-Math. For information and registration for PRAXIS, use the Praxis link below under Additional information or contact a counselor in student services. Receiving institutions may have additional requirements, prerequisites, and/or proficiencies. Since these vary at receiving institutions, students should review the admission to teacher education requirements for the institution(s) they anticipate attending.

## Awards

- Associate in Arts Pre-Major Degree (A1010R)
- Diploma (D1010R)


## Additional Information

The University of North Carolina: A Multi-Campus University
http://www.northcarolina.edu/programs/index.php
Praxis
http://www.ets.org/praxis

## Contact Information

The Associate in Arts Pre-Major - Elementary Education (1010R) program is in the RCCC Department of Liberal Arts, Business Technologies and General Education. For additional information regarding this program, contact the dean, Carolyn Holbert (carolyn.holbert@rccc.edu).
The * symbol denotes a core course that may not be substituted.

## Associate in Arts Pre-Major Degree (A1010R)

http://www.rccc.edu/catalog-2012-2013/?p=1814

## Success and Study Skills Requirement (1 SHC)

The following success and study skills course must be taken in the first semester by all students pursuing this degree. This course may not transfer to a senior institution.

$$
\text { ACA } 122 \quad \text { College Transfer Success }
$$

## General Education Requirements (44 SHC)

## English Composition (6 SHC)

Take the following course.

$$
\text { ENG } 111 \quad \text { Expository Writing }
$$

Take one of the following courses.

| ENG | 112 | Argument-Based Research | 3 |
| :--- | :--- | :--- | :--- |
| ENG | 113 | Literature-Based Research | 3 |

## Humanities and Fine Arts (12 SHC)

Take four courses from at least three of the following discipline areas: literature, art, drama, foreign languages, interdisciplinary humanities, music, philosophy or religion.
At least one course must be a literature course.

## Literature Requirement

Take one of the following courses.

| ENG | 131 | Introduction to Literature | 3 |
| :--- | :--- | :--- | :--- |
| ENG | 231 | American Literature I | 3 |
| ENG | 232 | American Literature II | 3 |

## Pre-Major Requirement

The following course is required to substitute for 3 SHC of Humanities/Fine Arts.
COM 231 Public Speaking 3

Take one of the following Fine Arts courses.

| ART | 111 | Art Appreciation | 3 |
| :--- | :--- | :--- | :--- |
| ART | 114 | Art History Survey I | 3 |
| ART | 115 | Art History Survey II | 3 |
| MUS | 110 | Music Appreciation | 3 |

## Remaining Requirements

Take one course from any of the following discipline areas: art, foreign languages, interdisciplinary humanities, literature, music, philosophy or religion.

| Art |  | 3 |  |
| ---: | :--- | :--- | :--- |
| ART | 116 | Survey of American Art |  |
| Drama |  |  | 3 |
| DRA | 111 | Theatre Appreciation | 3 |
| DRA | 112 | Literature of the Theatre | 3 |
| DRA | 122 | Oral Interpretation | 3 |
| DRA | 126 | Storytelling |  |

Drama
DRA 111
DRA 112

DRA 126

Storytelling

| Foreign Languages |  |  |  |
| :---: | :---: | :---: | :---: |
| FRE | 111 | Elementary French I | 3 |
| FRE | 112 | Elementary French II | 3 |
| GER | 111 | Elementary German I | 3 |
| GER | 112 | Elementary German II | 3 |
| SPA | 111 | Elementary Spanish I | 3 |
| SPA | 112 | Elementary Spanish II | 3 |
| SPA | 211 | Intermediate Spanish I | 3 |
| SPA | 212 | Intermediate Spanish II | 3 |
| Interdisciplinary Humanities |  |  |  |
| HUM | 110 | Technology and Society | 3 |
| HUM | 115 | Critical Thinking | 3 |
| HUM | 120 | Cultural Studies | 3 |
| HUM | 122 | Southern Culture | 3 |
| HUM | 130 | Myth in Human Culture | 3 |
| HUM | 150 | American Womens Studies | 3 |
| HUM | 160 | Introduction to Film | 3 |
| HUM | 161 | Advanced Film Studies | 3 |
| HUM | 211 | Humanities I | 3 |
| HUM | 212 | Humanities II | 3 |
| Literature |  |  |  |
| ENG | 231 | American Literature I | 3 |
| ENG | 232 | American Literature II | 3 |
| ENG | 241 | British Literature I | 3 |
| ENG | 242 | British Literature II | 3 |
| ENG | 243 | Major British Writers | 3 |
| ENG | 251 | Western World Literature I | 3 |
| ENG | 252 | Western World Literature II | 3 |
| ENG | 261 | World Literature I | 3 |
| ENG | 262 | World Literature II | 3 |
| Music |  |  |  |
| MUS | 113 | American Music | 3 |
| MUS | 210 | History of Rock Music | 3 |
| MUS | 212 | American Musical Theatre | 3 |
| MUS | 213 | Opera and Musical Theatre | 3 |
| Philosophy |  |  |  |
| PHI | 210 | History of Philosophy | 3 |
| PHI | 220 | Western Philosophy I | 3 |
| PHI | 221 | Western Philosophy II | 3 |
| PHI | 230 | Introduction to Logic | 3 |
| PHI | 240 | Introduction to Ethics | 3 |
| Religion |  |  |  |
| REL | 110 | World Religions | 3 |
| REL | 211 | Introduction to Old Testament | 3 |
| REL | 212 | Introduction to New Testament | 3 |
| REL | 221 | Religion in America | 3 |

## Social and Behavioral Sciences (12 SHC)

Take four courses from at least three of the following discipline areas: history, anthropology, economics, geography, political science, psychology or sociology.
At least one course must be a history course.

## History Requirement

Take one of the following courses.

| HIS | 111 | World Civilizations I | 3 |
| :--- | :--- | :--- | :--- |
| HIS | 112 | World Civilizations II | 3 |
| HIS | 115 | Intro to Global History | 3 |
| HIS | 121 | Western Civilization I | 3 |
| HIS | 122 | Western Civilization II | 3 |

## Pre-Major Requirement

The following course if required. PSY 150 General Psychology

Take one of the following Sociology courses.

| SOC | 210 | Introduction to Sociology | 3 |
| :--- | :--- | :--- | :--- |
| SOC | 225 | Social Diversity | 3 |

## Remaining Requirements

Take one course from any of the following discipline areas: anthropology, economics, geography, history, political science, psychology or sociology.

| Anthropology |  |  |  |
| :---: | :---: | :---: | :---: |
| ANT | 210 | General Anthropology | 3 |
| ANT | 230 | Physical Anthropology | 3 |
| ANT | 230A | Physical Anthropology Lab | 1 |
| Economics |  |  |  |
| ECO | 251 | Principles of Microeconomics | 3 |
| ECO | 252 | Principles of Macroeconomics | 3 |
| Geography |  |  |  |
| GEO | 111 | World Regional Geography | 3 |
| GEO | 112 | Cultural Geography | 3 |
| GEO | 113 | Economic Geography | 3 |
| GEO | 130 | General Physical Geography | 3 |
| History |  |  |  |
| HIS | 131 | American History I | 3 |
| HIS | 132 | American History II | 3 |
| Political Science |  |  |  |
| POL | 110 | Introduction to Political Science | 3 |
| POL | 120 | American Government | 3 |
| POL | 210 | Comparative Government | 3 |
| POL | 220 | International Relations | 3 |
| Psychology |  |  |  |
| PSY | 237 | Social Psychology | 3 |
| PSY | 239 | Psychology of Personality | 3 |
| PSY | 241 | Dev.al Psychology | 3 |
| PSY | 281 | Abnormal Psychology | 3 |

ANT 230 Physical Anthropology 3
ANT 230A Physical Anthropology Lab
Economics
Principles of Microeconomics
ECO 252
Principles of Macroeconomics
3

Geography
GEO 111 World Regional Geography 3
GEO 112 Cultural Geography 3
GEO 113 Economic Geography 3
GEO 130 General Physical Geography 3
History
HIS 131 American History I 3
HIS 132 American History II 3
Political Science
POL 110 Introduction to Political Science 3
POL 120 American Government 3
POL 210 Comparative Government 3
POL 220 International Relations 3
Psychology

| Sociology |  |  |  |
| :---: | :--- | :--- | :--- |
| SOC | 210 | Introduction to Sociology | 3 |
| SOC | 213 | Sociology of the Family | 3 |
| SOC | 220 | Social Problems | 3 |
| SOC | 225 | Social Diversity | 3 |
| SOC | 230 | Race and Ethnic Relations | 3 |
| SOC | 240 | Social Psychology | 3 |

## Natural Science and Mathematics Requirement (14 SHC)

## Biology Requirement

Take one of the following courses.

| BIO | 110 | Principles of Biology | 4 |
| :--- | :--- | :--- | :--- |
| BIO | 111 | General Biology I | 4 |

## Natural Sciences Requirement

Take one of the following sets.

| Set One |  |  |  |
| :---: | :---: | :---: | :---: |
| AST | 111 | Descriptive Astronomy | 3 |
| AST | 111 A | Descriptive Astronomy Lab | 1 |
| Set Two |  |  |  |
| CHM | 131 | Introduction to Chemistry | 3 |
| CHM | 131A | Introduction to Chemistry Lab | 1 |
| Set Three |  |  |  |
| CHM | 151 | General Chemistry I | 4 |
| Set Four |  |  |  |
| PHY | 110 | Conceptual Physics | 3 |
| PHY | 110A | Conceptual Physics Lab | 1 |
| Set Five |  |  |  |
| PHY | 151 | College Physics I | 4 |

## Diploma Requirements

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)

It is recommended that within the 20 SHC of Other Required Hours, pre-education students in Elementary Education select courses that will help meet a corollary studies area. These courses should be selected in conjunction with the requirements at each university, since available corollary studies may not be offered on each university campus. Corollary Studies are comprised of a minimum of eighteen hours of community college or UNC campuses' coursework in a choice of four interdiscipinary areas: (1) diversity studies, (2) global issues, (3) the arts, or (4) math, science and technology. Satisfying the UNC Board of Governors' requirement for an academic concentration, corollary studies are appropriate for expanding and deepening the pre-service elementary teacher's knowledge, appreciation and skills in the areas appropriate to the elementary school classroom and curriculum. The following recommended courses in these corollary studies may be taken as general education or as Other Required Hours.

## Recommended Courses for Corollary Studies Areas

## Diversity Studies

A minimum 18-hour multidisciplinary area of corollary studies that increases the pre-service teacher's knowledge of, respect for, and skills in working with students, families, and communities of diverse abilities, languages, races, and cultural backgrounds. Select courses from a minimum of two and a maximum of three different prefixes (fields) as listed below.
Universities may add diversity studies courses to this list with courses they have available and deem appropriate.
ANT 210 General Anthropology 3
ANT 220 Cultural Anthropology 3
ANT 221 Comparative Cultures 3
COM 120 Intro to Interpersonal Communication 3
COM 140 Intro. to Intercultural Communication 3
DRA 126 Storytelling 3
ENG 261 World Literature I 3
ENG 262 World Literature II 3
ENG 273 African-American Literature 3

GEO 112 Cultural Geography 3
HIS 226 The Civil War 3
HIS 260 History of Africa 3
HUM 120 Cultural Studies 3
HUM 122 Southern Culture 3
HUM 150 American Womens Studies 3
PSY 211 Psychology of Adjustment 3
PSY 237 Social Psychology 3
PSY 241 Dev.al Psychology 3
PSY 243 Child Psychology 3
PSY 246 Adolescent Psychology 3
PSY 259 Human Sexuality 3
PSY 275 Health Psychology 3
PSY 281 Abnormal Psychology 3
REL 110 World Religions 3
REL 221 Religion in America 3
SOC 213 Sociology of the Family 3
SOC 220 Social Problems 3
SOC 225 Social Diversity 3
SOC 230 Race and Ethnic Relations 3
SOC 234 Sociology of Gender 3
SOC 240 Social Psychology 3
SOC 242 Sociology of Deviance 3
SPA 211 Intermediate Spanish I 3
SPA 212 Intermediate Spanish II 3

## Global Issues

A minimum 18-hour multidisciplinary Global Issues area of corollary studies that encompasses courses with a common theme of providing insight into the human condition in the world. The corollary studies area of Global issues will increase the pre-service teacher's knowledge and understanding of the world in which we live and contemporary issues affecting the world. Courses addressing a particular region in the world or courses about a particular historical period were not included. The perception of a global issue is subjective and courses included in this area may change over time. Select courses from a minimum of two and a maximum of three different prefixes (fields) as listed below.
Universities may add global issues courses to this list with courses they have available and deem appropriate.

| ANT | 220 | Cultural Anthropology | 3 |
| :--- | :--- | :--- | :--- |
| ANT | 221 | Comparative Cultures | 3 |
| ECO | 252 | Principles of Macroeconomics | 3 |
| GEO | 111 | World Regional Geography | 3 |
| GEO | 112 | Cultural Geography | 3 |
| GEO | 113 | Economic Geography | 3 |
| HIS | 115 | Intro to Global History | 3 |
| HUM | 110 | Technology and Society | 3 |
| HUM | 211 | Humanities I | 3 |
| HUM | 212 | Humanities II | 3 |
| PHI | 240 | Introduction to Ethics | 3 |
| POL | 210 | Comparative Government | 3 |
| POL | 220 | International Relations | 3 |
| REL | 110 | World Religions | 3 |
| SOC | 220 | Social Problems | 3 |

## The Arts

A minimum 18-hour area of corollary studies in the Arts will increase the pre-service teacher's knowledge and appreciation of the visual and performing arts and their history. Pre-service teachers who select this area of corollary studies will be prepared to use the Arts to further children's understanding of the world, of diverse cultures, and of multiple ways of constructing knowledge and expressing themselves. Students will choose a minimum of eighteen hours of coursework from the approved lists. Their selections must be drawn from a minimum of two and a maximum of three prefixes (categories/disciplines) across the following two lists. Students may choose up to 6 hours of coursework from List II. The remaining coursework (12-18 hours) must be from List I.

Universities may add the arts courses to this list with courses they have available and deem appropriate.
Non-applied courses - Take 12-18 SHC from the following courses.

| ART | 111 | Art Appreciation | 3 |
| :--- | :--- | :--- | :--- |
| ART | 114 | Art History Survey I | 3 |
| ART | 115 | Art History Survey II | 3 |
| ART | 116 | Survey of American Art | 3 |
| DRA | 111 | Theatre Appreciation | 3 |
| DRA | 112 | Literature of the Theatre | 3 |
| DRA | 122 | Oral Interpretation | 3 |
| DRA | 126 | Storytelling | 3 |
| MUS | 110 | Music Appreciation | 3 |
| MUS | 113 | American Music | 3 |

Applied/Skilled/Ensemble Courses - Take up to 6 SHC from the following courses.

| ART | 121 | Two-Dimensional Design | 3 |
| :--- | :--- | :--- | :--- |
| ART | 122 | Three-Dimensional Design | 3 |
| ART | 131 | Drawing I | 3 |
| ART | 132 | Drawing II | 3 |
| ART | 240 | Painting I | 3 |
| ART | 241 | Painting II | 3 |
| ART | 244 | Watercolor | 3 |
| ART | 261 | Photography I | 3 |
| ART | 262 | Photography II | 3 |
| ART | 281 | Sculpture I | 3 |
| ART | 282 | Sculpture II | 3 |
| ART | 283 | Ceramics I | 3 |
| DRA | 130 | Acting I | 3 |
| MUS | 131 | Chorus I | 1 |

## Math, Science and Technology

A minimum 18-hour multidisciplinary area of corollary studies that increases the pre-service teacher's knowledge of, respect for, and skills in the areas of math, science and technology and their interconnectedness. Select courses from a minimum of two and a maximum of three different prefixes (fields) as listed below.
(Math lab credit hours are not included in the 18-hour concentration, e.g. 151A.)
Universities may add math, science and technology courses to this list with courses they have available and deem appropriate.

| AST | 111 | Descriptive Astronomy | 3 |
| :--- | :--- | :--- | :--- |
| AST | 151 | General Astronomy I | 3 |
| AST | 152 | General Astronomy II | 3 |
| AST | 251 | Observational Astronomy | 2 |
| BIO | 110 | Principles of Biology | 4 |
| BIO | 111 | General Biology I | 4 |
| BIO | 112 | General Biology II | 4 |
| BIO | 140 | Environmental Biology | 3 |
| BIO | 163 | Basic Anatomy and Physiology | 5 |
| BIO | 168 | Anatomy and Physiology I | 4 |
| BIO | 169 | Anatomy and Physiology II | 4 |
| BIO | 250 | Genetics | 4 |
| BIO | 275 | Microbiology | 4 |
| BIO | 280 | Biotechnology | 3 |
| CHM | 131 | Introduction to Chemistry | 3 |
| CHM | 132 | Organic and Biochemistry | 4 |
| CHM | 151 | General Chemistry I | 4 |
| CHM | 152 | General Chemistry II | 4 |
| CIS | 110 | Introduction to Computers | 3 |
| CIS | 115 | Intro to Programming and Logic | 3 |
| HUM | 110 | Technology and Society | 3 |
| MAT | 140 | Survey of Mathematics | 3 |
| MAT | 151 | Statistics I | 3 |
| MAT | 161 | College Algebra | 3 |
| MAT | 171 | Precalculus Algebra | 3 |
| MAT | 172 | Precalculus Trigonometry | 3 |
| MAT | 175 | Precalculus | 4 |
| MAT | 263 | Brief Calculus | 3 |
| MAT | 271 | Calculus I | 4 |
| MAT | 272 | Calculus II | 4 |
|  |  |  |  |


| MAT | 273 | Calculus III | 4 |
| :--- | :--- | :--- | :--- |
| PHI | 230 | Introduction to Logic | 3 |
| PHY | 110 | Conceptual Physics | 3 |
| PHY | 151 | College Physics I | 4 |
| PHY | 152 | College Physics II | 4 |
| PHY | 251 | General Physics I | 4 |
| PHY | 252 | General Physics II | 4 |

## Electives

Take 2 SHC from the following courses.

| MAT | 151 A | Statistics I Lab | 1 |
| :--- | :--- | :--- | :--- |
| MAT | 171 A | Precalculus Algebra Lab | 1 |
| MAT | 172 A | Precalculus Trigonometry Lab | 1 |
| MUS | 131 | Chorus I | 1 |
| PED | 110 | Fit and Well for Life | 2 |
| PED | 111 | Physical Fitness I | 1 |
| PED | 113 | Aerobics I | 1 |
| PED | 117 | Weight Training I | 1 |
| PED | 121 | Walk, Jog, Run | 1 |
| PED | 122 | Yoga I | 1 |
| PED | 128 | Golf-Beginning | 1 |
| PED | 142 | Lifetime Sports | 1 |
| PED | 217 | Pilates I | 1 |

Total semester hour credits to complete degree: 65

# Associate in Arts Pre-Major - History (1010H) 

http://www.rccc.edu/catalog-2012-2013/?p=1608

## Description

This program is designed for students who intend to major in history. Students who successfully complete this course of study and who meet the requirements for admission to the university are eligible to apply for admission to the major with junior standing. 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 the University of North Carolina link under additional information. Students are encouraged to contact the senior institution to confirm degree offerings. Grade-point average requirements vary and admission is competitive across the several programs in history.

## Awards

- Associate in Arts Pre-Major Degree (A1010H)
- Diploma (D1010H)


## Additional Information

The University of North Carolina: A Multi-Campus University
http://www.northcarolina.edu/programs/index.php

## Contact Information

The Associate in Arts Pre-Major - History (1010H) program is in the RCCC Department of Liberal Arts, Business Technologies and General Education. For additional information regarding this program, contact the program chair, Robin Satterwhite (robin. satterwhite@rccc.edu).
The * symbol denotes a core course that may not be substituted.

## Associate in Arts Pre-Major Degree (A1010H)

http://www.rccc.edu/catalog-2012-2013/?p=1610

## Success and Study Skills Requirement (1 SHC)

The following success and study skills course must be taken in the first semester by all students pursuing this degree. This course may not transfer to a senior institution.

ACA 122 College Transfer Success 1

General Education Requirements (44 SHC)
English Composition (6 SHC)
Take the following course.
ENG 111 Expository Writing 3
Take one of the following courses.

| ENG | 112 | Argument-Based Research | 3 |
| :--- | :--- | :--- | :--- |
| ENG | 113 | Literature-Based Research | 3 |
| ENG | 114 | Professional Research and Reporting | 3 |

## Humanities and Fine Arts (12 SHC)

Take four courses from at least three of the following discipline areas: art, drama, foreign languages, interdisciplinary humanities, literature, music, philosophy or religion.
At least one course must be a literature course.

## Literature

| ENG | 131 | Introduction to Literature | 3 |
| :--- | :--- | :--- | :--- |
| ENG | 231 | American Literature I | 3 |
| ENG | 232 | American Literature II | 3 |
| ENG | 241 | British Literature I | 3 |
| ENG | 242 | British Literature II | 3 |
| ENG | 243 | Major British Writers | 3 |
| ENG | 251 | Western World Literature I | 3 |
| ENG | 252 | Western World Literature II | 3 |
| ENG | 261 | World Literature I | 3 |
| ENG | 262 | World Literature II | 3 |

Art
ART 111 Art Appreciation 3
ART 114 Art History Survey I 3
ART 115
Art History Survey II
ART 116
Survey of American Art

## Drama

DRA 111 Theatre Appreciation 3
DRA 112 Literature of the Theatre 3
DRA 122 Oral Interpretation 3
DRA 126 Storytelling 3
Foreign Languages
FRE 111 Elementary French I 3
FRE 112 Elementary French II 3
GER 111 Elementary German I 3
GER 112 Elementary German II 3
SPA 111 Elementary Spanish I 3
SPA 112 Elementary Spanish II 3
SPA 211 Intermediate Spanish I 3
SPA 212 Intermediate Spanish II 3
$\begin{array}{ll}\text { Interdisciplinary } \\ \text { HUM Humanities } & 110\end{array}$
HUM 115 Critical Thinking 3
HUM 120 Cultural Studies 3
HUM 122 Southern Culture 3
HUM 130 Myth in Human Culture 3
HUM 150 American Womens Studies 3
HUM 160 Introduction to Film 3

| HUM | 161 | Advanced Film Studies | 3 |
| :---: | :--- | :--- | :--- |
| HUM | 211 | Humanities I |  |
| HUM | 212 | Humanities II | 3 |
| Music |  |  | 3 |
| MUS | 110 | Music Appreciation | 3 |
| MUS | 113 | American Music | 3 |
| MUS | 210 | History of Rock Music | 3 |
| MUS | 212 | American Musical Theatre | 3 |
| MUS | 213 | Opera and Musical Theatre | 3 |
|  |  |  |  |
| Philosophy |  | 3 |  |
| PHI | 210 | History of Philosophy | 3 |
| PHI | 220 | Western Philosophy I | 3 |
| PHI | 221 | Western Philosophy II | 3 |
| PHI | 230 | Introduction to Logic | 3 |
| PHI | 240 | Introduction to Ethics |  |
| Religion |  |  | 3 |
| REL | 110 | World Religions | 3 |
| REL | 211 | Introduction to Old Testament | 3 |
| REL | 212 | Introduction to New Testament | 3 |
| REL | 221 | Religion in America | 3 |

## Speech and Communication

One of the following courses may substitute for three SHC of the humanities and fine arts requirement. Speech and communication courses may not substitute for the literature requirement.

| COM | 110 | Introduction to Communication | 3 |
| :--- | :--- | :--- | :--- |
| COM | 120 | Intro to Interpersonal Communication | 3 |
| COM | 231 | Public Speaking | 3 |

## Social and Behavioral Sciences (12 SHC)

Take four courses from at least three of the following discipline areas: anthropology, economics, geography, political science, psychology or sociology.
At least one course must be a history course.

## History Requirement

Take one of the following sequences.

| Sequence One |  |  |  |
| :---: | :---: | :--- | :--- |
| HIS | 111 | World Civilizations I | 3 |
| HIS | 112 | World Civilizations II | 3 |
|  |  |  | 3 |
| Sequence Two |  |  |  |
| HIS | 121 | Western Civilization I | 3 |

## Remaining Requirements

Take two courses from two of the following discipline areas: anthropology, economics, geography, history, political science, psychology or sociology.

| Anthropology |  |  |  |
| :---: | :---: | :---: | :---: |
| ANT | 210 | General Anthropology | 3 |
| ANT | 220 | Cultural Anthropology | 3 |
| ANT | 221 | Comparative Cultures | 3 |
| ANT | 230 | Physical Anthropology | 3 |
| ANT | 230A | Physical Anthropology Lab | 1 |
| ANT | 240 | Archaeology | 3 |
| Economics |  |  |  |
| ECO | 251 | Principles of Microeconomics | 3 |
| ECO | 252 | Principles of Macroeconomics | 3 |
| Geography |  |  |  |
| GEO | 111 | World Regional Geography | 3 |
| GEO | 112 | Cultural Geography | 3 |
| GEO | 113 | Economic Geography | 3 |
| GEO | 130 | General Physical Geography | 3 |
| Political Science |  |  |  |
| POL | 110 | Introduction to Political Science | 3 |
| POL | 120 | American Government | 3 |
| POL | 210 | Comparative Government | 3 |
| POL | 220 | International Relations | 3 |
| Psychology |  |  |  |
| PSY | 150 | General Psychology | 3 |
| PSY | 237 | Social Psychology | 3 |
| PSY | 239 | Psychology of Personality | 3 |
| PSY | 241 | Dev.al Psychology | 3 |
| PSY | 281 | Abnormal Psychology | 3 |
| Sociology |  |  |  |
| SOC | 210 | Introduction to Sociology | 3 |
| SOC | 213 | Sociology of the Family | 3 |
| SOC | 220 | Social Problems | 3 |
| SOC | 225 | Social Diversity | 3 |
| SOC | 230 | Race and Ethnic Relations | 3 |
| SOC | 240 | Social Psychology | 3 |

## Natural Science and Mathematics Requirement (14 SHC)

## Natural Sciences Requirement

Take one of the following sets.

## Set One

AST 151 General Astronomy I 3
AST 151 A General Astronomy I Lab 1
AST 152 General Astronomy II 3
AST 152 A General Astronomy II Lab 1
Set Two

| BIO | 111 | General Biology I | 4 |
| :--- | :--- | :--- | :--- |
| BIO | 112 | General Biology II | 4 |


| Set Three |  |  |  |
| :---: | :---: | :---: | :---: |
| CHM | 131 | Introduction to Chemistry | 3 |
| CHM | 131A | Introduction to Chemistry Lab | 1 |
| CHM | 132 | Organic and Biochemistry | 4 |
| Set Four |  |  |  |
| CHM | 151 | General Chemistry I | 4 |
| CHM | 152 | General Chemistry II | 4 |
| Set Five |  |  |  |
| PHY | 151 | College Physics I | 4 |
| PHY | 152 | College Physics II | 4 |
| Mathematics Requirement |  |  |  |
| Take one course from each set below. |  |  |  |
| Students should check with the university of their choice to make sure that they complete the appropriate mathematics course. |  |  |  |
| Introductory Mathematics |  |  |  |
| MAT | 161 | College Algebra | 3 |
| MAT | 171 | Precalculus Algebra | 3 |
| MAT | 175 | Precalculus | 4 |
| Second Mathematics |  |  |  |
| CIS | 110 | Introduction to Computers | 3 |
| CIS | 115 | Intro to Programming and Logic | 3 |
| MAT | 151 | Statistics I | 3 |
| MAT | 172 | Precalculus Trigonometry | 3 |
| MAT | 263 | Brief Calculus | 3 |
| MAT | 271 | Calculus I | 4 |

## Diploma Requirements

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. Any courses not taken to satisfy the general education core requirement may be taken to satisfy the Other Required Hours. HIS 131 and HIS 132 are recommended.

| ACC | 120 | Principles of Financial Accounting | 4 |
| :--- | :--- | :--- | :--- |
| ACC | 121 | Principles of Managerial Accounting | 4 |
| ANT | 240 A | Archaeology Field Lab | 2 |
| ANT | 245 | World Prehistory | 3 |
| ART | 121 | Two-Dimensional Design | 3 |
| ART | 122 | Three-Dimensional Design | 3 |
| ART | 131 | Drawing I | 3 |
| ART | 132 | Drawing II | 3 |
| ART | 135 | Figure Drawing I | 3 |
| ART | 212 | Gallery Assistantship I | 1 |
| ART | 214 | Portfolio and Resume | 1 |
| ART | 235 | Figure Drawing II | 3 |
| ART | 240 | Painting I | 3 |
| ART | 241 | Painting II | 3 |
| ART | 244 | Watercolor | 3 |
| ART | 261 | Photography I | 3 |
| ART | 262 | Photography II | 3 |


| ART | 264 | Digital Photography I | 3 |
| :---: | :---: | :---: | :---: |
| ART | 265 | Digital Photography II | 3 |
| ART | 266 | Videography I | 3 |
| ART | 267 | Videography II | 3 |
| ART | 281 | Sculpture I | 3 |
| ART | 282 | Sculpture II | 3 |
| ART | 283 | Ceramics I | 3 |
| ART | 288 | Studio | 3 |
| AST | 111 | Descriptive Astronomy | 3 |
| AST | 111 A | Descriptive Astronomy Lab | 1 |
| AST | 251 | Observational Astronomy | 2 |
| BIO | 140 | Environmental Biology | 3 |
| BIO | 140A | Environmental Biology Lab | 1 |
| BIO | 163 | Basic Anatomy and Physiology | 5 |
| BIO | 168 | Anatomy and Physiology I | 4 |
| BIO | 169 | Anatomy and Physiology II | 4 |
| BIO | 250 | Genetics | 4 |
| BIO | 275 | Microbiology | 4 |
| BIO | 280 | Biotechnology | 3 |
| BUS | 110 | Introduction to Business | 3 |
| BUS | 115 | Business Law I | 3 |
| BUS | 137 | Principles of Management | 3 |
| CHM | 263 | Analytical Chemistry | 5 |
| CJC | 111 | Introduction to Criminal Justice | 3 |
| CJC | 121 | Law Enforcement Operations | 3 |
| CJC | 141 | Corrections | 3 |
| COM | 130 | Nonverbal Communication | 3 |
| COM | 140 | Intro. to Intercultural Communication | 3 |
| COM | 150 | Introduction to Mass Communication | 3 |
| COM | 160 | Small Group Communication | 3 |
| COM | 232 | Election Rhetoric | 3 |
| COM | 233 | Persuasive Speaking | 3 |
| COM | 251 | Debate I | 3 |
| COM | 252 | Debate II | 3 |
| CSC | 139 | Visual BASIC Programming | 3 |
| CSC | 151 | JAVA Programming | 3 |
| CSC | 239 | Advanced Visual BASIC Programming | 3 |
| DFT | 170 | Engineering Graphics | 3 |
| DRA | 130 | Acting I | 3 |
| DRA | 170 | Play Production I | 3 |
| ECO | 151 | Survey of Economics | 3 |
| ENG | 125 | Creative Writing I | 3 |
| ENG | 126 | Creative Writing II | 3 |
| ENG | 132 | Introduction to Drama | 3 |
| ENG | 235 | Survey of Film As Lit | 3 |
| ENG | 272 | Southern Literature | 3 |
| ENG | 273 | African-American Literature | 3 |
| ENG | 274 | Literature by Women | 3 |
| GEO | 121 | North Carolina Geography | 3 |
| HEA | 110 | Personal Health/Wellness | 3 |
| HIS | 115 | Intro to Global History | 3 |
| HIS | 131 | American History I | 3 |
| HIS | 132 | American History II | 3 |
| HIS | 162 | Women and History | 3 |
| HIS | 163 | The World Since 1945 | 3 |


| HIS | 226 | The Civil War | 3 |
| :---: | :---: | :---: | :---: |
| HIS | 236 | North Carolina History | 3 |
| HIS | 260 | History of Africa | 3 |
| JOU | 110 | Introduction to Journalism | 3 |
| JOU | 216 | Writing for Mass Media | 3 |
| JOU | 217 | Feature/Editorial Writing | 3 |
| JOU | 242 | Introduction to Multimedia | 3 |
| MAT | 151A | Statistics I Lab | 1 |
| MAT | 171A | Precalculus Algebra Lab | 1 |
| MAT | 172A | Precalculus Trigonometry Lab | 1 |
| MAT | 272 | Calculus II | 4 |
| MAT | 273 | Calculus III | 4 |
| MUS | 131 | Chorus I | 1 |
| PED | 110 | Fit and Well for Life | 2 |
| PED | 111 | Physical Fitness I | 1 |
| PED | 113 | Aerobics I | 1 |
| PED | 117 | Weight Training I | 1 |
| PED | 121 | Walk, Jog, Run | 1 |
| PED | 122 | Yoga I | 1 |
| PED | 128 | Golf-Beginning | 1 |
| PED | 142 | Lifetime Sports | 1 |
| PED | 217 | Pilates I | 1 |
| PHY | 110 | Conceptual Physics | 3 |
| PHY | 110A | Conceptual Physics Lab | 1 |
| POL | 130 | State and Local Government | 3 |
| PSY | 211 | Psychology of Adjustment | 3 |
| PSY | 215 | Positive Psychology | 3 |
| PSY | 231 | Forensic Psychology | 3 |
| PSY | 243 | Child Psychology | 3 |
| PSY | 246 | Adolescent Psychology | 3 |
| PSY | 249 | Psychology of Aging | 3 |
| PSY | 259 | Human Sexuality | 3 |
| PSY | 271 | Sports Psychology | 3 |
| PSY | 275 | Health Psychology | 3 |
| SOC | 234 | Sociology of Gender | 3 |
| SOC | 242 | Sociology of Deviance | 3 |
| SOC | 245 | Drugs and Society | 3 |
| SOC | 250 | Sociology of Religion | 3 |

Total semester hour credits to complete degree: 65

# Associate in Arts Pre-Major - Middle Grades Education (1011A) 

http://www.rccc.edu/catalog-2012-2013/?p=1810

## Description

This program is designed for students who intend to major in middle grades education.
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, studens 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 the link for The University of North Carolina located below under additional information. Students are encouraged to contact the senior institution to confirm degree offerings.
Grade-point average requirements vary and admission is competitive across the educational programs.

## Awards

- Associate in Arts Pre-Major Degree (A1011A)
- Diploma (D1011A)


## Additional Information

The University of North Carolina: A Multi-Campus University
http://www.northcarolina.edu/programs/index.php

## Contact Information

The Associate in Arts Pre-Major - Middle Grades Education (1011A) program is in the RCCC Department of Liberal Arts, Business Technologies and General Education. For additional information regarding this program, contact the dean, Carolyn Holbert (carolyn.holbert@rccc.edu).
The * symbol denotes a core course that may not be substituted.

## Associate in Arts Pre-Major Degree (A1011A)

http://www.rccc.edu/catalog-2012-2013/?p=1777

## Success and Study Skills Requirement (1 SHC)

The following success and study skills course must be taken in the first semester by all students pursuing this degree. This course may not transfer to a senior institution.

ACA 122 College Transfer Success

## General Education Requirements (44 SHC)

## English Composition (6 SHC)

Take the following course.
ENG 111 Expository Writing 3
Take one of the following courses.

| ENG | 112 | Argument-Based Research | 3 |
| :--- | :--- | :--- | :--- |
| ENG | 113 | Literature-Based Research | 3 |
| ENG | 114 | Professional Research and Reporting | 3 |

## Humanities and Fine Arts (12 SHC)

Take four courses from at least three of the following discipline areas: literature, interdisciplinary humanities, philosophy or religion.
At least one course must be a literature course.

## Literature Requirement

Take one of the following courses.

| ENG | 131 | Introduction to Literature | 3 |
| :--- | :--- | :--- | :--- |
| ENG | 231 | American Literature I | 3 |
| ENG | 232 | American Literature II | 3 |

## Pre-Major Requirement

The following course is required to substitute for 3 SHC of Humanities/Fine Arts.

COM $231 \quad$ Public Speaking
Take one of the following fine arts courses.

| ART | 111 | Art Appreciation | 3 |
| :--- | :--- | :--- | :--- |
| ART | 114 | Art History Survey I | 3 |
| ART | 115 | Art History Survey II | 3 |
| MUS | 110 | Music Appreciation | 3 |

## Remaining Requirements

Take one course from any of the following discipline areas: art, foreign languages, interdisciplinary humanities, literature, music, philosophy or religion.

## Interdisciplinary Humanities

HUM 110 Technology and Society 3

HUM 115 Critical Thinking 3
HUM 120 Cultural Studies 3
HUM 122 Southern Culture 3
HUM 130 Myth in Human Culture 3
HUM 150 American Womens Studies 3
HUM 160 Introduction to Film 3
HUM 161 Advanced Film Studies 3
HUM 211 Humanities I 3
HUM 212 Humanities II 3
Literature
ENG 231 American Literature I 3
ENG 232 American Literature II 3
ENG 241 British Literature I 3
ENG 242 British Literature II 3
ENG 243 Major British Writers 3
ENG 251 Western World Literature I 3

| ENG | 252 | Western World Literature II | 3 |
| :---: | :--- | :--- | :--- |
| ENG | 261 | World Literature I | 3 |
| ENG | 262 | World Literature II | 3 |
| Philosophy |  |  |  |
| PHI | 210 | History of Philosophy | 3 |
| PHI | 220 | Western Philosophy I | 3 |
| PHI | 221 | Western Philosophy II | 3 |
| PHI | 230 | Introduction to Logic | 3 |
| PHI | 240 | Introduction to Ethics | 3 |
| Religion |  |  |  |
| REL | 110 | World Religions | 3 |
| REL | 211 | Introduction to Old Testament | 3 |
| REL | 212 | Introduction to New Testament | 3 |
| REL | 221 | Religion in America | 3 |

## Social and Behavioral Sciences (12 SHC)

Take four courses from at least three of the following discipline areas: history, anthropology, economics, geography, political science, psychology or sociology.

## At least one course must be a history course.

## History Requirement

Take one of the following courses.

| HIS | 111 | World Civilizations I | 3 |
| :--- | :--- | :--- | :--- |
| HIS | 112 | World Civilizations II | 3 |
| HIS | 115 | Intro to Global History | 3 |
| HIS | 121 | Western Civilization I | 3 |
| HIS | 122 | Western Civilization II | 3 |

## Pre-Major Requirement

The following course is required. PSY 150 General Psychology

Take one of the following sociology courses.

| SOC | 210 | Introduction to Sociology | 3 |
| :--- | :--- | :--- | :--- |
| SOC | 225 | Social Diversity | 3 |

## Remaining Requirements

Take one course from any of the following discipline areas: anthropology, economics, geography, history, political science, psychology or sociology.

| Anthropology |  |  |  |
| :---: | :--- | :--- | :--- |
| ANT | 210 | General Anthropology | 3 |
| ANT | 220 | Cultural Anthropology | 3 |
| ANT | 221 | Comparative Cultures | 3 |
| ANT | 230 | Physical Anthropology | 3 |
| ANT 230A | Physical Anthropology Lab | 1 |  |
| Economics |  |  |  |
| ECO 251 | Principles of Microeconomics | 3 |  |
| ECO 252 | Principles of Macroeconomics | 3 |  |


| Geography |  |  |  |
| :---: | :---: | :---: | :---: |
| GEO | 111 | World Regional Geography | 3 |
| GEO | 112 | Cultural Geography | 3 |
| GEO | 113 | Economic Geography | 3 |
| GEO | 130 | General Physical Geography | 3 |
| History |  |  |  |
| HIS | 131 | American History I | 3 |
| HIS | 132 | American History II | 3 |
| Political Science |  |  |  |
| POL | 110 | Introduction to Political Science | 3 |
| POL | 120 | American Government | 3 |
| POL | 210 | Comparative Government | 3 |
| POL | 220 | International Relations | 3 |
| Psychology |  |  |  |
| PSY | 237 | Social Psychology | 3 |
| PSY | 239 | Psychology of Personality | 3 |
| PSY | 241 | Dev.al Psychology | 3 |
| PSY | 281 | Abnormal Psychology | 3 |
| Sociology |  |  |  |
| SOC | 210 | Introduction to Sociology | 3 |
| SOC | 213 | Sociology of the Family | 3 |
| SOC | 220 | Social Problems | 3 |
| SOC | 225 | Social Diversity | 3 |
| SOC | 230 | Race and Ethnic Relations | 3 |
| SOC | 240 | Social Psychology | 3 |

## Natural Science and Mathematics Requirement (14 SHC)

## Biology Requirement

Take one of the following courses.

| BIO | 110 | Principles of Biology | 4 |
| :--- | :--- | :--- | :--- |
| BIO | 111 | General Biology I | 4 |

## Natural Sciences Requirement

Take one of the following sets.

| Set One |  |  |  |
| ---: | :--- | :--- | :--- |
| CHM | 131 | Introduction to Chemistry | 3 |
| CHM | 131 A | Introduction to Chemistry Lab | 1 |
| Set Two |  |  |  |
| CHM | 151 | General Chemistry I | 4 |
| Set Three |  | 3 |  |
| PHY | 110 | Conceptual Physics |  |
| PHY 110A | Conceptual Physics Lab | 1 |  |
| Set Four |  |  |  |
| PHY 151 | College Physics I | 4 |  |

## Mathematics Requirement

Take one course from each set below.
Students should check with the university of their choice to make sure that they complete the appropriate mathematics course.

| Set One <br> CIS | 110 | Introduction to Computers | 3 |
| ---: | :--- | :--- | :--- |
| Set Two |  |  |  |
| MAT | 161 | College Algebra | 3 |
| MAT | 171 | Precalculus Algebra | 3 |

## Diploma Requirements

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. It is recommended that within the 20 SHC of Other Required Hours pre-education students in Middle Grades Education select courses that will help meet two of the four corollary studies areas (Mathematics, Social Studies, Science, and Language Arts) in order to be consistent with NC licensure areas. These courses should be selected in conjunction with the requirements at each university. It is recommended the pre-major Middle Grades Education students should not choose additional courses in Art, Communications, Foreign Languages, Music, or Physical Education. These courses will not assist students in completing their major.

## Recommended Courses for Typical Academic Concentrations

## Academic Concentration: Science

Take up to 12 SHC from the following courses/combination of courses.

| AST | 111 | Descriptive Astronomy | 3 |
| :--- | :--- | :--- | :--- |
| AST | 151 | General Astronomy I | 3 |
| AST | 152 | General Astronomy II | 3 |
| CHM | 131 | Introduction to Chemistry | 3 |
| CHM | 151 | General Chemistry I | 4 |
| CHM | 152 | General Chemistry II | 4 |
| PHY | 151 | College Physics I | 4 |
| PHY | 152 | College Physics II | 4 |

If chosen, the following courses must be taken as a set.
BIO 140 Environmental Biology
BIO 140A Environmental Biology Lab
亚ly one of the following sets may be taken.

| BIO | 110 | Principles of Biology | 4 |
| :--- | :--- | :--- | :--- |
| BIO | 111 | General Biology I | 4 |
| BIO | 112 | General Biology II | 4 |

## Academic Concentration: Language Arts

Take up to 12 SHC from the following courses/combination of courses.

| ENG | 272 | Southern Literature | 3 |
| :--- | :--- | :--- | :--- |
| ENG | 273 | African-American Literature | 3 |
| ENG | 274 | Literature by Women | 3 |

Only one of the following courses may be taken.
ENG 231 American Literature I 3
ENG 232 American Literature II 3
Only one of the following courses may be taken.
ENG 241 British Literature I 3
ENG 242 British Literature II 3
Only one of the following courses may be taken.
ENG 261 World Literature I 3
ENG 262 World Literature II 3

## Academic Concentration: Social Studies

Take up to 12 SHC from the following courses/combination of courses

| POL | 110 | Introduction to Political Science | 3 |
| :--- | :--- | :--- | :--- |
| POL | 120 | American Government | 3 |
| POL | 130 | State and Local Government | 3 |
| POL | 210 | Comparative Government | 3 |
| POL | 220 | International Relations | 3 |
| PSY | 241 | Dev.al Psychology | 3 |
| PSY | 243 | Child Psychology | 3 |
| PSY | 246 | Adolescent Psychology | 3 |
| PSY | 281 | Abnormal Psychology | 3 |
| SOC | 210 | Introduction to Sociology | 3 |
| SOC | 213 | Sociology of the Family | 3 |
| SOC | 220 | Social Problems | 3 |
| SOC | 230 | Race and Ethnic Relations | 3 |

If chosen, the following courses must be taken as a set.

| HIS | 131 | American History I | 3 |
| :--- | :--- | :--- | :--- |
| HIS | 132 | American History II | 3 |

Only one of the following courses may be taken.

| ECO | 151 | Survey of Economics | 3 |
| :--- | :--- | :--- | :--- |
| ECO | 251 | Principles of Microeconomics | 3 |

Only one of the following courses may be taken.
GEO 111 World Regional Geography 3

GEO 121 North Carolina Geography 3
Only one of the following sets may be taken.

| HIS | 111 | World Civilizations I | 3 |
| :--- | :--- | :--- | :--- |
| HIS | 112 | World Civilizations II | 3 |
| HIS | 121 | Western Civilization I | 3 |
| HIS | 122 | Western Civilization II | 3 |

## Academic Concentration: Mathematics

Take up to 12 SHC from the following courses/combination of courses

| MAT | 175 | Precalculus | 4 |
| :--- | :--- | :--- | :--- |
| MAT | 271 | Calculus I | 4 |
| MAT | 272 | Calculus II | 4 |

If chosen, the following courses must be taken as a set.

| MAT | 151 | Statistics I | 3 |
| :--- | :--- | :--- | :--- |
| MAT | 151 A | Statistics I Lab | 1 |

If chosen, the following courses must be taken as a set.

| MAT | 171 | Precalculus Algebra | 3 |
| :--- | :--- | :--- | :--- |
| MAT | 171 A | Precalculus Algebra Lab | 1 |

If chosen, the following courses must be taken as a set.

| MAT | 172 | Precalculus Trigonometry | 3 |
| :--- | :--- | :--- | :--- |

$\begin{array}{llll}\text { MAT } & 172 \mathrm{~A} & \text { Precalculus Trigonometry Lab } & 1\end{array}$
Total semester hour credits to complete degree: 65

# Associate in Arts Pre-Major - Nursing (1010I) 

http://www.rccc.edu/catalog-2012-2013/?p=1595

## Description

This program is for students who intend to transfer to a four-year college or university for a BSN (Bachelor of Science in Nursing) degree. RCCC also offers the following nursing programs: associate degree nursing (RN), and practical nursing (LPN). Students who successfully complete this course of study and who meet the requirements for admission to the university are eligible to apply for admission to the major with junior standing.
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 this 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 the link for The University of North Carolina located below under additional information. Students are encouraged to contact the senior institution to confirm degree offerings. Other professional admission requirements may be designated by individual programs. Grade-point average requirements vary and admission is competitive across the several programs in nursing.

## Awards

- Associate in Arts Pre-Major Degree (A1010I)
- Diploma (D1010I)


## Additional Information

The University of North Carolina: A Multi-Campus University
http://www.northcarolina.edu/programs/index.php

## Contact Information

The Associate in Arts Pre-Major - Nursing (1010I) program is in the RCCC Department of Health and Public Services Technologies. For additional information regarding this program, contact the director, Cathy Norris (cathy.norris@ rccc.edu).
The * symbol denotes a core course that may not be substituted.

## Associate in Arts Pre-Major Degree (A1010I)

http://www.rccc.edu/catalog-2012-2013/?p=1592

## Success and Study Skills Requirement (1 SHC)

The following success and study skills course must be taken in the first semester by all students pursuing this degree. This course may not transfer to a senior institution.

ACA 122 College Transfer Success

General Education Requirements (44 SHC)
English Composition (6 SHC)
Take the following course.
ENG 111 Expository Writing 3
Take one of the following courses.

| ENG | 112 | Argument-Based Research | 3 |
| :--- | :--- | :--- | :--- |
| ENG | 113 | Literature-Based Research | 3 |
| ENG | 114 | Professional Research and Reporting | 3 |

## Humanities and Fine Arts (12 SHC)

Take four courses from at least three of the following discipline areas: art, drama, foreign languages, interdisciplinary humanities, literature, music, philosophy or religion.
At least one course must be a literature course.

## Literature

| ENG | 131 | Introduction to Literature | 3 |
| :--- | :--- | :--- | :--- |
| ENG | 231 | American Literature I | 3 |
| ENG | 232 | American Literature II | 3 |
| ENG | 241 | British Literature I | 3 |
| ENG | 242 | British Literature II | 3 |
| ENG | 243 | Major British Writers | 3 |
| ENG | 251 | Western World Literature I | 3 |
| ENG | 252 | Western World Literature II | 3 |
| ENG | 261 | World Literature I | 3 |
| ENG | 262 | World Literature II | 3 |

Art
ART 111 Art Appreciation 3
ART 114 Art History Survey I 3
ART 115
Art History Survey II
ART 116
Survey of American Art
Drama
DRA 111 Theatre Appreciation 3
DRA 112 Literature of the Theatre 3
DRA 122 Oral Interpretation 3
DRA 126 Storytelling 3
Foreign Languages
FRE 111 Elementary French I 3
FRE 112 Elementary French II 3
GER 111 Elementary German I 3
GER 112 Elementary German II 3
SPA 111 Elementary Spanish I 3
SPA 112 Elementary Spanish II 3
SPA 211 Intermediate Spanish I 3
SPA 212 Intermediate Spanish II 3
Interdisciplinary
$\begin{array}{lll}\text { HUM } & 110 & \text { Technology and Society }\end{array}$
$\begin{array}{llll}\text { HUM } & 10 & \text { Iechnology and Society } & 3 \\ \text { HUM } & 115 & \text { Critical Thinking } & 3\end{array}$
HUM 120 Cultural Studies 3
HUM 122 Southern Culture 3
HUM $130 \quad$ Myth in Human Culture 3
HUM 150 American Womens Studies 3
HUM 160 Introduction to Film 3

| HUM | 161 | Advanced Film Studies | 3 |
| :---: | :--- | :--- | :--- |
| HUM | 211 | Humanities I |  |
| HUM | 212 | Humanities II | 3 |
| Music |  |  | 3 |
| MUS | 110 | Music Appreciation | 3 |
| MUS | 113 | American Music | 3 |
| MUS | 210 | History of Rock Music | 3 |
| MUS | 212 | American Musical Theatre | 3 |
| MUS | 213 | Opera and Musical Theatre | 3 |
|  |  |  |  |
| Philosophy |  | 3 |  |
| PHI | 210 | History of Philosophy | 3 |
| PHI | 220 | Western Philosophy I | 3 |
| PHI | 221 | Western Philosophy II | 3 |
| PHI | 230 | Introduction to Logic | 3 |
| PHI | 240 | Introduction to Ethics |  |
| Religion |  |  | 3 |
| REL | 110 | World Religions | 3 |
| REL | 211 | Introduction to Old Testament | 3 |
| REL | 212 | Introduction to New Testament | 3 |
| REL | 221 | Religion in America | 3 |

## Speech and Communication

One of the following courses may substitute for three SHC of the humanities and fine arts requirement. Speech and communication courses may not substitute for the literature requirement.

| COM | 110 | Introduction to Communication | 3 |
| :--- | :--- | :--- | :--- |
| COM | 120 | Intro to Interpersonal Communication | 3 |
| COM | 231 | Public Speaking | 3 |

## Social and Behavioral Sciences (12 SHC)

Take four courses from at least three of the following discipline areas:
At least one course must be a history course.
History Requirement
Take one of the following courses.

| HIS | 111 | World Civilizations I | 3 |
| :--- | :--- | :--- | :--- |
| HIS | 112 | World Civilizations II | 3 |
| HIS | 115 | Intro to Global History | 3 |
| HIS | 121 | Western Civilization I | 3 |
| HIS | 122 | Western Civilization II | 3 |
| HIS | 131 | American History I | 3 |
| HIS | 132 | American History II | 3 |

## Pre-Major Requirement

The following courses are required.

| PSY | 150 | General Psychology | 3 |
| :--- | :--- | :--- | :--- |
| PSY | 241 | Dev.al Psychology | 3 |
| SOC | 210 | Introduction to Sociology | 3 |

## Natural Science and Mathematics Requirement (14 SHC)

## Natural Sciences Requirement

Take one of the following sets.

| Set One |  |  | 3 |
| ---: | :--- | :--- | :--- |
| CHM | 131 | Introduction to Chemistry | 1 |
| CHM | 131 A | Introduction to Chemistry Lab | 4 |
| CHM | 132 | Organic and Biochemistry |  |
|  |  |  | 4 |
| Set Two |  |  |  |
| CHM | 151 | General Chemistry I | 4 |
| CHM | 152 | General Chemistry II |  |

## Mathematics Requirement

Take one course from each set below.
Students should check with the university of their choice to make sure that they complete the appropriate mathematics course.

## Set One

| MAT | 161 | College Algebra | 3 |
| :--- | :--- | :--- | :--- |
| MAT | 171 | Precalculus Algebra | 3 |
| MAT | 175 | Precalculus | 4 |

Set Two
MAT 151 Statistics I

## Diploma Requirements

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)

## Required Courses

The following courses are required.

| BIO | 168 | Anatomy and Physiology I | 4 |
| :--- | :--- | :--- | :--- |
| BIO | 169 | Anatomy and Physiology II | 4 |
| BIO | 275 | Microbiology | 4 |
| PSY | 281 | Abnormal Psychology | 3 |
| SOC | 213 | Sociology of the Family | 3 |

## Elective Courses

Select 2 SHC from the following courses.

| MAT | 151 A | Statistics I Lab | 1 |
| :--- | :--- | :--- | :--- |
| MAT | 171 A | Precalculus Algebra Lab | 1 |
| MUS | 131 | Chorus I | 1 |
| PED | 110 | Fit and Well for Life | 2 |
| PED | 111 | Physical Fitness I | 1 |
| PED | 113 | Aerobics I | 1 |
| PED | 117 | Weight Training I | 1 |
| PED | 121 | Walk, Jog, Run | 1 |
| PED | 122 | Yoga I | 1 |
| PED | 128 | Golf-Beginning | 1 |
| PED | 142 | Lifetime Sports | 1 |
| PED | 217 | Pilates I | 1 |

## Total semester hour credits to complete diploma: 65

# Associate in Arts Pre-Major - Political Science (1010K) 

http://www.rccc.edu/catalog-2012-2013/?p=1620

## Description

This program is designed for students who intend to major in political science. Students who successfully complete this course of study and who meet the requirements for admission to the university are eligible to apply for admission to the major with junior standing.
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 the link for The University of North Carolina under additional information. Students are encouraged to contact the senior institution to confirm degree offerings. Grade-point average requirements vary and admission is competitive across the several programs in political science.

## Awards

- Associate in Arts Pre-Major Degree (A1010K)
- Diploma (D1010K)


## Additional Information

The University of North Carolina: A Multi-Campus University
http://www.northcarolina.edu/programs/index.php

## Contact Information

The Associate in Arts Pre-Major - Political Science (1010K) program is in the RCCC Department of Liberal Arts, Business Technologies and General Education. For additional information regarding this program, contact the program chair, Caroll Hodgson (caroll.hodgson@rccc.edu).
The * symbol denotes a core course that may not be substituted.

## Associate in Arts Pre-Major Degree (A1010K)

http://www.rccc.edu/catalog-2012-2013/?p=1641

## Success and Study Skills Requirement (1 SHC)

The following success and study skills course must be taken in the first semester by all students pursuing this degree. This course may not transfer to a senior institution.

ACA 122 College Transfer Success

## General Education Requirements (44 SHC)

## English Composition (6 SHC)

Take the following course.
ENG 111 Expository Writing 3
Take one of the following courses.

| ENG | 112 | Argument-Based Research | 3 |
| :--- | :--- | :--- | :--- |
| ENG | 113 | Literature-Based Research | 3 |
| ENG | 114 | Professional Research and Reporting | 3 |

## Humanities and Fine Arts (12 SHC)

Take four courses from at least three of the following discipline areas: art, drama, foreign languages, interdisciplinary humanities, literature, music, philosophy or religion.
At least one course must be a literature course.
One of the following course sequences is recommended: FRE 111 and FRE 112, GER 111 and GER 112, or SPA 111 and SPA 112. COM 110 or COM 231 are recommended to substitute for 3 SHC of Humanities/Fine Arts.

## Literature

| ENG | 131 | Introduction to Literature | 3 |
| :--- | :--- | :--- | :--- |
| ENG | 231 | American Literature I | 3 |
| ENG | 232 | American Literature II | 3 |
| ENG | 241 | British Literature I | 3 |
| ENG | 242 | British Literature II | 3 |
| ENG | 243 | Major British Writers | 3 |
| ENG | 251 | Western World Literature I | 3 |
| ENG | 252 | Western World Literature II | 3 |
| ENG | 261 | World Literature I | 3 |
| ENG | 262 | World Literature II | 3 |

Art
ART 111 Art Appreciation 3
ART 114 Art History Survey I 3
ART 115 Art History Survey II 3
ART 116 Survey of American Art 3
Drama
DRA 111 Theatre Appreciation 3
DRA 112 Literature of the Theatre 3
DRA 122 Oral Interpretation 3
DRA 126 Storytelling 3

| Foreign Languages |  |  |  |  |
| :---: | :---: | :--- | :--- | :---: |
| FRE | 111 | Elementary French I | 3 |  |
| FRE | 112 | Elementary French II | 3 |  |
| GER | 111 | Elementary German I | 3 |  |
| GER | 112 | Elementary German II | 3 |  |
| SPA | 111 | Elementary Spanish I | 3 |  |
| SPA | 112 | Elementary Spanish II | 3 |  |
| SPA | 211 | Intermediate Spanish I | 3 |  |
| SPA | 212 | Intermediate Spanish II | 3 |  |


| Interdisciplinary |  |  |  |
| :---: | :--- | :--- | :--- |
| HUM | 110 | Tumanities |  |
| HUM | 115 | Critical Thinking | 3 |
| HUM | 120 | Cultural Studies | 3 |
| HUM | 122 | Southern Culture | 3 |
| HUM | 130 | Myth in Human Culture | 3 |
| HUM | 150 | American Womens Studies | 3 |
| HUM | 160 | Introduction to Film | 3 |
| HUM | 161 | Advanced Film Studies | 3 |
| HUM | 211 | Humanities I | 3 |
| HUM | 212 | Humanities II | 3 |
| Music |  |  | 3 |
| MUS | 110 | Music Appreciation |  |
| MUS | 113 | American Music | 3 |
| MUS | 210 | History of Rock Music | 3 |
| MUS | 212 | American Musical Theatre | 3 |
| MUS | 213 | Opera and Musical Theatre | 3 |
| Philosophy |  | 3 |  |
| PHI | 210 | History of Philosophy |  |
| PHI | 220 | Western Philosophy I | 3 |
| PHI | 221 | Western Philosophy II | 3 |
| PHI | 230 | Introduction to Logic | 3 |
| PHI | 240 | Introduction to Ethics | 3 |
| Religion |  |  | 3 |
| REL | 110 | World Religions | 3 |
| REL | 211 | Introduction to Old Testament | 3 |
| REL | 212 | Introduction to New Testament | 3 |
| REL | 221 | Religion in America | 3 |
|  |  |  |  |

## Speech and Communication

One of the following courses may substitute for three SHC of the humanities and fine arts requirement. Speech and communication courses may not substitute for the literature requirement.

| COM | 110 | Introduction to Communication | 3 |
| :--- | :--- | :--- | :--- |
| COM | 231 | Public Speaking | 3 |

## Social and Behavioral Sciences (12 SHC)

Take four courses from at least three of the following discipline areas: history, anthropology, economics, geography, political science, psychology or sociology.

## At least one course must be a history course.

PSY 150 is recommended. One of the following courses is recommended: GEO 111, GEO 112, or GEO 113. One of the following courses is recommended: SOC 210, SOC 220, SOC 225.

| History |  |  |  |
| :---: | :--- | :--- | :--- |
| HIS | 111 | World Civilizations I | 3 |
| HIS | 112 | World Civilizations II | 3 |
| HIS | 115 | Intro to Global History | 3 |
| HIS | 121 | Western Civilization I | 3 |
| HIS | 122 | Western Civilization II | 3 |
| HIS | 131 | American History I | 3 |
| HIS | 132 | American History II | 3 |


| Anthropology |  |  |  |
| :---: | :---: | :---: | :---: |
| ANT | 210 | General Anthropology | 3 |
| ANT | 220 | Cultural Anthropology | 3 |
| ANT | 221 | Comparative Cultures | 3 |
| ANT | 230 | Physical Anthropology | 3 |
| ANT | 230A | Physical Anthropology Lab | 1 |
| ANT | 240 | Archaeology | 3 |
| Economics |  |  |  |
| ECO | 151 | Survey of Economics | 3 |
| ECO | 251 | Principles of Microeconomics | 3 |
| ECO | 252 | Principles of Macroeconomics | 3 |
| Geography |  |  |  |
| GEO | 111 | World Regional Geography | 3 |
| GEO | 112 | Cultural Geography | 3 |
| GEO | 113 | Economic Geography | 3 |
| Political Science |  |  |  |
| POL | 110 | Introduction to Political Science | 3 |
| Psychology |  |  |  |
| PSY | 150 | General Psychology | 3 |
| PSY | 237 | Social Psychology | 3 |
| PSY | 239 | Psychology of Personality | 3 |
| PSY | 241 | Dev.al Psychology | 3 |
| PSY | 281 | Abnormal Psychology | 3 |
| Sociology |  |  |  |
| SOC | 210 | Introduction to Sociology | 3 |
| SOC | 213 | Sociology of the Family | 3 |
| SOC | 220 | Social Problems | 3 |
| SOC | 225 | Social Diversity | 3 |
| SOC | 230 | Race and Ethnic Relations | 3 |
| SOC | 240 | Social Psychology | 3 |

## Natural Science and Mathematics Requirement (14 SHC)

## Natural Sciences Requirement

Take one of the following sets.

## Set One

AST 151 General Astronomy I 3

AST 151A General Astronomy I Lab 1
AST 152 General Astronomy II 3
AST 152A General Astronomy II Lab 1
Set Two
BIO 111 General Biology I 4
BIO 112 General Biology II 4
Set Three
CHM 131 Introduction to Chemistry 3
CHM 131A Introduction to Chemistry Lab 1
CHM 132 Organic and Biochemistry 4

| Set Four |  |  |  |
| :---: | :---: | :---: | :---: |
| CHM | 151 | General Chemistry I | 4 |
| CHM | 152 | General Chemistry II | 4 |
| Set Five |  |  |  |
| PHY | 151 | College Physics I | 4 |
| PHY | 152 | College Physics II | 4 |
| Set Six |  |  |  |
| PHY | 251 | General Physics I | 4 |
| PHY | 252 | General Physics II | 4 |
| Mathematics Requirement |  |  |  |
| Take one course from each set below. |  |  |  |
| Students should check with the university of their choice to make sure that they complete the appropriate mathematics course. |  |  |  |
| Introductory Mathematics |  |  |  |
| MAT | 140 | Survey of Mathematics | 3 |
| MAT | 161 | College Algebra | 3 |
| MAT | 171 | Precalculus Algebra | 3 |
| MAT | 175 | Precalculus | 4 |
| Second Mathematics |  |  |  |
| CIS | 110 | Introduction to Computers | 3 |
| CIS | 115 | Intro to Programming and Logic | 3 |
| MAT | 151 | Statistics I | 3 |
| MAT | 172 | Precalculus Trigonometry | 3 |
| MAT | 263 | Brief Calculus | 3 |
| MAT | 271 | Calculus I | 4 |

## Diploma Requirements

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. Any courses not taken to satisfy the general education core requirement may be taken to satisfy the Other Required Hours. POL 210 and POL 220 are recommended. ECO 151, ECO 251, or ECO 252 is recommended.

## Required Courses

The following course is required.
POL 120 American Government

## Elective Courses

Take 17 SHC from the following courses.

| ACC | 120 | Principles of Financial Accounting | 4 |
| :--- | :--- | :--- | :--- |
| ACC | 121 | Principles of Managerial Accounting | 4 |
| ANT | 240 A | Archaeology Field Lab | 2 |
| ANT | 245 | World Prehistory | 3 |
| ART | 121 | Two-Dimensional Design | 3 |
| ART | 122 | Three-Dimensional Design | 3 |
| ART | 131 | Drawing I | 3 |
| ART | 132 | Drawing II | 3 |
| ART | 135 | Figure Drawing I | 3 |


| ART | 212 | Gallery Assistantship I | 1 |
| :---: | :---: | :---: | :---: |
| ART | 214 | Portfolio and Resume | 1 |
| ART | 235 | Figure Drawing II | 3 |
| ART | 240 | Painting I | 3 |
| ART | 241 | Painting II | 3 |
| ART | 244 | Watercolor | 3 |
| ART | 261 | Photography I | 3 |
| ART | 262 | Photography II | 3 |
| ART | 264 | Digital Photography I | 3 |
| ART | 265 | Digital Photography II | 3 |
| ART | 266 | Videography I | 3 |
| ART | 267 | Videography II | 3 |
| ART | 281 | Sculpture I | 3 |
| ART | 282 | Sculpture II | 3 |
| ART | 283 | Ceramics I | 3 |
| ART | 288 | Studio | 3 |
| AST | 111 | Descriptive Astronomy | 3 |
| AST | 111A | Descriptive Astronomy Lab | 1 |
| AST | 251 | Observational Astronomy | 2 |
| BIO | 110 | Principles of Biology | 4 |
| BIO | 140 | Environmental Biology | 3 |
| BIO | 140A | Environmental Biology Lab | 1 |
| BIO | 163 | Basic Anatomy and Physiology | 5 |
| BIO | 250 | Genetics | 4 |
| BIO | 275 | Microbiology | 4 |
| BIO | 280 | Biotechnology | 3 |
| BUS | 110 | Introduction to Business | 3 |
| BUS | 115 | Business Law I | 3 |
| BUS | 137 | Principles of Management | 3 |
| CHM | 263 | Analytical Chemistry | 5 |
| CJC | 111 | Introduction to Criminal Justice | 3 |
| CJC | 121 | Law Enforcement Operations | 3 |
| CJC | 141 | Corrections | 3 |
| COM | 120 | Intro to Interpersonal Communication | 3 |
| COM | 130 | Nonverbal Communication | 3 |
| COM | 140 | Intro. to Intercultural Communication | 3 |
| COM | 150 | Introduction to Mass Communication | 3 |
| COM | 160 | Small Group Communication | 3 |
| COM | 232 | Election Rhetoric | 3 |
| COM | 233 | Persuasive Speaking | 3 |
| COM | 251 | Debate I | 3 |
| COM | 252 | Debate II | 3 |
| CSC | 134 | C++ Programming | 3 |
| CSC | 139 | Visual BASIC Programming | 3 |
| CSC | 151 | JAVA Programming | 3 |
| CSC | 239 | Advanced Visual BASIC Programming | 3 |
| DFT | 170 | Engineering Graphics | 3 |
| DRA | 130 | Acting I | 3 |
| DRA | 170 | Play Production I | 3 |
| ENG | 125 | Creative Writing I | 3 |
| ENG | 126 | Creative Writing II | 3 |
| ENG | 132 | Introduction to Drama | 3 |
| ENG | 235 | Survey of Film As Lit | 3 |
| ENG | 272 | Southern Literature | 3 |
| ENG | 273 | African-American Literature | 3 |


| ENG | 274 | Literature by Women | 3 |
| :---: | :---: | :---: | :---: |
| GEO | 121 | North Carolina Geography | 3 |
| HEA | 110 | Personal Health/Wellness | 3 |
| HIS | 162 | Women and History | 3 |
| HIS | 163 | The World Since 1945 | 3 |
| HIS | 226 | The Civil War | 3 |
| HIS | 236 | North Carolina History | 3 |
| HIS | 260 | History of Africa | 3 |
| JOU | 110 | Introduction to Journalism | 3 |
| JOU | 216 | Writing for Mass Media | 3 |
| JOU | 217 | Feature/Editorial Writing | 3 |
| JOU | 242 | Introduction to Multimedia | 3 |
| MAT | 151A | Statistics I Lab | 1 |
| MAT | 171A | Precalculus Algebra Lab | 1 |
| MAT | 172A | Precalculus Trigonometry Lab | 1 |
| MAT | 272 | Calculus II | 4 |
| MAT | 273 | Calculus III | 4 |
| MUS | 131 | Chorus I | 1 |
| PED | 110 | Fit and Well for Life | 2 |
| PED | 111 | Physical Fitness I | 1 |
| PED | 113 | Aerobics I | 1 |
| PED | 117 | Weight Training I | 1 |
| PED | 121 | Walk, Jog, Run | 1 |
| PED | 122 | Yoga I | 1 |
| PED | 128 | Golf-Beginning | 1 |
| PED | 142 | Lifetime Sports | 1 |
| PED | 217 | Pilates I | 1 |
| PHY | 110 | Conceptual Physics | 3 |
| PHY | 110A | Conceptual Physics Lab | 1 |
| POL | 130 | State and Local Government | 3 |
| POL | 210 | Comparative Government | 3 |
| POL | 220 | International Relations | 3 |
| PSY | 211 | Psychology of Adjustment | 3 |
| PSY | 215 | Positive Psychology | 3 |
| PSY | 231 | Forensic Psychology | 3 |
| PSY | 243 | Child Psychology | 3 |
| PSY | 246 | Adolescent Psychology | 3 |
| PSY | 249 | Psychology of Aging | 3 |
| PSY | 259 | Human Sexuality | 3 |
| PSY | 271 | Sports Psychology | 3 |
| PSY | 275 | Health Psychology | 3 |
| SOC | 230 | Race and Ethnic Relations | 3 |
| SOC | 234 | Sociology of Gender | 3 |
| SOC | 242 | Sociology of Deviance | 3 |
| SOC | 245 | Drugs and Society | 3 |
| SOC | 250 | Sociology of Religion | 3 |

Total semester hour credits to complete diploma: 64-65

# Associate in Arts Pre-Major - Psychology (1010L) 

http://www.rccc.edu/catalog-2012-2013/?p=1612

## Description

This program is designed for students who intend to major in psychology. Students who successfully complete this course of study and who meet the requirements for admission to the university are eligible to apply for admission to the major with junior standing.
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 the link for The University of North Carolina under additional information. Students are encouraged to contact the senior institution to confirm degree offerings. Grade-point average requirements vary and admission is competitive across the several programs in psychology.

## Awards

- Associate in Arts Pre-Major Degree (A1010L)
- Diploma (D1010L)


## Additional Information

The University of North Carolina: A Multi-Campus University
http://www.northcarolina.edu/programs/index.php

## Contact Information

The Associate in Arts Pre-Major - Psychology (1010L) program is in the RCCC Department of Liberal Arts, Business Technologies and General Education. For additional information regarding this program, contact the program chair, Caroll Hodgson (caroll.hodgson@rccc.edu).
The * symbol denotes a core course that may not be substituted.

## Associate in Arts Pre-Major Degree (A1010L)

http://www.rccc.edu/catalog-2012-2013/?p=1614

## Success and Study Skills Requirement (1 SHC)

The following success and study skills course must be taken in the first semester by all students pursuing this degree. This course may not transfer to a senior institution.

ACA 122 College Transfer Success 1

General Education Requirements (44 SHC)
English Composition (6 SHC)
Take the following course.
ENG 111 Expository Writing 3
Take one of the following courses.

| ENG | 112 | Argument-Based Research | 3 |
| :--- | :--- | :--- | :--- |
| ENG | 113 | Literature-Based Research | 3 |
| ENG | 114 | Professional Research and Reporting | 3 |

## Humanities and Fine Arts (12 SHC)

Take four courses from at least three of the following discipline areas: art, drama, foreign languages, interdisciplinary humanities, literature, music, philosophy or religion.
At least one course must be a literature course.

## Literature

| ENG | 131 | Introduction to Literature | 3 |
| :--- | :--- | :--- | :--- |
| ENG | 231 | American Literature I | 3 |
| ENG | 232 | American Literature II | 3 |
| ENG | 241 | British Literature I | 3 |
| ENG | 242 | British Literature II | 3 |
| ENG | 243 | Major British Writers | 3 |
| ENG | 251 | Western World Literature I | 3 |
| ENG | 252 | Western World Literature II | 3 |
| ENG | 261 | World Literature I | 3 |
| ENG | 262 | World Literature II | 3 |

Art
ART 111 Art Appreciation 3
ART 114 Art History Survey I 3
ART 115
Art History Survey II
ART 116
Survey of American Art

## Drama

DRA 111 Theatre Appreciation 3
DRA 112 Literature of the Theatre 3
DRA 122 Oral Interpretation 3
DRA 126 Storytelling 3
Foreign Languages
FRE 111 Elementary French I 3
FRE 112 Elementary French II 3
GER 111 Elementary German I 3
GER 112 Elementary German II 3
SPA 111 Elementary Spanish I 3
SPA 112 Elementary Spanish II 3
SPA 211 Intermediate Spanish I 3
SPA 212 Intermediate Spanish II 3
$\begin{array}{ll}\text { Interdisciplinary } \\ \text { HUM Humanities } & 110\end{array} \quad 3$
$\begin{array}{llll}\text { HUM } & 10 & \text { Iechnology and Society } & 3 \\ \text { HUM } & 115 & \text { Critical Thinking } & 3\end{array}$
HUM 120 Cultural Studies 3
HUM 122 Southern Culture 3
HUM 130 Myth in Human Culture 3
HUM 150 American Womens Studies 3
HUM 160 Introduction to Film 3

| HUM | 161 | Advanced Film Studies | 3 |
| :---: | :---: | :---: | :---: |
| HUM | 211 | Humanities I | 3 |
| HUM | 212 | Humanities II | 3 |
| Music |  |  |  |
| MUS | 110 | Music Appreciation | 3 |
| MUS | 113 | American Music | 3 |
| MUS | 210 | History of Rock Music | 3 |
| MUS | 212 | American Musical Theatre | 3 |
| MUS | 213 | Opera and Musical Theatre | 3 |
| Philosophy |  |  |  |
| PHI | 210 | History of Philosophy | 3 |
| PHI | 220 | Western Philosophy I | 3 |
| PHI | 221 | Western Philosophy II | 3 |
| PHI | 230 | Introduction to Logic | 3 |
| PHI | 240 | Introduction to Ethics | 3 |
| Religion |  |  |  |
| REL | 110 | World Religions | 3 |
| REL | 211 | Introduction to Old Testament | 3 |
| REL | 212 | Introduction to New Testament | 3 |
| REL | 221 | Religion in America | 3 |

## Speech and Communication

One of the following courses may substitute for three SHC of the humanities and fine arts requirement. Speech and communication courses may not substitute for the literature requirement.

| COM | 110 | Introduction to Communication | 3 |
| :--- | :--- | :--- | :--- |
| COM | 120 | Intro to Interpersonal Communication | 3 |
| COM | 231 | Public Speaking | 3 |

Social and Behavioral Sciences (12 SHC)
Take 4 courses from at least three of the following discipline areas: anthropology, economics, geography, political science, psychology or sociology.
At least one course must be a history course.

## History Requirement

Take one of the following courses.

| HIS | 111 | World Civilizations I | 3 |
| :--- | :--- | :--- | :--- |
| HIS | 112 | World Civilizations II | 3 |
| HIS | 115 | Intro to Global History | 3 |
| HIS | 121 | Western Civilization I | 3 |
| HIS | 122 | Western Civilization II | 3 |
| HIS | 131 | American History I | 3 |
| HIS | 132 | American History II | 3 |

## Pre-Major Requirement

The following course is required.
PSY 150 General Psychology

## Remaining Requirements

Take two courses from at least one additional of the following discipline areas: anthropology, economics, geography, history, political science, psychology or sociology.

| Anthropology |  |  |  |
| :---: | :---: | :---: | :---: |
| ANT | 210 | General Anthropology | 3 |
| ANT | 220 | Cultural Anthropology | 3 |
| ANT | 221 | Comparative Cultures | 3 |
| ANT | 230 | Physical Anthropology | 3 |
| ANT | 230A | Physical Anthropology Lab | 1 |
| ANT | 240 | Archaeology | 3 |
| Economics |  |  |  |
| ECO | 251 | Principles of Microeconomics | 3 |
| ECO | 252 | Principles of Macroeconomics | 3 |
| Geography |  |  |  |
| GEO | 111 | World Regional Geography | 3 |
| GEO | 112 | Cultural Geography | 3 |
| GEO | 113 | Economic Geography | 3 |
| GEO | 130 | General Physical Geography | 3 |
| Political Science |  |  |  |
| POL | 110 | Introduction to Political Science | 3 |
| POL | 120 | American Government | 3 |
| POL | 210 | Comparative Government | 3 |
| POL | 220 | International Relations | 3 |
| Psychology |  |  |  |
| PSY | 237 | Social Psychology | 3 |
| PSY | 239 | Psychology of Personality | 3 |
| PSY | 241 | Dev.al Psychology | 3 |
| PSY | 281 | Abnormal Psychology | 3 |
| Sociology |  |  |  |
| SOC | 210 | Introduction to Sociology | 3 |
| SOC | 213 | Sociology of the Family | 3 |
| SOC | 220 | Social Problems | 3 |
| SOC | 225 | Social Diversity | 3 |
| SOC | 230 | Race and Ethnic Relations | 3 |
| SOC | 240 | Social Psychology | 3 |

## Natural Science and Mathematics Requirement (14 SHC)

## Biology Requirement

Take one of the following courses.

| BIO | 110 | Principles of Biology | 4 |
| :--- | :--- | :--- | :--- |
| BIO | 111 | General Biology I | 4 |

## Natural Sciences Requirement

Take one of the following sets.

| Set One |  |  |  |
| ---: | :--- | :--- | :--- |
| AST | 111 | Descriptive Astronomy |  |
| AST | 111 A | Descriptive Astronomy Lab | 3 |
| Set Two |  |  | 1 |
| AST | 151 | General Astronomy I | 3 |
| AST | 151 A | General Astronomy I Lab | 1 |


| Set Three |  |  |  |
| :---: | :---: | :---: | :---: |
| BIO | 112 | General Biology II | 4 |
| Set Four |  |  |  |
| CHM | 131 | Introduction to Chemistry | 3 |
| CHM | 131A | Introduction to Chemistry Lab | 1 |
| Set Five |  |  |  |
| CHM | 151 | General Chemistry I | 4 |
| Set Six |  |  |  |
| PHY | 110 | Conceptual Physics | 3 |
| PHY | 110A | Conceptual Physics Lab | 1 |
| Set Seven |  |  |  |
| PHY | 151 | College Physics I | 4 |
| Mathematics Requirement |  |  |  |
| Take one course from each set below. |  |  |  |
| Students should check with the university of their choice to make sure that they complete the appropriate mathematics course. |  |  |  |
| Introductory Mathematics |  |  |  |
| MAT | 161 | College Algebra | 3 |
| MAT | 171 | Precalculus Algebra | 3 |
| MAT | 175 | Precalculus | 4 |
| Second Mathematics |  |  |  |
| CIS | 110 | Introduction to Computers | 3 |
| CIS | 115 | Intro to Programming and Logic | 3 |
| MAT | 151 | Statistics I | 3 |
| MAT | 172 | Precalculus Trigonometry | 3 |
| MAT | 263 | Brief Calculus | 3 |
| MAT | 271 | Calculus I | 4 |

## Diploma Requirements

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. Any courses not taken to satisfy the general education core requirement may be taken to satisfy the Other Required Hours.

| ACC | 120 | Principles of Financial Accounting | 4 |
| :--- | :--- | :--- | :--- |
| ACC | 121 | Principles of Managerial Accounting | 4 |
| ANT | 240 A | Archaeology Field Lab | 2 |
| ANT | 245 | World Prehistory | 3 |
| ART | 121 | Two-Dimensional Design | 3 |
| ART | 122 | Three-Dimensional Design | 3 |
| ART | 131 | Drawing I | 3 |
| ART | 132 | Drawing II | 3 |
| ART | 135 | Figure Drawing I | 3 |
| ART | 212 | Gallery Assistantship I | 1 |
| ART | 214 | Portfolio and Resume | 1 |
| ART | 235 | Figure Drawing II | 3 |
| ART | 240 | Painting I | 3 |
| ART | 241 | Painting II | 3 |


| ART | 244 | Watercolor | 3 |
| :---: | :---: | :---: | :---: |
| ART | 261 | Photography I | 3 |
| ART | 262 | Photography II | 3 |
| ART | 264 | Digital Photography I | 3 |
| ART | 265 | Digital Photography II | 3 |
| ART | 266 | Videography I | 3 |
| ART | 267 | Videography II | 3 |
| ART | 281 | Sculpture I | 3 |
| ART | 282 | Sculpture II | 3 |
| ART | 283 | Ceramics I | 3 |
| ART | 288 | Studio | 3 |
| AST | 152 | General Astronomy II | 3 |
| AST | 152A | General Astronomy II Lab | 1 |
| AST | 251 | Observational Astronomy | 2 |
| BIO | 140 | Environmental Biology | 3 |
| BIO | 140A | Environmental Biology Lab | 1 |
| BIO | 163 | Basic Anatomy and Physiology | 5 |
| BIO | 168 | Anatomy and Physiology I | 4 |
| BIO | 169 | Anatomy and Physiology II | 4 |
| BIO | 250 | Genetics | 4 |
| BIO | 275 | Microbiology | 4 |
| BIO | 280 | Biotechnology | 3 |
| BUS | 110 | Introduction to Business | 3 |
| BUS | 115 | Business Law I | 3 |
| BUS | 137 | Principles of Management | 3 |
| CHM | 132 | Organic and Biochemistry | 4 |
| CHM | 152 | General Chemistry II | 4 |
| CHM | 263 | Analytical Chemistry | 5 |
| CJC | 111 | Introduction to Criminal Justice | 3 |
| CJC | 121 | Law Enforcement Operations | 3 |
| CJC | 141 | Corrections | 3 |
| COM | 130 | Nonverbal Communication | 3 |
| COM | 140 | Intro. to Intercultural Communication | 3 |
| COM | 150 | Introduction to Mass Communication | 3 |
| COM | 160 | Small Group Communication | 3 |
| COM | 232 | Election Rhetoric | 3 |
| COM | 233 | Persuasive Speaking | 3 |
| COM | 251 | Debate I | 3 |
| COM | 252 | Debate II | 3 |
| CSC | 139 | Visual BASIC Programming | 3 |
| CSC | 151 | JAVA Programming | 3 |
| CSC | 239 | Advanced Visual BASIC Programming | 3 |
| DFT | 170 | Engineering Graphics | 3 |
| DRA | 130 | Acting I | 3 |
| DRA | 170 | Play Production I | 3 |
| ECO | 151 | Survey of Economics | 3 |
| ENG | 125 | Creative Writing I | 3 |
| ENG | 126 | Creative Writing II | 3 |
| ENG | 132 | Introduction to Drama | 3 |
| ENG | 235 | Survey of Film As Lit | 3 |
| ENG | 272 | Southern Literature | 3 |
| ENG | 273 | African-American Literature | 3 |
| ENG | 274 | Literature by Women | 3 |
| GEO | 121 | North Carolina Geography | 3 |
| HEA | 110 | Personal Health/Wellness | 3 |


| HIS | 162 | Women and History | 3 |
| :---: | :---: | :---: | :---: |
| HIS | 163 | The World Since 1945 | 3 |
| HIS | 226 | The Civil War | 3 |
| HIS | 236 | North Carolina History | 3 |
| HIS | 260 | History of Africa | 3 |
| JOU | 110 | Introduction to Journalism | 3 |
| JOU | 216 | Writing for Mass Media | 3 |
| JOU | 217 | Feature/Editorial Writing | 3 |
| JOU | 242 | Introduction to Multimedia | 3 |
| MAT | 151A | Statistics I Lab | 1 |
| MAT | 171A | Precalculus Algebra Lab | 1 |
| MAT | 172A | Precalculus Trigonometry Lab | 1 |
| MAT | 272 | Calculus II | 4 |
| MAT | 273 | Calculus III | 4 |
| MUS | 131 | Chorus I | 1 |
| PED | 110 | Fit and Well for Life | 2 |
| PED | 111 | Physical Fitness I | 1 |
| PED | 113 | Aerobics I | 1 |
| PED | 117 | Weight Training I | 1 |
| PED | 121 | Walk, Jog, Run | 1 |
| PED | 122 | Yoga I | 1 |
| PED | 128 | Golf-Beginning | 1 |
| PED | 142 | Lifetime Sports | 1 |
| PED | 217 | Pilates I | 1 |
| PHY | 152 | College Physics II | 4 |
| PHY | 251 | General Physics I | 4 |
| PHY | 252 | General Physics II | 4 |
| POL | 130 | State and Local Government | 3 |
| PSY | 211 | Psychology of Adjustment | 3 |
| PSY | 215 | Positive Psychology | 3 |
| PSY | 231 | Forensic Psychology | 3 |
| PSY | 243 | Child Psychology | 3 |
| PSY | 246 | Adolescent Psychology | 3 |
| PSY | 249 | Psychology of Aging | 3 |
| PSY | 259 | Human Sexuality | 3 |
| PSY | 271 | Sports Psychology | 3 |
| PSY | 275 | Health Psychology | 3 |
| SOC | 230 | Race and Ethnic Relations | 3 |
| SOC | 234 | Sociology of Gender | 3 |
| SOC | 242 | Sociology of Deviance | 3 |
| SOC | 245 | Drugs and Society | 3 |
| SOC | 250 | Sociology of Religion | 3 |

Total semester hour credits to complete diploma: 65

# Associate in Arts Pre-Major - Social Science Secondary Education (1010M) 

http://www.rccc.edu/catalog-2012-2013/?p=1633

## Description

This program is designed for students who intend to major in social science secondary education. Students who successfully complete this course of study and who meet the requirements for admission to the university are eligible to apply for admission to the major with junior standing.
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 the link for The University of North Carolina under additional information. Students are encouraged to contact the senior institution to confirm degree offerings. Grade-point average requirements vary and admission is competitive across the several programs in social science secondary education. Admission to teacher licensure programs requires satisfactory scores on PRAXIS I and II. For information and registration for PRAXIS, contract www.ets.org/praxis or a counselor in student services.

## Awards

- Associate in Arts Pre-Major Degree (A1010M)
- Diploma (D1010M)


## Additional Information

The University of North Carolina: A Multi-Campus University
http://www.northcarolina.edu/programs/index.php

## Contact Information

The Associate in Arts Pre-Major - Social Science Secondary Education (1010M) program is in the RCCC Department of Liberal Arts, Business Technologies and General Education. For additional information regarding this program, contact the program chair, Caroll Hodgson (caroll.hodgson@rccc.edu).
The * symbol denotes a core course that may not be substituted.

## Associate in Arts Pre-Major Degree (A1010M)

http://www.rccc.edu/catalog-2012-2013/?p=1630

## Success and Study Skills Requirement (1 SHC)

The following success and study skills course must be taken in the first semester by all students pursuing this degree. This course may not transfer to a senior institution.
ACA 122 College Transfer Success 1

General Education Requirements (44 SHC)
English Composition (6 SHC)
Take the following course.
ENG 111 Expository Writing
3
Take one of the following courses.

| ENG | 112 | Argument-Based Research | 3 |
| :--- | :--- | :--- | :--- |
| ENG | 113 | Literature-Based Research | 3 |
| ENG | 114 | Professional Research and Reporting | 3 |

## Humanities and Fine Arts (12 SHC)

Take four courses from at least three of the following discipline areas: art, drama, foreign languages, interdisciplinary humanities, literature, music, philosophy or religion.
At least one course must be a literature course.

## Literature

| ENG | 131 | Introduction to Literature | 3 |
| :--- | :--- | :--- | :--- |
| ENG | 231 | American Literature I | 3 |
| ENG | 232 | American Literature II | 3 |
| ENG | 241 | British Literature I | 3 |
| ENG | 242 | British Literature II | 3 |
| ENG | 243 | Major British Writers | 3 |
| ENG | 251 | Western World Literature I | 3 |
| ENG | 252 | Western World Literature II | 3 |
| ENG | 261 | World Literature I | 3 |
| ENG | 262 | World Literature II | 3 |

Art
ART 11
ART 114
ART 115
ART 116
Art Appreciation
Art History Survey I 3
Art History Survey II 3
Survey of American Art
Drama
DRA 111 Theatre Appreciation 3
DRA 112 Literature of the Theatre 3
DRA 122 Oral Interpretation 3
DRA 126 Storytelling 3
Foreign Languages
FRE 111 Elementary French I 3
FRE 112 Elementary French II 3
GER 111 Elementary German I 3
GER 112 Elementary German II 3
SPA 111 Elementary Spanish I 3
SPA 112 Elementary Spanish II 3
SPA 211 Intermediate Spanish I 3
SPA 212 Intermediate Spanish II 3

| Interdisciplinary Humanities |  |  |  |
| :---: | :---: | :---: | :---: |
| HUM | 110 | Technology and Society | 3 |
| HUM | 115 | Critical Thinking | 3 |
| HUM | 120 | Cultural Studies | 3 |
| HUM | 122 | Southern Culture | 3 |
| HUM | 130 | Myth in Human Culture | 3 |
| HUM | 150 | American Womens Studies | 3 |
| HUM | 160 | Introduction to Film | 3 |
| HUM | 161 | Advanced Film Studies | 3 |
| HUM | 211 | Humanities I | 3 |
| HUM | 212 | Humanities II | 3 |
| Music |  |  |  |
| MUS | 110 | Music Appreciation | 3 |
| MUS | 113 | American Music | 3 |
| MUS | 210 | History of Rock Music | 3 |
| MUS | 212 | American Musical Theatre | 3 |
| MUS | 213 | Opera and Musical Theatre | 3 |
| Philosophy |  |  |  |
| PHI | 210 | History of Philosophy | 3 |
| PHI | 220 | Western Philosophy I | 3 |
| PHI | 221 | Western Philosophy II | 3 |
| PHI | 230 | Introduction to Logic | 3 |
| PHI | 240 | Introduction to Ethics | 3 |
| Religion |  |  |  |
| REL | 110 | World Religions | 3 |
| REL | 211 | Introduction to Old Testament | 3 |
| REL | 212 | Introduction to New Testament | 3 |
| REL | 221 | Religion in America | 3 |
| Speech and Communication |  |  |  |
| One of the following courses may substitute for three SHC of the humanities and fine arts requirement. Speech and communication courses may not substitute for the literature requirement. |  |  |  |
| COM | 110 | Introduction to Communication | , |
| COM | 120 | Intro to Interpersonal Communication | 3 |
| COM | 231 | Public Speaking | 3 |

## Social and Behavioral Sciences (12 SHC)

Take four courses from at least three of the following discipline areas:
At least one course must be a history course.

## History Requirement

Take one of the following sequences.
HIS 111 and HIS 112 are recommended.

| Sequence One |  |  |  |
| :---: | :--- | :--- | :--- |
| HIS | 111 | World Civilizations I | 3 |
| HIS | 112 | World Civilizations II | 3 |
| Sequence Two |  |  |  |
| HIS | 121 |  |  |
| HIS | 122 | Western Civilization I | 3 |
| Western Civilization II | 3 |  |  |

## Pre-Major Requirement

The following courses are required.

| POL | 120 | American Government | 3 |
| :--- | :--- | :--- | :--- |
| SOC | 210 | Introduction to Sociology | 3 |

## Natural Science and Mathematics Requirement (14 SHC)

## Natural Sciences Requirement

Take one of the following sets.

| Set One |  |  |  |
| ---: | :--- | :--- | :--- |
| AST | 151 | General Astronomy I | 3 |
| AST | 151 A | General Astronomy I Lab | 1 |
| AST | 152 | General Astronomy II | 3 |
| AST | 152 A | General Astronomy II Lab | 1 |
| Set Two |  |  |  |
| BIO | 111 | General Biology I | 4 |
| BIO | 112 | General Biology II | 4 |
| Set Three |  |  |  |
| CHM | 131 | Introduction to Chemistry |  |
| CHM | 131 A | Introduction to Chemistry Lab | 3 |
| CHM | 132 | Organic and Biochemistry | 1 |
| Set Four |  |  | 4 |
| CHM | 151 | General Chemistry I |  |
| CHM | 152 | General Chemistry II | 4 |
| Set Five |  |  | 4 |
| PHY | 151 | College Physics I | 4 |
| PHY | 152 | College Physics II | 4 |
| Set Six |  |  | 4 |
| PHY | 251 | General Physics I | 4 |
| PHY | 252 | General Physics II |  |

## Mathematics Requirement

Take one course from each set below.
Students should check with the university of their choice to make sure that they complete the appropriate mathematics course.

Introductory Mathematics

| MAT | 140 | Survey of Mathematics | 3 |
| :--- | :--- | :--- | :--- |
| MAT | 161 | College Algebra | 3 |
| MAT | 171 | Precalculus Algebra | 3 |
| MAT | 175 | Precalculus | 4 |

Second Mathematics
CIS 110 Introduction to Computers 3
CIS 115 Intro to Programming and Logic 3
MAT 151 Statistics I 3
MAT 172 Precalculus Trigonometry 3
MAT 263 Brief Calculus 3
MAT 271 Calculus I 4

## Diploma Requirements

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)

## Required Courses

The following courses are required.

| ECO | 151 | Survey of Economics | 3 |
| :--- | :--- | :--- | :--- |
| GEO | 111 | World Regional Geography | 3 |
| HIS | 131 | American History I | 3 |
| HIS | 132 | American History II | 3 |

## Elective Courses

A minimum of 8 SHC of college transfer general education, elective, and/or pre-major courses is required. Any courses not taken to satisfy the general education core requirement may be taken to satisfy the Other Required Hours.

| ACC | 120 | Principles of Financial Accounting | 4 |
| :--- | :--- | :--- | :--- |
| ACC | 121 | Principles of Managerial Accounting | 4 |
| ANT | 210 | General Anthropology | 3 |
| ANT | 230 | Physical Anthropology | 3 |
| ANT | 230 A | Physical Anthropology Lab | 1 |
| ANT | 240 | Archaeology | 3 |
| ANT | 240 A | Archaeology Field Lab | 2 |
| ANT | 245 | World Prehistory | 3 |
| ART | 121 | Two-Dimensional Design | 3 |
| ART | 122 | Three-Dimensional Design | 3 |
| ART | 131 | Drawing I | 3 |
| ART | 132 | Drawing II | 3 |
| ART | 135 | Figure Drawing I | 3 |
| ART | 212 | Gallery Assistantship I | 1 |
| ART | 214 | Portfolio and Resume | 1 |
| ART | 235 | Figure Drawing II | 3 |
| ART | 240 | Painting I | 3 |
| ART | 241 | Painting II | 3 |
| ART | 244 | Watercolor | 3 |
| ART | 261 | Photography I | 3 |
| ART | 262 | Photography II | 3 |
| ART | 264 | Digital Photography I | 3 |
| ART | 265 | Digital Photography II | 3 |
| ART | 266 | Videography I | 3 |
| ART | 267 | Videography II | 3 |
| ART | 281 | Sculpture I | 3 |
| ART | 282 | Sculpture II | 3 |
| ART | 283 | Ceramics I | 3 |
| ART | 288 | Studio | 3 |
| AST | 111 | Descriptive Astronomy | 3 |
| AST | $111 A$ | Descriptive Astronomy Lab | 3 |
| AST | 251 | Observational Astronomy | 3 |
| BIO | 110 | Principles of Biology | 3 |
| BIO | 140 | Environmental Biology | 3 |
| BIO | $140 A$ | Environmental Biology Lab | 3 |
| BIO | 163 | Basic Anatomy and Physiology | 3 |
| BIO | 250 | Genetics | 3 |
|  |  |  | 3 |


| BIO | 275 | Microbiology | 4 |
| :---: | :---: | :---: | :---: |
| BIO | 280 | Biotechnology | 3 |
| BUS | 110 | Introduction to Business | 3 |
| BUS | 115 | Business Law I | 3 |
| BUS | 137 | Principles of Management | 3 |
| CHM | 263 | Analytical Chemistry | 5 |
| CJC | 111 | Introduction to Criminal Justice | 3 |
| CJC | 121 | Law Enforcement Operations | 3 |
| CJC | 141 | Corrections | 3 |
| COM | 130 | Nonverbal Communication | 3 |
| COM | 140 | Intro. to Intercultural Communication | 3 |
| COM | 150 | Introduction to Mass Communication | 3 |
| COM | 160 | Small Group Communication | 3 |
| COM | 232 | Election Rhetoric | 3 |
| COM | 233 | Persuasive Speaking | 3 |
| COM | 251 | Debate I | 3 |
| COM | 252 | Debate II | 3 |
| CSC | 139 | Visual BASIC Programming | 3 |
| CSC | 151 | JAVA Programming | 3 |
| CSC | 239 | Advanced Visual BASIC Programming | 3 |
| DFT | 170 | Engineering Graphics | 3 |
| DRA | 130 | Acting I | 3 |
| DRA | 170 | Play Production I | 3 |
| ECO | 251 | Principles of Microeconomics | 3 |
| ECO | 252 | Principles of Macroeconomics | 3 |
| ENG | 125 | Creative Writing I | 3 |
| ENG | 126 | Creative Writing II | 3 |
| ENG | 132 | Introduction to Drama | 3 |
| ENG | 235 | Survey of Film As Lit | 3 |
| ENG | 272 | Southern Literature | 3 |
| ENG | 273 | African-American Literature | 3 |
| ENG | 274 | Literature by Women | 3 |
| GEO | 112 | Cultural Geography | 3 |
| GEO | 113 | Economic Geography | 3 |
| GEO | 121 | North Carolina Geography | 3 |
| GEO | 130 | General Physical Geography | 3 |
| HEA | 110 | Personal Health/Wellness | 3 |
| HIS | 162 | Women and History | 3 |
| HIS | 163 | The World Since 1945 | 3 |
| HIS | 226 | The Civil War | 3 |
| HIS | 236 | North Carolina History | 3 |
| HIS | 260 | History of Africa | 3 |
| JOU | 110 | Introduction to Journalism | 3 |
| JOU | 216 | Writing for Mass Media | 3 |
| JOU | 217 | Feature/Editorial Writing | 3 |
| JOU | 242 | Introduction to Multimedia | 3 |
| MAT | 151A | Statistics I Lab | 1 |
| MAT | 171A | Precalculus Algebra Lab | 1 |
| MAT | 172A | Precalculus Trigonometry Lab | 1 |
| MAT | 272 | Calculus II | 4 |
| MUS | 131 | Chorus I | 1 |
| PED | 110 | Fit and Well for Life | 2 |
| PED | 111 | Physical Fitness I | 1 |
| PED | 113 | Aerobics I | 1 |
| PED | 117 | Weight Training I | 1 |


| PED | 121 | Walk, Jog, Run | 1 |
| :--- | :--- | :--- | :--- |
| PED | 122 | Yoga I | 1 |
| PED | 128 | Golf-Beginning | 1 |
| PED | 142 | Lifetime Sports | 1 |
| PED | 217 | Pilates I | 1 |
| POL | 110 | Introduction to Political Science | 3 |
| POL | 130 | State and Local Government | 3 |
| POL | 210 | Comparative Government | 3 |
| POL | 220 | International Relations | 3 |
| PSY | 150 | General Psychology | 3 |
| PSY | 211 | Psychology of Adjustment | 3 |
| PSY | 215 | Positive Psychology | 3 |
| PSY | 231 | Forensic Psychology | 3 |
| PSY | 237 | Social Psychology | 3 |
| PSY | 239 | Psychology of Personality | 3 |
| PSY | 241 | Dev.al Psychology | 3 |
| PSY | 243 | Child Psychology | 3 |
| PSY | 246 | Adolescent Psychology | 3 |
| PSY | 249 | Psychology of Aging | 3 |
| PSY | 259 | Human Sexuality | 3 |
| PSY | 271 | Sports Psychology | 3 |
| PSY | 275 | Health Psychology | 3 |
| PSY | 281 | Abnormal Psychology | 3 |
| SOC | 210 | Introduction to Sociology | 3 |
| SOC | 213 | Sociology of the Family | 3 |
| SOC | 220 | Social Problems | 3 |
| SOC | 225 | Social Diversity | 3 |
| SOC | 230 | Race and Ethnic Relations | 3 |
| SOC | 234 | Sociology of Gender | 3 |
| SOC | 240 | Social Psychology | 3 |
| SOC | 242 | Sociology of Deviance | 3 |
| SOC | 245 | Drugs and Society | 3 |
| SOC | 250 | Sociology of Religion | 3 |
|  |  |  | 3 |
| PO | 3 |  |  |

Total semester hour credits to complete diploma: 65

# Associate in Arts Pre-Major - Social Work (1010Q) 

http://www.rccc.edu/catalog-2012-2013/?p=1626

## Description

This program is designed for students who intend to major in social work. Students who successfully complete this course of study and who meet the requirements for admission to the university are eligible to apply for admission to the major with junior standing.
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 the link for The University of North Carolina under additional information. Students are encouraged to contact the senior institution to confirm degree offerings. Grade-point average requirements vary and admission is competitive across the several programs in social work.

## Awards

- Associate in Arts Pre-Major Degree (A1010Q)
- Diploma (D1010Q)


## Additional Information

The University of North Carolina: A Multi-Campus University
http://www.northcarolina.edu/programs/index.php

## Contact Information

The Associate in Arts Pre-Major - Social Work (1010Q) program is in the RCCC Department of Liberal Arts, Business Technologies and General Education. For additional information regarding this program, contact the program chair, Caroll Hodgson (caroll.hodgson@rccc.edu).
The * symbol denotes a core course that may not be substituted.

## Associate in Arts Pre-Major Degree (A1010Q)

http://www.rccc.edu/catalog-2012-2013/?p=1624

## Success and Study Skills Requirement (1 SHC)

The following success and study skills course must be taken in the first semester by all students pursuing this degree. This course may not transfer to a senior institution.

$$
\text { ACA } 122 \quad \text { College Transfer Success }
$$

General Education Requirements (44 SHC)
English Composition (6 SHC)
Take the following course.
ENG 111 Expository Writing 3
Take one of the following courses.

| ENG | 112 | Argument-Based Research | 3 |
| :--- | :--- | :--- | :--- |
| ENG | 113 | Literature-Based Research | 3 |
| ENG | 114 | Professional Research and Reporting | 3 |

## Humanities and Fine Arts (12 SHC)

Take four courses from at least three of the following discipline areas: art, drama, foreign languages, interdisciplinary humanities, literature, music, philosophy or religion.
At least one course must be a literature course.

## Literature

| ENG | 131 | Introduction to Literature | 3 |
| :--- | :--- | :--- | :--- |
| ENG | 231 | American Literature I | 3 |
| ENG | 232 | American Literature II | 3 |
| ENG | 241 | British Literature I | 3 |
| ENG | 242 | British Literature II | 3 |
| ENG | 243 | Major British Writers | 3 |
| ENG | 251 | Western World Literature I | 3 |
| ENG | 252 | Western World Literature II | 3 |
| ENG | 261 | World Literature I | 3 |
| ENG | 262 | World Literature II | 3 |

Art
ART 111 Art Appreciation 3
ART 114 Art History Survey I 3
ART 115 Art History Survey II 3
ART 116 Survey of American Art 3
Drama
DRA 111 Theatre Appreciation 3
DRA 112 Literature of the Theatre 3
DRA 122 Oral Interpretation 3
DRA 126 Storytelling 3
Foreign Languages
FRE 111 Elementary French I 3
FRE 112 Elementary French II 3
GER 111 Elementary German I 3
GER 112 Elementary German II 3
SPA 111 Elementary Spanish I 3
SPA 112 Elementary Spanish II 3
SPA 211 Intermediate Spanish I 3
SPA 212 Intermediate Spanish II 3

| Interdisciplinary |  |  |  |
| :---: | :--- | :--- | :--- |
| HUM | 110 | Tumanities |  |
| HUM | 115 | Tritical Thinking | 3 |
| HUM | 120 | Cultural Studies | 3 |
| HUM | 122 | Southern Culture | 3 |
| HUM | 130 | Myth in Human Culture | 3 |
| HUM | 150 | American Womens Studies | 3 |
| HUM | 160 | Introduction to Film | 3 |
| HUM | 161 | Advanced Film Studies | 3 |
| HUM | 211 | Humanities I | 3 |
| HUM | 212 | Humanities II | 3 |
| Music |  |  | 3 |
| MUS | 110 | Music Appreciation |  |
| MUS | 113 | American Music | 3 |
| MUS | 210 | History of Rock Music | 3 |
| MUS | 212 | American Musical Theatre | 3 |
| MUS | 213 | Opera and Musical Theatre | 3 |
|  |  |  | 3 |
| Philosophy |  |  |  |
| PHI | 210 | History of Philosophy | 3 |
| PHI | 220 | Western Philosophy I | 3 |
| PHI | 221 | Western Philosophy II | 3 |
| PHI | 230 | Introduction to Logic | 3 |
| PHI | 240 | Introduction to Ethics | 3 |
| Religion |  |  | 3 |
| REL | 110 | World Religions | 3 |
| REL | 211 | Introduction to Old Testament | 3 |
| REL | 212 | Introduction to New Testament | 3 |
| REL | 221 | Religion in America | 3 |

## Speech and Communication

One of the following courses may substitute for three SHC of the humanities and fine arts requirement. Speech and communication courses may not substitute for the literature requirement.

| COM | 110 | Introduction to Communication | 3 |
| :--- | :--- | :--- | :--- |
| COM | 120 | Intro to Interpersonal Communication | 3 |
| COM | 231 | Public Speaking | 3 |

## Social and Behavioral Sciences (12 SHC)

Take four courses from at least three of the following discipline areas:
At least one course must be a history course.

## History Requirement

Take one of the following courses.

| HIS | 111 | World Civilizations I | 3 |
| :--- | :--- | :--- | :--- |
| HIS | 112 | World Civilizations II | 3 |
| HIS | 115 | Intro to Global History | 3 |
| HIS | 121 | Western Civilization I | 3 |
| HIS | 122 | Western Civilization II | 3 |
| HIS | 131 | American History I | 3 |
| HIS | 132 | American History II | 3 |

## Pre-Major Requirement

The following courses are required.

| POL | 120 | American Government | 3 |
| :--- | :--- | :--- | :--- |
| PSY | 150 | General Psychology | 3 |
| SOC | 210 | Introduction to Sociology | 3 |

## Natural Science and Mathematics Requirement (14 SHC)

## Natural Sciences Requirement

Take two of the following courses.

| BIO | 111 | General Biology I | 4 |
| :--- | :--- | :--- | :--- |
| BIO | 112 | General Biology II | 4 |

## Mathematics Requirement

Take one course from each set below.
Students should check with the university of their choice to make sure that they complete the appropriate mathematics course.

## Introductory Mathematics

MAT 161 College Algebra 3
$\begin{array}{llll}\text { MAT } & 171 & \text { Precalculus Algebra }\end{array}$
MAT 175 Precalculus 4

## Second Mathematics

| CIS | 110 | Introduction to Computers | 3 |
| :--- | :--- | :--- | :--- |
| MAT | 151 | Statistics I | 3 |

## Diploma Requirements

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. Any courses not taken to satisfy the general education core requirement may be taken to satisfy the Other Required Hours. Select from the following thirteen recommended courses.

| ANT | 210 | General Anthropology | 3 |
| :--- | :--- | :--- | :--- |
| ANT | 230 | Physical Anthropology | 3 |
| ECO | 151 | Survey of Economics | 3 |
| ECO | 251 | Principles of Microeconomics | 3 |
| ECO | 252 | Principles of Macroeconomics | 3 |
| HIS | 112 | World Civilizations II | 3 |
| HIS | 122 | Western Civilization II | 3 |
| HIS | 132 | American History II | 3 |
| PSY | 237 | Social Psychology | 3 |
| PSY | 241 | Dev.al Psychology | 3 |
| PSY | 281 | Abnormal Psychology | 3 |
| SPA | 111 | Elementary Spanish I | 3 |
| SPA | 112 | Elementary Spanish II | 3 |

## Total semester hour credits to complete degree: 65

# Associate in Arts Pre-Major - Sociology (1010N) 

http://www.rccc.edu/catalog-2012-2013/?p=1638

## Description

This program is designed for students who intend to major in sociology. Students who successfully complete this course of study and who meet the requirements for admission to the university are eligible to apply for admission to the major with junior standing.
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 the link for The University of North Carolina under additional information. Students are encouraged to contact the senior institution to confirm degree offerings. Grade-point average requirements vary and admission is competitive across the several programs in sociology

## Awards

- Associate in Arts Pre-Major Degree (A1010N)
- Diploma (D1010N)


## Additional Information

The University of North Carolina: A Multi-Campus University
http://www.northcarolina.edu/programs/index.php

## Contact Information

The Associate in Arts Pre-Major - Sociology (1010N) program is in the RCCC Department of Liberal Arts, Business Technologies and General Education. For additional information regarding this program, contact the program chair, Caroll Hodgson (caroll.hodgson@rccc.edu).
The * symbol denotes a core course that may not be substituted.

## Associate in Arts Pre-Major Degree (A1010N)

http://www.rccc.edu/catalog-2012-2013/?p=1636

## Success and Study Skills Requirement (1 SHC)

The following success and study skills course must be taken in the first semester by all students pursuing this degree. This course may not transfer to a senior institution.

ACA 122 College Transfer Success

General Education Requirements (44 SHC)
English Composition (6 SHC)
Take the following course.
ENG 111 Expository Writing 3
Take one of the following courses.

| ENG | 112 | Argument-Based Research | 3 |
| :--- | :--- | :--- | :--- |
| ENG | 113 | Literature-Based Research | 3 |
| ENG | 114 | Professional Research and Reporting | 3 |

## Humanities and Fine Arts (12 SHC)

Take four courses from at least three of the following discipline areas: art, drama, foreign languages, interdisciplinary humanities, literature, music, philosophy or religion.
At least one course must be a literature course.

## Literature

| ENG | 131 | Introduction to Literature | 3 |
| :--- | :--- | :--- | :--- |
| ENG | 231 | American Literature I | 3 |
| ENG | 232 | American Literature II | 3 |
| ENG | 241 | British Literature I | 3 |
| ENG | 242 | British Literature II | 3 |
| ENG | 243 | Major British Writers | 3 |
| ENG | 251 | Western World Literature I | 3 |
| ENG | 252 | Western World Literature II | 3 |
| ENG | 261 | World Literature I | 3 |
| ENG | 262 | World Literature II | 3 |

Art
ART 111 Art Appreciation 3
ART 114 Art History Survey I 3
ART 115 Art History Survey II 3
ART 116 Survey of American Art 3
Drama
DRA 111 Theatre Appreciation 3
DRA 112 Literature of the Theatre 3
DRA 122 Oral Interpretation 3
DRA 126 Storytelling 3
Foreign Languages
FRE 111 Elementary French I 3
FRE 112 Elementary French II 3
GER 111 Elementary German I 3
GER 112 Elementary German II 3
SPA 111 Elementary Spanish I 3
SPA 112 Elementary Spanish II 3
SPA 211 Intermediate Spanish I 3
SPA 212 Intermediate Spanish II 3

| Interdisciplinary Humanities |  |  |  |
| :---: | :---: | :---: | :---: |
| HUM | 110 | Technology and Society | 3 |
| HUM | 115 | Critical Thinking | 3 |
| HUM | 120 | Cultural Studies | 3 |
| HUM | 122 | Southern Culture | 3 |
| HUM | 130 | Myth in Human Culture | 3 |
| HUM | 150 | American Womens Studies | 3 |
| HUM | 160 | Introduction to Film | 3 |
| HUM | 161 | Advanced Film Studies | 3 |
| HUM | 211 | Humanities I | 3 |
| HUM | 212 | Humanities II | 3 |
| Music |  |  |  |
| MUS | 110 | Music Appreciation | 3 |
| MUS | 113 | American Music | 3 |
| MUS | 210 | History of Rock Music | 3 |
| MUS | 212 | American Musical Theatre | 3 |
| MUS | 213 | Opera and Musical Theatre | 3 |
| Philosophy |  |  |  |
| PHI | 210 | History of Philosophy | 3 |
| PHI | 220 | Western Philosophy I | 3 |
| PHI | 221 | Western Philosophy II | 3 |
| PHI | 230 | Introduction to Logic | 3 |
| PHI | 240 | Introduction to Ethics | 3 |
| Religion |  |  |  |
| REL | 110 | World Religions | 3 |
| REL | 211 | Introduction to Old Testament | 3 |
| REL | 212 | Introduction to New Testament | 3 |
| REL | 221 | Religion in America | 3 |
| Speech and Communication |  |  |  |
| One of the following courses may substitute for three SHC of the humanities and fine arts requirement. Speech and communication courses may not substitute for the literature requirement. |  |  |  |
| COM | 110 | Introduction to Communication | 3 |
| COM | 120 | Intro to Interpersonal Communication | 3 |
| COM | 231 | Public Speaking | 3 |

Social and Behavioral Sciences (12 SHC)
Take four courses from at least three of the following discipline areas: anthropology, economics, geography, political science or psychology.
At least one course must be a history course.

## History Requirement

Take one of the following courses.

| HIS | 111 | World Civilizations I | 3 |
| :--- | :--- | :--- | :--- |
| HIS | 112 | World Civilizations II | 3 |
| HIS | 115 | Intro to Global History | 3 |
| HIS | 121 | Western Civilization I | 3 |
| HIS | 122 | Western Civilization II | 3 |
| HIS | 131 | American History I | 3 |
| HIS | 132 | American History II | 3 |

Pre-Major RequirementThe following course is required.
SOC 210 Introduction to Sociology ..... 3
Select one of the following SOC courses.
SOC 213 Sociology of the Family ..... 3
SOC 220 Social Problems ..... 3
SOC 225 Social Diversity ..... 3
SOC 240 Social Psychology ..... 3

## Remaining Requirements

Take one course from one of the following discipline areas: anthropology, economics, geography, history, political science, psychology or sociology.

| Anthropology |  |  |  |
| :---: | :---: | :---: | :---: |
| ANT | 210 | General Anthropology | 3 |
| ANT | 220 | Cultural Anthropology | 3 |
| ANT | 221 | Comparative Cultures | 3 |
| ANT | 230 | Physical Anthropology | 3 |
| ANT | 230A | Physical Anthropology Lab | 1 |
| ANT | 240 | Archaeology | 3 |
| Economics |  |  |  |
| ECO | 251 | Principles of Microeconomics | 3 |
| ECO | 252 | Principles of Macroeconomics | 3 |
| Geography |  |  |  |
| GEO | 111 | World Regional Geography | 3 |
| GEO | 112 | Cultural Geography | 3 |
| GEO | 113 | Economic Geography | 3 |
| GEO | 130 | General Physical Geography | 3 |
| Political Science |  |  |  |
| POL | 110 | Introduction to Political Science | 3 |
| POL | 120 | American Government | 3 |
| POL | 210 | Comparative Government | 3 |
| POL | 220 | International Relations | 3 |
| Psychology |  |  |  |
| PSY | 150 | General Psychology | 3 |
| PSY | 237 | Social Psychology | 3 |
| PSY | 239 | Psychology of Personality | 3 |
| PSY | 241 | Dev.al Psychology | 3 |
| PSY | 281 | Abnormal Psychology | 3 |

## Natural Science and Mathematics Requirement (14 SHC)

## Natural Sciences Requirement

Take one of the following sets.

## Set One

AST 151 General Astronomy I 3
AST 151A General Astronomy I Lab 1
AST 152 General Astronomy II 3
AST 152A General Astronomy II Lab 1

| Set Two |  |  |  |
| :---: | :--- | :--- | :--- |
| BIO | 111 | General Biology I | 4 |
| BIO | 112 | General Biology II | 4 |
| Set Three |  |  |  |
| CHM | 131 | Introduction to Chemistry | 3 |
| CHM | 131A | Introduction to Chemistry Lab | 1 |
| CHM | 132 | Organic and Biochemistry | 4 |
| Set Four |  |  |  |
| CHM | 151 | General Chemistry I | 4 |
| CHM | 152 | General Chemistry II | 4 |
| Set Five |  |  | 4 |
| PHY | 151 | College Physics I | 4 |
| PHY | 152 | College Physics II | 4 |
| Set Six |  |  | 4 |
| PHY | 251 | General Physics I | 4 |
| PHY | 252 | General Physics II | 4 |

## Mathematics Requirement

Take one course from each set below.
Students should check with the university of their choice to make sure that they complete the appropriate mathematics course.

Introductory Mathematics

| MAT | 140 | Survey of Mathematics | 3 |
| :--- | :--- | :--- | :--- |
| MAT | 161 | College Algebra | 3 |
| MAT | 171 | Precalculus Algebra | 3 |
| MAT | 175 | Precalculus | 4 |

## Second Mathematics

MAT 151 Statistics I

## Diploma Requirements

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. Any courses not taken to satisfy the general education core requirement may be taken to satisfy the Other Required Hours.

| ACC | 120 | Principles of Financial Accounting | 4 |
| :--- | :--- | :--- | :--- |
| ACC | 121 | Principles of Managerial Accounting | 4 |
| ANT | 240 A | Archaeology Field Lab | 2 |
| ANT | 245 | World Prehistory | 3 |
| ART | 121 | Two-Dimensional Design | 3 |
| ART | 122 | Three-Dimensional Design | 3 |
| ART | 131 | Drawing I | 3 |
| ART | 132 | Drawing II | 3 |
| ART | 135 | Figure Drawing I | 3 |
| ART | 212 | Gallery Assistantship I | 1 |
| ART | 214 | Portfolio and Resume | 1 |
| ART | 235 | Figure Drawing II | 3 |
| ART | 240 | Painting I | 3 |
| ART | 241 | Painting II | 3 |


| ART | 244 | Watercolor | 3 |
| :---: | :---: | :---: | :---: |
| ART | 261 | Photography I | 3 |
| ART | 262 | Photography II | 3 |
| ART | 264 | Digital Photography I | 3 |
| ART | 265 | Digital Photography II | 3 |
| ART | 266 | Videography I | 3 |
| ART | 267 | Videography II | 3 |
| ART | 281 | Sculpture I | 3 |
| ART | 282 | Sculpture II | 3 |
| ART | 283 | Ceramics I | 3 |
| ART | 288 | Studio | 3 |
| AST | 111 | Descriptive Astronomy | 3 |
| AST | 111A | Descriptive Astronomy Lab | 1 |
| AST | 251 | Observational Astronomy | 2 |
| BIO | 110 | Principles of Biology | 4 |
| BIO | 140 | Environmental Biology | 3 |
| BIO | 140A | Environmental Biology Lab | 1 |
| BIO | 163 | Basic Anatomy and Physiology | 5 |
| BIO | 168 | Anatomy and Physiology I | 4 |
| BIO | 169 | Anatomy and Physiology II | 4 |
| BIO | 250 | Genetics | 4 |
| BIO | 275 | Microbiology | 4 |
| BIO | 280 | Biotechnology | 3 |
| BUS | 110 | Introduction to Business | 3 |
| BUS | 115 | Business Law I | 3 |
| BUS | 137 | Principles of Management | 3 |
| CHM | 263 | Analytical Chemistry | 5 |
| CIS | 110 | Introduction to Computers | 3 |
| CIS | 115 | Intro to Programming and Logic | 3 |
| CJC | 111 | Introduction to Criminal Justice | 3 |
| CJC | 121 | Law Enforcement Operations | 3 |
| CJC | 141 | Corrections | 3 |
| COM | 130 | Nonverbal Communication | 3 |
| COM | 140 | Intro. to Intercultural Communication | 3 |
| COM | 150 | Introduction to Mass Communication | 3 |
| COM | 160 | Small Group Communication | 3 |
| COM | 232 | Election Rhetoric | 3 |
| COM | 233 | Persuasive Speaking | 3 |
| COM | 251 | Debate I | 3 |
| COM | 252 | Debate II | 3 |
| CSC | 139 | Visual BASIC Programming | 3 |
| CSC | 151 | JAVA Programming | 3 |
| CSC | 239 | Advanced Visual BASIC Programming | 3 |
| DFT | 170 | Engineering Graphics | 3 |
| DRA | 130 | Acting I | 3 |
| DRA | 170 | Play Production I | 3 |
| ECO | 151 | Survey of Economics | 3 |
| ENG | 125 | Creative Writing I | 3 |
| ENG | 126 | Creative Writing II | 3 |
| ENG | 132 | Introduction to Drama | 3 |
| ENG | 235 | Survey of Film As Lit | 3 |
| ENG | 272 | Southern Literature | 3 |
| ENG | 273 | African-American Literature | 3 |
| ENG | 274 | Literature by Women | 3 |
| GEO | 121 | North Carolina Geography | 3 |


| HEA | 110 | Personal Health/Wellness | 3 |
| :---: | :---: | :---: | :---: |
| HIS | 162 | Women and History | 3 |
| HIS | 163 | The World Since 1945 | 3 |
| HIS | 226 | The Civil War | 3 |
| HIS | 236 | North Carolina History | 3 |
| HIS | 260 | History of Africa | 3 |
| JOU | 110 | Introduction to Journalism | 3 |
| JOU | 216 | Writing for Mass Media | 3 |
| JOU | 217 | Feature/Editorial Writing | 3 |
| JOU | 242 | Introduction to Multimedia | 3 |
| MAT | 151A | Statistics I Lab | 1 |
| MAT | 171A | Precalculus Algebra Lab | 1 |
| MAT | 172A | Precalculus Trigonometry Lab | 1 |
| MAT | 271 | Calculus I | 4 |
| MAT | 272 | Calculus II | 4 |
| MAT | 273 | Calculus III | 4 |
| MUS | 131 | Chorus I | 1 |
| PED | 110 | Fit and Well for Life | 2 |
| PED | 111 | Physical Fitness I | 1 |
| PED | 113 | Aerobics I | 1 |
| PED | 117 | Weight Training I | 1 |
| PED | 121 | Walk, Jog, Run | 1 |
| PED | 122 | Yoga I | 1 |
| PED | 128 | Golf-Beginning | 1 |
| PED | 142 | Lifetime Sports | 1 |
| PED | 217 | Pilates I | 1 |
| POL | 130 | State and Local Government | 3 |
| PSY | 211 | Psychology of Adjustment | 3 |
| PSY | 215 | Positive Psychology | 3 |
| PSY | 231 | Forensic Psychology | 3 |
| PSY | 243 | Child Psychology | 3 |
| PSY | 246 | Adolescent Psychology | 3 |
| PSY | 249 | Psychology of Aging | 3 |
| PSY | 259 | Human Sexuality | 3 |
| PSY | 271 | Sports Psychology | 3 |
| PSY | 275 | Health Psychology | 3 |
| SOC | 230 | Race and Ethnic Relations | 3 |
| SOC | 234 | Sociology of Gender | 3 |
| SOC | 242 | Sociology of Deviance | 3 |
| SOC | 245 | Drugs and Society | 3 |
| SOC | 250 | Sociology of Religion | 3 |

Total semester hour credits to complete diploma: 65

# Associate in Arts Pre-Major - Special Education (1010Z) 

http://www.rccc.edu/catalog-2012-2013/?p=1767

## Description

This program is designed for students who intend to major in special education. 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 the link for The University of North Carolina located below under additional information. Students are encouraged to contact the senior institution to confirm degree offerings.
Grade-point average requirements vary and admission is competitive across the several programs in special education. Minimum statewide requirements are (1) minimum 2.5 grade-point average on a 4.0 scale and (2) satisfactory passing scores as established by the State Board of Education on PRAXIS I - PPST- Reading; PPST-Writing; PPST-Math or other SBE approved options. For information and registration for PRAXIS, see the link below under additional information or contact a counselor in student services.
Receiving institutions may have additional requirements, prerequisites, and/or proficiencies. Since these vary at receiving institutions, students should review the admission to teacher education requirements for the institution(s) they anticipate attending.

## Awards

- Associate in Arts Pre-Major Degree (A1010Z)
- Diploma (D1010Z)


## Additional Information

The University of North Carolina: A Multi-Campus University
http://www.northcarolina.edu/programs/index.php

## Praxis

http://www.ets.org/praxis

## Contact Information

The Associate in Arts Pre-Major - Special Education (1010Z) program is in the RCCC Department of Liberal Arts, Business Technologies and General Education. For additional information regarding this program, contact the dean, Carolyn Holbert (carolyn.holbert@rccc.edu).
The * symbol denotes a core course that may not be substituted.

## Associate in Arts Pre-Major Degree (A1010Z)

http://www.rccc.edu/catalog-2012-2013/?p=1769

## Success and Study Skills Requirement (1 SHC)

The following success and study skills course must be taken in the first semester by all students pursuing this degree. This course may not transfer to a senior institution.

$$
\text { ACA } 122 \quad \text { College Transfer Success }
$$

1

## General Education Requirements (44 SHC)

## English Composition (6 SHC)

Take the following course.
ENG 111 Expository Writing
Take one of the following courses.

| ENG | 112 | Argument-Based Research | 3 |
| :--- | :--- | :--- | :--- |
| ENG | 113 | Literature-Based Research | 3 |
| ENG | 114 | Professional Research and Reporting | 3 |

## Humanities and Fine Arts (12 SHC)

Take four courses from at least three of the following discipline areas: literature, art, drama, foreign languages, interdisciplinary humanities, music, philosophy or religion.
At least one course must be a literature course.

## Literature Requirement

Take one of the following courses.

| ENG | 131 | Introduction to Literature | 3 |
| :--- | :--- | :--- | :--- |
| ENG | 231 | American Literature I | 3 |
| ENG | 232 | American Literature II | 3 |

## Pre-Major Requirement

## Take one of the following fine arts courses.

| ART | 111 | Art Appreciation | 3 |
| :--- | :--- | :--- | :--- |
| ART | 114 | Art History Survey I | 3 |
| ART | 115 | Art History Survey II | 3 |
| MUS | 110 | Music Appreciation | 3 |

The following course is required to substitute for 3 SHC of Humanities/Fine Arts.

COM 231 Public Speaking 3

## Remaining Requirements

Take one course from any of the following discipline areas: art, foreign languages, interdisciplinary humanities, literature, music, philosophy or religion.

Art
ART 111 Art Appreciation 3
ART 116 Survey of American Art 3

| Drama |  |  |  |
| :---: | :---: | :---: | :---: |
| DRA | 111 | Theatre Appreciation | 3 |
| DRA | 112 | Literature of the Theatre | 3 |
| DRA | 122 | Oral Interpretation | 3 |
| DRA | 126 | Storytelling | 3 |
| Foreign Languages |  |  |  |
| FRE | 111 | Elementary French I | 3 |
| FRE | 112 | Elementary French II | 3 |
| GER | 111 | Elementary German I | 3 |
| GER | 112 | Elementary German II | 3 |
| SPA | 111 | Elementary Spanish I | 3 |
| SPA | 112 | Elementary Spanish II | 3 |
| SPA | 211 | Intermediate Spanish I | 3 |
| SPA | 212 | Intermediate Spanish II | 3 |
| Interdisciplinary Humanities |  |  |  |
| HUM | 110 | Technology and Society | 3 |
| HUM | 115 | Critical Thinking | 3 |
| HUM | 120 | Cultural Studies | 3 |
| HUM | 122 | Southern Culture | 3 |
| HUM | 130 | Myth in Human Culture | 3 |
| HUM | 150 | American Womens Studies | 3 |
| HUM | 160 | Introduction to Film | 3 |
| HUM | 161 | Advanced Film Studies | 3 |
| HUM | 211 | Humanities I | 3 |
| HUM | 212 | Humanities II | 3 |
| Literature |  |  |  |
| ENG | 131 | Introduction to Literature | 3 |
| ENG | 231 | American Literature I | 3 |
| ENG | 232 | American Literature II | 3 |
| ENG | 241 | British Literature I | 3 |
| ENG | 242 | British Literature II | 3 |
| ENG | 243 | Major British Writers | 3 |
| ENG | 251 | Western World Literature I | 3 |
| ENG | 252 | Western World Literature II | 3 |
| ENG | 261 | World Literature I | 3 |
| ENG | 262 | World Literature II | 3 |
| Music |  |  |  |
| MUS | 110 | Music Appreciation | 3 |
| MUS | 113 | American Music | 3 |
| MUS | 210 | History of Rock Music | 3 |
| MUS | 212 | American Musical Theatre | 3 |
| MUS | 213 | Opera and Musical Theatre | 3 |
| Philosophy |  |  |  |
| PHI | 210 | History of Philosophy | 3 |
| PHI | 220 | Western Philosophy I | 3 |
| PHI | 221 | Western Philosophy II | 3 |
| PHI | 230 | Introduction to Logic | 3 |
| PHI | 240 | Introduction to Ethics | 3 |

## Religion

| REL | 110 | World Religions | 3 |
| :--- | :--- | :--- | :--- |
| REL | 211 | Introduction to Old Testament | 3 |
| REL | 212 | Introduction to New Testament | 3 |
| REL | 221 | Religion in America | 3 |

## Social and Behavioral Sciences (12 SHC)

Take four courses from at least three of the following discipline areas: history, anthropology, economics, geography, political science, psychology or sociology.

## At least one course must be a history course.

## History Requirement

Take one of the following courses.

| HIS | 111 | World Civilizations I | 3 |
| :--- | :--- | :--- | :--- |
| HIS | 112 | World Civilizations II | 3 |
| HIS | 115 | Intro to Global History | 3 |
| HIS | 121 | Western Civilization I | 3 |
| HIS | 122 | Western Civilization II | 3 |

## Pre-Major Requirement

The following course is required. PSY 150 General Psychology

Take one of the following courses.
SOC 210 Introduction to Sociology 3
SOC 225 Social Diversity 3

## Remaining Requirements

Take one course from any of the following discipline areas: anthropology, economics, geography, history, political science, psychology or sociology.

| Anthropology |  |  |
| :--- | :--- | :--- |
| ANT 210 | General Anthropology | 3 |
| ANT 220 | Cultural Anthropology | 3 |
| ANT 221 | Comparative Cultures | 3 |
| ANT 230 | Physical Anthropology | 3 |
| ANT 230A | Physical Anthropology Lab | 1 |
| ANT 240 | Archaeology | 3 |
| Economics |  |  |
| ECO 251 | Principles of Microeconomics | 3 |
| ECO 252 | Principles of Macroeconomics | 3 |
| Geography |  |  |
| GEO 111 | World Regional Geography | 3 |
| GEO 112 | Cultural Geography | 3 |
| GEO 113 | Economic Geography | 3 |
| GEO 130 | General Physical Geography | 3 |


| History |  |  | 3 |
| :---: | :--- | :--- | :--- |
| HIS | 111 | World Civilizations I | 3 |
| HIS | 112 | World Civilizations II | 3 |
| HIS | 115 | Intro to Global History | 3 |
| HIS | 121 | Western Civilization I | 3 |
| HIS | 122 | Western Civilization II | 3 |
| HIS | 131 | American History I | 3 |
| HIS | 132 | American History II |  |
| Political Science |  | 3 |  |
| POL | 110 | Introduction to Political Science | 3 |
| POL | 120 | American Government | 3 |
| POL | 210 | Comparative Government | 3 |
| POL | 220 | International Relations |  |
| Psychology |  | 3 |  |
| PSY | 237 | Social Psychology | 3 |
| PSY | 239 | Psychology of Personality | 3 |
| PSY | 241 | Dev.al Psychology | 3 |
| PSY | 281 | Abnormal Psychology |  |
| Sociology |  |  | 3 |
| SOC | 210 | Introduction to Sociology | 3 |
| SOC | 213 | Sociology of the Family | 3 |
| SOC | 220 | Social Problems | 3 |
| SOC | 225 | Social Diversity | 3 |
| SOC | 230 | Race and Ethnic Relations | 3 |
| SOC | 240 | Social Psychology | 3 |

## Natural Science and Mathematics Requirement (14 SHC)

## Biology Requirement

Take one of the following courses.

| BIO | 110 | Principles of Biology |
| :--- | :--- | :--- |
| BIO | 111 | General Biology I |

## Natural Sciences Requirement

Take one of the following sets.

| Set One |  |  |  |
| ---: | :--- | :--- | :--- |
| CHM | 131 | Introduction to Chemistry | 3 |
| CHM | 131 A | Introduction to Chemistry Lab | 1 |
| Set Two |  |  | 4 |
| CHM | 151 | General Chemistry I |  |
| Set Three |  | 3 |  |
| PHY | 110 | Conceptual Physics |  |
| PHY | 110 A | Conceptual Physics Lab | 1 |
| Set Four |  |  |  |
| PHY | 151 | College Physics I | 4 |

## Diploma Requirements

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. It is recommended that with the 20 SHC of Other Required Hours pre-major students in Special Education should take one of the following options: (1) Elective Option: 20 SHC of approved college transfer courses; (2) English Option: 12 SHC in English beyond general education requirements; (3) Mathematics/Natural Sciences Option: 12 SHC in Mathematics or Natural Sciences beyond general education requirements; (4) Foreign Language Option: 12 SHC in Foreign Language beyond general education requirements.

| ACC | 120 | Principles of Financial Accounting | 4 |
| :--- | :--- | :--- | :--- |
| ACC | 121 | Principles of Managerial Accounting | 4 |
| ANT | 240 A | Archaeology Field Lab | 2 |
| ANT | 245 | World Prehistory | 3 |
| ART | 121 | Two-Dimensional Design | 3 |
| ART | 122 | Three-Dimensional Design | 3 |
| ART | 131 | Drawing I | 3 |
| ART | 132 | Drawing II | 3 |
| ART | 135 | Figure Drawing I | 3 |
| ART | 212 | Gallery Assistantship I | 1 |
| ART | 214 | Portfolio and Resume | 1 |
| ART | 235 | Figure Drawing II | 3 |
| ART | 240 | Painting I | 3 |
| ART | 241 | Painting II | 3 |
| ART | 244 | Watercolor | 3 |
| ART | 261 | Photography I | 3 |
| ART | 262 | Photography II | 3 |
| ART | 264 | Digital Photography I | 3 |
| ART | 265 | Digital Photography II | 3 |
| ART | 266 | Videography I | 3 |
| ART | 267 | Videography II | 3 |
| ART | 281 | Sculpture I | 3 |
| ART | 282 | Sculpture II | 3 |
| ART | 283 | Ceramics I | 3 |
| ART | 288 | Studio | 3 |
| AST | 111 | Descriptive Astronomy | 3 |
| AST | 111 A | Descriptive Astronomy Lab | 3 |
| AST | 251 | Observational Astronomy | 3 |
| BIO | 110 | Principles of Biology | 1 |
| BIO | 112 | General Biology II | 2 |
| BIO | 140 | Environmental Biology | 4 |
| BIO | $140 A$ | Environmental Biology Lab | 4 |
| BIO | 163 | Basic Anatomy and Physiology | 5 |
| BIO | 168 | Anatomy and Physiology I | 4 |
| BIO | 169 | Anatomy and Physiology II | 4 |
| BIO | 250 | Genetics | 4 |
| BIO | 275 | Microbiology | 4 |
| BIO | 280 | Biotechnology | 3 |
| BUS | 110 | Introduction to Business | 3 |
| BUS | 115 | Business Law I | 3 |
| BUS | 137 | Principles of Management | 3 |
|  |  |  | 3 |
| A |  |  |  |


| CHM | 132 | Organic and Biochemistry | 4 |
| :---: | :---: | :---: | :---: |
| CHM | 263 | Analytical Chemistry | 5 |
| CIS | 110 | Introduction to Computers | 3 |
| CIS | 115 | Intro to Programming and Logic | 3 |
| CJC | 111 | Introduction to Criminal Justice | 3 |
| CJC | 121 | Law Enforcement Operations | 3 |
| CJC | 141 | Corrections | 3 |
| COM | 110 | Introduction to Communication | 3 |
| COM | 120 | Intro to Interpersonal Communication | 3 |
| COM | 130 | Nonverbal Communication | 3 |
| COM | 140 | Intro. to Intercultural Communication | 3 |
| COM | 150 | Introduction to Mass Communication | 3 |
| COM | 160 | Small Group Communication | 3 |
| COM | 232 | Election Rhetoric | 3 |
| COM | 233 | Persuasive Speaking | 3 |
| COM | 251 | Debate I | 3 |
| COM | 252 | Debate II | 3 |
| CSC | 139 | Visual BASIC Programming | 3 |
| CSC | 151 | JAVA Programming | 3 |
| CSC | 239 | Advanced Visual BASIC Programming | 3 |
| DFT | 170 | Engineering Graphics | 3 |
| DRA | 130 | Acting I | 3 |
| DRA | 170 | Play Production I | 3 |
| ECO | 151 | Survey of Economics | 3 |
| ENG | 125 | Creative Writing I | 3 |
| ENG | 126 | Creative Writing II | 3 |
| ENG | 132 | Introduction to Drama | 3 |
| ENG | 235 | Survey of Film As Lit | 3 |
| ENG | 272 | Southern Literature | 3 |
| ENG | 273 | African-American Literature | 3 |
| ENG | 274 | Literature by Women | 3 |
| GEO | 121 | North Carolina Geography | 3 |
| HEA | 110 | Personal Health/Wellness | 3 |
| HIS | 162 | Women and History | 3 |
| HIS | 163 | The World Since 1945 | 3 |
| HIS | 226 | The Civil War | 3 |
| HIS | 236 | North Carolina History | 3 |
| HIS | 260 | History of Africa | 3 |
| JOU | 110 | Introduction to Journalism | 3 |
| JOU | 216 | Writing for Mass Media | 3 |
| JOU | 217 | Feature/Editorial Writing | 3 |
| JOU | 242 | Introduction to Multimedia | 3 |
| MAT | 151 | Statistics I | 3 |
| MAT | 151A | Statistics I Lab | 1 |
| MAT | 171 | Precalculus Algebra | 3 |
| MAT | 171A | Precalculus Algebra Lab | 1 |
| MAT | 172 | Precalculus Trigonometry | 3 |
| MAT | 172A | Precalculus Trigonometry Lab | 1 |
| MAT | 175 | Precalculus | 4 |
| MAT | 271 | Calculus I | 4 |
| MAT | 272 | Calculus II | 4 |
| MAT | 273 | Calculus III | 4 |
| MUS | 131 | Chorus I | 1 |
| PED | 110 | Fit and Well for Life | 2 |
| PED | 111 | Physical Fitness I | 1 |


| PED | 113 | Aerobics I | 1 |
| :--- | :--- | :--- | :--- |
| PED | 117 | Weight Training I | 1 |
| PED | 121 | Walk, Jog, Run | 1 |
| PED | 122 | Yoga I | 1 |
| PED | 128 | Golf-Beginning | 1 |
| PED | 142 | Lifetime Sports | 1 |
| PED | 217 | Pilates I | 1 |
| POL | 130 | State and Local Government | 3 |
| PSY | 211 | Psychology of Adjustment | 3 |
| PSY | 215 | Positive Psychology | 3 |
| PSY | 231 | Forensic Psychology | 3 |
| PSY | 243 | Child Psychology | 3 |
| PSY | 246 | Adolescent Psychology | 3 |
| PSY | 249 | Psychology of Aging | 3 |
| PSY | 259 | Human Sexuality | 3 |
| PSY | 271 | Sports Psychology | 3 |
| PSY | 275 | Health Psychology | 3 |
| SOC | 234 | Sociology of Gender | 3 |
| SOC | 242 | Sociology of Deviance | 3 |
| SOC | 245 | Drugs and Society | 3 |
| SOC | 250 | Sociology of Religion | 3 |

## Total semester hour credits to complete degree: 65

# Associate in Fine Arts (10200) 

http://www.rccc.edu/catalog-2012-2013/?p=1390

## 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 two- and three-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.
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 SHC 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 SHC 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 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.

## Awards

- Associate in Fine Arts Degree (A10200)


## Additional Information

You may also contact Instructor Jonathan Church or Instructor Jenn Selby for additional information regarding this program. Their contact information is available on the RCCC website.

## Contact Information

The Associate in Fine Arts (10200) program is in the RCCC Department of Liberal Arts, Business Technologies and General Education. For additional information regarding this program, contact the program chair, Robin Satterwhite (robin.satterwhite@ rccc.edu).
The * symbol denotes a core course that may not be substituted.

## Associate in Fine Arts Degree (A10200)

http://www.rccc.edu/catalog-2012-2013/?p=1322

## Success and Study Skills Requirement (1 SHC)

The following success and study skills course must be taken in the first semester by all students pursuing this degree. This course may not transfer to a senior institution.

$$
\text { ACA } 122 \quad \text { College Transfer Success }
$$

1

## General Education Requirements (28 SHC)

## English Composition (6 SHC)

Take the following course.
ENG 111 Expository Writing
Take one of the following courses.

| ENG | 112 | Argument-Based Research | 3 |
| :--- | :--- | :--- | :--- |
| ENG | 113 | Literature-Based Research | 3 |
| ENG | 114 | Professional Research and Reporting | 3 |

## Humanities and Fine Arts (6 SHC)

Take two courses from at least two of the following discipline areas: drama, foreign languages, interdisciplinary humanities, literature, music, philosophy or religion.
At least one course must be a literature course.

## Literature

| ENG | 131 | Introduction to Literature | 3 |
| :--- | :--- | :--- | :--- |
| ENG | 231 | American Literature I | 3 |
| ENG | 232 | American Literature II | 3 |
| ENG | 241 | British Literature I | 3 |
| ENG | 242 | British Literature II | 3 |
| ENG | 243 | Major British Writers | 3 |
| ENG | 251 | Western World Literature I | 3 |
| ENG | 252 | Western World Literature II | 3 |
| ENG | 261 | World Literature I | 3 |
| ENG | 262 | World Literature II | 3 |

## Drama

DRA 111 Theatre Appreciation 3
DRA 112 Literature of the Theatre 3
DRA 122 Oral Interpretation 3
DRA 126 Storytelling 3
$\begin{array}{lll}\text { Foreign Languages } \\ \text { FRE } & 111 \quad \text { Elementary French I }\end{array}$
FRE 112 Elementary French II 3
GER 111 Elementary German I 3
GER 112 Elementary German II 3
SPA 111 Elementary Spanish I 3
SPA 112 Elementary Spanish II 3
SPA 211 Intermediate Spanish I 3
SPA 212 Intermediate Spanish II 3

| Interdisciplinary |  |  |  |
| :---: | :--- | :--- | :--- |
| HUM | 110 | Humanities |  |
| HUM | 115 | Technology and Society |  |
| HUM | 120 | Cultural Studies | 3 |
| HUM | 122 | Southern Culture | 3 |
| HUM | 130 | Myth in Human Culture | 3 |
| HUM | 150 | American Womens Studies | 3 |
| HUM | 160 | Introduction to Film | 3 |
| HUM | 161 | Advanced Film Studies | 3 |
| HUM | 211 | Humanities I | 3 |
| HUM | 212 | Humanities II | 3 |
| Music |  |  | 3 |
| MUS | 110 | Music Appreciation | 3 |
| MUS | 113 | American Music |  |
| MUS | 210 | History of Rock Music | 3 |
| MUS | 212 | American Musical Theatre | 3 |
| MUS | 213 | Opera and Musical Theatre | 3 |
|  |  |  | 3 |
| Philosophy |  | 3 |  |
| PHI | 210 | History of Philosophy |  |
| PHI | 220 | Western Philosophy I | 3 |
| PHI | 221 | Western Philosophy II | 3 |
| PHI | 230 | Introduction to Logic | 3 |
| PHI | 240 | Introduction to Ethics | 3 |
| Religion |  |  | 3 |
| REL | 110 | World Religions | 3 |
| REL | 211 | Introduction to Old Testament | 3 |
| REL | 212 | Introduction to New Testament | 3 |
| REL | 221 | Religion in America | 3 |

## Speech and Communication

One of the following courses may substitute for three SHC of the humanities and fine arts requirement. Speech and communication courses may not substitute for the literature requirement.

| COM | 110 | Introduction to Communication | 3 |
| :--- | :--- | :--- | :--- |
| COM | 120 | Intro to Interpersonal Communication | 3 |
| COM | 231 | Public Speaking | 3 |

## Social and Behavioral Sciences (9 SHC)

Take three courses from at least three of the following discipline areas: history, anthropology, economics, geography, political science, psychology or sociology.

## At least one course must be a history course.

| History |  |  |  |
| :---: | :--- | :--- | :--- |
| HIS | 111 | World Civilizations I | 3 |
| HIS | 112 | World Civilizations II | 3 |
| HIS | 115 | Intro to Global History | 3 |
| HIS | 121 | Western Civilization I | 3 |
| HIS | 122 | Western Civilization II | 3 |
| HIS | 131 | American History I | 3 |
| HIS | 132 | American History II | 3 |


| Anthropology |  |  |  |
| :---: | :---: | :---: | :---: |
| ANT | 210 | General Anthropology | 3 |
| ANT | 220 | Cultural Anthropology | 3 |
| ANT | 221 | Comparative Cultures | 3 |
| ANT | 230 | Physical Anthropology | 3 |
| ANT | 230A | Physical Anthropology Lab | 1 |
| ANT | 240 | Archaeology | 3 |
| Economics |  |  |  |
| ECO | 251 | Principles of Microeconomics | 3 |
| ECO | 252 | Principles of Macroeconomics | 3 |
| Geography |  |  |  |
| GEO | 111 | World Regional Geography | 3 |
| GEO | 112 | Cultural Geography | 3 |
| GEO | 113 | Economic Geography | 3 |
| GEO | 130 | General Physical Geography | 3 |
| Political Science |  |  |  |
| POL | 110 | Introduction to Political Science | 3 |
| POL | 120 | American Government | 3 |
| POL | 210 | Comparative Government | 3 |
| POL | 220 | International Relations | 3 |
| Psychology |  |  |  |
| PSY | 150 | General Psychology | 3 |
| PSY | 237 | Social Psychology | 3 |
| PSY | 239 | Psychology of Personality | 3 |
| PSY | 241 | Dev.al Psychology | 3 |
| PSY | 281 | Abnormal Psychology | 3 |
| Sociology |  |  |  |
| SOC | 210 | Introduction to Sociology | 3 |
| SOC | 213 | Sociology of the Family | 3 |
| SOC | 220 | Social Problems | 3 |
| SOC | 225 | Social Diversity | 3 |
| SOC | 230 | Race and Ethnic Relations | 3 |
| SOC | 240 | Social Psychology | 3 |

## Natural Science and Mathematics Requirement (7 SHC)

If MAT 151 Statistics I or MAT 171 Precalculus Algebra is selected, the accompany lab, MAT 151 A or MAT 171 A , is also required. These one-credit hour courses will satisfy one of the 24 required electives under Other Required Hours.

## Natural Sciences Requirement

Take one of the following sets.

## Set One

AST 151 General Astronomy I 3
AST 151A General Astronomy I Lab 1
Set Two
BIO 111
General Biology I
Set Three
CHM 131 Introduction to Chemistry 3
CHM 131 A Introduction to Chemistry Lab 1

## Set Four

CHM 151 General Chemistry I

## Set Five

PHY 151 College Physics I

## Mathematics Requirement

Take one course from the following.
Students should check with the university of their choice to make sure that they complete the appropriate mathematics course.

## Introductory Mathematics

MAT 151 Statistics I 3
MAT 161 College Algebra 3
MAT 171 Precalculus Algebra 3
MAT 175 Precalculus 4

## Diploma Requirements

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 (36 SHC)

Students should check with the university of their choice regarding the transfer of fine arts electives.

## Required Courses

The following Fine Arts Core courses are required.

| ART | 114 | Art History Survey I | 3 |
| :--- | :--- | :--- | :--- |
| ART | 115 | Art History Survey II | 3 |
| ART | 121 | Two-Dimensional Design | 3 |
| ART | 131 | Drawing I | 3 |

## Elective Courses

Select 24 SHC from the following Fine Arts Electives courses.

| ART | 116 | Survey of American Art | 3 |
| :--- | :--- | :--- | :--- |
| ART | 122 | Three-Dimensional Design | 3 |
| ART | 132 | Drawing II | 3 |
| ART | 135 | Figure Drawing I | 3 |
| ART | 214 | Portfolio and Resume | 1 |
| ART | 235 | Figure Drawing II | 3 |
| ART | 240 | Painting I | 3 |
| ART | 241 | Painting II | 3 |
| ART | 244 | Watercolor | 3 |
| ART | 261 | Photography I | 3 |
| ART | 262 | Photography II | 3 |
| ART | 264 | Digital Photography I | 3 |
| ART | 265 | Digital Photography II | 3 |
| ART | 266 | Videography I | 3 |
| ART | 267 | Videography II | 3 |
| ART | 281 | Sculpture I | 3 |
| ART | 282 | Sculpture II | 3 |
| ART | 283 | Ceramics I | 3 |

ART 288 Studio 3
MAT 151A Statistics I Lab 1
MAT 171A Precalculus Algebra Lab 1
Total semester hour credits to complete degree: 65

## Associate in General Education (10300)

http://www.rccc.edu/catalog-2012-2013/?p=1968

## Description

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

## Awards

- Associate in General Education Degree (A10300)


## Contact Information

The Associate in General Education (10300) program is in the RCCC Department of Academic Programs. For additional information regarding this program, contact the division director, Betty Stack (betty.stack@rccc.edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=1968)
The $*$ symbol denotes a core course that may not be substituted.

## Associate in General Education Degree (A10300)

http://www.rccc.edu/catalog-2012-2013/?p=1970

## General Education Requirements (15 SHC)

## English Composition (6 SHC)

Take the following course.
ENG 111 Expository Writing 3
Take one of the following courses.

| ENG | 112 | Argument-Based Research | 3 |
| :--- | :--- | :--- | :--- |
| ENG | 113 | Literature-Based Research | 3 |
| ENG | 114 | Professional Research and Reporting | 3 |

## Humanities and Fine Arts (3 SHC)

Take one courses from at least one of the following discipline areas: art, drama, foreign languages, interdisciplinary humanities, literature, music, philosophy or religion.

Art
ART 111 Art Appreciation 3
ART 114 Art History Survey I 3
ART 115 Art History Survey II 3
ART 116 Survey of American Art 3

## Drama

DRA 11
DRA 11
DRA 122
DRA 126
Theatre Appreciation
3
3
3

3

## Foreign Languages

FRE 111 Elementary French I 3
FRE 112 Elementary French II 3
GER 111 Elementary German I 3
GER 112 Elementary German II 3
SPA 111 Elementary Spanish I 3
SPA 112 Elementary Spanish II 3
SPA 211 Intermediate Spanish I 3
SPA 212 Intermediate Spanish II 3

## Interdisciplinary Humanities

HUM 110 Technology and Society 3
HUM 115 Critical Thinking 3
HUM 120 Cultural Studies 3
HUM 122 Southern Culture 3
HUM 130 Myth in Human Culture 3
HUM 150 American Womens Studies 3
HUM 160 Introduction to Film 3
HUM 161 Advanced Film Studies 3
HUM 211 Humanities I 3
HUM 212 Humanities II 3

## Literature

ENG 131 Introduction to Literature 3
ENG 231 American Literature I 3
ENG 232 American Literature II 3
ENG 241 British Literature I 3
ENG 242 British Literature II 3
ENG 243 Major British Writers 3
ENG 251 Western World Literature I 3
ENG 252 Western World Literature II 3
ENG 261 World Literature I 3
ENG 262 World Literature II 3
Music
MUS 110 Music Appreciation 3
MUS 113 American Music 3
MUS 210 History of Rock Music 3
MUS 212 American Musical Theatre 3
MUS 213 Opera and Musical Theatre 3

## Philosophy

| PHI | 210 | History of Philosophy | 3 |
| :--- | :--- | :--- | :--- |
| PHI | 220 | Western Philosophy I | 3 |
| PHI | 221 | Western Philosophy II | 3 |
| PHI | 230 | Introduction to Logic | 3 |
| PHI | 240 | Introduction to Ethics | 3 |

Religion

| REL | 110 | World Religions | 3 |
| :--- | :--- | :--- | :--- |
| REL | 211 | Introduction to Old Testament | 3 |
| REL | 212 | Introduction to New Testament | 3 |
| REL | 221 | Religion in America | 3 |

## Social and Behavioral Sciences (3 SHC)

Take one courses from at least one of the following discipline areas: history, anthropology, economics, geography, political science, psychology or sociology.

## Anthropology

| ANT | 210 | General Anthropology | 3 |
| :--- | :--- | :--- | :--- |
| ANT | 220 | Cultural Anthropology | 3 |
| ANT | 221 | Comparative Cultures | 3 |
| ANT | 230 | Physical Anthropology | 3 |
| ANT | 230 A | Physical Anthropology Lab | 1 |
| ANT | 240 | Archaeology | 3 |

## Economics

ECO 151
ECO 251
Survey of Economics
Principles of Microeconomics
Principles of Macroeconomics
Geography
GEO 11
GEO 112
GEO 113
World Regional Geography

GEO 130
History
HIS 111 World Civilizations I 3
HIS 112 World Civilizations II 3
HIS 115 Intro to Global History 3
HIS 121
HIS 122
HIS 131
Western Civilization I

HIS 132
American History I

| Political Science |  |  |  |
| :---: | :---: | :--- | :--- |
| POL | 110 | Introduction to Political Science | 3 |
| POL | 120 | American Government | 3 |
| POL | 210 | Comparative Government | 3 |
| POL | 220 | International Relations | 3 |

Psychology

| PSY | 150 | General Psychology | 3 |
| :--- | :--- | :--- | :--- |
| PSY | 237 | Social Psychology | 3 |
| PSY | 239 | Psychology of Personality | 3 |
| PSY | 241 | Dev.al Psychology | 3 |
| PSY | 281 | Abnormal Psychology | 3 |


| Sociology |  |  |  |
| :---: | :--- | :--- | :--- |
| SOC | 210 | Introduction to Sociology | 3 |
| SOC | 213 | Sociology of the Family | 3 |
| SOC | 220 | Social Problems | 3 |
| SOC | 225 | Social Diversity | 3 |
| SOC | 230 | Race and Ethnic Relations | 3 |
| SOC | 240 | Social Psychology | 3 |

## Natural Science and Mathematics Requirement <br> (3-4 SHC)

If MAT 151 or MAT 171 are selected, the accompanying lab, MAT 151A or MAT 171A, must be taken as Other Required Hours.

## Natural Sciences Requirement

Take one of the following courses.

| AST | 151 | General Astronomy I | 3 |
| :--- | :--- | :--- | :--- |
| AST | 151 A | General Astronomy I Lab | 1 |
| BIO | 111 | General Biology I | 4 |
| CHM | 131 | Introduction to Chemistry | 3 |
| CHM | 131 A | Introduction to Chemistry Lab | 1 |
| CHM | 151 | General Chemistry I | 4 |
| CIS | 110 | Introduction to Computers | 3 |
| CIS | 115 | Intro to Programming and Logic | 3 |
| MAT | 140 | Survey of Mathematics | 3 |
| MAT | 151 | Statistics I | 3 |
| MAT | 161 | College Algebra | 3 |
| MAT | 171 | Precalculus Algebra | 3 |
| MAT | 175 | Precalculus | 4 |
| PHY | 151 | College Physics I | 4 |
| PHY | 251 | General Physics I | 4 |

## Diploma Requirements

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 (49-50 SHC)

Other required hours include additional general education and associate degree level courses. Courses must be at the 110-199 or 210-299 level. A maximum of 7 SHC in health, physical education, college orientation, and/or study skills may be included. Selected topics or seminar courses may be included in a program of study up to a maximum of three semester hour credits. These courses can be selected from any of the preceding courses not chosen for the general education requirement plus any of the 110-199 or 210-299 level courses with the following prefixes: ACA, ACC, AGR, AHR, ANT, ART, AST, AUT, BIO, BTC, BUS, CCT, CHM, CIS, CJC, CMT, COM, COS, CSC, CTI, CTS, DBA, DFT, DRA, ECM, ECO, EDU, EGR, ELC, ELN, ENG, FIP, FRE, GEO, GER, HEA, HIS, HSE, HUM, INT, ISC, JOU, MAC, MAT, MEC, MSM, MUS, NET, NOS, OST PED, PHI, PHY, POL, PSY, REL, SEC, SOC, SPA, WEB, WLD -- NUR and RAD if applicable.

## Total semester hour credits to complete degree: 64-65

## Associate in Science (10400)

http://www.rccc.edu/catalog-2012-2013/?p=1667

## 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 SHC 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 SHC 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 or 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.

## Awards

- Associate in Science Degree (A10400)
- Diploma (D10400)


## Additional Information

In addition to the forty-four semester hour credit 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 Science (10400) program is in the RCCC Department of Science, Biotechnology, Mathematics and Information Technologies. For additional information regarding this program, contact the dean, Marcy Corjay (marcy.corjay@rccc. edu).
The * symbol denotes a core course that may not be substituted.

## Associate in Science Degree (A10400)

http://www.rccc.edu/catalog-2012-2013/?p=1669

## Success and Study Skills Requirement (1 SHC)

The following success and study skills course must be taken in the first semester by all students pursuing this degree. This course may not transfer to a senior institution.

$$
\text { ACA } 122 \quad \text { College Transfer Success }
$$

1

## General Education Requirements (44 SHC)

## English Composition (6 SHC)

Take the following course.

$$
\text { ENG } 111 \quad \text { Expository Writing } 3
$$

Take one of the following courses.

| ENG | 112 | Argument-Based Research | 3 |
| :--- | :--- | :--- | :--- |
| ENG | 113 | Literature-Based Research | 3 |
| ENG | 114 | Professional Research and Reporting | 3 |

## Humanities and Fine Arts (9 SHC)

Take three courses from at least three of the following discipline areas: art, drama, foreign languages, interdisciplinary humanities, literature, music, philosophy or religion.
At least one course must be a literature course.

## Literature

ENG 131 Introduction to Literature 3

ENG 231 American Literature I 3
ENG 232 American Literature II 3
ENG 241 British Literature I 3
ENG 242 British Literature II 3
ENG 243 Major British Writers 3
ENG 251 Western World Literature I 3
ENG 252 Western World Literature II 3
ENG 261 World Literature I 3
ENG 262 World Literature II 3
Art
ART 111 Art Appreciation 3
ART 114 Art History Survey I 3
ART 115 Art History Survey II 3
ART 116 Survey of American Art 3

| Drama |  |  |  |
| :---: | :---: | :---: | :---: |
| DRA | 111 | Theatre Appreciation | 3 |
| DRA | 112 | Literature of the Theatre | 3 |
| DRA | 122 | Oral Interpretation | 3 |
| DRA | 126 | Storytelling | 3 |
| Foreign Languages |  |  |  |
| FRE | 111 | Elementary French I | 3 |
| FRE | 112 | Elementary French II | 3 |
| GER | 111 | Elementary German I | 3 |
| GER | 112 | Elementary German II | 3 |
| SPA | 111 | Elementary Spanish I | 3 |
| SPA | 112 | Elementary Spanish II | 3 |
| SPA | 211 | Intermediate Spanish I | 3 |
| SPA | 212 | Intermediate Spanish II | 3 |
| Interdisciplinary Humanities |  |  |  |
| HUM | 110 | Technology and Society | 3 |
| HUM | 115 | Critical Thinking | 3 |
| HUM | 120 | Cultural Studies | 3 |
| HUM | 122 | Southern Culture | 3 |
| HUM | 130 | Myth in Human Culture | 3 |
| HUM | 150 | American Womens Studies | 3 |
| HUM | 160 | Introduction to Film | 3 |
| HUM | 161 | Advanced Film Studies | 3 |
| HUM | 211 | Humanities I | 3 |
| HUM | 212 | Humanities II | 3 |
| Music |  |  |  |
| MUS | 110 | Music Appreciation | 3 |
| MUS | 113 | American Music | 3 |
| MUS | 210 | History of Rock Music | 3 |
| MUS | 212 | American Musical Theatre | 3 |
| MUS | 213 | Opera and Musical Theatre | 3 |
| Philosophy |  |  |  |
| PHI | 210 | History of Philosophy | 3 |
| PHI | 220 | Western Philosophy I | 3 |
| PHI | 221 | Western Philosophy II | 3 |
| PHI | 230 | Introduction to Logic | 3 |
| PHI | 240 | Introduction to Ethics | 3 |
| Religion |  |  |  |
| REL | 110 | World Religions | 3 |
| REL | 211 | Introduction to Old Testament | 3 |
| REL | 212 | Introduction to New Testament | 3 |
| REL | 221 | Religion in America | 3 |

## Speech and Communication

One of the following courses may substitute for three SHC of the humanities and fine arts requirement. Speech and communication courses may not substitute for the literature requirement.

| COM | 110 | Introduction to Communication | 3 |
| :--- | :--- | :--- | :--- |
| COM | 120 | Intro to Interpersonal Communication | 3 |
| COM | 231 | Public Speaking | 3 |

## Social and Behavioral Sciences (9 SHC)

Take three courses from at least three of the following discipline areas: history, anthropology, economics, geography, political science, psychology or sociology.
At least one course must be a history course.

## History

HIS 111 World Civilizations I 3
HIS 112 World Civilizations II 3
HIS 115 Intro to Global History 3
HIS 121 Western Civilization I 3
HIS 122 Western Civilization II 3
HIS 131 American History I 3
HIS 132 American History II 3
Anthropology
ANT 210 General Anthropology 3
ANT 220 Cultural Anthropology 3
ANT 221 Comparative Cultures 3
ANT 230 Physical Anthropology 3
ANT 230A Physical Anthropology Lab 1
ANT 240 Archaeology 3
Economics
ECO 251 Principles of Microeconomics 3
ECO 252 Principles of Macroeconomics 3
Geography
GEO 111 World Regional Geography 3
GEO 112 Cultural Geography 3
GEO 113 Economic Geography 3
GEO 130 General Physical Geography 3
Political Science
POL 110 Introduction to Political Science 3
POL 120 American Government 3
POL 210 Comparative Government 3
POL 220 International Relations 3
Psychology
PSY 150 General Psychology 3
PSY 237 Social Psychology 3
PSY 239 Psychology of Personality 3
PSY 241 Dev.al Psychology 3
PSY 281 Abnormal Psychology 3
Sociology

| SOC | 210 | Introduction to Sociology | 3 |
| :--- | :--- | :--- | :--- |
| SOC | 213 | Sociology of the Family | 3 |
| SOC | 220 | Social Problems | 3 |
| SOC | 225 | Social Diversity | 3 |
| SOC | 230 | Race and Ethnic Relations | 3 |
| SOC | 240 | Social Psychology | 3 |

## Natural Science and Mathematics Requirement (20 SHC)

Some courses require the accompanying lab. Please refer to the course descriptions for details.

## Natural Sciences Requirement

Take one of the following sets.

| Set One |  |  |  |
| :---: | :--- | :--- | :--- |
| BIO | 111 | General Biology I | 4 |
| BIO | 112 | General Biology II | 4 |
| Set Two |  |  | 4 |
| CHM | 151 | General Chemistry I | 4 |
| CHM | 152 | General Chemistry II |  |
| Set Three |  | 4 |  |
| PHY | 151 | College Physics I | 4 |
| PHY | 152 | College Physics II |  |
| Set Four |  | 4 |  |
| PHY | 251 | General Physics I | 4 |
| PHY | 252 | General Physics II | 4 |

## Mathematics Requirement

Take one course from each set below.
Students should check with the university of their choice to make sure that they complete the appropriate mathematics course.

Introductory Mathematics

| MAT | 171 | Precalculus Algebra | 3 |
| :--- | :--- | :--- | :--- |
| MAT | 175 | Precalculus | 4 |
| MAT | 263 | Brief Calculus | 3 |


| Second | Mathematics |  |  |
| :--- | :--- | :--- | :--- |
| CIS | 110 | Introduction to Computers | 3 |
| CIS | 115 | Intro to Programming and Logic | 3 |
| MAT | 151 | Statistics I | 3 |
| MAT | 172 | Precalculus Trigonometry | 3 |
| MAT | 263 | Brief Calculus | 3 |
| MAT | 271 | Calculus I | 4 |

Additional Natural Science and Mathematics Requirement
Take 6 SHC from the following courses.

| AST | 151 | General Astronomy I | 3 |
| :--- | :--- | :--- | :--- |
| AST | 151 A | General Astronomy I Lab | 1 |
| AST | 152 | General Astronomy II | 3 |
| AST | 152 A | General Astronomy II Lab | 1 |
| BIO | 111 | General Biology I | 4 |
| BIO | 112 | General Biology II | 4 |
| BIO | 140 | Environmental Biology | 3 |
| BIO | 140 A | Environmental Biology Lab | 1 |
| CHM | 131 | Introduction to Chemistry | 3 |
| CHM | 131 A | Introduction to Chemistry Lab | 1 |
| CHM | 132 | Organic and Biochemistry | 4 |
| CHM | 151 | General Chemistry I | 4 |
| CHM | 152 | General Chemistry II | 4 |
| MAT | 151 | Statistics I | 3 |


| MAT | 175 | Precalculus | 4 |
| :--- | :--- | :--- | :--- |
| MAT | 263 | Brief Calculus | 3 |
| MAT | 271 | Calculus I | 4 |
| MAT | 272 | Calculus II | 4 |
| MAT | 273 | Calculus III | 4 |

## Diploma Requirements

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 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 | 2 |
| :--- | :--- | :--- | :--- |
| BIO | 163 | Basic Anatomy and Physiology | 5 |
| BIO | 168 | Anatomy and Physiology I | 4 |
| BIO | 169 | Anatomy and Physiology II | 4 |
| BIO | 250 | Genetics | 4 |
| BIO | 275 | Microbiology | 4 |
| BIO | 280 | Biotechnology | 3 |
| CSC | 134 | C++ Programming | 3 |
| CSC | 139 | Visual BASIC Programming | 3 |
| CSC | 151 | JAVA Programming | 3 |
| CSC | 239 | Advanced Visual BASIC Programming | 3 |
| MAT | 151 A | Statistics I Lab | 1 |
| MAT | 161 | College Algebra | 3 |
| MAT | 171 A | Precalculus Algebra Lab | 1 |
| MAT | 172 A | Precalculus Trigonometry Lab | 1 |

## General Electives

An additional 6 SHC are required. It is recommended that these courses be taken from the Natural Science/Mathematics core courses or Natural Science, Mathematics or computer sciences courses listed above. Courses also may be taken from the following list of general education, pre-major, or elective courses.

| ACC | 120 | Principles of Financial Accounting | 4 |
| :--- | :--- | :--- | :--- |
| ACC | 121 | Principles of Managerial Accounting | 4 |
| ANT | 240 A | Archaeology Field Lab | 2 |
| ANT | 245 | World Prehistory | 3 |
| ART | 121 | Two-Dimensional Design | 3 |
| ART | 122 | Three-Dimensional Design | 3 |
| ART | 131 | Drawing I | 3 |
| ART | 132 | Drawing II | 3 |
| ART | 135 | Figure Drawing I | 3 |
| ART | 212 | Gallery Assistantship I | 1 |
| ART | 214 | Portfolio and Resume | 1 |
| ART | 235 | Figure Drawing II | 3 |
| ART | 240 | Painting I | 3 |
| ART | 241 | Painting II | 3 |
| ART | 244 | Watercolor | 3 |
| ART | 261 | Photography I | 3 |
| ART | 262 | Photography II | 3 |
| ART | 264 | Digital Photography I | 3 |
| ART | 265 | Digital Photography II | 3 |


| ART | 266 | Videography I | 3 |
| :---: | :---: | :---: | :---: |
| ART | 267 | Videography II | 3 |
| ART | 281 | Sculpture I | 3 |
| ART | 282 | Sculpture II | 3 |
| ART | 283 | Ceramics I | 3 |
| ART | 288 | Studio | 3 |
| BUS | 110 | Introduction to Business | 3 |
| BUS | 115 | Business Law I | 3 |
| BUS | 137 | Principles of Management | 3 |
| CHM | 263 | Analytical Chemistry | 5 |
| CJC | 111 | Introduction to Criminal Justice | 3 |
| CJC | 121 | Law Enforcement Operations | 3 |
| CJC | 141 | Corrections | 3 |
| COM | 130 | Nonverbal Communication | 3 |
| COM | 140 | Intro. to Intercultural Communication | 3 |
| COM | 150 | Introduction to Mass Communication | 3 |
| COM | 160 | Small Group Communication | 3 |
| COM | 232 | Election Rhetoric | 3 |
| COM | 233 | Persuasive Speaking | 3 |
| COM | 251 | Debate I | 3 |
| COM | 252 | Debate II | 3 |
| DFT | 170 | Engineering Graphics | 3 |
| DRA | 130 | Acting I | 3 |
| DRA | 170 | Play Production I | 3 |
| ECO | 151 | Survey of Economics | 3 |
| ENG | 125 | Creative Writing I | 3 |
| ENG | 126 | Creative Writing II | 3 |
| ENG | 132 | Introduction to Drama | 3 |
| ENG | 235 | Survey of Film As Lit | 3 |
| ENG | 272 | Southern Literature | 3 |
| ENG | 273 | African-American Literature | 3 |
| ENG | 274 | Literature by Women | 3 |
| GEO | 121 | North Carolina Geography | 3 |
| HEA | 110 | Personal Health/Wellness | 3 |
| HIS | 162 | Women and History | 3 |
| HIS | 163 | The World Since 1945 | 3 |
| HIS | 226 | The Civil War | 3 |
| HIS | 236 | North Carolina History | 3 |
| HIS | 260 | History of Africa | 3 |
| JOU | 110 | Introduction to Journalism | 3 |
| JOU | 216 | Writing for Mass Media | 3 |
| JOU | 217 | Feature/Editorial Writing | 3 |
| JOU | 242 | Introduction to Multimedia | 3 |
| MAT | 151A | Statistics I Lab | 1 |
| MAT | 171A | Precalculus Algebra Lab | 1 |
| MAT | 172A | Precalculus Trigonometry Lab | 1 |
| MAT | 272 | Calculus II | 4 |
| MAT | 273 | Calculus III | 4 |
| MUS | 131 | Chorus I | 1 |
| PED | 110 | Fit and Well for Life | 2 |
| PED | 111 | Physical Fitness I | 1 |
| PED | 113 | Aerobics I | 1 |
| PED | 117 | Weight Training I | 1 |
| PED | 121 | Walk, Jog, Run | 1 |


| PED | 122 | Yoga I | 1 |
| :--- | :--- | :--- | :--- |
| PED | 128 | Golf-Beginning | 1 |
| PED | 142 | Lifetime Sports | 1 |
| PED | 217 | Pilates I | 1 |
| PHY | 110 | Conceptual Physics | 3 |
| PHY | 110 A | Conceptual Physics Lab | 1 |
| POL | 130 | State and Local Government | 3 |
| PSY | 211 | Psychology of Adjustment | 3 |
| PSY | 215 | Positive Psychology | 3 |
| PSY | 231 | Forensic Psychology | 3 |
| PSY | 243 | Child Psychology | 3 |
| PSY | 246 | Adolescent Psychology | 3 |
| PSY | 249 | Psychology of Aging | 3 |
| PSY | 259 | Human Sexuality | 3 |
| PSY | 271 | Sports Psychology | 3 |
| PSY | 275 | Health Psychology | 3 |
| SOC | 234 | Sociology of Gender | 3 |
| SOC | 242 | Sociology of Deviance | 3 |
| SOC | 245 | Drugs and Society | 3 |
| SOC | 250 | Sociology of Religion | 3 |

Total semester hour credits to complete
degree: 65

# Automotive Systems Technology (60160) 

http://www.rccc.edu/catalog-2012-2013/?p=722

## 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 and electronic systems, engine performance, steering and suspension, automatic transmission and 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.

## Awards

- Associate in Applied Science Degree (A60160)
- Diploma (D60160)
- Automatic Transmission Certificate (C60160AT)
- Automotive Electrical and Electronics Certificate (C60160EE)
- Automotive Heating and Air Conditioning Certificate (C60160HA)
- Brakes Certificate (C60160BR)
- Engine Performance and Engine Repair Certificate (C60160EP)
- Manual Drive Train and Axles Certificate (C60160MD)
- Suspension and Steering Certificate (C60160SS)


## 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 chair or student services.

## Contact Information

The Automotive Systems Technology (60160) program is in the RCCC Department of Industrial and Engineering Technologies. For additional information regarding this program, contact the program chair, Wade Vernon (wade.vernon@rccc.edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=722)
The * symbol denotes a core course that may not be substituted.

## Associate in Applied Science Degree (A60160)

http://www.rccc.edu/catalog-2012-2013/?p=77

## First Year Fall

| AUT | 110 | Intro to Automotive Technology | 3 |
| :--- | :--- | :--- | :--- |
| AUT | 116 | Engine Repair | 3 |
| AUT | $116 A$ | Engine Repair Lab | 1 |
| AUT | 161 | Basic Auto Electricity | 5 |

Total SHC 12

## First Year Spring

| * AUT | 141 | Suspension and Steering Systems | 3 |
| :--- | :--- | :--- | :--- |
| AUT | 141 A | Suspension and Steering Lab | 1 |
| * AUT | 151 | Brake Systems | 3 |
|  | AUT | 151 A | Brakes Systems Lab |
| * AUT | 181 | Engine Performance 1 | 1 |
| AUT | 181 A | Engine Performance 1 Lab | 3 |
|  | --- | -- | Social/Behavioral Sciences Elective |

## First Year Summer

| AUT | 171 | Automotive Climate Control | 4 |
| :--- | :--- | :--- | :--- |
| * AUT | 183 | Engine Peformance 2 | 4 |
| AUT | 186 | PC Skills for Auto Techs | 3 |

Total SHC 11

## Second Year Fall

AUT 163 Advanced Automotive Electricity 3
AUT 163A Advanced Automotive Electricity Lab 1
AUT 231 Manual Transmissions/Transaxles/Drive
Trains
AUT 231A Manual Transmissions/Transaxles/Drive
Trains Lab 1
ENG 111 Expository Writing 3
MAT 115 Mathematical Models 3
Total SHC 14

## Second Year Spring

AUT 221 Automatic Transmissions/Transaxles 3
AUT 221A Automatic Transmissions/Transaxles Lab 1
COM 231 Public Speaking 3
PHY 110 Conceptual Physics 3
PHY 110A Conceptual Physics Lab 1
--- --- Humanities/Fine Arts Elective 3
Total SHC 14

## Second Year Summer

AUT 285 Intro to Alternative Fuels 3
Take one of the following courses.

| AUT | 113 | Automotive Servicing I | 2 |
| :--- | :--- | :--- | :--- |
| COE | 112 | Co-Op Work Experience I | 2 |

COE 112 Co-Op Work Experience I
2
Total SHC 5

## COE Coursework

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 courses

| COE | 111 | Co-Op Work Experience I | 1 |
| :--- | :--- | :--- | :--- |
| COE | 121 | Co-Op Work Experience II | 1 |

## Total semester hour credits to complete

 degree: 71
## 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 Chair or Student Services.

## Diploma (D60160)

http://www.rccc.edu/catalog-2012-2013/?p=112

| Fall |  |  |  |
| ---: | :--- | :--- | :--- |
| AUT | 110 | Intro to Automotive Technology | 3 |
| AUT | 116 | Engine Repair | 3 |
| AUT | 116 A | Engine Repair Lab | 1 |
| * AUT | 161 | Basic Auto Electricity | 5 |
| --- | --- | Social/Behavioral Sciences Elective | 3 | Total SHC 15


| Spring <br> * AUT | 141 | Suspension and Steering Systems | 3 |
| ---: | :--- | :--- | :--- |
| AUT | 141 A | Suspension and Steering Lab | 1 |
| * AUT | 151 | Brake Systems | 3 |
| AUT | 151 A | Brakes Systems Lab | 1 |
| * AUT | 181 | Engine Performance 1 | 3 |
| AUT | 181 A | Engine Performance 1 Lab | 1 |
| ENG | 111 | Expository Writing | 3 |

Total SHC 15

## Summer <br> AUT 171 <br> * AUT 183

Automotive Climate Control

Total SHC 8

## Total semester hour credits to complete diploma: 38

## Additional Information

Students must furnish hand tools and protective clothing, as well as textbooks, and may obtain this list form the automotive systems technology program chair or student services.

## Automatic Transmission Certificate (C60160AT)

http://www.rccc.edu/catalog-2012-2013/?p=127

## Courses

AUT 110 Intro to Automotive Technology 3
AUT 161 Basic Auto Electricity 5
AUT 221 Automatic Transmissions/Transaxles 3
AUT 221A Automatic Transmissions/Transaxles Lab 1
Take one of the following courses.
AUT 113 Automotive Servicing I 2
COE 112 Co-Op Work Experience I 2

## Total semester hour credits to complete certificate: 14

## Additional Information

Students must furnish hand tools and protective clothing, as well as textbooks, and may obtain this list form the automotive systems technology program Chair or student services.

## Automotive Electrical and Electronics Certificate (C60160EE)

http://www.rccc.edu/catalog-2012-2013/?p=118
Courses

| AUT | 161 | Basic Auto Electricity | 5 |
| :--- | :--- | :--- | :--- |
| AUT | 163 | Advanced Automotive Electricity | 3 |
| AUT | 163 A | Advanced Automotive Electricity Lab | 1 |
| AUT | 186 | PC Skills for Auto Techs | 3 |

## Total semester hour credits to complete

 certificate: 12
## Additional Information

Students must furnish hand tools and protective clothing, as well as textbooks, and may obtain this list form the automotive systems technology program chair or student services.

## Automotive Heating and Air Conditioning Certificate (C60160HA)

http://www.rccc.edu/catalog-2012-2013/?p=125

## Courses

AUT 110 Intro to Automotive Technology 3
AUT 161 Basic Auto Electricity 5
AUT 171 Automotive Climate Control 4
Take one of the the following courses.
AUT 113 Automotive Servicing I 2

COE 112 Co-Op Work Experience I 2

## Total semester hour credits to complete certificate: 14

## Additional Information

Students must furnish hand tools and protective clothing, as well as textbooks, and may obtain this list form the automotive systems technology program chair or student services.

## Brakes Certificate (C60160BR)

http://www.rccc.edu/catalog-2012-2013/?p=115

## Courses

| AUT | 151 | Brake Systems | 3 |
| :--- | :--- | :--- | :--- |
| AUT | 151 A | Brakes Systems Lab | 1 |
| AUT | 161 | Basic Auto Electricity | 5 |
| AUT | 163 | Advanced Automotive Electricity | 3 |
| AUT | 163 A | Advanced Automotive Electricity Lab | 1 |

Total semester hour credits to complete
certificate: 13

## Additional Information

Students must furnish hand tools and protective clothing, as well as textbooks, and may obtain this list form the automotive systems technology program chair or student services.

## Engine Performance and Engine Repair Certificate (C60160EP)

http://www.rccc.edu/catalog-2012-2013/?p=120

| Courses |  |  |  |
| :---: | :--- | :--- | :--- |
| AUT | 116 | Engine Repair | 3 |
| AUT | 116 A | Engine Repair Lab | 1 |
| AUT | 181 | Engine Performance 1 | 3 |
| AUT | 181 A | Engine Performance 1 Lab | 1 |
| AUT | 183 | Engine Peformance 2 | 4 |

Total semester hour credits to complete certificate: 12

## Additional Information

Students must furnish hand tools and protective clothing, as well as textbooks, and may obtain this list form the automotive systems technology program chair or student services.

## Manual Drive Train and Axles Certificate (C60160MD)

http://www.rccc.edu/catalog-2012-2013/?p=130

## Courses

AUT 110 Intro to Automotive Technology 3
AUT 161 Basic Auto Electricity 5
AUT 231 Manual Transmissions/Transaxles/Drive
Trains 3
AUT 231A Manual Transmissions/Transaxles/Drive
Trains Lab 1
Take one of the following courses.

| AUT | 113 | Automotive Servicing I | 2 |
| :--- | :--- | :--- | :--- |
| COE | 112 | Co-Op Work Experience I | 2 |

Total semester hour credits to complete certificate: 14

## Additional Information

Students must furnish hand tools and protective clothing, as well as textbooks, and may obtain this list form the automotive systems technology program chair or student services.

## Suspension and Steering Certificate (C60160SS)

http://www.rccc.edu/catalog-2012-2013/?p=122

## Courses

| AUT | 141 | Suspension and Steering Systems | 3 |
| :--- | :--- | :--- | :--- |
| AUT | 141 A | Suspension and Steering Lab | 1 |
| AUT | 151 | Brake Systems | 3 |
| AUT | 151 A | Brakes Systems Lab | 1 |
| AUT | 161 | Basic Auto Electricity | 5 |

## Total semester hour credits to complete certificate: 13

## Additional Information

Students must furnish hand tools and protective clothing, as well as textbooks, and may obtain this list form the automotive systems technology program chair or student services.

# Basic Law Enforcement Training (55120) 

http://www.rccc.edu/catalog-2012-2013/?p=632

## 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.

## Awards

- Certificate (C55120)


## Additional Information

BLET Admission Requirements
http://www.rccc.edu/onestop/142/basic-law-enforcement-train-ing-blet-admission-requirements/

## Contact Information

The Basic Law Enforcement Training (55120) program is in the RCCC Department of Health and Public Services Technologies. For additional information regarding this program, contact the director, Spencer Rummage (spencer.rummage@rccc.edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=632)
The * symbol denotes a core course that may not be substituted.

## Certificate (C55120)

http://www.rccc.edu/catalog-2012-2013/?p=455

## Required Courses

CJC 100 Basic Law Enforcement Training
Total semester hour credits to complete certificate: 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 their Associate in Applied Science degree in Criminal Justice Technology at Rowan-Cabarrus Community College (RCCC). These students must have successfully completed Basic Law Enforcement Training since 1985. RCCC only endures acceptance of these transfer credits 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 in the degree requirements of the four-year institution to which they intend to transfer.

## Biotechnology (20100)

http://www.rccc.edu/catalog-2012-2013/?p=1173

## 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 or instrumentation technician, and quality control or quality assurance technician.
Graduates may find employment in various areas of industry and government, including research and Dev., manufacturing, sales and customer service.

## Awards

- Associate in Applied Science Degree (A20100)


## Contact Information

The Biotechnology (20100) program is in the RCCC Department of Science, Biotechnology, Mathematics and Information Technologies. For additional information regarding this program, contact the program chair, Carol Scherczinger (carol.scherczinger@rccc.edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=1173)
The * symbol denotes a core course that may not be substituted.

## Associate in Applied Science Degree (A20100)

http://www.rccc.edu/catalog-2012-2013/?p=203

## Course Requirements

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

## First Year Fall

| * BIO | 111 | General Biology I | 4 |
| :--- | :--- | :--- | :--- |
| CIS | 110 | Introduction to Computers | 3 |
| ENG | 111 | Expository Writing | 3 |

Take one of the following courses. MAT 171 requires MAT 171A.
MAT 115 Mathematical Models 3
$\begin{array}{lll}\text { MAT } & 171 & \text { Precalculus Algebra }\end{array}$
MAT 171 A Precalculus Algebra Lab 1
MAT 175 Precalculus 4

Take one of the following courses.

| ACA | 115 | Success and Study Skills | 1 |
| :--- | :--- | :--- | :--- |
| ACA | 122 | College Transfer Success | 1 |

Total SHC 14-15

## First Year Spring

* BIO $112 \quad$ General Biology II 4
* BTC 181 Basic Lab Techniques 4

Take one of the following courses. CHM 131 requires CHM 131A.

| * | CHM | 131 | Introduction to Chemistry | 3 |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :---: | :---: | :---: |
| * | CHM | 131 A | Introduction to Chemistry Lab | 1 |  |  |  |
| * | CHM | 151 | General Chemistry I |  |  |  |  |
| Take one of the following courses. |  |  |  |  |  |  | 4 |
| ENG |  |  | 112 | Argument-Based Research |  |  |  |
| ENG | 114 | Professional Research and Reporting | 3 |  |  |  |  |

ENG 114 Professional Research and Reporting ..... 3
First Year Summer
BIO 275 Microbiology ..... 4
--- --- Humanities/Fine Arts Elective ..... 3
Total SHC 7
Second Year Fall
BIO 250 Genetics ..... 4
BTC 285 Cell Culture ..... 3

* CHM 132 Organic and Biochemistry ..... 4
MAT 151 Statistics I ..... 3
MAT 151A Statistics I Lab ..... 1
Total SHC 15
Second Year Spring
BTC 270 Recombinant DNA Technology ..... 4
Take one of the following courses.
PSY 118 Interpersonal Psychology ..... 3
PSY 150 General Psychology ..... 3
Take 8 SHC from the following courses.
BIO 140 Environmental Biology ..... 3
BTC 281 Bioprocess Techniques ..... 4
BTC 282 Biotechnology Fermentation I ..... 4
BTC 283 Biotechnology Fermentation II ..... 4
BTC 286 Immunological Techniques ..... 4
BTC 288 Biotech Lab Experience ..... 2
CHM 263 Analytical Chemistry ..... 5
COE 111 Co-Op Work Experience I ..... 1
COE 112 Co-Op Work Experience I ..... 2

Total SHC 15

Note: You may only take one of the COE courses.

## Total semester hour credits to complete degree: 66-67

## Bioprocess Manufacturing Option

Students wishing to take the Bioprocess Manufacturing Option should select the following sequence for the 2nd Year Spring Semester and 2nd Year Summer Term. Second Year Spring Semester: BTC 270 Recombinant DNA; BTC 281 Bioprocess
Techniques; BTC 282 Biotech Fermentation I; and either PSY 118 Interpersonal Psychology OR PSY 150 General Psychology. Second Year Summer Term: BTC 283 Biotech Fermentation II.

## Business Administration (25120)

http://www.rccc.edu/catalog-2012-2013/?p=1017

## 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.

## Awards

- Associate in Applied Science Degree (A25120)
- Diploma (D25120)
- Business Accounting Certificate (C25120BA)
- Business Computing Certificate (C25120BC)
- Business Management Certificate (C25120BM)
- General Business Certificate (C25120GB)
- Small Business Management Certificate (C25120SB)


## Contact Information

The Business Administration (25120) program is in the RCCC Department of Liberal Arts, Business Technologies and General Education. For additional information regarding this program, contact the program chair, Garland Fulp (garland.fulp@rccc.edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=1017) The * symbol denotes a core course that may not be substituted.

## Associate in Applied Science Degree (A25120)

http://www.rccc.edu/catalog-2012-2013/?p=272

## Course Requirements

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

## First Year Fall

| ACA | 115 | Success and Study Skills | 1 |
| :--- | :--- | :--- | :--- |
| BUS | 110 | Introduction to Business | 3 |
| CIS | 110 | Introduction to Computers | 3 |
| ENG | 111 | Expository Writing | 3 |
| INT | 110 | International Business | 3 |

Take one of the following courses. MAT 171 requires MAT 171A.

| MAT | 140 | Survey of Mathematics | 3 |
| :--- | :--- | :--- | :--- |
| MAT | 161 | College Algebra | 3 |
| MAT | 171 | Precalculus Algebra | 3 |
| MAT | 171 A | Precalculus Algebra Lab | 1 |
| MAT | 175 | Precalculus | 4 |

Total SHC 16-17

## First Year Spring

* ACC 120 Principles of Financial Accounting 4
* BUS 115 Business Law I 3
--- --- Humanities/Fine Arts Elective 3
Take one of the following courses.
* ECO 151 Survey of Economics 3
* ECO 251 Principles of Microeconomics 3
* ECO 252 Principles of Macroeconomics 3

Take one of the following courses.

| ENG | 112 | Argument-Based Research | 3 |
| :--- | :--- | :--- | :--- |
| ENG | 113 | Literature-Based Research | 3 |
| ENG | 114 | Professional Research and Reporting | 3 |

Total SHC 16

## Second Year Fall

ACC 121 Principles of Managerial Accounting 4

* BUS 137 Principles of Management 3

BUS 260 Business Communication 3

* MKT 120 Principles of Marketing 3
--- --- Social/Behavioral Sciences Elective 3
--- --- Major Elective 3
Total SHC 16


## Second Year Spring

BUS 225 Business Finance 3
CTS 130 Spreadsheet 3
--- --- Major Elective
Total SHC 16

## Major Elective

Take 13 SHC from the following courses. This may include up to 3 SHC from COE course/combination of courses.

| BUS | 121 | Business Math | 3 |
| :--- | :--- | :--- | :--- |
| BUS | 153 | Human Resource Management | 3 |
| BUS | 217 | Employment Law and Regulations | 3 |
| BUS | 230 | Small Business Management | 3 |
| BUS | 240 | Business Ethics | 3 |
| BUS | 253 | Leadership and Management Skills | 3 |
| BUS | 280 | REAL Small Business | 4 |
| COE | 110 | World of Work | 1 |
| COE | 111 | Co-Op Work Experience I | 1 |


| COE | 112 | Co-Op Work Experience I | 2 |
| :--- | :--- | :--- | :--- |
| COE | 113 | Co-Op Work Experience I | 3 |
| COE | 121 | Co-Op Work Experience II | 1 |
| COE | 122 | Co-Op Work Experience II | 2 |
| COE | 131 | Co-Op Work Experience III | 1 |
| ECM | 210 | Introduction to E-Commerce | 3 |
| INT | 115 | Global Communication | 3 |
| MKT | 123 | Fundamentals of Selling | 3 |
| MKT | 220 | Advertising and Sales Promotion | 3 |
| MKT | 223 | Customer Service | 3 |
| MKT | 224 | International Marketing | 3 |
| OST | 136 | Word Processing | 3 |
| SPA | 111 | Elementary Spanish I | 3 |

## Total semester hour credits to complete degree: 74

## Diploma (D25120)

http://www.rccc.edu/catalog-2012-2013/?p=299

## Courses

$\left.\begin{array}{lllll}\text { * } & \text { ACC } & 120 & & \text { Principles of Financial Accounting } \\ & \text { ACC } & 121 & & \text { Principles of Managerial Accounting }\end{array}\right] 4$

Total semester hour credits to complete diploma: 38

## Business Accounting Certificate (C25120BA)

http://www.rccc.edu/catalog-2012-2013/?p=302

## Courses

| ACC | 120 | Principles of Financial Accounting |
| :--- | :--- | :--- |
| BUS | 121 | Business Math |
| BUS | 225 | Business Finance |
| BUS | 260 | Business Communication |

## Total semester hour credits to complete certificate: 13

## Business Computing Certificate (C25120BC)

http://www.rccc.edu/catalog-2012-2013/?p=316

## Courses

| 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 | 3 |

## Total semester hour credits to complete certificate: 14

## Business Management Certificate (C25120BM)

http://www.rccc.edu/catalog-2012-2013/?p=308

## Courses

| 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 and Management Skills | 3 |

## Total semester hour credits to complete certificate: 15

## General Business Certificate (C25120GB)

http://www.rccc.edu/catalog-2012-2013/?p=311

## Courses

| BUS | 110 | Introduction to Business | 3 |
| :--- | :--- | :--- | :--- |
| BUS | 121 | Business Math | 3 |
| BUS | 137 | Principles of Management | 3 |
| BUS | 260 | Business Communication | 3 |
| CIS | 110 | Introduction to Computers | 3 |

## Total semester hour credits to complete certificate: 15

## Small Business Management Certificate (C25120SB)

http://www.rccc.edu/catalog-2012-2013/?p=305

## Courses

| 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 and Management Skills | 3 |

## Total semester hour credits to complete certificate: 15

# Business <br> Administration Marketing and Retailing (2512F) 

http://www.rccc.edu/catalog-2012-2013/?p=995

## 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.

## Awards

- Associate in Applied Science Degree (A2512F)
- Diploma (D2512F)
- General Marketing Certificate (C2512FGM)
- Marketing Management Certificate (C2512FMM)
- Marketing and Sales Certificate (C2512FMS)


## Contact Information

The Business Administration - Marketing and Retailing (2512F) program is in the RCCC Department of Liberal Arts, Business Technologies and General Education. For additional information regarding this program, contact the program chair, Garland Fulp (garland.fulp@rccc.edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=995)
The * symbol denotes a core course that may not be substituted.

## Associate in Applied Science Degree (A2512F)

http://www.rccc.edu/catalog-2012-2013/?p=319

## Course Requirements

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

## First Year Fall

|  | ACA | 115 | Success and Study Skills | 1 |
| :--- | :--- | :--- | :--- | :--- |
| * | BUS | 115 | Business Law I | 3 |
| * | CIS | 110 | Introduction to Computers | 3 |
|  | ENG | 111 | Expository Writing | 3 |
|  | INT | 110 | International Business | 3 |
| * | MKT | 120 | Principles of Marketing | 3 |
|  | --- | --- | Major Electicve | 3 |

Total SHC 19

## First Year Spring

* MKT 122 Visual Merchandising 3
* MKT 123 Fundamentals of Selling 3

Take one of the following courses.

* ECO 151 Survey of Economics 3
* ECO 251 Principles of Microeconomics 3
* ECO 252 Principles of Macroeconomics 3

Take one of the following courses.

| ENG | 112 | Argument-Based Research | 3 |
| :--- | :--- | :--- | :--- |
| ENG | 113 | Literature-Based Research | 3 |
| ENG | 114 | Professional Research and Reporting | 3 |

## Take one of the following courses. MAT 171 requires MAT 171A.

MAT 140 Survey of Mathematics 3
MAT 161 College Algebra 3
$\begin{array}{llll}\text { MAT } & 171 & \text { Precalculus Algebra }\end{array}$
MAT 171 A Precalculus Algebra Lab 1
MAT 175 Precalculus 4

## Second Year Fall

| * | ACC | 120 |  | Principles of Financial Accounting | 4 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| * | BUS | 137 | Principles of Management | 3 |  |
|  | BUS | 260 | Business Communication | 3 |  |
| * | MKT | 220 |  | Advertising and Sales Promotion | 3 |
|  | --- | --- | Social/Behavioral Sciences Elective | 3 |  |

Total SHC 16

## Second Year Spring

| * | MKT | 225 | Marketing Research | 3 |
| :--- | :--- | :--- | :--- | ---: |
| * | MKT | 226 | Retail Applications | 3 |
| --- | --- | Humanities/Fine Arts Elective | 3 |  |
| --- | --- | Major Elective | 10 |  |

Total SHC 19

## Major Electives

Take 13 SHC from the following courses. This may include up to 3 SHC from COE course/combination of courses.

| ACC | 121 | Principles of Managerial Accounting | 4 |
| :--- | :--- | :--- | :--- |
| BUS | 110 | Introduction to Business | 3 |
| BUS | 121 | Business Math | 3 |
| BUS | 225 | Business Finance | 3 |
| BUS | 230 | Small Business Management | 3 |
| BUS | 240 | Business Ethics | 3 |
| BUS | 253 | Leadership and Management Skills | 3 |
| BUS | 280 | REAL Small Business | 4 |
| COE | 110 | World of Work | 1 |
| COE | 111 | Co-Op Work Experience I | 1 |
| COE | 112 | Co-Op Work Experience I | 2 |
| COE | 113 | Co-Op Work Experience I | 3 |
| COE | 121 | Co-Op Work Experience II | 1 |
| COE | 122 | Co-Op Work Experience II | 2 |
| COE | 131 | Co-Op Work Experience III | 1 |
| CTS | 130 | Spreadsheet | 3 |
| ECM | 210 | Introduction to E-Commerce | 3 |
| INT | 115 | Global Communication | 3 |
| MKT | 125 | Buying and Merchandising | 3 |
| MKT | 221 | Consumer Behavior | 3 |
| MKT | 223 | Customer Service | 3 |
| MKT | 224 | International Marketing | 3 |
| SPA | 111 | Elementary Spanish I | 3 |

## Total semester hour credits to complete degree: 69-70

## Diploma (D2512F)

http://www.rccc.edu/catalog-2012-2013/?p=326

| Courses |  |  |  |
| :--- | :--- | :--- | :--- |
| * | ACC | 120 |  |
| * Principles of Financial Accounting | 4 |  |  |
|  | BUS | 115 | Business Law I |

## General Marketing Certificate (C2512FGM)

http://www.rccc.edu/catalog-2012-2013/?p=333

## Courses

CIS 110 Introduction to Computers 3
MKT $120 \quad$ Principles of Marketing 3
MKT 122 Visual Merchandising 3
MKT 123 Fundamentals of Selling 3
MKT 220 Advertising and Sales Promotion 3

## Total semester hour credits to complete certificate: 15

## Marketing and Sales Certificate (C2512FMS)

http://www.rccc.edu/catalog-2012-2013/?p=329

## Courses

$\begin{array}{lll}\text { MKT } & 120 & \text { Principles of Marketing }\end{array}$
MKT 122 Visual Merchandising 3
MKT 123 Fundamentals of Selling 3
MKT 220 Advertising and Sales Promotion 3
MKT 225 Marketing Research 3

## Total semester hour credits to complete certificate: 15

## Marketing Management Certificate (C2512FMM)

http://www.rccc.edu/catalog-2012-2013/?p=992

## Courses

ACC 120 Principles of Financial Accounting 4
BUS 137 Principles of Management 3
BUS 253 Leadership and Management Skills 3
MKT 120 Principles of Marketing 3

## Total semester hour credits to complete certificate: 13

Total semester hour credits to complete
diploma: 40

# Computer Information Technology (25260) 

http://www.rccc.edu/catalog-2012-2013/?p=1118

## Computer Technology Integration

Computer technology integration (CTI) will replace computer information technology effective Fall 2012.

## 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 systems 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.

## Awards

- Associate in Applied Science Degree (A25260)
- Diploma (D25260)
- Computer Information Technology Certificate (C25260CI)
- Computer Information Technology Foundations Certificate (C25260FO)
- Computer Information Technology Hardware Certificate (C25260HW)
- Computer Information Technology Help Desk Certificate (C25260HD)
- Computer Information Technology Office Support Certificate (C25260SU)
- Computer Information Technology Operating Systems Certificate (C25260OS)
- Computer Information Technology Spreadsheet Management Certificate (C25260SM)


## Contact Information

The Computer Information Technology (25260) program is in the RCCC Department of Science, Biotechnology, Mathematics and Information Technologies. For additional information regarding this program, contact the program chair, Anne Curlee (anne. curlee @rccc.edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=1118)
The * symbol denotes a core course that may not be substituted.

## Associate in Applied Science Degree (A25260)

http://www.rccc.edu/catalog-2012-2013/?p=1120

## Course Requirements

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

## First Year Fall

| * | CIS | 110 | Introduction to Computers | 3 |
| :--- | :--- | :--- | :--- | :--- |
|  | ENG | 111 | Expository Writing | 3 |
| * | NOS | 110 | Operating Systems Concepts | 3 |
|  | --- | --- | Social/Behavioral Sciences Electives | 3 |

Take one of the following courses.

| MAT | 115 | Mathematical Models | 3 |
| :--- | :--- | :--- | :--- |
| MAT | 161 | College Algebra | 3 |
| MAT | 175 | Precalculus | 4 |

Total SHC 15-16

## First Year Spring

| CIS | 115 | Intro to Programming and Logic | 3 |
| :---: | :---: | :---: | :---: |
| CTS | 120 | Hardware/Software Support | 3 |
| NET | 110 | Networking Concepts | 3 |
| --- | --- | Major Electives | 3 |
| Take one of the following courses. |  |  |  |
| ENG | 112 | Argument-Based Research | 3 |
| ENG | 114 | Professional Research and Reporting | 3 |

Total SHC 15

## First Year Summer

| * | BUS | 110 | Introduction to Business | 3 |
| :--- | :--- | :--- | :--- | :--- |
| CTS | 135 | Integrated Software Intro | 4 |  |

Total SHC 7

## Second Year Fall

CTS 240 Project Management 3

* CTS 285 Systems Analysis and Design 3
* DBA 110 Database Concepts 3
* SEC 110 Security Concepts 3
--- --- Humanities/Fine Arts Electives 3
Total SHC 15


Total SHC 15

## Major Electives

Take 6 SHC from the following courses. This may include up to 4 SHC from COE course/combination of courses.

| ACC | 120 | Principles of Financial Accounting | 4 |
| :--- | :--- | :--- | :--- |
| COE | 110 | World of Work | 1 |
| COE | 111 | Co-Op Work Experience I | 1 |
| COE | 112 | Co-Op Work Experience I | 2 |
| COE | 113 | Co-Op Work Experience I | 3 |
| COE | 114 | Co-Op Work Experience I | 4 |
| COE | 121 | Co-Op Work Experience II | 1 |
| COE | 122 | Co-Op Work Experience II | 2 |
| COE | 123 | Co-Op Work Experience II | 3 |
| COE | 131 | Co-Op Work Experience III | 1 |
| COE | 211 | Co-Op Work Experience IV | 1 |
| CSC | 134 | C++ Programming | 3 |
| CSC | 139 | Visual BASIC Programming | 3 |
| CSC | 151 | JAVA Programming | 3 |
| CSC | 239 | Advanced Visual BASIC Programming | 3 |
| CTI | 110 | Web, Prog., and Database Foundation | 3 |
| CTI | 120 | Network and Security Foundation | 3 |
| CTS | 115 | Information Systems Business Concepts | 3 |
| CTS | 125 | Presentation Graphics | 3 |
| CTS | 130 | Spreadsheet | 3 |
| CTS | 155 | Tech Support Functions | 3 |
| CTS | 210 | Computer Ethics | 3 |
| CTS | 220 | Advanced Hardware/Software Support | 3 |
| CTS | 230 | Advanced Spreadsheet | 3 |
| DBA | 120 | Database Programming I | 3 |
| NET | 125 | Networking Basics | 3 |
| NET | 126 | Routing Basics | 3 |
| NOS | 120 | Linux/UNIX Single User | 3 |
| NOS | 220 | Linus/UNIX Administration I | 3 |
| OST | 136 | Word Processing | 3 |
| SPA | 111 | Elementary Spanish I | 3 |
| WEB | 110 | Internet/Web Fundamentals | 3 |
| WEB | 111 | Introduction to Web Graphics |  |
|  |  |  | 3 |

Total semester hour credits to complete degree: 67-68

## Diploma (D25260)

http://www.rccc.edu/catalog-2012-2013/?p=1122

## Courses

| * | CIS | 110 | Introduction to Computers | 3 |
| :--- | :--- | :--- | :--- | :--- |
| * | CIS | 115 |  | Intro to Programming and Logic |

Take one of the following courses.

| MAT | 115 | Mathematical Models | 3 |
| :--- | :--- | :--- | :--- |
| MAT | 161 | College Algebra | 3 |
| MAT | 175 | Precalculus | 4 |

Select 9 SHC from the following courses.

| BUS | 110 | Introduction to Business | 3 |
| :--- | :--- | :--- | :--- |
| CTS | 240 | Project Management | 3 |
| CTS | 285 | Systems Analysis and 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 hour credits to complete diploma: 40-41

## Computer Information Technology Certificate (C25260Cl)

http://www.rccc.edu/catalog-2012-2013/?p=1124

## Courses

| CIS | 110 | Introduction to Computers | 3 |
| :--- | :--- | :--- | :--- |
| CTS | 120 | Hardware/Software Support | 3 |
| CTS | 135 | Integrated Software Intro | 4 |
| DBA | 110 | Database Concepts | 3 |
| NOS | 110 | Operating Systems Concepts | 3 |

## Total semester hour credits to complete certificate: 16

## Computer Information Technology Foundations Certificate (C25260FO)

http://www.rccc.edu/catalog-2012-2013/?p=1131

| Courses |  |  |  |
| :--- | :--- | :--- | :--- |
| CIS | 110 | Introduction to Computers | 3 |
| CIS | 115 | Intro to Programming and 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 hour credits to complete certificate: 18

## Computer Information Technology Hardware Certificate (C25260HW)

http://www.rccc.edu/catalog-2012-2013/?p=1139

| Courses |  |  |  |  |
| :--- | :--- | :--- | :--- | :---: |
| CIS | 110 | Introduction to Computers | 3 |  |
| CTS | 120 | Hardware/Software Support | 3 |  |
| CTS | 220 | Advanced Hardware/Software Support | 3 |  |
| NOS | 110 | Operating Systems Concepts | 3 |  |
| Take one of the following courses. |  |  |  |  |
| NET | 110 | Networking Concepts | 3 |  |
| NET | 125 | Networking Basics | 3 |  |

Total semester hour credits to complete certificate: 15

## Computer Information Technology Help Desk Certificate (C25260HD)

http://www.rccc.edu/catalog-2012-2013/?p=1135

## Courses

| 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 Systems Concepts | 3 |

## Total semester hour credits to complete certificate: 18

## Computer Information Technology Office Support Certificate (C25260SU)

http://www.rccc.edu/catalog-2012-2013/?p=1128

| Courses |  |  |  |
| :---: | :---: | :--- | :--- |
| BUS | 110 | Introduction to Business | 3 |
| CIS | 110 | Introduction to Computers | 3 |
| CTS | 125 | Presentation Graphics | 3 |
| CTS | 135 | Integrated Software Intro | 4 |
| CTS | 240 | Project Management | 3 |

Total semester hour credits to complete certificate: 16

## Computer Information Technology Operating Systems Certificate (C252600S)

http://www.rccc.edu/catalog-2012-2013/?p=1126

## Courses

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 hour credits to complete certificate: 15

## Computer Information Technology Spreadsheet Management Certificate (C25260SM)

http://www.rccc.edu/catalog-2012-2013/?p=1133

## Courses

| CIS | 110 | Introduction to Computers | 3 |
| :--- | :--- | :--- | :--- |
| CTS | 130 | Spreadsheet | 3 |
| CTS | 135 | Integrated Software Intro | 4 |
| CTS | 230 | Advanced Spreadsheet | 3 |

Total semester hour credits to complete certificate: 13

## Computer Programming (25130)

http://www.rccc.edu/catalog-2012-2013/?p=1689

## Computer Technology Integration

Computer technology integration (CTI) will replace computer programming effective Fall 2012.

## 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, programmers/analysts, computer operators, systems technicians, or database specialists.

## Awards

- Associate in Applied Science Degree (A25130)
- Diploma (D25130)
- Advanced C-Based Language Certificate (C25130AC)
- C-Based Language Certificate (C25130CL)
- Visual Language Certificate (C25130VL)


## Contact Information

The Computer Programming (25130) program is in the RCCC Department of Science, Biotechnology, Mathematics and Information Technologies. For additional information regarding this program, contact the program chair, Lisa Garneau (lisa.garneau@ rccc.edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=1689)
The * symbol denotes a core course that may not be substituted.

## Associate in Applied Science Degree (A25130)

http://www.rccc.edu/catalog-2012-2013/?p=1692

## Course Requirements

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

## First Year Fall

| * | CIS | 110 | Introduction to Computers | 3 |
| :--- | :--- | :--- | :--- | :--- |
| * | CIS | 115 |  | Intro to Programming and Logic |
| * | DBA | 110 |  | Database Concepts |

Total SHC 15

## First Year Spring

| * | CSC | 139 | Visual BASIC Programming | 3 |
| :--- | :--- | :--- | :--- | ---: |
|  | DBA | 120 | Database Programming I | 3 |
| * | NET | 110 | Networking Concepts | 3 |
|  | --- | --- | Other Major Electives | $3-4$ |

Take one of the following courses. MAT 171 requires MAT 171A.

| MAT | 115 | Mathematical Models | 3 |
| :--- | :--- | :--- | :--- |
| MAT | 171 | Precalculus Algebra | 3 |
| MAT | 171 A | Precalculus Algebra Lab | 1 |

Total SHC 15-17

## First Year Summer

| * BUS | 110 | Introduction to Business | 3 |
| :--- | :--- | :--- | ---: |
| ENG | 111 | Expository Writing | 3 |
| --- | --- | Social/Behavioral Sciences Elective | 3 |
| --- | --- | Other Major Electives | $3-4$ |

Total SHC 12-13

## Second Year Fall

* CSC 134 C++ Programming 3
* CSC 239 Advanced Visual BASIC Programming 3
* CTS 285 Systems Analysis and Design 3
--- --- CSC Major Electives 3
Take one of the following courses.
COM 231 Public Speaking 3

ENG 112 Argument-Based Research 3
ENG 113 Literature-Based Research 3
Total SHC 15

## Second Year Spring

| * | CSC | 234 | Advanced C++ Programming | 3 |  |
| :--- | :--- | :--- | :--- | :--- | :---: |
| * | CSC | 289 | Programming Capstone Project | 3 |  |
|  | --- | --- | Humanities/Fine Arts Elective | 3 |  |
| --- |  |  |  |  |  |
| Take one of the following courses. |  |  |  |  |  |
| * | NOS | 120 | Other Major Electives |  |  |
| * | NOS | 130 | Winux/UNIX Single User | 3 |  |

* NOS 120 Linux/UNIX Single User 3
* NOS 130 Windows Single User 3

Total SHC 15

## CSC Major Electives

Take one of the following courses.

| CSC | 151 | JAVA Programming | 3 |
| :--- | :--- | :--- | :--- |
| CSC | 153 | C\# Programming | 3 |
| CSC | 251 | Advanced JAVA Programming | 3 |

## Other Major Electives

Take 9 SHC from the following courses. (the course selected for the CSC Major Elective may not be selected to fulfill these 9 SHC.) This may include up to 3 SHC from COE course/combination of courses.

| ACC | 120 | Principles of Financial Accounting | 4 |
| :--- | :--- | :--- | :--- |
| COE | 110 | World of Work | 1 |
| COE | 111 | Co-Op Work Experience I | 1 |
| COE | 112 | Co-Op Work Experience I | 2 |
| COE | 113 | Co-Op Work Experience I | 3 |
| COE | 121 | Co-Op Work Experience II | 1 |
| COE | 122 | Co-Op Work Experience II | 2 |
| COE | 123 | Co-Op Work Experience II | 3 |
| COE | 131 | Co-Op Work Experience III | 1 |
| CSC | 151 | JAVA Programming | 3 |
| CSC | 153 | C\# Programming | 3 |
| CSC | 251 | Advanced JAVA Programming | 3 |
| CSC | 253 | Advanced C\# Programming | 3 |
| CTS | 115 | Information Systems Business Concepts | 3 |
| CTS | 120 | Hardware/Software Support | 3 |
| CTS | 130 | Spreadsheet | 3 |
| CTS | 240 | Project Management | 3 |
| DBA | 115 | Database Applications | 3 |
| ECM | 210 | Introduction to E-Commerce | 3 |
| WEB | 110 | Internet/Web Fundamentals | 3 |
| WEB | 120 | Introduction to Internet Multimedia | 3 |
| WEB | 125 | Mobile Web Design | 3 |
| WEB | 179 | JAVA Web Programming | 3 |
| WEB | 180 | Active Server Pages | 3 |
| WEB | 182 | PHP Programming | 3 |
| WEB | 187 | Programming for Mobile Devices | 3 |
| WEB | 220 | Advanced Multimedia | 3 |
| WEB | 225 | Content Management Systems | 3 |
| WEB | 250 | Database Driven Websites | 3 |

Total semester hour credits to complete degree: 72-75

## Diploma (D25130)

http://www.rccc.edu/catalog-2012-2013/?p=1696

## Courses

* CIS 110 Introduction to Computers 3
* CIS 115 Intro to Programming and Logic 3
* CSC 134 C++ Programming 3
* CSC 139 Visual BASIC Programming 3

CSC 151 JAVA Programming 3
CSC 153 C\# Programming 3

* CSC 234 Advanced C++ Programming 3
* CSC 239 Advanced Visual BASIC Programming 3

CSC 251 Advanced JAVA Programming 3

* DBA 110 Database Concepts 3

ENG 111 Expository Writing 3

* NET 110 Networking Concepts 3
* NOS 110 Operating Systems Concepts 3

Take one of the following courses. MAT 171 requires MAT 171A.

| MAT | 115 | Mathematical Models | 3 |
| :--- | :--- | :--- | :--- |
| MAT | 171 | Precalculus Algebra | 3 |
| MAT | 171 A | Precalculus Algebra Lab | 1 |

Total semester hour credits to complete diploma: 42-43

## Advanced C-Based Language Certificate (C25130AC)

http://www.rccc.edu/catalog-2012-2013/?p=1702

## Fall <br> CIS 115 Intro to Programming and Logic 3 <br> CSC 234 Advanced C++ Programming 3 <br> Total SHC 6 <br> Spring <br> CSC 153 C\# Programming 3 <br> CSC 251 Advanced JAVA Programming 3

Total SHC 6
Total semester hour credits to complete certificate: 12

## C-Based Language Certificate (C25130CL)

http://www.rccc.edu/catalog-2012-2013/?p=1700

| Spring |  |  |  |
| :---: | :---: | :--- | :---: |
| CIS | 115 | Intro to Programming and Logic | 3 |
| CSC | 134 | C++ Programming | 3 |
|  |  |  | Total SHC 6 |
| Fall |  |  |  |
| CSC | 151 | JAVA Programming | 3 |
| CSC | 234 | Advanced C++ Programming | 3 |
|  |  |  | Total SHC 6 |

## Total semester hour credits to complete certificate: 12

## Visual Language Certificate (C25130VL)

http://www.rccc.edu/catalog-2012-2013/?p=1698

| Fall Semester |  |  |  |  |
| :---: | :---: | :--- | :--- | :--- |
| CIS | 115 | Intro to Programming and Logic | 3 |  |
| CSC | 139 | Visual BASIC Programming | 3 |  |

Total SHC 6

## Spring Semester

| CSC | 153 | C\# Programming | 3 |
| :--- | :--- | :--- | :--- |
| CSC | 239 | Advanced Visual BASIC Programming | 3 |

Total SHC 6
Total semester hour credits to complete certificate: 12

# Computer Technology Integration (25500) 

http://www.rccc.edu/catalog-2012-2013/?p=2381

## Description

The Computer Technology Integration (CTI) curriculum prepares graduates for employment as designers, testers, support technicians, administrators, developers, or programmers with organizations that use computers to design, process, manage, and communicate information, depending on the technical path selected within this curriculum.
Course work includes Dev. of a student's ability to communicate and solve technical issues related to information support and services, interactive media, network systems, programming and software Dev., and other emerging technologies based on the selected area of study.
Graduates should qualify for employment in entry-level positions with businesses, educational systems, and governmental agencies which rely on computer systems to design and manage information. The program will incorporate the competencies of indus-try-recognized certification exams.

## Awards

- Associate in Applied Science (A25500)
- (dot) .net Programming Specialization (D25500NP)
- Cyber Crime and Digital Forensics Specialization (D25500CF)
- Cyber Security Specialization (D25500CS)
- Emerging Technologies Programming Specialization (D25500ET)
- Information Technology Specialization (D25500IT)
- Networking Technology Specialization (D25500NT)
- Web Technologies Specialization (D25500WT)
- (dot) .net Programming Certificate (C25500NP)
- Advanced (dot) .net Programming Certificate (C25000AP)
- Advanced Digital Forensics Certificate (C25000AF)
- Advanced Operating Systems Certificate (C25500AS)
- Advanced Web Programming Certificate (C25500AW)
- C-Based Programming Certificate (C25500CP)
- Cisco Networking Certificate (C25500CN)
- Computer Hardware Repair Certificate (C25500CH)
- Computer Technology Essentials Certificate (C25500CT)
- Content Management Certificate (C25500CM)
- Cyber Crime Fundamentals Certificate (C25500CF)
- Cyber Crime Law Certificate (C25500CL)
- Cyber Security Administration Certificate (C25500SA)
- Cyber Security Fundamentals Certificate (C25500CS)
- Cyber Security Technician Certificate (C25500ST)
- Database Management (C25500DM)
- Database Programming Certificate (C25500DP)
- E-Commerce Certificate (C25500EC)
- IT Support Fundamentals Certificate (C25500IT)
- Internet Technologies Certificate (C25500IN)
- Microsoft Windows Certificate (C25500MW)
- Mobile Device Programming Certificate (C25500MD)
- Operating Systems Manager Certificate (C25500OM)
- Productivity Software Certificate (C25500PS)
- Security Fundamentals Certificate (C25500SF)
- Simulation and Gaming Design Certificate (C25500SD)
- Simulation and Gaming Fundamentals Certificate (C25500SG)
- Spreadsheet Management Certificate (C25500SM)
- Web Designer Certificate (C25500WD)
- Web Multimedia Certificate (C25500WM)
- Web Programming Certificate (C25500WP)


## Contact Information

The Computer Technology Integration (25500) program is in the RCCC Department of Science, Biotechnology, Mathematics and Information Technologies. For additional information regarding this program, contact the associate dean, Ian Stevens (ian. stevens@rccc.edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=2381)
The * symbol denotes a core course that may not be substituted.

## Associate in Applied Science (A25500)

http://www.rccc.edu/catalog-2012-2013/?p=2414

## New Program

The computer technology integration (CTI) degree combined with special skills attained through diplomas (specializations) prepares individuals with the skills required for employment in entry-level positions with businesses, educational systems and governmental agencies that rely on computer systems to design and manage information. Graduates should qualify for employment as designers, testers, support technicians, administrators, developers or programmers with organizations that use computers to design, process, manage and communicate information, depending on the specialization selected within this curriculum. Computer Technology Integration (CTI) will replace five AAS degrees (computer programming, computer information technology, networking technology, information systems security, and web technologies).

## CTI Specializations

Specializations for the computer technology integration program are (dot) .net Programming Specialization (D25500NP), Cyber Crime and Forensics Specialization (D25500CF), Cyber Security Specialization (D25500CS), Emerging Technologies Programming Specialization (D25500ET), Information Technology Specialization (D25500IT), Networking Technology Specialization (D25500NT), and Web Technologies Specialization (D25500WT).

## (dot) .net Programming Specialization (D25500NP)

http://www.rccc.edu/catalog-2012-2013/?p=2383

## First Year Fall

| * | CIS | 110 | Introduction to Computers | 3 |
| :--- | :--- | :--- | :--- | :--- |
| * | CTI | 110 | Web, Prog., and Database Foundation | 3 |
| * | CTI | 120 | Network and Security Foundation | 3 |
| $*$ | CTS | 115 | Information Systems Business Concepts | 3 |
|  | HUM | 110 |  | Technology and Society |

Total SHC 15

## First Year Spring

| * | CIS | 115 | Intro to Programming and Logic | 3 |
| :--- | :--- | :--- | :--- | :--- |
|  | CSC | 139 | Visual BASIC Programming | 3 |
| * | CTS | 120 |  | Hardware/Software Support |

Total SHC 15
Note: CTS 120 will be in the first 8 week minimester, and CTS 220 will be in the second 8 week minimester.

## First Year Summer

| ENG | 111 | Expository Writing | 3 |
| :--- | :--- | :--- | :--- |
| WEB | 140 | Web Dev. Tools | 3 |
| --- | --- | Major Electives | 3 |

Take one of the following courses. MAT 171 requires MAT 171A

| MAT | 115 | Mathematical Models | 3 |
| :--- | :--- | :--- | :--- |
| MAT | 171 | Precalculus Algebra | 3 |
| MAT | 171 A | Precalculus Algebra Lab | 1 |

Total SHC 12-13

## Second Year Fall

|  | CSC | 153 | C\# Programming |
| :--- | :--- | :--- | :--- |
| CSC | 239 | Advanced Visual BASIC Programming | 3 |
| * | DBA | 120 | Database Programming I |

Total SHC 12

| Second Year Spring |  |  |  |
| :---: | :--- | :--- | :--- |
| CSC | 253 | Advanced C\# Programming | 3 |
| ENG | 114 | Professional Research and Reporting | 3 |
| WEB | 180 | Active Server Pages | 3 |
| --- | --- | Social/Behavioral Sciences Elective | 3 |
| --- | --- | Major Electives | 3 |

Total SHC 15

Major Electives
Take six semester hour credits from the following courses.

| CCT | 110 | Introduction to Cyber Crime |
| :--- | :--- | :--- |

CCT 112 Ethics and High Technology 3
CCT 121 Computer Crime Investigationn 4
CCT 220 Forensic Accounting 4
CCT 231 Technology Crimes and Law 3
CCT 240 Data Recovery Techniques 3
CCT 241 Advanced Data Recovery 3
CCT 250 Network Vulnerabilities I 3
CJC 111 Introduction to Criminal Justice 3
CJC 112 Criminology 3
CJC 113 Juvenile Justice 3
CJC 121 Law Enforcement Operations 3
CJC 131 Criminal Law 3
CJC 132 Court Procedure and Evidence 3
CJC 141 Corrections 3
CJC 160 Terrorism: Underlying Issues 3
CJC 212 Ethics and Community Relations 3
CJC 214 Victimology 3
CJC 221 Investigative Principles 4
CJC 223 Organized Crime 3
CJC 231 Constitutional Law 3
CJC 233 Correctional Law 3
CJC 241 Community-Based Corrections 3
COE 111 Co-Op Work Experience I 1
COE 112 Co-Op Work Experience I 2
COE 113 Co-Op Work Experience I 3
COE 114 Co-Op Work Experience I 4
COE 121 Co-Op Work Experience II 1
COE 122 Co-Op Work Experience II 2
COE 123 Co-Op Work Experience II 3
COE 131 Co-Op Work Experience III 1
COE 132 Co-Op Work Experience III 2
COE 211 Co-Op Work Experience IV 1
CSC 134 C++ Programming 3
CSC 151 JAVA Programming 3
CSC 234 Advanced C++ Programming 3
CSC 251 Advanced JAVA Programming 3
CSC 289 Programming Capstone Project 3
CTS 125 Presentation Graphics 3
CTS 130 Spreadsheet 3
CTS 155 Tech Support Functions 3
CTS 210 Computer Ethics 3
CTS 230 Advanced Spreadsheet 3
CTS 240 Project Management 3
CTS 285 Systems Analysis and Design 3
CTS 289 System Support Project 3
DBA 115 Database Applications 3
DBA 120 Database Programming I 3
ECM 210 Introduction to E-Commerce 3
NET 110 Networking Concepts 3
NET 125 Networking Basics 3
NET 126 Routing Basics 3
NET 175 Wireless Technology 3

| NET | 225 | Routing and Switching I | 3 |
| :--- | :--- | :--- | :--- |
| NET | 226 | Routing and Switching II | 3 |
| NET | 289 | Networking Project | 3 |
| NOS | 110 | Operating Systems Concepts | 3 |
| NOS | 120 | Linux/UNIX Single User | 3 |
| NOS | 130 | Windows Single User | 3 |
| NOS | 220 | Linus/UNIX Administration I | 3 |
| NOS | 230 | Windows Administration I | 3 |
| NOS | 231 | Windows Administration II | 3 |
| OST | 136 | Word Processing | 3 |
| OST | 236 | Adv. Word Or Information Processsing | 3 |
| SEC | 110 | Security Concepts | 3 |
| SEC | 150 | Secure Communications | 3 |
| SEC | 160 | Security Administration I | 3 |
| SEC | 210 | Intrusion Detection | 3 |
| SGD | 111 | Introduction to Simulation and Game Dev. | 3 |
| SGD | 112 | Simulation and Game Dev. Design | 3 |
| SGD | 113 | Simulation and Game Dev. Programming | 3 |
| SGD | 212 | Simulation and Game Dev. Design II | 3 |
| SGD | 289 | Simulation and Game Dev. Project | 3 |
| WEB | 110 | Internet/Web Fundamentals | 3 |
| WEB | 111 | Introduction to Web Graphics | 3 |
| WEB | 115 | Web Markup and Scripting | 3 |
| WEB | 120 | Introduction to Internet Multimedia | 3 |
| WEB | 125 | Mobile Web Design | 3 |
| WEB | 179 | JAVA Web Programming | 3 |
| WEB | 182 | PHP Programming | 3 |
| WEB | 187 | Programming for Mobile Devices | 3 |
| WEB | 210 | Web Design | 3 |
| WEB | 211 | Advanced Web Graphics | 3 |
| WEB | 220 | Advanced Multimedia | 3 |
| WEB | 225 | Content Management Systems | 3 |
| WEB | 250 | Database Driven Websites | 3 |
| WEB | 287 | Web E-Portfolio | 2 |
|  |  |  |  |

## Total semester hour credits to complete degree: 69-70

## Courses Required for the Diploma

The following courses fulfill the requirements to obtain the diploma: CTI 110, CTI 120, CIS 115, CSC 139, DBA 120, CSC 153, CSC 239, CSC 253, WEB 180, CTS 285, ENG 111, and either MAT 115 or MAT 171 and MAT 171A, for a total of 36 or 37 SHC.

## Cyber Crime and Digital Forensics Specialization (D25500CF)

http://www.rccc.edu/catalog-2012-2013/?p=2399

## First Year Fall

| * | CCT | 110 | Introduction to Cyber Crime | 3 |
| :---: | :---: | :---: | :---: | :---: |
|  | CIS | 110 | Introduction to Computers | 3 |
| * | CTI | 110 | Web, Prog., and Database Foundation | 3 |
| * | CTI | 120 | Network and Security Foundation | 3 |
|  | HUM | 110 | Technology and Society | 3 |

Total SHC 15

## First Year Spring

| $*$ | CCT | 112 | Ethics and High Technology | 3 |
| :--- | :--- | :--- | :--- | :--- |
| * | CCT | 121 | Computer Crime Investigationn | 4 |
| * | CTS | 120 |  | Hardware/Software Support |

Total SHC 16

## First Year Summer

|  | CCT | 231 | Technology Crimes and Law |
| :--- | :--- | :--- | :--- |$\quad 30$

Total SHC 12

## Second Year Fall

* CCT 220 Forensic Accounting 4

CCT 240 Data Recovery Techniques 3
NET 110 Networking Concepts 3

* NOS 110 Operating Systems Concepts 3

Take one of the following courses. MAT 171 requires MAT 171A.

| MAT | 115 | Mathematical Models | 3 |
| :--- | :--- | :--- | :--- |
| MAT | 171 | Precalculus Algebra | 3 |
| MAT | 171 A | Precalculus Algebra Lab | 1 |

Total SHC 16-17

## Second Year Spring

CCT 241 Advanced Data Recovery 3
CCT 250 Network Vulnerabilities I 3
CJC 132 Court Procedure and Evidence 3
--- --- Major Electives 3
Total SHC 12

## ㅇMajor Electives

Take three semester hour credits from the following courses.
CCT 231 Technology Crimes and Law 3

CCT 240 Data Recovery Techniques 3
CIS 115 Intro to Programming and Logic 3
CJC 111 Introduction to Criminal Justice 3
CJC 112 Criminology 3
CJC 113 Juvenile Justice 3
CJC 121 Law Enforcement Operations 3
CJC 131 Criminal Law 3
CJC 132 Court Procedure and Evidence 3
CJC 141 Corrections 3
CJC 160 Terrorism: Underlying Issues 3
CJC 212 Ethics and Community Relations 3
CJC 214 Victimology
CJC 221 Investigative Principles 4
CJC 223 Organized Crime 3
CJC 231 Constitutional Law 3
CJC 233 Correctional Law 3
CJC 241 Community-Based Corrections 3
COE 111 Co-Op Work Experience I 1
COE 112 Co-Op Work Experience I 2
COE 113 Co-Op Work Experience I 3
COE 114 Co-Op Work Experience I 4
COE $121 \quad$ Co-Op Work Experience II 1
COE $122 \quad$ Co-Op Work Experience II 2
COE 123 Co-Op Work Experience II 3
COE $131 \quad$ Co-Op Work Experience III $\quad 1$
COE 132 Co-Op Work Experience III 2
COE 211 Co-Op Work Experience IV 1
CSC 134 C++ Programming 3
CSC 139 Visual BASIC Programming 3
CSC 151 JAVA Programming 3
CSC 153 C\# Programming 3
CSC 234 Advanced C++ Programming 3
CSC 239 Advanced Visual BASIC Programming 3
CSC 251 Advanced JAVA Programming 3
CSC 253 Advanced C\# Programming 3
CSC 289 Programming Capstone Project 3
CTS 125 Presentation Graphics 3
CTS 130 Spreadsheet 3
CTS 155 Tech Support Functions 3
CTS 210 Computer Ethics 3
CTS 220 Advanced Hardware/Software Support 3
CTS 230 Advanced Spreadsheet 3
CTS 240 Project Management 3
CTS 285 Systems Analysis and Design 3
CTS 289 System Support Project 3
DBA 115 Database Applications 3
DBA 120 Database Programming I 3
ECM 210 Introduction to E-Commerce 3
NET 125 Networking Basics 3
NET 126 Routing Basics 3
NET 175 Wireless Technology 3
NET 225 Routing and Switching I 3

| NET | 226 | Routing and Switching II | 3 |
| :--- | :--- | :--- | :--- |
| NET | 289 | Networking Project | 3 |
| NOS | 120 | Linux/UNIX Single User | 3 |
| NOS | 130 | Windows Single User | 3 |
| NOS | 220 | Linus/UNIX Administration I | 3 |
| NOS | 230 | Windows Administration I | 3 |
| NOS | 231 | Windows Administration II | 3 |
| OST | 136 | Word Processing | 3 |
| OST | 236 | Adv. Word Or Information Processsing | 3 |
| SEC | 150 | Secure Communications | 3 |
| SEC | 160 | Security Administration I | 3 |
| SEC | 210 | Intrusion Detection | 3 |
| WEB | 110 | Internet/Web Fundamentals | 3 |
| WEB | 111 | Introduction to Web Graphics | 3 |
| WEB | 115 | Web Markup and Scripting | 3 |
| WEB | 120 | Introduction to Internet Multimedia | 3 |
| WEB | 125 | Mobile Web Design | 3 |
| WEB | 140 | Web Dev. Tools | 3 |
| WEB | 179 | JAVA Web Programming | 3 |
| WEB | 180 | Active Server Pages | 3 |
| WEB | 182 | PHP Programming | 3 |
| WEB | 187 | Programming for Mobile Devices | 3 |
| WEB | 210 | Web Design | 3 |
| WEB | 211 | Advanced Web Graphics | 3 |
| WEB | 220 | Advanced Multimedia | 3 |
| WEB | 225 | Content Management Systems | 3 |
| WEB | 250 | Database Driven Websites | 3 |
| WEB | 287 | Web E-Portfolio | 2 |

## Total semester hour credits to complete degree: 71-72

Courses required for the diploma.
The following courses fulfill the requirements to obtain the diploma: CCT 110, CCT 112, CCT 121, CCT 240, CCT 241, CTI 110, CTI 120, CCT 220, NOS 110, SEC 110, ENG 111, and HUM 110 for a total of 38 SHC.

## Cyber Security Specialization (D25500CS)

http://www.rccc.edu/catalog-2012-2013/?p=2397

| First Year Fall |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | CIS | 110 | Introduction to Computers | 3 |
| * | CTI | 110 | Web, Prog., and Database Foundation | 3 |
| * | CTI | 120 | Network and Security Foundation | 3 |
|  | HUM | 110 |  | Technology and Society |

Total SHC 15
First Year Spring

|  | CCT | 112 | Ethics and High Technology | 3 |
| :--- | :--- | :--- | :--- | :--- |
| NET | 126 | Routing Basics | 3 |  |
|  | NET | 225 | Routing and Switching I | 3 |
| * | NOS | 110 | Operating Systems Concepts | 3 |
| $*$ | SEC | 110 | Security Concepts | 3 |

Total SHC 15
First Year Summer

| ENG | 111 | Expository Writing | 3 |
| :--- | :--- | :--- | :--- |
| NET | 226 | Routing and Switching II | 3 |
| NOS | 120 | Linux/UNIX Single User | 3 |
| * | SEC | 150 | Secure Communications |

Total SHC 12

\left.| Second Year Fall |  |  |  |
| :--- | :--- | :--- | :--- |
| * | CTS | 115 | Information Systems Business Concepts |$\right] 3$

Total SHC 15

## Second Year Spring <br> * SEC 210 Intrusion Detection 3 <br> --- --- Social/Behavioral Sciences Elective 3 <br> --- --- Major Electives 3

Take one of the following courses. MAT 171 requires MAT 171A.

| MAT | 115 | Mathematical Models | 3 |
| :--- | :--- | :--- | :--- |
| MAT | 171 | Precalculus Algebra | 3 |
| MAT | 171 A | Precalculus Algebra Lab | 1 |

Total SHC 12-13

## Major Electives

Take three semester hour credits from the following courses.
CCT 110 Introduction to Cyber Crime 3

CCT 121 Computer Crime Investigationn 4
CCT 220 Forensic Accounting 4
CCT 231 Technology Crimes and Law 3
CCT 240 Data Recovery Techniques 3
CCT 241 Advanced Data Recovery 3
CCT 250 Network Vulnerabilities I 3
CIS 115 Intro to Programming and Logic 3
CJC 111 Introduction to Criminal Justice 3
CJC 112 Criminology 3
CJC 113 Juvenile Justice 3
CJC 121 Law Enforcement Operations 3
CJC 131 Criminal Law 3
CJC 132 Court Procedure and Evidence 3
CJC 141 Corrections 3
CJC 160 Terrorism: Underlying Issues 3
CJC 212 Ethics and Community Relations 3
CJC 214 Victimology 3
CJC 221 Investigative Principles 4
CJC 223 Organized Crime 3
CJC 231 Constitutional Law 3
CJC 233 Correctional Law 3
CJC 241 Community-Based Corrections 3
COE 111 Co-Op Work Experience I 1
COE 112 Co-Op Work Experience I 2
COE 113 Co-Op Work Experience I 3
COE 114 Co-Op Work Experience I 4
COE 121 Co-Op Work Experience II 1
COE 122 Co-Op Work Experience II 2
COE 123 Co-Op Work Experience II 3
COE 131 Co-Op Work Experience III 1
COE 132 Co-Op Work Experience III 2
COE 211 Co-Op Work Experience IV 1
CSC 134 C++ Programming 3
CSC 139 Visual BASIC Programming 3
CSC 151 JAVA Programming 3
CSC 153 C\# Programming 3
CSC 234 Advanced C++ Programming 3
CSC 239 Advanced Visual BASIC Programming 3
CSC 251 Advanced JAVA Programming 3
CSC 253 Advanced C\# Programming 3
CSC 289 Programming Capstone Project 3
CTS 120 Hardware/Software Support 3
CTS 125 Presentation Graphics 3
CTS 130 Spreadsheet 3
CTS 135 Integrated Software Intro 4
CTS 155 Tech Support Functions 3
CTS 210 Computer Ethics 3
CTS 220 Advanced Hardware/Software Support 3
CTS 230 Advanced Spreadsheet 3
CTS 240 Project Management 3
CTS 285 Systems Analysis and Design 3
CTS 289 System Support Project 3

| DBA | 110 | Database Concepts | 3 |
| :--- | :--- | :--- | :--- |
| DBA | 115 | Database Applications | 3 |
| DBA | 120 | Database Programming I | 3 |
| ECM | 210 | Introduction to E-Commerce | 3 |
| NET | 110 | Networking Concepts | 3 |
| NET | 175 | Wireless Technology | 3 |
| NET | 289 | Networking Project | 3 |
| NOS | 130 | Windows Single User | 3 |
| NOS | 220 | Linus/UNIX Administration I | 3 |
| NOS | 230 | Windows Administration I | 3 |
| NOS | 231 | Windows Administration II | 3 |
| OST | 136 | Word Processing | 3 |
| OST | 236 | Adv. Word Or Information Processsing | 3 |
| WEB | 110 | Internet/Web Fundamentals | 3 |
| WEB | 111 | Introduction to Web Graphics | 3 |
| WEB | 115 | Web Markup and Scripting | 3 |
| WEB | 120 | Introduction to Internet Multimedia | 3 |
| WEB | 125 | Mobile Web Design | 3 |
| WEB | 140 | Web Dev. Tools | 3 |
| WEB | 179 | JAVA Web Programming | 3 |
| WEB | 180 | Active Server Pages | 3 |
| WEB | 182 | PHP Programming | 3 |
| WEB | 187 | Programming for Mobile Devices | 3 |
| WEB | 210 | Web Design | 3 |
| WEB | 211 | Advanced Web Graphics | 3 |
| WEB | 220 | Advanced Multimedia | 3 |
| WEB | 225 | Content Management Systems | 3 |
| WEB | 250 | Database Driven Websites | 3 |
| WEB | 287 | Web E-Portfolio | 2 |

## Total semester hour credits to complete degree: 69-70

## Courses required for the Diploma

The following courses fulfill the requirements to obtain the diploma: CTI 110, CTI 120, NET 125, NOS 110, NET 126, SEC 110, NOS 120, SEC 150, NOS 220, SEC 160, SEC 210, ENG 111, and HUM 110 for a total of 39 SHC.

## Emerging Technologies Programming Specialization (D25500ET) <br> http://www.rccc.edu/catalog-2012-2013/?p=2409

| First Year Fall |  |  |  |
| :--- | :--- | :--- | :--- |
| * | CIS | 110 | Introduction to Computers |
| * | CTI | 110 | Web, Prog., and Database Foundation |
| * | CTI | 120 |  |
| * | NTS | 115 |  |
|  | Information Systems Business Concepts | 3 |  |
|  | HUM | 110 |  |
|  |  |  | Technology and Society |

Total SHC 15

## First Year Spring

| * | CIS | 115 | Intro to Programming and Logic | 3 |
| :--- | :--- | :--- | :--- | :--- |
|  | CSC | 134 |  | C++ Programming | 3

Total SHC 15
Note: CTS 120 will be in the first 8 week minimester, and CTS 220 will be in the second 8 week minimester.

## First Year Summer

| ENG | 111 | Expository Writing | 3 |
| :--- | :--- | :--- | :--- |
| WEB | 140 | Web Dev. Tools | 3 |
| --- | --- | Major Electives | 3 |

Take one of the following courses. MAT 171 requires MAT 171A.

| MAT | 115 | Mathematical Models | 3 |
| :--- | :--- | :--- | :--- |
| MAT | 171 | Precalculus Algebra | 3 |
| MAT | 171 A | Precalculus Algebra Lab | 1 |

Total SHC 12-13

## Second Year Fall

|  | CSC | 151 | JAVA Programming | 3 |
| :---: | :---: | :---: | :---: | :---: |
|  | CSC | 234 | Advanced C++ Programming | 3 |
| * | DBA | 120 | Database Programming I | 3 |
|  | WEB | 182 | PHP Programming | 3 |

Total SHC 12

## Second Year Spring

| CSC | 251 | Advanced JAVA Programming | 3 |
| :--- | :--- | :--- | :--- |
| ENG | 114 | Professional Research and Reporting | 3 |
| --- | --- | Social/Behavioral Sciences Elective | 3 |
| --- | --- | Major Electives | 3 |

Take one of the following courses.
$\begin{array}{llll}\text { WEB } & 179 & \text { JAVA Web Programming } & 3 \\ \text { WEB } & 187 & \text { Programming for Mobile Devices } & 3\end{array}$

Total SHC 15

## Major Electives

Take six semester hour credits from the following courses.

| CCT | 110 | Introduction to Cyber Crime | 3 |
| :---: | :---: | :---: | :---: |
| CCT | 112 | Ethics and High Technology | 3 |
| CCT | 121 | Computer Crime Investigationn | 4 |
| CCT | 220 | Forensic Accounting | 4 |
| CCT | 231 | Technology Crimes and Law | 3 |
| CCT | 240 | Data Recovery Techniques | 3 |
| CCT | 241 | Advanced Data Recovery | 3 |
| ССТ | 250 | Network Vulnerabilities I | 3 |
| CJC | 111 | Introduction to Criminal Justice | 3 |
| CJC | 112 | Criminology | 3 |
| CJC | 113 | Juvenile Justice | 3 |
| CJC | 121 | Law Enforcement Operations | 3 |
| CJC | 131 | Criminal Law | 3 |
| CJC | 132 | Court Procedure and Evidence | 3 |
| CJC | 141 | Corrections | 3 |
| CJC | 160 | Terrorism: Underlying Issues | 3 |
| CJC | 212 | Ethics and Community Relations | 3 |
| CJC | 214 | Victimology | 3 |
| CJC | 221 | Investigative Principles | 4 |
| CJC | 223 | Organized Crime | 3 |
| CJC | 231 | Constitutional Law | 3 |
| CJC | 233 | Correctional Law | 3 |
| CJC | 241 | Community-Based Corrections | 3 |
| COE | 111 | Co-Op Work Experience I | 1 |
| COE | 112 | Co-Op Work Experience I | 2 |
| COE | 113 | Co-Op Work Experience I | 3 |
| COE | 114 | Co-Op Work Experience I | 4 |
| COE | 121 | Co-Op Work Experience II | 1 |
| COE | 122 | Co-Op Work Experience II | 2 |
| COE | 123 | Co-Op Work Experience II | 3 |
| COE | 131 | Co-Op Work Experience III | 1 |
| COE | 132 | Co-Op Work Experience III | 2 |
| COE | 211 | Co-Op Work Experience IV | 1 |
| CSC | 139 | Visual BASIC Programming | 3 |
| CSC | 153 | C\# Programming | 3 |
| CSC | 239 | Advanced Visual BASIC Programming | 3 |
| CSC | 253 | Advanced C\# Programming | 3 |
| CSC | 289 | Programming Capstone Project | 3 |
| CTS | 125 | Presentation Graphics | 3 |
| CTS | 130 | Spreadsheet | 3 |
| CTS | 135 | Integrated Software Intro | 4 |
| CTS | 155 | Tech Support Functions | 3 |
| CTS | 210 | Computer Ethics | 3 |
| CTS | 230 | Advanced Spreadsheet | 3 |
| CTS | 240 | Project Management | 3 |
| CTS | 285 | Systems Analysis and Design | 3 |
| CTS | 289 | System Support Project | 3 |
| DBA | 115 | Database Applications | 3 |
| ECM | 210 | Introduction to E-Commerce | 3 |
| NET | 110 | Networking Concepts | 3 |
| NET | 125 | Networking Basics | 3 |
| NET | 126 | Routing Basics | 3 |


| NET | 175 | Wireless Technology | 3 |
| :--- | :--- | :--- | :--- |
| NET | 225 | Routing and Switching I | 3 |
| NET | 226 | Routing and Switching II | 3 |
| NET | 289 | Networking Project | 3 |
| NOS | 110 | Operating Systems Concepts | 3 |
| NOS | 120 | Linux/UNIX Single User | 3 |
| NOS | 130 | Windows Single User | 3 |
| NOS | 220 | Linus/UNIX Administration I | 3 |
| NOS | 230 | Windows Administration I | 3 |
| NOS | 231 | Windows Administration II | 3 |
| OST | 136 | Word Processing | 3 |
| OST | 236 | Adv. Word Or Information Processsing | 3 |
| SEC | 110 | Security Concepts | 3 |
| SEC | 150 | Secure Communications | 3 |
| SEC | 160 | Security Administration I | 3 |
| SEC | 210 | Intrusion Detection | 3 |
| SGD | 111 | Introduction to Simulation and Game Dev. | 3 |
| SGD | 112 | Simulation and Game Dev. Design | 3 |
| SGD | 113 | Simulation and Game Dev. Programming | 3 |
| SGD | 212 | Simulation and Game Dev. Design II | 3 |
| SGD | 289 | Simulation and Game Dev. Project | 3 |
| WEB | 110 | Internet/Web Fundamentals | 3 |
| WEB | 111 | Introduction to Web Graphics | 3 |
| WEB | 115 | Web Markup and Scripting | 3 |
| WEB | 120 | Introduction to Internet Multimedia | 3 |
| WEB | 125 | Mobile Web Design | 3 |
| WEB | 179 | JAVA Web Programming | 3 |
| WEB | 180 | Active Server Pages | 3 |
| WEB | 187 | Programming for Mobile Devices | 3 |
| WEB | 210 | Web Design | 3 |
| WEB | 211 | Advanced Web Graphics | 3 |
| WEB | 220 | Advanced Multimedia | 3 |
| WEB | 225 | Content Management Systems | 3 |
| WEB | 250 | Database Driven Websites | 3 |
| WEB | 287 | Web E-Portfolio | 2 |
|  |  |  |  |
| WE |  | 3 |  |

Total semester hour credits to complete degree: 69-70

## Courses required for the Diploma.

The following courses fulfill the requirements to obtain the Diploma: CTI 110, CTI 120, CIS 115, CSC 134, DBA 120, CSC 151, CSC 234, WEB 182, CSC 251, and ENG 111. Also required is either MAT 115 or MAT 171 and MAT 171A, and either WEB 179 or WEB 187 for a total of 36 or 37 SHC.

## Information Technology Specialization (D25500IT)

http://www.rccc.edu/catalog-2012-2013/?p=2405

## First Year Fall

| $*$ | CIS | 110 | Introduction to Computers | 3 |
| :--- | :--- | :--- | :--- | :--- |
| * | CTI | 110 | Web, Prog., and Database Foundation | 3 |
| * | CTI | 120 | Network and Security Foundation | 3 |
| * | CTS | 115 | Information Systems Business Concepts | 3 |
|  | HUM | 110 |  | Technology and Society |

Total SHC 15

## First Year Spring

| * | CIS | 115 | Intro to Programming and Logic | 3 |
| :--- | :--- | :--- | :--- | :--- |
| * | CTS | 120 | Hardware/Software Support | 3 |
| * | CTS | 220 | Advanced Hardware/Software Support | 3 |
|  | NOS | 110 | Operating Systems Concepts | 3 |

Take one of the following courses. MAT 171 requires MAT 171A.

| MAT | 115 | Mathematical Models | 3 |
| :--- | :--- | :--- | :--- |
| MAT | 171 | Precalculus Algebra | 3 |
| MAT | 171 A | Precalculus Algebra Lab | 1 |

Total SHC 15-16
Note: CTS 120 will be in the first 8 week minimester, and CTS 220 will be in the second 8 week minimester.

| First Year Summer |  |  |  |
| :---: | :--- | :--- | ---: |
| CTS | 135 | Integrated Software Intro | 4 |
| ENG | 111 | Expository Writing | 3 |
| --- | --- | Social/Behavioral Sciences Elective | 3 |
| --- | --- | Major Electives | $3-4$ |

Total SHC 13-14

## Second Year Fall

| CTS | 240 | Project Management | 3 |
| :--- | :--- | :--- | :--- |
| * CTS | 285 | Systems Analysis and Design | 3 |
| DBA | 110 | Database Concepts | 3 |
|  | ENG | 114 | Professional Research and Reporting |

Total SHC 12

## Second Year Spring

| * CTS | 289 | System Support Project | 3 |
| :--- | :--- | :--- | :--- |
| DBA | 115 | Database Applications | 3 |
| NOS | 130 | Windows Single User | 3 |
| NOS | 230 | Windows Administration I | 3 |
|  | --- | --- | Major Electives |

Total SHC 15

## Major Electives

Take six or seven semester hour credits from the following courses.

| CCT | 110 | Introduction to Cyber Crime | 3 |
| :--- | :--- | :--- | :--- |
| CCT | 112 | Ethics and High Technology | 3 |
| CCT | 121 | Computer Crime Investigationn | 4 |
| CCT | 220 | Forensic Accounting | 4 |
| CCT | 231 | Technology Crimes and Law | 3 |
| CCT | 240 | Data Recovery Techniques | 3 |
| CCT | 241 | Advanced Data Recovery | 3 |
| CCT | 250 | Network Vulnerabilities I | 3 |
| CIS | 110 | Introduction to Computers | 3 |
| CIS | 115 | Intro to Programming and Logic | 3 |
| CJC | 111 | Introduction to Criminal Justice | 3 |
| CJC | 112 | Criminology | 3 |
| CJC | 113 | Junit |  |

CJC 113 Juvenile Justice 3
CJC 121 Law Enforcement Operations 3
CJC 131 Criminal Law 3
CJC 132 Court Procedure and Evidence 3
CJC 141 Corrections 3
CJC 160 Terrorism: Underlying Issues 3
CJC 212 Ethics and Community Relations 3
CJC 214 Victimology 3
CJC 221 Investigative Principles 4
CJC 223 Organized Crime 3
CJC 231 Constitutional Law 3
CJC 233 Correctional Law 3
CJC 241 Community-Based Corrections 3
COE 111 Co-Op Work Experience I 1
COE 112 Co-Op Work Experience I 2
COE 113 Co-Op Work Experience I 3
COE 114 Co-Op Work Experience I 4
COE 121 Co-Op Work Experience II 1

COE 122 Co-Op Work Experience II 2
COE 123 Co-Op Work Experience II 3
COE 131 Co-Op Work Experience III 1
COE 132 Co-Op Work Experience III 2
COE 211 Co-Op Work Experience IV 1
CSC 134 C++ Programming 3
CSC 139 Visual BASIC Programming 3
CSC 151 JAVA Programming 3
CSC 153 C\# Programming 3
CSC 234 Advanced C++ Programming 3
CSC 239 Advanced Visual BASIC Programming 3
CSC 251 Advanced JAVA Programming 3
CSC 253 Advanced C\# Programming 3
CSC 289 Programming Capstone Project 3
CTS 125 Presentation Graphics 3
CTS 130 Spreadsheet 3
CTS 155 Tech Support Functions 3
CTS 210 Computer Ethics 3
CTS 230 Advanced Spreadsheet 3
DBA 120 Database Programming I 3
ECM 210
Introduction to E-Commerce 3
NET 110
Networking Concepts

| NET | 125 | Networking Basics | 3 |
| :--- | :--- | :--- | :--- |
| NET | 126 | Routing Basics | 3 |
| NET | 175 | Wireless Technology | 3 |
| NET | 225 | Routing and Switching I | 3 |
| NET | 226 | Routing and Switching II | 3 |
| NET | 289 | Networking Project | 3 |
| NOS | 120 | Linux/UNIX Single User | 3 |
| NOS | 220 | Linus/UNIX Administration I | 3 |
| NOS | 231 | Windows Administration II | 3 |
| OST | 136 | Word Processing | 3 |
| OST | 236 | Adv. Word Or Information Processsing | 3 |
| SEC | 110 | Security Concepts | 3 |
| SEC | 150 | Secure Communications | 3 |
| SEC | 160 | Security Administration I | 3 |
| SEC | 210 | Intrusion Detection | 3 |
| SGD | 111 | Introduction to Simulation and Game Dev. | 3 |
| SGD | 112 | Simulation and Game Dev. Design | 3 |
| SGD | 113 | Simulation and Game Dev. Programming | 3 |
| SGD | 212 | Simulation and Game Dev. Design II | 3 |
| SGD | 289 | Simulation and Game Dev. Project | 3 |
| WEB | 110 | Internet/Web Fundamentals | 3 |
| WEB | 111 | Introduction to Web Graphics | 3 |
| WEB | 115 | Web Markup and Scripting | 3 |
| WEB | 120 | Introduction to Internet Multimedia | 3 |
| WEB | 125 | Mobile Web Design | 3 |
| WEB | 140 | Web Dev. Tools | 3 |
| WEB | 179 | JAVA Web Programming | 3 |
| WEB | 180 | Active Server Pages | 3 |
| WEB | 182 | PHP Programming | 3 |
| WEB | 187 | Programming for Mobile Devices | 3 |
| WEB | 210 | Web Design | 3 |
| WEB | 211 | Advanced Web Graphics | 3 |
| WEB | 220 | Advanced Multimedia | 3 |
| WEB | 225 | Content Management Systems | 3 |
| WEB | 250 | Database Driven Websites | 3 |
| WEB | 287 | Web E-Portfolio | 2 |
|  |  |  |  |
| WE |  | 3 |  |

Total semester hour credits to complete degree: 70-72

## Courses required for the Diploma.

The following courses fulfill the requirements to obtain the diploma: CIS 110, CTI 110, CTI 120, CTS 115, CIS 115, CTS 120, DBA 110, NOS 110, ENG 111, HUM 110, and two of the following courses: CTS 135, CTS 155, CTS 220, CTS 240, CTS 285 , DBA 115 , or NOS 130 for a total of 36 or 37 SHC.

## Networking Technology Specialization (D25500NT)

http://www.rccc.edu/catalog-2012-2013/?p=2411

## First Year Fall

|  | CIS | 110 | Introduction to Computers | 3 |
| :--- | :--- | :--- | :--- | :--- |
| * | CTI | 110 |  | Web, Prog., and Database Foundation |
| * | CTI | 120 |  | 3 |
| * | CTS | 115 |  | Information Security Foundation |
|  | NET | 125 |  | 3 |
|  |  |  |  | Networking Basics |

Total SHC 15

## First Year Spring

$\left.\begin{array}{llll} & \text { ENG } & 111 & \text { Expository Writing } \\ & \text { NET } & 126 & \text { Routing Basics }\end{array}\right] 3$

Total SHC 18
Note: NOS 110 and NET 126 will be in the first 8 week minimester. NOS 130 and NET 225 will be in the second 8 week minimester.

## First Year Summer

| ENG | 114 | Professional Research and Reporting | 3 |
| :--- | :--- | :--- | :--- |
| NET | 226 | Routing and Switching II | 3 |
| NOS | 120 | Linux/UNIX Single User | 3 |
| --- | --- | Major Electives | 3 |

Total SHC 12

## Second Year Fall

HUM 110 Technology and Society 3

* NOS 230 Windows Administration I 3

NOS 231 Windows Administration II 3
--- --- Major Electives 3
Total SHC 12

## Second Year Spring

| * | CTS | 120 | Hardware/Software Support | 3 |
| :--- | :--- | :--- | :--- | :--- |
| * | CTS | 220 | Advanced Hardware/Software Support | 3 |
|  | --- | --- | Social/Behavioral Sciences Elective | 3 |

Take one of the following courses. MAT 171 requires MAT 171A.

| MAT | 115 | Mathematical Models | 3 |
| :--- | :--- | :--- | :--- |
| MAT | 171 | Precalculus Algebra | 3 |
| MAT | 171 A | Precalculus Algebra Lab | 1 |

Total SHC 12-13
Note: CTS 120 will be in the first 8 week minimester, and CTS 220 will be in the second 8 week minimester.

## Major Electives

Take six semester hour credits from the following courses.
CCT 110 Introduction to Cyber Crime 3

CCT 112 Ethics and High Technology 3
$\begin{array}{lll}\text { CCT } & 121 \text { Computer Crime Investigationn } 4\end{array}$
CCT 220 Forensic Accounting 4
CCT 231 Technology Crimes and Law 3
CCT 240 Data Recovery Techniques 3
CCT 241 Advanced Data Recovery 3
CCT 250 Network Vulnerabilities I 3
CIS 115 Intro to Programming and Logic 3
CJC 111 Introduction to Criminal Justice 3
CJC 112 Criminology
CJC 113 Juvenile Justice
$\begin{array}{llll}\text { CJC } & 121 & \text { Law Enforcement Operations } & 3 \\ \text { CJC } & 131 & \text { Criminal Law } & 3\end{array}$
$\begin{array}{llll}\text { CJC } & 131 & \text { Criminal Law } & 3 \\ \text { CJC } & 132 & \text { Court Procedure and Evidence } & 3\end{array}$
CJC 141 Corrections 3
CJC 160 Terrorism: Underlying Issues 3
CJC 212 Ethics and Community Relations 3
CJC 214 Victimology 3
CJC 221 Investigative Principles 4
CJC 223 Organized Crime 3
CJC 231 Constitutional Law 3
CJC 233 Correctional Law 3
CJC 241 Community-Based Corrections 3
COE 111 Co-Op Work Experience I 1
COE $112 \quad$ Co-Op Work Experience I 2
COE 113 Co-Op Work Experience I 3
COE 114 Co-Op Work Experience I 4
COE $121 \quad$ Co-Op Work Experience II 1
COE 122 Co-Op Work Experience II 2
COE 123 Co-Op Work Experience II 3
COE 131 Co-Op Work Experience III 1
COE 132 Co-Op Work Experience III 2
COE 211 Co-Op Work Experience IV 1
CSC 134 C++ Programming 3
CSC 139 Visual BASIC Programming 3
CSC 151 JAVA Programming 3
CSC 153 C\# Programming 3
CSC 234 Advanced C++ Programming 3
CSC 239 Advanced Visual BASIC Programming 3
CSC 251 Advanced JAVA Programming 3
CSC 253 Advanced C\# Programming 3
CSC 289 Programming Capstone Project 3
CTS 125 Presentation Graphics 3
CTS 130 Spreadsheet 3
CTS 135 Integrated Software Intro 4
CTS 155 Tech Support Functions 3
CTS 210 Computer Ethics 3
CTS 230 Advanced Spreadsheet 3
CTS 240 Project Management 3
CTS 285 Systems Analysis and Design 3
CTS 289 System Support Project 3
DBA 110 Database Concepts 3

| DBA | 115 | Database Applications | 3 |
| :--- | :--- | :--- | :--- |
| DBA | 120 | Database Programming I | 3 |
| ECM | 210 | Introduction to E-Commerce | 3 |
| NET | 110 | Networking Concepts | 3 |
| NET | 175 | Wireless Technology | 3 |
| NET | 289 | Networking Project | 3 |
| NOS | 220 | Linus/UNIX Administration I | 3 |
| OST | 136 | Word Processing | 3 |
| OST | 236 | Adv. Word Or Information Processsing | 3 |
| SEC | 150 | Secure Communications | 3 |
| SEC | 160 | Security Administration I | 3 |
| SEC | 210 | Intrusion Detection | 3 |
| SGD | 111 | Introduction to Simulation and Game Dev. 3 |  |
| SGD | 112 | Simulation and Game Dev. Design | 3 |
| SGD | 113 | Simulation and Game Dev. Programming | 3 |
| SGD | 212 | Simulation and Game Dev. Design II | 3 |
| SGD | 289 | Simulation and Game Dev. Project | 3 |
| WEB | 110 | Internet/Web Fundamentals | 3 |
| WEB | 111 | Introduction to Web Graphics | 3 |
| WEB | 115 | Web Markup and Scripting | 3 |
| WEB | 120 | Introduction to Internet Multimedia | 3 |
| WEB | 125 | Mobile Web Design | 3 |
| WEB | 140 | Web Dev. Tools | 3 |
| WEB | 179 | JAVA Web Programming | 3 |
| WEB | 180 | Active Server Pages | 3 |
| WEB | 182 | PHP Programming | 3 |
| WEB | 187 | Programming for Mobile Devices | 3 |
| WEB | 210 | Web Design | 3 |
| WEB | 211 | Advanced Web Graphics | 3 |
| WEB | 220 | Advanced Multimedia | 3 |
| WEB | 225 | Content Management Systems | 3 |
| WEB | 250 | Database Driven Websites | 3 |
| WEB | 287 | Web E-Portfolio | 2 |
|  |  |  |  |

Total semester hour credits to complete
degree: 69-70 degree: 69-70

## Courses required for the Diploma

The following courses fulfill the requirements to obtain the diploma: CTI 110, CTI 120, CIS 110, NET 125, NET 126, NET 225, NET 226, NOS 110, NOS 120, NOS 130, NOS 230, SEC 110, ENG 111 and HUM 110 for a total of 42 SHC.

## Web Technologies Specialization (D25500WT)

http://www.rccc.edu/catalog-2012-2013/?p=2390

## First Year Fall

|  | CIS | 110 | Introduction to Computers | 3 |
| :---: | :---: | :---: | :---: | :---: |
| * | CTI | 110 | Web, Prog., and Database Foundation | 3 |
| * | CTI | 120 | Network and Security Foundation | 3 |
| * | CTS | 115 | Information Systems Business Concepts | 3 |
|  | HUM | 110 | Technology and Society | 3 |

Total SHC 15

## First Year Spring

| DBA | 110 | Database Concepts | 3 |
| :---: | :---: | :---: | :---: |
| ENG | 111 | Expository Writing | 3 |
| WEB | 110 | Internet/Web Fundamentals | 3 |
| WEB | 115 | Web Markup and Scripting | 3 |
| WEB | 120 | Introduction to Internet Multimedia | 3 |

Total SHC 15

## First Year Summer

| ENG | 114 | Professional Research and Reporting | 3 |
| :--- | :--- | :--- | :--- |
| WEB | 125 | Mobile Web Design | 3 |
| WEB | 140 | Web Dev. Tools | 3 |

Take one of the following courses. MAT 171 requires MAT 171A.

| MAT | 115 | Mathematical Models | 3 |
| :--- | :--- | :--- | :--- |
| MAT | 171 | Precalculus Algebra | 3 |
| MAT | 171 A | Precalculus Algebra Lab | 1 |

Total SHC 12-13
Second Year Fall
WEB 111 Introduction to Web Graphics 3
WEB 210 Web Design 3
WEB 220 Advanced Multimedia 3
WEB 250 Database Driven Websites 3
--- --- Social/Behavioral Sciences Elective 3
Total SHC 15

| Second Year Spring |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| * | CTS | 120 | Hardware/Software Support | 3 |
| * | CTS | 220 | Advanced Hardware/Software Support | 3 |
|  | ECM | 210 | Introduction to E-Commerce | 3 |
|  | WEB | 225 | Content Management Systems | 3 |
|  | WEB | 287 | Web E-Portfolio | 2 |

Total SHC 14
Note: CTS 120 will be in the first 8 week minimester, and CTS 220 will be in the second 8 week minimester.

Total semester hour credits to complete degree: 71-72

## Courses required for the Diploma

The following courses fulfill the requirements to obtain the diploma: CIS 110, CTI 110, CTI 120, WEB 110, WEB 111, WEB 115, WEB 120, WEB 125, WEB 140, WEB 210, ENG 111, and HUM 110 for a total of 36 SHC.

## (dot) .net Programming Certificate (C25500NP)

http://www.rccc.edu/catalog-2012-2013/?p=2518

## Courses

| CIS | 115 | Intro to Programming and Logic | 3 |
| :--- | :--- | :--- | :--- |
| CSC | 139 | Visual BASIC Programming | 3 |
| CSC | 153 | C\# Programming | 3 |
| CSC | 239 | Advanced Visual BASIC Programming | 3 |

Total semester hour credits to complete certificate: 12

## Advanced (dot) .net Programming Certificate (C25000AP) <br> http://www.rccc.edu/catalog-2012-2013/?p=2521

## Courses

CSC 239 Advanced Visual BASIC Programming 3
CSC 253 Advanced C\# Programming 3
DBA 120 Database Programming I 3
WEB 180
Active Server Pages

## Total semester hour credits to complete certificate: 12

## Advanced Digital Forensics Certificate (C25000AF) <br> http://www.rccc.edu/catalog-2012-2013/?p=2485

## Courses

CCT 121 Computer Crime Investigationn 4
CCT 220 Forensic Accounting 4
CCT 240 Data Recovery Techniques 3
CCT 241 Advanced Data Recovery 3
CCT 250 Network Vulnerabilities I
Total semester hour credits to complete certificate: 17

## Advanced Operating Systems Certificate (C25500AS)

http://www.rccc.edu/catalog-2012-2013/?p=2534

## Courses

NOS 110
NOS 120
NOS 130
NOS 220
NOS 230

Operating Systems Concepts
Linux/UNIX Single User
Windows Single User
Linus/UNIX Administration I
Windows Administration I
Total semester hour credits to complete certificate: 15

## Advanced Web Programming Certificate (C25500AW)

http://www.rccc.edu/catalog-2012-2013/?p=2512

## Courses

CSC 251

DBA 120
WEB 179
WEB 182
Advanced JAVA Programming
Database Programming I

PHP Programming
Total semester hour credits to complete certificate: 12

## C-Based Programming Certificate (C25500CP)

http://www.rccc.edu/catalog-2012-2013/?p=2509

## Courses

| CIS | 115 | Intro to Programming and Logic | 3 |
| :--- | :--- | :--- | :--- |
| CSC | 134 | C++ Programming | 3 |
| CSC | 151 | JAVA Programming | 3 |
| CSC | 234 | Advanced C++ Programming | 3 |

Total semester hour credits to complete certificate: 12

## Cisco Networking Certificate (C25500CN)

http://www.rccc.edu/catalog-2012-2013/?p=2531

## Courses

CTI 120 Network and Security Foundation 3
NET 125 Networking Basics 3
NET 126 Routing Basics 3
NET 225 Routing and Switching I 3
Routing and Switching II

## Total semester hour credits to complete certificate: 15

## Computer Hardware Repair Certificate (C25500CH)

http://www.rccc.edu/catalog-2012-2013/?p=2524

## courses

| CIS | 110 | Introduction to Computers | 3 |
| :--- | :--- | :--- | :--- |
| CTI | 120 | Network and Security Foundation | 3 |
| CTS | 120 | Hardware/Software Support | 3 |
| CTS | 220 | Advanced Hardware/Software Support | 3 |
| NOS | 110 | Operating Systems Concepts | 3 |
| SEC | 110 | Security Concepts | 3 |

Total semester hour credits to complete certificate: 18

## Computer Technology Essentials Certificate (C25500CT)

http://www.rccc.edu/catalog-2012-2013/?p=2488

## Courses

| CIS | 110 | Introduction to Computers | 3 |
| :--- | :--- | :--- | :--- |
| CTI | 110 | Web, Prog., and Database Foundation | 3 |
| CTI | 120 | Network and Security Foundation | 3 |
| CTS | 115 | Information Systems Business Concepts | 3 |
| HUM | 110 | Technology and Society | 3 |

Total semester hour credits to complete certificate: 15

## Content Management Certificate (C25500CM)

http://www.rccc.edu/catalog-2012-2013/?p=2449

## Courses

WEB 120 Introduction to Internet Multimedia 3
WEB 220 Advanced Multimedia 3
WEB 225 Content Management Systems 3
WEB 250 Database Driven Websites 3
Total semester hour credits to complete certificate: 12

## Cyber Crime Fundamentals Certificate (C25500CF)

http://www.rccc.edu/catalog-2012-2013/?p=2478

## Courses

CCT 110 Introduction to Cyber Crime 3
CJC 221 Investigative Principles 4
CTI 120 Network and Security Foundation 3
CTS 120 Hardware/Software Support 3
SEC 110 Security Concepts 3
Total semester hour credits to complete certificate: 16

## Cyber Crime Law Certificate (C25500CL)

http://www.rccc.edu/catalog-2012-2013/?p=2481

## Courses

| CCT | 121 | Computer Crime Investigationn | 4 |
| :--- | :--- | :--- | :--- |
| CCT | 231 | Technology Crimes and Law | 3 |
| CJC | 132 | Court Procedure and Evidence | 3 |
| CJC | 221 | Investigative Principles | 4 |

Total semester hour credits to complete certificate: 14

## Cyber Security Administration Certificate (C25500SA)

http://www.rccc.edu/catalog-2012-2013/?p=2475

## Courses

| CTS | 240 | Project Management | 3 |
| :--- | :--- | :--- | :--- |
| NOS | 220 | Linus/UNIX Administration I | 3 |
| SEC | 150 | Secure Communications | 3 |
| SEC | 160 | Security Administration I | 3 |
| SEC | 210 | Intrusion Detection | 3 |

Total semester hour credits to complete certificate: 15

## Cyber Security Fundamentals Certificate (C25500CS)

http://www.rccc.edu/catalog-2012-2013/?p=2463

## Courses

| CCT | 112 | Ethics and High Technology | 3 |
| :--- | :--- | :--- | :--- |
| CTI | 110 | Web, Prog., and Database Foundation | 3 |
| CTI | 120 | Network and Security Foundation | 3 |
| NET | 125 | Networking Basics | 3 |
| SEC | 110 | Security Concepts | 3 |

Total semester hour credits to complete certificate: 15

## Cyber Security Technician Certificate (C25500ST) <br> http://www.rccc.edu/catalog-2012-2013/?p=2472

## Courses

CTI 120 Network and Security Foundation 3
CTS 120 Hardware/Software Support 3
NET 125 Networking Basics 3
SEC 110 Security Concepts 3

SEC 160 Security Administration I 3

## Total semester hour credits to complete certificate: 15

\section*{Database Management (C25500DM) <br> http://www.rccc.edu/catalog-2012-2013/?p=2501 <br> Courses <br> | CTI | 110 | Web, Prog., and Database Foundation | 3 |
| :--- | :--- | :--- | :--- |
| DBA | 110 | Database Concepts | 3 |
| DBA | 115 | Database Applications | 3 |
| DBA | 120 | Database Programming I | 3 |
| WEB | 250 | Database Driven Websites | 3 |}

Total semester hour credits to complete certificate: 15

## Database Programming Certificate (C25500DP)

http://www.rccc.edu/catalog-2012-2013/?p=2503

## Courses

| CIS | 115 | Intro to Programming and Logic | 3 |
| :--- | :--- | :--- | :--- |
| CSC | 139 | Visual BASIC Programming | 3 |
| CSC | 239 | Advanced Visual BASIC Programming | 3 |
| DBA | 120 | Database Programming I | 3 |

Total semester hour credits to complete certificate: 12

## E-Commerce Certificate (C25500EC) <br> http://www.rccc.edu/catalog-2012-2013/?p=2454

## Courses

| CTI | 110 | Web, Prog., and Database Foundation | 3 |
| :--- | :--- | :--- | :--- |
| DBA | 110 | Database Concepts | 3 |
| ECM | 210 | Introduction to E-Commerce | 3 |
| WEB | 250 | Database Driven Websites | 3 |

Total semester hour credits to complete certificate: 12

## Internet Technologies Certificate (C25500IN)

http://www.rccc.edu/catalog-2012-2013/?p=2435
Courses

| CIS | 110 | Introduction to Computers | 3 |
| :--- | :--- | :--- | :--- |
| CTI | 110 | Web, Prog., and Database Foundation | 3 |
| WEB | 110 | Internet/Web Fundamentals | 3 |
| WEB | 115 | Web Markup and Scripting | 3 |

## Total semester hour credits to complete certificate: 12

## IT Support Fundamentals Certificate (C25500IT)

http://www.rccc.edu/catalog-2012-2013/?p=2495

## Courses

| CIS | 110 | Introduction to Computers | 3 |
| :--- | :--- | :--- | :--- |
| CTI | 120 | Network and Security Foundation | 3 |
| CTS | 120 | Hardware/Software Support | 3 |
| CTS | 155 | Tech Support Functions | 3 |
| CTS | 220 | Advanced Hardware/Software Support | 3 |

Total semester hour credits to complete certificate: 15

## Microsoft Windows Certificate (C25500MW)

http://www.rccc.edu/catalog-2012-2013/?p=2528

## Courses

| CIS | 110 | Introduction to Computers | 3 |
| :--- | :--- | :--- | :--- |
| CTI | 120 | Network and Security Foundation | 3 |
| NOS | 110 | Operating Systems Concepts | 3 |
| NOS | 130 | Windows Single User | 3 |
| NOS | 230 | Windows Administration I | 3 |
| NOS | 231 | Windows Administration II | 3 |

Total semester hour credits to complete certificate: 18

## Mobile Device Programming Certificate (C25500MD) <br> http://www.rccc.edu/catalog-2012-2013/?p=2515

## Courses

CSC 251
DBA 120
Advanced JAVA Programming
Database Programming I
WEB 182
PHP Programming
WEB 187
Programming for Mobile Devices

## Total semester hour credits to complete

 certificate: 12
## Operating Systems Manager Certificate (C255000M)

http://www.rccc.edu/catalog-2012-2013/?p=2466

## Courses

| CCT | 112 | Ethics and High Technology | 3 |
| :--- | :--- | :--- | :--- |
| NOS | 110 | Operating Systems Concepts | 3 |
| NOS | 120 | Linux/UNIX Single User | 3 |
| NOS | 220 | Linus/UNIX Administration I | 3 |

Total semester hour credits to complete certificate: 12

## Productivity Software Certificate (C25500PS)

http://www.rccc.edu/catalog-2012-2013/?p=2492

## Courses

| CIS | 110 | Introduction to Computers | 3 |
| :--- | :--- | :--- | :--- |
| CTS | 130 | Spreadsheet | 3 |
| CTS | 135 | Integrated Software Intro | 4 |
| DBA | 110 | Database Concepts | 3 |
| OST | 136 | Word Processing | 3 |

Total semester hour credits to complete certificate: 16

## Security Fundamentals Certificate (C25500SF)

http://www.rccc.edu/catalog-2012-2013/?p=2469

| Courses |  |  |  |
| :---: | :---: | :--- | :--- |
| CTI | 120 | Network and Security Foundation | 3 |
| NET | 125 | Networking Basics | 3 |
| SEC | 110 | Security Concepts | 3 |
| SEC | 150 | Secure Communications | 3 |

Total semester hour credits to complete certificate: 12

## Simulation and Gaming Design Certificate (C25500SD)

http://www.rccc.edu/catalog-2012-2013/?p=2460

## Courses

SGD 112 Simulation and Game Dev. Design 3
SGD 212 Simulation and Game Dev. Design II 3
SGD 289 Simulation and Game Dev. Project 3
WEB 120 Introduction to Internet Multimedia 3
WEB 220 Advanced Multimedia 3
Total semester hour credits to complete certificate: 15

## Simulation and Gaming Fundamentals Certificate (C25500SG) <br> http://www.rccc.edu/catalog-2012-2013/?p=2457

## Courses

SGD 111 Introduction to Simulation and Game Dev. 3
SGD 112 Simulation and Game Dev. Design 3
SGD 113 Simulation and Game Dev. Programming 3
WEB 111 Introduction to Web Graphics 3
WEB 120 Introduction to Internet Multimedia 3
Total semester hour credits to complete certificate: 15

## Spreadsheet Management Certificate (C25500SM)

http://www.rccc.edu/catalog-2012-2013/?p=2498

## Courses

| CIS | 110 | Introduction to Computers | 3 |
| :--- | :--- | :--- | :--- |
| CTS | 130 | Spreadsheet | 3 |
| CTS | 135 | Integrated Software Intro | 4 |
| CTS | 230 | Advanced Spreadsheet | 3 |

Total semester hour credits to complete certificate: 13

## Web Designer Certificate (C25500WD)

http://www.rccc.edu/catalog-2012-2013/?p=2443

## Courses

WEB 110 Internet/Web Fundamentals 3
WEB 115 Web Markup and Scripting 3
WEB 140 Web Dev. Tools 3
WEB 210 Web Design 3

## Total semester hour credits to complete

 certificate: 12
## Web Multimedia Certificate (C25500WM)

http://www.rccc.edu/catalog-2012-2013/?p=2438

## Courses

WEB 110 Internet/Web Fundamentals 3
WEB 111 Introduction to Web Graphics 3
WEB 120 Introduction to Internet Multimedia 3
WEB 220 Advanced Multimedia 3
Total semester hour credits to complete certificate: 12

## Web Programming Certificate (C25500WP)

http://www.rccc.edu/catalog-2012-2013/?p=2446

## Courses

| CSC | 151 | JAVA Programming | 3 |
| :--- | :--- | :--- | :--- |
| CSC | 251 | Advanced JAVA Programming | 3 |
| WEB | 179 | JAVA Web Programming | 3 |
| WEB | 182 | PHP Programming | 3 |

Total semester hour credits to complete certificate: 12

# Computer-Integrated Machining (50210) 

http://www.rccc.edu/catalog-2012-2013/?p=814

## Description

The computer-integrated machining curriculum prepares students with the analytical, creative and innovative skills necessary to take a production idea from an initial concept through design, Dev. and production, resulting in a finished product.
Coursework may include manual machining, computer applications, engineering design, computer-aided drafting (CAD), computer-aided machining (CAM), blueprint interpretation, advanced computerized numeric control (CNC) equipment, basic and advanced machining operations, precision measurement and high-speed multi-axis machining
Graduates should qualify for employment as machining technicians in high-tech manufacturing, rapid-prototyping and rap-id-manufacturing industries, specialty machine shops, fabrication industries, and high-tech or emerging industries such as aerospace, aviation, medical, and renewable energy, and to sit for machining certification examinations.

## Awards

- Associate in Applied Science Degree (A50210)
- Diploma (D50210)
- Basic CNC Certificate (C50210CN)
- Basic Computer-Integrated Machining Certificate (C50210BA)
- CAM Certificate (C50210CA)
- CNC Operator Certificate (C50210OP)
- Conventional Machining Certificate (C50210CM)


## Contact Information

The Computer-Integrated Machining (50210) program is in the RCCC Department of Industrial and Engineering Technologies. For additional information regarding this program, contact the program chair, Jerry Hunt (jerry.hunt@rccc.edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=814)
The * symbol denotes a core course that may not be substituted.

## Associate in Applied Science Degree (A50210)

http://www.rccc.edu/catalog-2012-2013/?p=581

## Course Requirements

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

## First Year Fall

| * | BPR | 111 | Blueprint Reading | 2 |
| :--- | :--- | :--- | :--- | :--- |
| * | MAC | 111 | Machining Technology I | 6 |
|  | MAC | 114 | Introduction to Metrology | 2 |
|  | MAC | 151 | Machining Calculations | 2 |
|  | MEC | 142 | Physical Metallurgy | 2 |

Total SHC 14

## First Year Spring

BPR 121 Blueprint Reading-Mechanical 2

* MAC 112 Machining Technology II 6
* MAC 122 CNC Turning 2

MAC 124 CNC Milling 2
MAC 152 Advanced Machining Calculations 2
MEC 110 Introduction to CAD/CAM 2
Total SHC 16

## First Year Summer

| ISC | 113 | Industrial Specifications | 1 |
| :--- | :--- | :--- | :--- |
| MAC | 113 | Machining Technology III | 6 |
| MAC | 224 | Advanced CNC Milling | 2 |
| MEC | 231 | Computer-Aided Manufacturing I | 3 |

Total SHC 12

## Second Year Fall

ENG 111 Expository Writing 3

MAC 222 Advanced CNC Turning 2
MAT 120 Geometry and Trigonometry 3
MEC 232 Computer-Aided Manufacturing II 3
--- --- Social/Behavioral Sciences Elective 3
Total SHC 14

## Second Year Spring

--- --- Technical Electives 6
--- --- Humanities/Fine Arts Elective 3
Take one of the following courses.
COM 231 Public Speaking 3

ENG 114 Professional Research and Reporting 3

| Technical Electives |  |  |  |
| :--- | :--- | :--- | :--- |
| Select 6 SHC from the following electives. |  |  |  |
| CIS | 110 | Introduction to Computers | 3 |
| MAC | 214 | Machining Technology IV | 6 |
| MAC | 229 | CNC Programming | 2 |
| MAC | 233 | Appl in CNC Machining Appl in CNC Ma- |  |
| chining | 6 |  | 2 |
| MAC | 248 | Production Procedures |  |
| WLD | 112 | Basic Welding Processes |  |

Total semester hour credits to complete degree: 68

Diploma (D50210)
http://www.rccc.edu/catalog-2012-2013/?p=586
Fall Semester

| * | BPR | 111 | Blueprint Reading | 2 |
| :--- | :--- | :--- | :--- | :--- |
| * MAC | 111 | Machining Technology I | 6 |  |
| MAC | 114 | Introduction to Metrology | 2 |  |
| MAC | 151 | Machining Calculations | 2 |  |
| MEC | 142 | Physical Metallurgy | 2 |  |

Total SHC 14

| Spring Semester |  |  |  |
| :--- | :--- | :--- | :--- |
|  | BPR | 121 | Blueprint Reading-Mechanical |
| * | MAC | 112 | Machining Technology II |
| * MAC | 122 | CNC Turning | 2 |
|  | MAC | 124 | CNC Milling |

Total SHC 14

## Summer Term

| CIS | 110 | Introduction to Computers | 3 |
| :--- | :--- | :--- | :--- |
| ENG | 111 | Expository Writing | 3 |
| MAC | 113 | Machining Technology III | 6 |

Total SHC 12

## Total semester hour credits to complete diploma: 40

## Basic CNC Certificate (C50210CN) <br> http://www.rccc.edu/catalog-2012-2013/?p=592

## Courses

BPR 111
MAC 114
MAC 122
MAC 124
MEC 110
MEC 142

## Blueprint Reading

Introduction to Metrology
2

CNC Turning
2

CNC Milling 2
Introduction to CAD/CAM 2
Physical Metallurgy

## Basic Computer-Integrated Machining Certificate (C50210BA) <br> http://www.rccc.edu/catalog-2012-2013/?p=589

## Courses

BPR 111 Blueprint Reading 2
MAC 111 Machining Technology I 6
MAC 114 Introduction to Metrology 2
MAC 151 Machining Calculations 2
Total semester hour credits to complete certificate: 12

## CAM Certificate (C50210CA)

http://www.rccc.edu/catalog-2012-2013/?p=606

## Courses

MAC 122 CNC Turning 2
MAC 124 CNC Milling 2
$\begin{array}{lll}\text { MEC } & 110 & \text { Introduction to CAD/CAM } 2\end{array}$
MEC 231 Computer-Aided Manufacturing I 3
MEC 232 Computer-Aided Manufacturing II 3

## Total semester hour credits to complete certificate: 12

CNC Operator Certificate (C50210OP)
http://www.rccc.edu/catalog-2012-2013/?p=602

| Courses |  |  | 2 |
| :---: | :--- | :--- | :--- |
| BPR | 111 | Blueprint Reading | 6 |
| MAC | 111 | Machining Technology I | 2 |
| MAC | 114 | Introduction to Metrology | 2 |
| MAC | 122 | CNC Turning | 2 |
| MAC | 124 | CNC Milling |  |

Total semester hour credits to complete certificate: 14

## Conventional Machining Certificate (C50210CM)

http://www.rccc.edu/catalog-2012-2013/?p=596

## Courses

MAC 111 Machining Technology I 6
MAC 112 Machining Technology II 6
MAC 113 Machining Technology III 6
Total semester hour credits to complete certificate: 18

## Total semester hour credits to complete certificate: 12

## Construction Management Technology (35190)

http://www.rccc.edu/catalog-2012-2013/?p=819

## 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.

## Awards

- Associate in Applied Science Degree (A35190)
- Diploma (D35190)
- Construction Management Basic Certificate (C35190BA)
- Construction Management Intermediate Certificate (C35190IN)
- Construction Management Project Supervision Certificate (C35190PS)


## Additional Information

Please visit the CMT advising page on Blackboard. The username is cmt.student 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' button on the left.

## Blackboard

http://rccc.blackboard.com

## Contact Information

The Construction Management Technology (35190) program is in the RCCC Department of Industrial and Engineering Technologies. For additional information regarding this program, contact the program chair, Kao Vang (kao.vang@rccc.edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=819)
The * symbol denotes a core course that may not be substituted.

## Associate in Applied Science Degree (A35190)

http://www.rccc.edu/catalog-2012-2013/?p=419

## Course Requirements

The following is a suggested program of study for completing this degree in 5 semesters. Some students' programs of study may be different, depending on their enrollment status (day, evening, full-time or part-time).

## First Year Fall

| * | BPR | 130 |  | Blueprint Reading-Construction |
| :--- | :--- | :--- | :--- | :--- |
|  | CIS | 110 |  | Introduction to Computers |

Total SHC 14

## First Year Spring

* ACC 120 Principles of Financial Accounting 4
* CST 241 Planning/Estimating I 3

ENG 114 Professional Research and Reporting 3
MAT 121 Algebra/Trigonometry I 3
--- ---
Technical Elective
Total SHC 17

## First Year Summer

--- --- Humanities/Fine Arts Elective
--- --- Technical Elective 4
Total SHC 7

## Second Year Fall

$\left.\begin{array}{llll}\text { * } & \text { CMT } & 214 & \text { Planning and Scheduling } \\ \text { * } & \text { CMT } & 216 & \text { Costs and Productivity }\end{array}\right] 3$

Total SHC 17

## Second Year Spring

| * | CIV | 230 | Construction Estimating | 3 |
| :--- | :--- | :--- | :--- | :--- |
| * | CMT | 218 | Human Relations Issues | 3 |
|  | COE | 122 | Co-Op Work Experience II | 2 |
|  | --- | --- | Technical Elective | 4 |

Total SHC 12

## Technical Electives

Select 15 SHC of technical electives from the following categories. Students may take one course from each area of concentration or specialize in one specific concentration with no more than 9 SHC from any one prefix except for CIV. Students anticipating transferring to a four-year university must immediately consult with the program chair of construction management technology to choose electives that will better prepare transfer students. Technical electives may be substituted for COE courses. All substitutions will require approval from the program chair.
Air Conditioning, Heating and Refrigeration

| AHR | 110 | Introduction to Refrigeration | 5 |
| :--- | :--- | :--- | :--- |
| AHR | 111 | HVACR Electricity | 3 |
| AHR | 112 | Heating Technology | 4 |
| AHR | 113 | Comfort Cooling | 4 |
| AHR | 130 | HVAC Controls | 3 |

Civil Engineering Technology
CIV $110 \quad$ Statics/Strength of Mater
CIV 210 Engineering Materials 2
CIV 240 Project Management 3
EGR 115 Introduction to Technology 3
SRV 110 Surveying I 4
Drafting
DFT $111 \quad$ Technical Drafting I 2
DFT 111A Technical Drafting I Lab 1
DFT 151 CAD I 3
DFT 152 CAD II
Electrical

| ELC | 113 | Basic Wiring I | 4 |
| :---: | :---: | :--- | :--- |
| ELC | 117 | Motors and Controls | 4 |
| ELC | 118 | National Electrical Code | 2 |
| ELC | 125 | Diagrams and Schematics | 2 |
| ELC | 138 | DC Circuit Analysis | 3 |
| Welding |  |  | 2 |
| WLD | 112 | Basic Welding Processes | 5 |
| WLD | 115 | SMAW (Stick) Plate | 4 |
| WLD | 121 | GMAW (MIG) FCAW/Plate | 4 |
| WLD | 131 | GTAW (TIG) Plate | 3 |
| WLD | 141 | Symbols and Specifications |  |

Total semester hour credits to complete degree: 67

## Diploma (D35190)

http://www.rccc.edu/catalog-2012-2013/?p=423

## Courses

* 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 Professional Construction Supervision 3
* CMT 212 Total Safety Performance 3
* CMT 214 Planning and Scheduling 3
* CMT 216 Costs and Productivity 3
* CMT 218 Human Relations Issues 3
* CST 241 Planning/Estimating I 3

MAT 121 Algebra/Trigonometry I 3
SPA 120 Spanish for the Workplace 3
Take one of the following courses.
ENG 102 Applied Communications II 3
ENG 111 Expository Writing 3

## Total semester hour credits to complete diploma: 39

## Construction Management Basic Certificate (C35190BA)

http://www.rccc.edu/catalog-2012-2013/?p=426

## Courses

| BPR | 130 | Blueprint Reading-Construction | 2 |
| :--- | :--- | :--- | :--- |
| CIS | 110 | Introduction to Computers | 3 |
| CMT | 210 | Professional Construction Supervision | 3 |
| CMT | 212 | Total Safety Performance | 3 |
| SPA | 120 | Spanish for the Workplace | 3 |

Note: All substitutions must be approved by the program chair.

## Total semester hour credits to complete certificate: 14

## Construction Management Intermediate Certificate (C35190IN) <br> http://www.rccc.edu/catalog-2012-2013/?p=429

## Courses

| CMT | 214 | Planning and Scheduling | 3 |
| :--- | :--- | :--- | :--- |
| CMT | 216 | Costs and Productivity | 3 |
| CMT | 218 | Human Relations Issues | 3 |
| CST | 241 | Planning/Estimating I | 3 |

Note: All substitutions must be approved by the program chair.

## Total semester hour credits to complete certificate: 12

## Construction Management Project Supervision Certificate (C35190PS)

http://www.rccc.edu/catalog-2012-2013/?p=432

## Courses

CMT 210 Professional Construction Supervision 3
CMT 212 Total Safety Performance 3
CMT 214 Planning and Scheduling 3
CMT 216 Costs and Productivity 3
CMT 218 Human Relations Issues 3
COE 112 Co-Op Work Experience I 2
Note: All substitutions must be approved by the program chair.
Total semester hour credits to complete certificate: 17

## Cosmetology (55140)

http://www.rccc.edu/catalog-2012-2013/?p=1228

## Description

The cosmetology curriculum is designed to provide compe-tency-based knowledge, scientific and artistic principles, and hands-on fundamentals associated with the cosmetology industry. The curriculum provides a simulated salon environment which enables students to develop manipulative skills.
Course work includes instruction in all phases of professional imaging, hair design, chemical processes, skin care, nail care, multi-cultural practices, business and computer principles, product knowledge, and other selected topics
Graduates should qualify to sit for the State Board of Cosmetic Arts examination. Upon successfully passing the state board exam, graduates will be issued a license. Employment is available in beauty salons and related businesses.

## Awards

- Associate in Applied Science Degree (A55140)
- Diploma (D55140)
- Certificate (C55140)


## Additional Information

Admission Requirements for Cosmetology Programs
http://www.rccc.edu/onestop/192/admission-require-
ments-for-cosmetology-programs/

## Contact Information

The Cosmetology (55140) program is in the RCCC Department of Health and Public Services Technologies. For additional information regarding this program, contact the program chair, Wanda Pressley-Altman (wanda.pressley-altman@rccc.edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=1228) The * symbol denotes a core course that may not be substituted.

## Associate in Applied Science Degree (A55140)

http://www.rccc.edu/catalog-2012-2013/?p=235

## First Year Fall

| * | COS | 111 | Cosmetology Concepts I |
| :--- | :--- | :--- | :--- |
| * | COS | 112 | Salon I | 4

Total SHC 15

## First Year Spring

| $*$ | COS | 113 | Cosmetology Concepts II | 4 |
| :--- | :--- | :--- | :--- | :--- |
| * | COS | 114 | Salon II | 8 |
|  | SOC | 210 | Introduction to Sociology | 3 |

Total SHC 15

## First Year Summer

* COS 115 Cosmetology Concepts III 4
* COS 116 Salon III 4

Take one of the following courses.

| BIO | 140 | Environmental Biology | 3 |
| :--- | :--- | :--- | :--- |
| MAT | 140 | Survey of Mathematics | 3 |

Total SHC 11

## Second Year Fall

| BUS | 280 | REAL Small Business | 4 |
| :--- | :--- | :--- | :--- |
| COS | 117 | Cosmetology Concepts IV | 2 |
| COS | 118 | Salon IV | 7 |

Total SHC 13

## Second Year Spring

CIS 110 Introduction to Computers 3
COM 231 Public Speaking 3
COS 223 Contemporary Hair Coloring 2
COS 240 Contemporary Design 2
--- --- Humanities/Fine Arts Elective
Total SHC 13

## Total semester hour credits to complete degree: 67

## Diploma (D55140)

http://www.rccc.edu/catalog-2012-2013/?p=238

## First Year Fall

* COS 111 Cosmetology Concepts I 4
* COS 112 Salon I 8

Take one of the following courses.
ENG 102 Applied Communications II 3
ENG 111 Expository Writing 3
Total SHC 15

## First Year Spring

* COS 113 Cosmetology Concepts II 4
* COS 114 Salon II 8

Take one of the following courses.
PSY 101 Applied Psychology 3

PSY 118 Interpersonal Psychology 3
SOC 100 Concepts in Sociology 3
SOC 210 Introduction to Sociology 3
Total SHC 15

First Year Summer

* COS 115 Cosmetology Concepts III
* COS 116 Salon III

Second Year Fall

| * COS | 117 | Cosmetology Concepts IV | 2 |
| :--- | :--- | :--- | :--- |
| COS | 118 | Salon IV | 7 |

Total semester hour credits to complete diploma: 47

## Certificate (C55140)

http://www.rccc.edu/catalog-2012-2013/?p=241

| First Year Fall |  |  |  |
| :--- | :--- | :--- | :--- |
| $*$ | $\operatorname{COS}$ | 111 | Cosmetology Concepts I |
| * | $\operatorname{COS}$ | 112 | Salon I |

Total SHC 12

## First Year Spring

* COS 113 Cosmetology Concepts II 4
* COS 114 Salon II


## First Year Summer

* COS 115 Cosmetology Concepts III 4
* COS 116 Salon III

4
Total SHC 8

Total semester hour credits to complete certificate: 32

## Cosmetology Instructor (55160)

http://www.rccc.edu/catalog-2012-2013/?p=1241

## Description

The cosmetology instructor curriculum provides a course of study for learning the skills needed to teach the theory and practice of cosmetology as required by the North Carolina Board of Cosmetic Arts.
Course work includes requirements for becoming an instructor, introduction to teaching theory, methods and aids, practice teaching, and Dev. of evaluation instruments.
Graduates of the program may be employed as cosmetology instructors in public or private education and business.

## Awards

- Certificate (C55160)


## Additional Information

Admission Requirements for Cosmetology Programs http://www.rccc.edu/onestop/192/admission-require-ments-for-cosmetology-programs/

## Contact Information

The Cosmetology Instructor (55160) program is in the RCCC Department of Health and Public Services Technologies. For additional information regarding this program, contact the program chair, Wanda Pressley-Altman (wanda.pressley-altman@rccc. edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=1241)
The * symbol denotes a core course that may not be substituted.

## Certificate (C55160)

http://www.rccc.edu/catalog-2012-2013/?p=244

## First Semester

| * | COS | 271 | Instructor Concepts I | 5 |
| :--- | :--- | :--- | :--- | :--- |
| * | COS | 272 | Instructor Practicum I | 7 |

## Second Semester

| * | COS | 273 | Instructor Concepts II |
| :--- | :--- | :--- | :--- |
| * | COS | 274 | Instructor Practicum II |

Total SHC 12

## Total semester hour credits to complete certificate: 24

# Criminal Justice Technology (55180) 

http://www.rccc.edu/catalog-2012-2013/?p=1516

## 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 office, and loss prevention specialist.

## Awards

- Associate in Applied Science Degree (A55180)
- Certificate (C55180)


## Additional Information

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

## Criminal Justice Student Worksheets

http://www.rccc.edu/onestop/1084/criminal-justice-stu-dent-worksheets/

## Contact Information

The Criminal Justice Technology (55180) program is in the RCCC Department of Health and Public Services Technologies. For additional information regarding this program, contact the director, Spencer Rummage (spencer.rummage@rccc.edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=1516)
The * symbol denotes a core course that may not be substituted.

## Associate in Applied Science Degree (A55180)

http://www.rccc.edu/catalog-2012-2013/?p=364

## Course Requirements

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

## First Year Fall

| * | CJC | 111 | Introduction to Criminal Justice | 3 |
| :--- | :--- | :--- | :--- | :--- |
|  | CJC | 121 | Law Enforcement Operations | 3 |
| * | CJC | 131 | Criminal Law | 3 |
|  | ENG | 111 | Expository Writing | 3 |
|  | PSY | 150 | General Psychology | 3 |

## Total SHC 15

## First Year Spring

|  | CIS | 110 | Introduction to Computers | 3 |
| :--- | :--- | :--- | :--- | :--- |
| * | CJC | 112 | Criminology | 3 |
| * CJC | 113 | Juvenile Justice | 3 |  |
|  | ENG | 112 | Argument-Based Research | 3 |
|  | SOC | 210 | Introduction to Sociology | 3 |
|  | --- | --- | Major Elective | 3 |

Total SHC 18

## Second Year Fall

|  | CJC | 141 | Corrections |
| :--- | :--- | :--- | :--- |
| * | CJC | 212 | Ethics and Community Relations |
| * CJC | 231 | Constitutional Law | 3 |
| --- | --- | Major Electives | 3 |

Take one of the following courses. MAT 151 requires MAT 151A and MAT 171 requires MAT 171A.
MAT 140 Survey of Mathematics 3

MAT 151 Statistics I 3
MAT 151 A Statistics I Lab 1
MAT 161 College Algebra 3
MAT 171 Precalculus Algebra 3
MAT 171A Precalculus Algebra Lab 1
Total SHC 15-16

## Second Year Spring

CJC 132 Court Procedure and Evidence 3
CJC 214 Victimology 3

* CJC 221 Investigative Principles 4
--- --- Humanities/Fine Arts Elective 3
Take one of the following courses.
COM 110 Introduction to Communication 3
COM 231 Public Speaking 3
Total SHC 16


## Major Electives

Select 6 SHC from the following courses. This may include up to 3 SHC from COE course/combination of courses.

| CJC | 160 | Terrorism: Underlying Issues | 3 |
| :--- | :--- | :--- | :--- |
| CJC | 223 | Organized Crime | 3 |
| CJC | 233 | Correctional Law | 3 |
| CJC | 241 | Community-Based Corrections | 3 |
| COE | 110 | World of Work | 1 |
| COE | 111 | Co-Op Work Experience I | 1 |
| COE | 112 | Co-Op Work Experience I | 2 |
| COE | 113 | Co-Op Work Experience I | 3 |
| COE | 121 | Co-Op Work Experience II | 1 |
| COE | 122 | Co-Op Work Experience II | 2 |
| COE | 131 | Co-Op Work Experience III | 1 |
| POL | 120 | American Government | 3 |
| PSY | 231 | Forensic Psychology | 3 |
| SOC | 213 | Sociology of the Family | 3 |
| SOC | 245 | Drugs and Society | 3 |
| SPA | 111 | Elementary Spanish I | 3 |
| SPA | 112 | Elementary Spanish II | 3 |

## Total semester hour credits to complete degree: 64-65

## Additional Information

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

## 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 BLET Transfer Credit for these courses: CJC 131, CJC 231, CJC 221 (10 Semester Hour Credits). These students must have successfully completed Basic Law Enforcement Training since 1985. RCCC only ensures acceptance of these transfer credits 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 to which they intend to transfer.

## Certificate (C55180)

http://www.rccc.edu/catalog-2012-2013/?p=384

## Courses

| 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 hour credits to complete certificate: 15

## Additional Information

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

## Dental Assisting (45240)

http://www.rccc.edu/catalog-2012-2013/?p=949

## Description

The dental assisting curriculum prepares individuals to assist the dentist in the delivery of dental treatment and to function as integral members of the dental team while performing chairside and related office and laboratory procedures.
Course work includes instruction in general studies, biomedical sciences, dental sciences, clinical sciences and clinical practice. A combination of lecture, laboratory and clinical experiences provide students with knowledge in infection and hazard control, radiography, dental materials, preventive dentistry, and clinical procedures.
Graduates may be eligible to take the Dental Assisting National Board Examination to become Certified Dental Assistants. As a Dental Assistant II, defined by the Dental Laws of North Carolina, graduates work in dental offices and other related areas.

## Awards

- Diploma (D45240)


## Additional Information

Checklist for Dental Assisting
http://www.rccc.edu/onestop/files/2011/08/Dental-Checklist.pdf

## Admission Requirements

http://www.rccc.edu/onestop/166/admission-require-ments-for-dental-assisting/

## Contact Information

The Dental Assisting (45240) program is in the RCCC Department of Academic Programs. For additional information regarding this program, contact the program chair, Linda Kamp (linda. kamp@rccc.edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=949)
The * symbol denotes a core course that may not be substituted.

## Diploma (D45240)

http://www.rccc.edu/catalog-2012-2013/?p=952

| Fall Semester |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| * | DEN | 100 | Basic Orofacial Anatomy |  |
| * | DEN | 101 | Preclinical Procedures | 2 |
| * | DEN | 102 | Dental Materials | 7 |
| * | DEN | 111 | Infection/Hazard Control | 5 |
|  | ENG | 102 | Applied Communications II | 2 |
|  |  |  |  | 3 |

Total SHC 19
Note: ENG 111 and COM 231 may be substituted for ENG 102.

| Spring | Semester |  |  |
| :--- | :--- | :--- | :--- |
| * | DEN | 103 | Dental Sciences |
| * | DEN | 104 | Dental Health Education |
| * | DEN | 105 | Practice Management |
| * | DEN | 106 | Clinical Practice I |
| * | DEN | 112 | Dental Radiography |

Total SHC 14
Note: BIO 168, BIO 169, and BIO 275 may be substituted for BIO 106. PSY 150 may be substituted for PSY 118.

## Total semester hour credits to complete diploma: 48

# Early Childhood Education (55220) 

http://www.rccc.edu/catalog-2012-2013/?p=833

## 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 Dev.; physical and nutritional needs of children; care and guidance of children; and communication skills with families and children. Students will foster the cognitive and language, physical and motor, social and emotional, and creative Dev. of young children.
Graduates are prepared to plan and implement Dev.ally appropriate programs in early childhood settings. Employment opportunities include child Dev. and child care programs, preschools, public and private schools, recreational centers, head start programs, and school-age programs.

## Awards

- Associate in Applied Science Degree - Birth-Kindergarten UNC-Charlotte, Catawba College, and Livingstone College Transfer Program (A55220TR)
- Associate in Applied Science Degree - General Program (A55220)
- Diploma (D55220)
- Child Care Specialist Certificate (C55220CS)
- Early Childhood Administrators Advanced Certificate (C55220EA)


## Additional Information

A criminal background check will be required prior to students entering into EDU 184 and EDU 284. A negative report may prevent students from participating in these required courses, which means that the student cannot complete the program requirements. Students must have at least a 2.5 GPA in order to register for EDU 184 and EDU 284. Please contact the program chair of early childhood education if you have any questions.

## Contact Information

The Early Childhood Education (55220) program is in the RCCC Department of Health and Public Services Technologies. For additional information regarding this program, contact the program chair, Jeannie Morgan-Campola (jeannie.morgancampola@rccc. edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=833)
The * symbol denotes a core course that may not be substituted.

Associate in Applied Science Degree - Birth-Kindergarten UNC-Charlotte, Catawba College, and Livingstone College Transfer Program (A55220TR)
http://www.rccc.edu/catalog-2012-2013/?p=896

## Course Requirements

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

## First Year Fall

| * | EDU | 119 | Intro. to Early Childhood Education | 4 |
| :--- | :--- | :--- | :--- | :--- |
| * | EDU | 144 | Child Dev. I | 3 |
| * | EDU | 151 |  | Creative Activities |
| * | EDU | 153 |  | Health, Safety and Nutrition |

Total SHC 16

## First Year Spring

| * | EDU | 145 | Child Dev. II | 3 |
| :--- | :--- | :--- | :--- | ---: |
| * | EDU | 146 |  | Child Guidance | 32

Total SHC 15
Note: Students may select any of the Humanities/Fine Arts electives except for ENG courses.

## First Year Summer

PSY $150 \quad$ General Psychology 3
Take one of the following courses.

| ENG | 112 | Argument-Based Research | 3 |
| :--- | :--- | :--- | :--- |
| ENG | 113 | Literature-Based Research | 3 |

Total SHC 6

## Second Year Fall

| * | EDU | 221 | Children With Exceptionalities | 3 |
| :---: | :---: | :---: | :---: | :---: |
|  | EDU | 251 | Exploration Activities | 3 |
|  | EDU | 259 | Curriculum Planning | 3 |
| * | EDU | 280 | Language and Literacy Experiences | 3 |
|  | MAT | 140 | Survey of Mathematics | 3 |

Total SHC 15

## Second Year Spring

| COM | 231 | Public Speaking |
| :---: | :---: | :---: |
| EDU | 131 | Child, Family, and Community |
| EDU | 234 | Infants, Toddlers, and Twos |
| EDU | 284 | Early Childhood Capstone Practicum |

Take one of the following courses.

| BIO | 111 | General Biology I | 4 |
| :--- | :--- | :--- | :--- |
| BIO | 140 | Environmental Biology | 3 |

Total SHC 16-17

## Total semester hour credits to complete degree: 68-69

## Transfer Program Information

This program is designed for students who intend to transfer to UNC-Charlotte, Catawba College or 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 are: A.A.S in early Childhood Education - Transfer Program (A55220TR); Cumulative GPA of 2.5 or higher; Passing scores on all three Praxis I exams (Reading, Writing, Mathematics) - For information and registration for PRAXIS, contact www.ets.org/praxis or a counselor in Student Services; Grade of C or higher on EDU 119 and EDU 221.

## Criminal Background Check

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. Students must have at least a 2.5 GPA in order to register for EDU 284. Please contact the program chair of Early Childhood Education if you have any questions.

## Associate in Applied Science Degree - General Program (A55220)

http://www.rccc.edu/catalog-2012-2013/?p=870

## Course Requirements

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

First Year Fall

| $*$ | EDU | 119 | Intro. to Early Childhood Education | 4 |
| :--- | :--- | :--- | :--- | :--- |
| $*$ | EDU | 144 | Child Dev. I | 3 |
| $*$ | EDU | 151 | Creative Activities | 3 |
| $*$ | EDU | 153 | Health, Safety and Nutrition | 3 |
| $*$ | EDU | 271 | Educational Technology | 3 |

Total SHC 16

## First Year Spring

| * | EDU | 145 | Child Dev. II | 3 |
| :--- | :--- | :--- | :--- | ---: |
| * | EDU | 146 | Child Guidance | 3 |
|  | EDU | 162 | Obs. \& Assessment in Early Childhood Ed. 3 |  |
|  | ENG | 111 |  | Expository Writing |

Total SHC 15
Note: Students may select any of the Humanities/Fine Arts electives except for ENG courses.

## First Year Summer

$$
\text { PSY } 150 \quad \text { General Psychology } 3
$$

Take one of the following courses.
ENG 112 Argument-Based Research 3
ENG 113 Literature-Based Research 3
Total SHC 6

## Second Year Fall

| EDU | 184 | Early Childhood Introductory Practicum | 2 |
| :--- | :--- | :--- | :--- |
| EDU | 221 | Children With Exceptionalities | 3 |
| EDU | 251 | Exploration Activities | 3 |
| EDU | 280 | Language and Literacy Experiences | 3 |
| --- | --- | Major Electives | 3 |

Total SHC 14

## Second Year Spring

| COM | 231 | Public Speaking | 3 |
| :--- | :--- | :--- | :--- |
| EDU | 131 | Child, Family, and Community | 3 |
| *DU | 284 | Early Childhood Capstone Practicum | 4 |
| --- | --- | Major Electives | 3 |

Take one of the following natural sciences/mathematics courses.

| AST | 111 | Descriptive Astronomy | 3 |
| :--- | :--- | :--- | :--- |
| BIO | 111 | General Biology I | 4 |
| BIO | 140 | Environmental Biology | 3 |
| CHM | 121 | Foundations of Chemistry | 3 |
| MAT | 140 | Survey of Mathematics | 3 |
| PHY | 110 | Conceptual Physics | 3 |

Total SHC 16-17
Note: The requirement for meeting basic mathematical computation skills must be met for the Natural Sciences/Mathematics course. 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

Take 6 SHC from the following courses.

| EDU | 234 | Infants, Toddlers, and Twos | 3 |
| :--- | :--- | :--- | :--- |
| EDU | 247 | Sensory and Physical Disabilities | 3 |
| EDU | 254 | Music and Movement for Children | 2 |
| EDU | 259 | Curriculum Planning | 3 |
| EDU | 261 | Early Childhood Administration I | 3 |
| EDU | 262 | Early Childhood Administration II | 3 |
| EDU | 282 | Early Childhood Literature | 3 |
| SPA | 120 | Spanish for the Workplace | 3 |

## Total semester hour credits to complete degree: 67-68

## Criminal Background Check

A criminal background check will be required prior to students entering into EDU 184 and EDU 284. A negative report may prevent students from participating in these required courses, which means that the student cannot complete the program requirements. Students must have at least a 2.5 GPA in order to register for EDU 184 and EDU 284. Please contact the program chair of Early Childhood Education if you have any questions.

## Diploma (D55220)

http://www.rccc.edu/catalog-2012-2013/?p=878

| Courses |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| * | EDU | 119 | Intro. to Early Childhood Education | 4 |
| * | EDU | 131 | Child, Family, and Community | 3 |
| * | EDU | 144 | Child Dev. I | 3 |
| * | EDU | 145 | Child Dev. II | 3 |
| * | EDU | 146 | Child Guidance | 3 |
| * | EDU | 151 | Creative Activities | 3 |
| * | EDU | 153 | Health, Safety and Nutrition | 3 |
|  | EDU | 162 | Obs. \& Assessment in Early Childhood Ed |  |
|  | EDU | 184 | Early Childhood Introductory Practicum | 2 |
| * | EDU | 221 | Children With Exceptionalities | 3 |
|  | EDU | 271 | Educational Technology | 3 |
|  | ENG | 111 | Expository Writing | 3 |
|  | PSY | 150 | General Psychology | 3 |

## Total semester hour credits to complete diploma: 39

## Criminal Background Check

A criminal background check will be required prior to students entering into EDU 184. A negative report may prevent students from participating in this required course, which means that the student cannot complete the program requirements. Students must have at least a 2.5 GPA in order to register for EDU 184. Please contact the program chair of early childhood education if you have any questions.

## Child Care Specialist Certificate (C55220CS)

http://www.rccc.edu/catalog-2012-2013/?p=883

## Courses

EDU 119 Intro. to Early Childhood Education 4

EDU 146 Child Guidance 3
EDU 151 Creative Activities 3
Take 6 SHC from the following courses.

| EDU | 131 | Child, Family, and Community | 3 |
| :--- | :--- | :--- | ---: |
| EDU | 144 | Child Dev. I | 3 |
| EDU | 145 | Child Dev. II | 3 |
| EDU | 153 | Health, Safety and Nutrition | 3 |
| EDU | 162 | Obs. \& Assessment in Early Childhood Ed. 3 |  |
| EDU | 271 | Educational Technology | 3 |

## Total semester hour credits to complete certificate: 16

## Early Childhood Administrators Advanced Certificate (C55220EA)

http://www.rccc.edu/catalog-2012-2013/?p=886

## Courses

EDU 144 Child Dev. I 3
EDU 145 Child Dev. II 3
EDU 146 Child Guidance 3
EDU 259 Curriculum Planning 3
Note: In addition to the completing the courses listed above, students must successfully complete the N.C. Early Childhood Credential (EDU 261, 3 SHC, and EDU 262, 3 SHC) or present an equivalency letter from the N.C. Division of Child Dev..

## Total semester hour credits to complete certificate: 12-18

## Electrical/Electronics Technology (35220)

http://www.rccc.edu/catalog-2012-2013/?p=1657

## Description

The electrical/electronics 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.
Course work, most of which is hands-on, will include such topics as $\mathrm{AC} / \mathrm{DC}$ theory, basic wiring practices, electronics, programmable logic controllers, industrial motor controls, applications of the National Electric Code and other subjects as local needs require.
Graduates should qualify for a variety of jobs in the electrical/ electronics field as an on-the-job trainee or apprentice assisting in the layout, installation and maintenance of electrical/electronic systems.

## Awards

- Associate in Applied Science Degree (A35220)
- Diploma (D35220)
- Industrial Motor Control Certificate (C35220MO)
- Wiring and the NEC Certificate (C35220NE)


## Contact Information

The Electrical/Electronics Technology (35220) program is in the RCCC Department of Industrial and Engineering Technologies. For additional information regarding this program, contact the program chair, Tony Deyton (tony.deyton@rccc.edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=1657) The * symbol denotes a core course that may not be substituted.

## Associate in Applied Science Degree (A35220)

http://www.rccc.edu/catalog-2012-2013/?p=518

## Course Requirements

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

## First Year Fall

| * | ELC | 112 | DC/AC Electricity | 5 |
| :--- | :--- | :--- | :--- | :--- |
| * | ELC | 113 | Basic Wiring I | 4 |
|  | ELC | 118 | National Electrical Code | 2 |
|  | ELC | 126 | Electrical Computations | 3 |

Total SHC 14

First Year Spring

| CIS | 110 | Introduction to Computers | 3 |
| :--- | :--- | :--- | :--- |
| ELC | 117 | Motors and Controls | 4 |
| ELC | 125 | Diagrams and Schematics | 2 |
| ENG | 111 | Expository Writing | 3 |
| --- | --- | Social/Behavioral Sciences Elective | 3 |

## First Year Summer

| ELC | 115 | Industrial Wiring | 4 |
| :--- | :--- | :--- | :--- |
| ELC | 119 | NEC Calculations | 2 |
| ELC | 128 | Introduction to PLC | 3 |

Total SHC 9

## Second Year Fall <br> ELC 228 Programmable Logic Controllers Applications 4 <br> * ELN 131 Semiconductor Applications 4 <br> ENG 114 Professional Research and Reporting 3 <br> MAT 121 Algebra/Trigonometry I 3 <br> --- -- <br> Major Elective <br> 2

Total SHC 16

## Second Year Spring

ELC 215 Electrical Maintenance 3

ELN 133 Digital Electronics 4
MAT 122 Algebra/Trigonometry II 3
--- --- Humanities/Fine Arts Elective 3
--- --- Major Elective 2
Total SHC 15

## Major Elective

Select 4 SHC from the following courses. This may include up to 4 SHC from COE course/combination of courses.

| COE | 111 | Co-Op Work Experience I | 1 |
| :--- | :--- | :--- | :--- |
| COE | 112 | Co-Op Work Experience I | 2 |
| COE | 113 | Co-Op Work Experience I | 3 |
| COE | 121 | Co-Op Work Experience II | 1 |
| COE | 122 | Co-Op Work Experience II | 2 |
| COE | 131 | Co-Op Work Experience III | 1 |
| DFT | 151 | CAD I | 3 |
| ELN | 150 | Computer-Aided Drafting for Electronics | 2 |
| ISC | 112 | Industrial Safety | 2 |

Total semester hour credits to complete degree: 69

## Diploma (D35220)

http://www.rccc.edu/catalog-2012-2013/?p=525

## Courses

|  | CIS | 110 | Introduction to Computers | 3 |
| :--- | :--- | :--- | :--- | :--- |
| * | ELC | 112 | DC/AC Electricity | 5 |
| * | ELC | 113 | Basic Wiring I | 4 |
|  | ELC | 115 | Industrial Wiring | 4 |
| * | ELC | 117 | Motors and Controls | 4 |
|  | ELC | 118 | National Electrical Code | 2 |
|  | ELC | 119 | NEC Calculations | 2 |
|  | ELC | 125 | Diagrams and Schematics | 2 |
|  | ELC | 126 | Electrical Computations | 3 |
|  | ELC | 128 | Introduction to PLC | 3 |

Take one of the following courses.
ENG 102 Applied Communications II 3
ENG 111 Expository Writing 3
Take one of the following courses.
PSY 101 Applied Psychology 3
PSY 150 General Psychology 3
Total semester hour credits to complete diploma: 38

## Industrial Motor Control Certificate (C35220MO)

http://www.rccc.edu/catalog-2012-2013/?p=532

## Courses

| ELC | 112 | DC/AC Electricity | 5 |
| :--- | :--- | :--- | :--- |
| ELC | 117 | Motors and Controls | 4 |
| ELC | 125 | Diagrams and Schematics | 2 |
| ELC | 126 | Electrical Computations | 3 |
| ELC | 128 | Introduction to PLC | 3 |

## Total semester hour credits to complete certificate: 17

## Wiring and the NEC Certificate (C35220NE)

http://www.rccc.edu/catalog-2012-2013/?p=536

## Courses

| ELC | 113 | Basic Wiring I | 4 |
| :--- | :--- | :--- | :--- |
| ELC | 115 | Industrial Wiring | 4 |
| ELC | 118 | National Electrical Code | 2 |
| ELC | 119 | NEC Calculations | 2 |

## Total semester hour credits to complete certificate: 12

## Electronics Engineering Technology (40200)

http://www.rccc.edu/catalog-2012-2013/?p=793

## Description

The electronics engineering technology curriculum prepares individuals to become technicians who design, build, install, test, troubleshoot, repair and modify Dev.al and production electronic components, equipment and systems such as industrial or 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, instrumentation technician, maintenance technician, electronic tester, electronic systems integrator, bench technician and production control technician.

## Awards

- Associate in Applied Science Degree (A40200)


## Contact Information

The Electronics Engineering Technology (40200) program is in the RCCC Department of Industrial and Engineering Technologies. For additional information regarding this program, contact the program chair, Michele Chance (michele.chance@rccc.edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=793)
The * symbol denotes a core course that may not be substituted.

## Associate in Applied Science Degree (A40200)

http://www.rccc.edu/catalog-2012-2013/?p=218
First Year Fall

|  | CIS | 110 | Introduction to Computers | 3 |
| :--- | :--- | :--- | :--- | :--- |
|  | EGR | 131 | Introduction to Electronics Technology | 2 |
| * | ELC | 138 |  | DC Circuit Analysis |

Total SHC 13

## First Year Spring

| * | ELN | 131 | Semiconductor Applications | 4 |
| :--- | :--- | :--- | :--- | :--- |
| * | ELN | 133 | Digital Electronics | 4 |
|  | ENG | 111 | Expository Writing | 3 |
|  | MAT | 121 | Algebra/Trigonometry I | 3 |
|  | --- | --- | Humanities/Fine Arts Elective | 3 |

Total SHC 17
First Year Summer

| ELN | 132 | Linear Integrated Circuits Applications | 4 |
| :--- | :--- | :--- | :--- |
| ELN | 232 | Introduction to Microprocessors | 4 |
| --- | --- | Social/Behavioral Sciences Elective | 3 |

Total SHC 11

## Second Year Fall

CSC 134 C++ Programming 3
ELN 229 Industrial Electronics 4
ELN 234 Communication Systems 4
MAT 122 Algebra/Trigonometry II 3
PHY 131 Physics-Mechanics 4
Total SHC 18

## Second Year Spring

EGR 285 Design Project 2

ELN 135 Electronic Circuits 3
ENG 114 Professional Research and Reporting 3
PHY 132 Physics-Electricity and Magnetism 4
--- ---
Major Elective
3
Total SHC 15

## Major Electives

Select 3 SHC from the following courses. This may include up to 3 SHC from COE course/combination of courses.

| ALT | 120 | Renewable Energy Technologies | 3 |
| :--- | :--- | :--- | :--- |
| COE | 111 | Co-Op Work Experience I | 1 |
| COE | 112 | Co-Op Work Experience I | 2 |
| COE | 113 | Co-Op Work Experience I | 3 |
| COE | 121 | Co-Op Work Experience II | 1 |
| COE | 122 | Co-Op Work Experience II | 2 |
| COE | 131 | Co-Op Work Experience III | 1 |
| ELC | 128 | Introduction to PLC | 3 |

## Total semester hour credits to complete degree: 74

## Additional Information

Students wishing to pursue a BS degree in any engineering technology field may (a) substitute MAT 171 for MAT 121 and MAT 172 for MAT 122. (b) Select SOC 210 and HUM 211 for the Social/Behavioral Sciences and Humanities/Fine Arts electives and (c) Substitute PHY 151 and 152 for PHY 131 and 132.

# Esthetics Instructor (55270) 

http://www.rccc.edu/catalog-2012-2013/?p=1243

## Description

The esthetics instructor curriculum provides a course of study covering the skills needed to teach the theory and practices of esthetics as required by the North Carolina State Board of Cosmetology.
Course work includes all phases of esthetics theory laboratory instruction
Graduates should be prepared to take the North Carolina Cosmetology State Board Esthetics Instructor Licensing Exam and upon passing be qualified for employment in a cosmetology or esthetics school.

## Awards

- Certificate (C55270)


## Additional Information

Admission Requirements for Cosmetology Programs
http://www.rccc.edu/onestop/192/admission-require-ments-for-cosmetology-programs/

## Contact Information

The Esthetics Instructor (55270) program is in the RCCC Department of Health and Public Services Technologies. For additional information regarding this program, contact the program chair, Wanda Pressley-Altman (wanda.pressley-altman@rccc.edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=1243)
The * symbol denotes a core course that may not be substituted.

## Certificate (C55270)

http://www.rccc.edu/catalog-2012-2013/?p=94

## First Semester

* COS 253 Esthetics Instructional Concepts I 11

Total SHC 11

## Second Eight Weeks

* COS 254 Esthetic Instructional Concepts I

Total semester hour credits to complete certificate: 22

## Esthetics Technology (55230)

http://www.rccc.edu/catalog-2012-2013/?p=1249

## Description

The esthetics technology curriculum provides competency-based knowledge, scientific and artistic principles and hands-on fundamentals associated with the art of skin care. The curriculum provides a simulated salon environment which enables students to develop manipulative skills.
Course work includes instruction in all phases of professional esthetics technology, business and human relations, product knowledge, and other related topics.
Graduates should be prepared to take the North Carolina Cosmetology State Board Licensing Exam and upon passing be licensed and qualify for employment in beauty and cosmetic and skin care salons, as a platform artist, and in related businesses.

## Awards

- Certificate (C55230)


## Additional Information

Admission Requirements for Cosmetology Programs
http://www.rccc.edu/onestop/192/admission-require-ments-for-cosmetology-programs/

## Contact Information

The Esthetics Technology (55230) program is in the RCCC Department of Health and Public Services Technologies. For additional information regarding this program, contact the program chair, Wanda Pressley-Altman (wanda.pressley-altman@rccc. edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=1249)
The * symbol denotes a core course that may not be substituted.

## Certificate (C55230)

http://www.rccc.edu/catalog-2012-2013/?p=250

## First Semester

| * | COS | 119 | Esthetics Concepts I |
| :--- | :--- | :--- | :--- |
| * | COS | 120 | Esthetics Salon I |

## Second Semester

| * | COS | 125 | Esthetics Concepts II |
| :--- | :--- | :--- | :--- |
| * | $\operatorname{COS}$ | 126 | Esthetics Salon II |

# Fire Protection Technology (55240) 

http://www.rccc.edu/catalog-2012-2013/?p=783

## 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.
Course work 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.

## Awards

- Associate in Applied Science Degree (A55240)
- Associate in Applied Science Fire College Degree (55240FC)
- Associate in Applied Science Fire Officerand\#8217;s Academy Degree (A55240FA)


## Additional Information

The fire protection technology program offers three distinct AAS degrees. (1) The AAS in fire protection technology (A55240) incorporates the standard requirements of the NCCCS for the AAS in fire protection technology and is the recommended degree path for students not expecting to complete a bachelor's degree and not currently interested in promoting the career fire service rank.
(2) The fire protection technology - fire college (A55240FC) is designed for students interested in, but not currently in, a fire service career. This rigorous degree incorporates the academic requirements and fire service certifications required by most career fire departments in North Carolina. (3) The fire protection technology - fire officer academy (A55240FA) is designed for students currently in a fire service career and incorporates a fire service management focus. This degree will aid the student in gaining the skills, knowledge, and abilities required for those wishing to promote in fire service rank.

## Contact Information

The Fire Protection Technology (55240) program is in the RCCC Department of Industrial and Engineering Technologies. For additional information regarding this program, contact the program chair, Joe Woodall (joe.woodall@rccc.edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=783)
The * symbol denotes a core course that may not be substituted.

## Associate in Applied Science Degree (A55240)

http://www.rccc.edu/catalog-2012-2013/?p=400

## Course Requirements

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

| First Year Fall |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | CIS | 110 | Introduction to Computers | 3 |
|  | ENG | 111 | Expository Writing | 3 |
| * | FIP | 120 | Introduction to Fire Protection | 3 |
| * | FIP | 128 | Detection and Investigation | 3 |
|  | HSE | 245 | Stress Management | 3 |
|  | MAT | 140 | Survey of Mathematics | 3 |

Total SHC 18

| First Year Spring |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :---: |
|  | ENG | 114 | Professional Research and Reporting | 3 |  |
| * | FIP | 124 | Fire Prevention and Public Education | 3 |  |
| * | FIP | 132 | Building Construction | 3 |  |
|  | MAT | 161 | College Algebra | 3 |  |
|  | --- | --- | Major Electives | 3 |  |

Total SHC 15
Note: Recommended Major Electives: FIP 136

## First Year Summer

| HUM | 110 | Technology and Society | 3 |
| :--- | :--- | :--- | :--- |
| --- | --- | Major Electives | 8 |

Total SHC 11
Note: Recommended Major Electives: FIP 144, FIP 176, and POL 110.

| Second Year Fall |  |  |  |
| :---: | :---: | :--- | :--- |
| FIP | 230 | Chemistry of Hazardous Materials I | 5 |
| FIP | 277 | Fire and Social Behavior | 3 |
| --- | --- | Major Electives |  |
| Take one of the following courses. |  |  |  |
| PSY | 150 | General Psychology | 4 |
| SOC | 210 | Introduction to Sociology | 3 |
|  |  |  |  |

Total SHC 15
Note: Recommended Major Electives: FIP 224.

## Second Year Spring

* FIP 220 Fire Fighting Strategies

3
--- --- Major Electives 12
Total SHC 15
Note: Recommended Major Electives: FIP 221 and FIP 276 and 6 additional semester hour credits.

## Major Electives

Select a minimum of 27 SHC from the following courses.

| COE | 112 | Co-Op Work Experience I | 2 |
| :--- | :--- | :--- | :--- |
| EMS | 110 | EMT-Basic | 7 |


| FIP | 136 | Inspections and Codes | 3 |
| :--- | :--- | :--- | :--- |
| FIP | 144 | Sprinklers and Automatic Alarms | 3 |
| FIP | 164 | OSHA Standards | 3 |
| FIP | 176 | HazMat: Operations | 4 |
| FIP | 184 | Wildland Fire Safety | 3 |
| FIP | 221 | Advanced Fire Fighting Strategies | 3 |
| FIP | 224 | Fire Instructor I and II | 4 |
| FIP | 229 | Fire Dynamics and Combustion | 3 |
| FIP | 232 | Hydraulics and Water Distribution | 3 |
| FIP | 236 | Emergency Management | 3 |
| FIP | 240 | Fire Service Supervision | 3 |
| FIP | 256 | Municipal Public Relations | 3 |
| FIP | 264 | Flame Properties and Materials Rating | 3 |
| FIP | 276 | Managing Fire Services | 3 |
| PED | 111 | Physical Fitness I | 1 |
| PED | 112 | Physical Fitness II | 1 |
| PHY | 151 | College Physics I | 4 |
| PHY | 152 | College Physics II | 4 |
| POL | 110 | Introduction to Political Science | 3 |

## Total semester hour credits to complete degree: 74

## Additional Information

The Fire Protection Technology program offers three distinct AAS degrees. (1) The AAS in Fire Protection Technology (A55240) incorporates the standard requirements of the NCCCS for the AAS in Fire Protection Technology and is the recommended degree path for students not expecting to complete a bachelor's degree and not currently interested in promoting the career fire service rank. (2) The Fire Protection Technology Fire College (A55240FC) is designed for students interested in, but not currently in, a fire service career. This rigorous degree incorporates the academic requirements and fire service certifications required by most career fire departments in North Carolina.
(3) The Fire Protection Technology - Fire Officer Academy (A55240FA) is designed for students currently in a fire service career and incorporates a fire service management focus. This degree will aid the student in gaining the skills, knowledge, and abilities required for those wishing to promote in fire service rank.

## Transferring to UNCC's Fire Safety Engineering Tech. Program

Students planning to transfer to UNCC's Fire Safety Engineering Technology Program should select FIP 229, FIP 232, FIP 264, PHY 151, and PHY 152 major electives.

## Associate in Applied Science Fire College Degree (55240FC)

http://www.rccc.edu/catalog-2012-2013/?p=357

## Course Requirements

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

## First Year Fall

|  | CIS | 110 | Introduction to Computers | 3 |
| :--- | :--- | :--- | :--- | :--- |
|  | ENG | 111 | Expository Writing | 3 |
| * | FIP | 120 | Introduction to Fire Protection | 3 |
| * | FIP | 128 | Detection and Investigation | 3 |
|  | HUM | 110 | Technology and Society | 3 |
|  | MAT | 140 | Survey of Mathematics | 3 |

Total SHC 18

## First Year Spring

|  | ENG | 114 | Professional Research and Reporting | 3 |
| :--- | :--- | :--- | :--- | :--- |
| * | FIP | 124 | Fire Prevention and Public Education | 3 |
| * | FIP | 132 | Building Construction | 3 |
|  | MAT | 161 | College Algebra | 3 |
|  | --- | --- | Major Electives | 4 |

Total SHC 16
Note: Recommended Major Electives: FIP 136, PED 111

## First Year Summer

| FIP | 277 | Fire and Social Behavior | 3 |
| :--- | :--- | :--- | :--- |
| --- | --- | Major Electives | 9 |

Total SHC 12
Note: Recommended Major Electives: FIP 176, FIP 184, POL 110

## Second Year Fall

| FIP | 230 | Chemistry of Hazardous Materials I | 5 |
| :--- | :--- | :--- | :--- |
| HSE | 245 | Stress Management | 3 |
| --- | --- | Major Electives |  |
| ke one of the following courses. |  |  |  |
| PSY | 150 | General Psychology | 4 |
| SOC | 210 | Introduction to Sociology | 3 |

Total SHC 15
Note: Recommended Major Electives: FIP 144, PED 112.

## Second Year Spring

| * FIP | 220 | Fire Fighting Strategies | 3 |
| :--- | :--- | :--- | ---: |
| --- | --- | Major Electives | 10 |

Total SHC 13
Note: Recommended Major Electives: EMS 110 and COE 112 and 1 additional semester hour credit.

## Major Electives

Take a minimum of 27 SHC from the following courses.
COE $112 \quad$ Co-Op Work Experience I

EMS 110 EMT-Basic 7
FIP 136 Inspections and Codes 3
FIP 144 Sprinklers and Automatic Alarms 3
FIP 164 OSHA Standards 3
FIP 176 HazMat: Operations 4
FIP 184 Wildland Fire Safety 3
FIP 221 Advanced Fire Fighting Strategies 3
FIP 224 Fire Instructor I and II 4
FIP 229 Fire Dynamics and Combustion 3
FIP 232 Hydraulics and Water Distribution 3
FIP 236 Emergency Management 3
FIP 240 Fire Service Supervision 3
FIP 256 Municipal Public Relations 3
FIP 264 Flame Properties and Materials Rating 3
FIP 276 Managing Fire Services 3
PED 111 Physical Fitness I 1
PED 112 Physical Fitness II 1
PHY 151 College Physics I 4
PHY 152 College Physics II 4
POL 110 Introduction to Political Science 3

## Total semester hour credits to complete degree: 74

## Additional Information

The Fire Protection Technology program offers three distinct AAS degrees. (1) The AAS in Fire Protection Technology (A55240) incorporates the standard requirements of the NCCCS for the AAS in Fire Protection Technology and is the recommended degree path for students not expecting to complete a bachelor's degree and not currently interested in promoting the career fire service rank. (2) The Fire Protection Technology Fire College (A55240FC) is designed for students interested in, but not currently in, a fire service career. This rigorous degree incorporates the academic requirements and fire service certifications required by most career fire departments in North Carolina.
(3) The Fire Protection Technology - Fire Officer Academy (A55240FA) is designed for students currently in a fire service career and incorporates a fire service management focus. This degree will aid the student in gaining the skills, knowledge, and abilities required for those wishing to promote in fire service rank.

## Associate in Applied Science Fire Officerand\#8217;s Academy Degree (A55240FA)

http://www.rccc.edu/catalog-2012-2013/?p=390

## Course Requirements

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

| First Year Fall |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | CIS | 110 | Introduction to Computers | 3 |
|  | ENG | 111 | Expository Writing | 3 |
| * | FIP | 120 | Introduction to Fire Protection | 3 |
| * | FIP | 128 | Detection and Investigation | 3 |
|  | HUM | 110 | Technology and Society | 3 |
|  | MAT | 140 | Survey of Mathematics | 3 |

Total SHC 18

## First Year Spring

|  | ENG | 114 | Professional Research and Reporting | 3 |
| :--- | :--- | :--- | :--- | :--- |
| * | FIP | 124 | Fire Prevention and Public Education | 3 |
| * | FIP | 132 | Building Construction | 3 |
|  | MAT | 161 | College Algebra | 3 |

Total SHC 12

## First Year Summer

| HSE | 245 | Stress Management | 3 |
| :--- | :--- | :--- | :--- |
| --- | --- | Major Electives | 3 |

Take one of the following courses.

| PSY | 150 | General Psychology | 3 |
| :--- | :--- | :--- | :--- |
| SOC | 210 | Introduction to Sociology | 3 |

Total SHC 9

## Second Year Fall

| * FIP | 220 | Fire Fighting Strategies | 3 |
| :--- | :--- | :--- | :--- |
| FIP | 230 | Chemistry of Hazardous Materials I | 5 |
| FIP | 277 | Fire and Social Behavior | 3 |
| --- | --- | Major Electives | 6 |

Total SHC 17
Note: Recommended Major Electives: FIP 240 and FIP 256.

## Second Year Spring

Total SHC 18
Note: Recommended Major Electives: FIP 221 and FIP 276 and twelve additional semester hour credits.

## Major Electives

Select a minimum of 27 SHC from the following courses.

| COE | 112 | Co-Op Work Experience I | 2 |
| :--- | :--- | :--- | :--- |
| EMS | 110 | EMT-Basic | 7 |
| FIP | 136 | Inspections and Codes | 3 |
| FIP | 144 | Sprinklers and Automatic Alarms | 3 |
| FIP | 164 | OSHA Standards | 3 |
| FIP | 176 | HazMat: Operations | 4 |
| FIP | 184 | Wildland Fire Safety | 3 |
| FIP | 221 | Advanced Fire Fighting Strategies | 3 |
| FIP | 224 | Fire Instructor I and II | 4 |
| FIP | 229 | Fire Dynamics and Combustion | 3 |
| FIP | 232 | Hydraulics and Water Distribution | 3 |
| FIP | 236 | Emergency Management | 3 |
| FIP | 240 | Fire Service Supervision | 3 |
| FIP | 256 | Municipal Public Relations | 3 |
| FIP | 264 | Flame Properties and Materials Rating | 3 |
| FIP | 276 | Managing Fire Services | 3 |
| PED | 111 | Physical Fitness I | 1 |
| PED | 112 | Physical Fitness II | 1 |
| PHY | 151 | College Physics I | 4 |
| PHY | 152 | College Physics II | 4 |
| POL | 110 | Introduction to Political Science | 3 |

## Total semester hour credits to complete degree: 74

## Additional Information

The Fire Protection Technology program offers three distinct AAS degrees. (1) The AAS in Fire Protection Technology (A55240) incorporates the standard requirements of the NCCCS for the AAS in Fire Protection Technology and is the recommended degree path for students not expecting to complete a bachelor's degree and not currently interested in promoting the career fire service rank. (2) The Fire Protection Technology Fire College (A55240FC) is designed for students interested in, but not currently in, a fire service career. This rigorous degree incorporates the academic requirements and fire service certifications required by most career fire departments in North Carolina. (3) The Fire Protection Technology - Fire Officer Academy (A55240FA) is designed for students currently in a fire service career and incorporates a fire service management focus. This degree will aid the student in gaining the skills, knowledge, and abilities required for those wishing to promote in fire service rank.

# General Occupational Technology (55280) 

http://www.rccc.edu/catalog-2012-2013/?p=1962

## Description

The general occupational technology curriculum provides individuals with an opportunity to upgrade skills and to earn an associate degree, diploma, and/or certificate by taking courses suited for individual occupational interests and/or needs.
The curriculum content will be customized for students according to occupational interests and needs. A program of study for each student will be selected from any non-developmental level courses offered by the College.
Graduates will become more effective workers, better qualified for advancements within their field of employment, and become qualified for a wide range of entry-level employment opportunities.

## Awards

- Associate in Applied Science Degree (A55280)


## Additional Information

The general occupational technology (GOT) curriculum program is intended to meet the needs of individual students or groups of students who require programs other than those offered through the structure of the college's approved curricula. The curriculum content will be individualized for students according to their occupational interests and needs. For the student seeking an associate degree, a program of study will be selected from associate degree-level courses offered by the college and must be approved by the appropriate program chair and dean. To enroll in this program, individuals must (1) fill out an application to RCCC (see Admissions Process link below); (2) schedule to take the placement tests (see schedule your placement test link below); and (3) make an appointment with the appropriate dean to develop an individualized program of study (see academic departments link below).

## Admissions Process

http://www.rccc.edu/admissions/
Schedule Your Placement Test
https://www.securedata-trans12.com/ap/rowancabarruscommunitycollege/index.php?page=10
Academic Departments
http://www.rccc.edu/academics/academic-programs-depart-mental-contact-information/

# Health Information Technology (45360) 

http://www.rccc.edu/catalog-2012-2013/?p=1954

## Description

The health information technology curriculum provides individuals with the knowledge and skills to process, analyze, abstract, compile, maintain, manage, and report health information.
Students will supervise departmental functions; classify, code, and index diagnoses and procedures; coordinate information for cost control, quality management, statistics, marketing, and planning; monitor governmental and non-governmental standards; facilitate research; and design system controls to monitor patient information security.
Graduates of this program may be eligible to write the national certification examination to become a Registered Health Information Technician (RHIT). Employment opportunities include hospitals, rehabilitation facilities, nursing homes, health insurance organizations, outpatient clinics, physicians' offices, hospice, and mental health facilities.

## Awards

- Health Information Technology Cooperative Transfer Program Offered in Cooperation with CPCC (A45360CP)


## Additional Information

The RCCC A45360CP Health Information Technology Cooperative Transfer Program is offered in cooperation with Central Piedmont Community College. General education courses may be taken at RCCC, and the student will then transfer to CPCC and apply to the HIT program, which requires attending an information session. See the CPCC Health Information Technology link below. See the A45360CP listing to see the courses that can be taken at RCCC.
CPCC Health Information Technology
http://www.cpcc.edu/health_sciences/health-information-technology

## CPCC HIT Course Sequence

http://www.cpcc.edu/health_sciences/health-information-tech-nology/education-plan-1/2012Course\ Sequence.doc/view

## Contact Information

The Health Information Technology (45360) program is in the RCCC Department of Science, Biotechnology, Mathematics and Information Technologies. For additional information regarding this program, contact the dean, Marcy Corjay (marcy.corjay@ rccc.edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=1954)
The * symbol denotes a core course that may not be substituted.

## Health Information Technology Cooperative Transfer Program Offered in Cooperation with CPCC (A45360CP)

http://www.rccc.edu/catalog-2012-2013/?p=1959

| Courses Approved to be Taken at RCCC |  |  |  |
| :--- | :--- | :--- | :--- |
| BIO | 168 | Anatomy and Physiology I | 4 |
| BIO | 169 | Anatomy and Physiology II | 4 |
| CIS | 110 | Introduction to Computers | 3 |
| COM | 110 | Introduction to Communication | 3 |
| ENG | 111 | Expository Writing | 3 |
| ENG | 114 | Professional Research and Reporting | 3 |
| MAT | 115 | Mathematical Models | 3 |
| PSY | 150 | General Psychology | 3 |
| --- | --- | Humanities Elective | 3 |

Note: CPCC General Education and Related Course Requirements: Some or all of these general education and related courses can be taken prior to program admission at CPCC. You may consider this in order to lighten your course load. Each course must be completed with a grade of "C" or better in order to be applied to the program requirements. All of these general education and related courses must be completed at the point where they appear in the curriculum sequence (see CPCC course sequence link in the program description), but may be taken in advance if the student chooses to do so. The cooperative agreement that RCCC has with CPCC allows all of these courses to be taken at RCCC and transferred to CPCC.

## Cooperative Transfer Program Offered in Cooperation with CPCC

RCCC has a transfer agreement for HIT with Central Piedmont Community College (CPCC). In this cooperative approach, students are able to take general education courses at RCCC, which are listed above. Students will enroll in the A45360CP program at RCCC. Upon completion of these courses with a minimum grade of 'C', students may then transfer to CPCC and apply to the HIT program, which requires attending an information session. All HIT core courses must be taken at CPCC. The Associate in Applied Science Degree - Health Information Technology will be awarded by CPCC. See the links in the program description for more details.

# Industrial Engineering Technology (40240) 

http://www.rccc.edu/catalog-2012-2013/?p=780

## 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 Dev. 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 ASQC, SME and APICS.

## Awards

- Associate in Applied Science Degree (A40240)
- Bioprocess Engineering Technology Certificate (C40240BP)
- Industrial Engineering Technology Certificate (C40240IE)
- Industrial Engineering Technology Maintenance Management Certificate (C40240MM)
- Industrial Engineering Technology Management Certificate (C40240MC)
- Industrial Engineering Technology Production Control Certificate (C40240PC)
- Industrial Engineering Technology Quality Certificate (C40240QL)
- Industrial Engineering Technology Safety Certificate (C40240SA)
- Lean Manufacturing Certificate (C40240LM)


## Contact Information

The Industrial Engineering Technology (40240) program is in the RCCC Department of Industrial and Engineering Technologies. For additional information regarding this program, contact the program chair, Franklin Merrell (franklin.merrell@rccc.edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=780) The * symbol denotes a core course that may not be substituted.

## Associate in Applied Science Degree (A40240)

http://www.rccc.edu/catalog-2012-2013/?p=481

## Course Requirements

The following is a suggested program of study for completing this degree in 5 semesters. Some students' programs of study may be different, depending on their enrollment status (day, evening, full-time or part-time).

## First Year Fall

| * | BUS | 137 | Principles of Management | 3 |
| :--- | :--- | :--- | :--- | :--- |
| EGR | 125 | Applications Software for Tech. | 2 |  |
| EGR | 150 | Intro to Engineering | 2 |  |
| ENG | 111 | Expository Writing | 3 |  |
| * | ISC | 112 | Industrial Safety | 2 |

Take one of the following courses. MAT 171 requires MAT 171A

| MAT | 121 | Algebra/Trigonometry I | 3 |
| :--- | :--- | :--- | :--- |
| MAT | 161 | College Algebra | 3 |
| MAT | 171 | Precalculus Algebra | 3 |
| MAT | $171 A$ | Precalculus Algebra Lab | 1 |

Total SHC 15-16

## First Year Spring

| * DFT | 170 | Engineering Graphics | 3 |
| :--- | :--- | :--- | :--- |
| *NG | 114 | Professional Research and Reporting | 3 |
| * ISC | 136 | Productivity Analysis I | 3 |
| MAT | 151 | Statistics I | 3 |
| MAT | $151 A$ | Statistics I Lab | 1 |
|  | --- | -- | Humanities/Fine Arts Elective |

Total SHC 16

## First Year Summer

ISC 214 Job Analysis/Wages and Salary
3
Take one of the following courses.
ECO $251 \quad$ Principles of Microeconomics 3
ECO 252 Principles of Macroeconomics 3
Total SHC 6

## Second Year Fall

| CIV | 240 | Project Management |
| :---: | :---: | :---: |
| ISC | 132 | Manufacturing Quality Control |
| ISC | 243 | Production and Operations Management I |
| --- | --- | Technical Electives |

Total SHC 15

## Second Year Spring

$\left.\begin{array}{llll} & \text { ISC } & 220 & \text { Lean Manufacturing } \\ & \text { ISC } & 255 & \text { Engineering Economy }\end{array}\right] 3$

## Technical Electives

Select 12 SHC from one of the following options. This may include up to 3 SHC from COE course/combination of courses. BTC 181 Is Required.
Biotechnology Option

| BIO | 111 | General Biology I | 4 |
| :---: | :--- | :--- | :--- |
| BTC | 181 | Basic Lab Techniques | 4 |
| BTC | 281 | Bioprocess Techniques | 4 |
| CHM | 132 | Organic and Biochemistry | 4 |
| CHM | 151 | General Chemistry I | 4 |
| Manufacturing/Services Option |  |  |  |
| BUS | 217 | Employment Law and Regulations | 3 |
| ISC | 121 | Environmental Health and Safety | 3 |
| ISC | 225 | Facility Layout | 4 |
| ISC | 237 | Quality Management | 3 |
| MEC | 111 | Machine Processes I | 3 |
| PHY | 151 | College Physics I | 4 |
| Logistics/Warehousing Option |  |  |  |
| ISC | 225 | Facility Layout | 4 |
| ISC | 237 | Quality Management | 3 |
| OMT | 240 | Customers and Products | 3 |
| OMT | 241 | Logistics | 3 |
| OMT | 243 | Support Functions | 3 |
| Construction Option |  |  |  |
| CMT | 210 | Professional Construction Supervision | 3 |
| CMT | 212 | Total Safety Performance | 3 |
| CMT | 216 | Costs and Productivity | 3 |
| CST | 241 | Planning/Estimating I | 3 |
| ISC | 115 | Construction Safety | 2 |
| MEC | 251 | Statics | 3 |
| 3 SHC may be selected from the following COE Courses. |  |  |  |
| COE | 111 | Co-Op Work Experience I | 1 |
| COE | 112 | Co-Op Work Experience I | 2 |
| COE | 113 | Co-Op Work Experience I | 3 |
| COE | 121 | Co-Op Work Experience II | 1 |
| COE | 122 | Co-Op Work Experience II | 3 |
| COE | 131 | Co-Op Work Experience III |  |
|  |  |  | 3 |

Total semester hour credits to complete degree: 67-68

## Additional Information

Students wishing to transfer to a four-year school should select PHY 151, and should select MAT 171 as the mathematics course. MAT 122, MAT 175, or MAT 271 may be substituted for a technical elective (may require extra prerequisites).

## Bioprocess Engineering Technology Certificate (C40240BP)

http://www.rccc.edu/catalog-2012-2013/?p=501

## Courses

BIO 111 General Biology I 4
BTC $181 \quad$ Basic Lab Techniques 4

BTC $281 \quad$ Bioprocess Techniques 4
ISC 112 Industrial Safety 2
ISC 132 Manufacturing Quality Control 3

## Total semester hour credits to complete certificate: 17

## Industrial Engineering Technology Certificate (C40240IE)

http://www.rccc.edu/catalog-2012-2013/?p=514

## Courses

| EGR | 125 | Applications Software for Tech. | 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 hour credits to complete certificate: 17

## Industrial Engineering Technology Maintenance Management Certificate (C40240MM)

http://www.rccc.edu/catalog-2012-2013/?p=497

## Courses

| 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 |

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 |

Total semester hour credits to complete certificate: 15

## Industrial Engineering Technology Management Certificate (C40240MC)

http://www.rccc.edu/catalog-2012-2013/?p=511

| Courses |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :---: | :---: |
| BUS | 217 | Employment Law and Regulations | 3 |  |  |
| CIV | 240 | Project Management | 3 |  |  |
| EGR | 125 | Applications Software for Tech. | 2 |  |  |
| ISC | 243 | Production and Operations Management I | 3 |  |  |
| ISC | 255 | Engineering Economy | 3 |  |  |
| Elective |  |  |  |  | Take one of the following courses. |
| BUS | 137 | Principles of Management | 3 |  |  |
| ISC | 136 | Productivity Analysis I | 3 |  |  |
| ISC | 214 | Job Analysis/Wages and Salary | 3 |  |  |

## Total semester hour credits to complete

 certificate: 17
## Industrial Engineering Technology Production Control Certificate (C40240PC)

http://www.rccc.edu/catalog-2012-2013/?p=504

## Courses

| CIV | 240 | Project Management | 3 |
| :--- | :--- | :--- | :--- |
| ISC | 136 | Productivity Analysis I | 3 |
| ISC | 243 | Production and Operations Management II | 3 |
| ISC | 255 | Engineering Economy | 3 |

Elective - Take one of the following courses.

| ECO | 251 | Principles of Microeconomics | 3 |
| :--- | :--- | :--- | :--- |
| ECO | 252 | Principles of Macroeconomics | 3 |
| EGR | 125 | Applications Software for Tech. | 2 |
| MEC | 242 | Value/Supply Chain Management | 3 |

## Total semester hour credits to complete certificate: 14-15

## Industrial Engineering Technology Quality Certificate (C40240QL)

http://www.rccc.edu/catalog-2012-2013/?p=493

## Courses

| CIV | 240 | Project Management | 3 |
| :--- | :--- | :--- | :--- |
| DFT | 170 | Engineering Graphics | 3 |
| EGR | 125 | Applications Software for Tech. | 2 |
| ISC | 132 | Manufacturing Quality Control | 3 |
| MEC | 242 | Value/Supply Chain Management | 3 |

## Total semester hour credits to complete certificate: 14

## Industrial Engineering Technology

 Safety Certificate (C40240SA)http://www.rccc.edu/catalog-2012-2013/?p=486

## Courses

| EGR | 125 | Applications Software for Tech. | 2 |
| :--- | :--- | :--- | :--- |
| ISC | 112 | Industrial Safety | 2 |
| ISC | 121 | Environmental Health and Safety | 3 |
| ISC | 225 | Facility Layout | 4 |

Take one of the following courses.
CMT 212 Total Safety Performance 3
ISC 115 Construction Safety 2

## Total semester hour credits to complete

 certificate: 13-14
## Lean Manufacturing Certificate (C40240LM)

http://www.rccc.edu/catalog-2012-2013/?p=508

## Courses

DFT 170 Engineering Graphics 3

EGR 125 Applications Software for Tech. 2
ISC 132 Manufacturing Quality Control 3
ISC 220 Lean Manufacturing 3
MEC 111 Machine Processes I 3
MEC 242 Value/Supply Chain Management 3
Total semester hour credits to complete certificate: 17

## Infant/Toddler Care (55290)

http://www.rccc.edu/catalog-2012-2013/?p=1399

## 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 infants and toddlers.
Course work includes infant/toddler growth and Dev.: physical/ nutritional needs of infants and toddlers; safety issues in the care of infants and toddlers; care and guidance; communication skills with families and children; design an implementation of appropriate curriculum; and other related topics.
Graduates should be prepared to plan and implement Dev.ally appropriate infant/toddler programs in early childhood settings. Employment opportunities include child Dev. and child care programs, preschools, public and private schools, recreational centers, early head start programs, and other infant/toddler programs.

## Awards

- Certificate (C55290)


## Contact Information

The Infant/Toddler Care (55290) program is in the RCCC
Department of Health and Public Services Technologies. For additional information regarding this program, contact the program chair, Jeannie Morgan-Campola (jeannie.morgancampola@rccc. edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=1399)
The * symbol denotes a core course that may not be substituted.

## Certificate (C55290)

http://www.rccc.edu/catalog-2012-2013/?p=98

## Fall Semester

| * | EDU | 119 | Intro. to Early Childhood Education | 4 |
| :--- | :--- | :--- | :--- | :--- |
| * | EDU | 144 | Child Dev. I | 3 |
| * | EDU | 153 | Health, Safety and Nutrition | 3 |

Total SHC 10

| Spring Semester |  |  |  |
| :--- | :--- | :--- | :--- |
| $*$ | EDU | 131 | Child, Family, and Community |
| $*$ | EDU | 234 | Infants, Toddlers, and Twos |

## Total semester hour credits to complete certificate: 16

# Information Systems <br> Security (25270) 

http://www.rccc.edu/catalog-2012-2013/?p=1526

## Computer Technology Integration

Computer technology integration (CTI) will replace information systems security effective Fall 2012.

## Description

Information systems security covers a broad expanse of technology concepts. This curriculum provides individuals with the skills required to implement effective and comprehensive information security controls.
Course work includes networking technologies, operating systems administration, information policy, intrusion detection, security administration and industry best practices to protect data communications.
Graduates should be prepared for employment as security administrators. Additionally, they will acquire the skills that allow them to pursue security certifications.

## Awards

- Associate in Applied Science Degree (A25270)
- Diploma (D25270)
- ISS Cisco Track Certificate (C25270CT)
- ISS Networking Security Administration Certificate (C25270SA)
- ISS Networking Security Certificate (C25270NS)


## Contact Information

The Information Systems Security (25270) program is in the RCCC Department of Science, Biotechnology, Mathematics and Information Technologies. For additional information regarding this program, contact the program chair, Ruth Parker (ruth. parker@rccc.edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=1526)
The * symbol denotes a core course that may not be substituted.

## Associate in Applied Science Degree (A25270)

http://www.rccc.edu/catalog-2012-2013/?p=1201

## Course Requirements

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

## First Year Fall

| * | CIS | 110 | Introduction to Computers | 3 |
| :--- | :--- | :--- | :--- | :--- |
|  | ENG | 111 | Expository Writing | 3 |
| * | NET | 125 | Networking Basics | 3 |
| * | NET | 126 | Routing Basics | 3 |
| * | NOS | 110 | Operating Systems Concepts | 3 |
| * | SEC | 110 | Security Concepts | 3 |

Total SHC 18

## First Year Spring

| ENG | 114 | Professional Research and Reporting | 3 |
| :--- | :--- | :--- | :--- |
| NET | 225 | Routing and Switching I | 3 |
| NET | 226 | Routing and Switching II | 3 |
| * NOS | 130 | Windows Single User | 3 |
| * | SEC | 150 | Secure Communications |

Total SHC 15

## First Year Summer

| * | BUS | 110 | Introduction to Business | 3 |
| :--- | :--- | :--- | :--- | ---: |
| * | SEC | 160 | Security Administration I | 3 |
|  | --- | --- | Major Electives | $3-4$ |
|  | --- | --- | Humanities/Fine Arts Elective | 3 |

Total SHC 12-13

## Second Year Fall

* SEC 210 Intrusion Detection 3
* SEC 220 Defense-In-Depth 3

Take one of the following courses.

| * | NOS | 120 | Linux/UNIX Single User | 3 |
| :--- | :--- | :--- | :--- | :--- |
| * | NOS | 230 | Windows Administration I | 3 |

Take one of the following courses.

| MAT | 115 | Mathematical Models | 3 |
| :--- | :--- | :--- | :--- |
| MAT | 140 | Survey of Mathematics | 3 |
| MAT | 161 | College Algebra | 3 |

Total SHC 12

## Second Year Spring

| * | CIS | 115 | Intro to Programming and Logic | 3 |
| :--- | :--- | :--- | :--- | :--- |
|  | CTS | 120 | Hardware/Software Support | 3 |
| * | DBA | 110 | Database Concepts | 3 |
| * | SEC | 289 | Security Capstone Project | 3 |
|  | --- | --- | Social/Behavioral Science Elective | 3 |

Total SHC 15

## Major Electives

Select 3-4 SHC from the following courses. This may include up to 4 SHC from COE course/combination of courses

| CCT | 110 | Introduction to Cyber Crime | 3 |
| :--- | :--- | :--- | :--- |
| CCT | 112 | Ethics and High Technology | 3 |
| CCT | 121 | Computer Crime Investigationn | 4 |
| CCT | 220 | Forensic Accounting | 4 |
| CCT | 231 | Technology Crimes and Law | 3 |
| CCT | 240 | Data Recovery Techniques | 3 |
| CCT | 241 | Advanced Data Recovery | 3 |
| CCT | 250 | Network Vulnerabilities I | 3 |
| COE | 111 | Co-Op Work Experience I | 1 |
| COE | 112 | Co-Op Work Experience I | 2 |
| COE | 113 | Co-Op Work Experience I | 3 |
| CTI | 110 | Web, Prog., and Database Foundation | 3 |
| CTI | 120 | Network and Security Foundation | 3 |
| CTS | 115 | Information Systems Business Concepts | 3 |
| CTS | 240 | Project Management | 3 |
| NET | 110 | Networking Concepts | 3 |
| NET | 175 | Wireless Technology | 3 |

Total semester hour credits to complete degree: 72-73

## Diploma (D25270)

http://www.rccc.edu/catalog-2012-2013/?p=1296

## Courses

| * | CIS | 110 | Introduction to Computers | 3 |
| :--- | :--- | :--- | :--- | :--- |
|  | ENG | 111 | Expository Writing | 3 |
| * | NET | 125 | Networking Basics | 3 |
| * | NET | 126 | Routing Basics | 3 |
|  | NET | 225 | Routing and Switching I | 3 |
|  | NET | 226 | Routing and Switching II | 3 |
| * | NOS | 110 | Operating Systems Concepts | 3 |
|  | NOS | 120 | Linux/UNIX Single User | 3 |
| * | NOS | 130 | Windows Single User | 3 |
| * | SEC | 110 | Security Concepts | 3 |
| * | SEC | 150 | Secure Communications | 3 |
| * | SEC | 160 | Security Administration I | 3 |
| * | SEC | 210 | Intrusion Detection | 3 |
| * | SEC | 220 | Defense-In-Depth | 3 |

Total semester hour credits to complete
diploma: 42 diploma: 42

## ISS Cisco Track Certificate (C25270CT)

http://www.rccc.edu/catalog-2012-2013/?p=1341

## Courses

NOS 120 Linux/UNIX Single User 3
SEC 150 Secure Communications 3
SEC 160 Security Administration I 3
SEC 210 Intrusion Detection 3
SEC 220 Defense-In-Depth 3

## Total semester hour credits to complete certificate: 15

## ISS Networking Security Administration Certificate (C25270SA)

http://www.rccc.edu/catalog-2012-2013/?p=1531

## Courses

BUS 110 Introduction to Business 3
CIS 110 Introduction to Computers 3
CTS 240 Project Management 3
NOS 120 Linux/UNIX Single User 3
NOS 230 Windows Administration I 3
SEC 160 Security Administration I 3

## Total semester hour credits to complete certificate: 18

## ISS Networking Security Certificate (C25270NS)

http://www.rccc.edu/catalog-2012-2013/?p=1326

## Courses

NET 175 Wireless Technology 3
NET 226 Routing and Switching II 3
SEC 110 Security Concepts 3
SEC 160 Security Administration I 3
SEC 220 Defense-In-Depth 3
Total semester hour credits to complete certificate: 15

## Manicuring Instructor (55380)

http://www.rccc.edu/catalog-2012-2013/?p=1252

## Description

The manicuring instructor curriculum provides a course of study covering the skills needed to teach the theory and practices of manicuring as required by the North Carolina State Board of Cosmetology.
Course work includes all phases of manicuring theory laboratory instruction.
Graduates should be prepared to take the North Carolina Cosmetology State Board Manicuring Instructor Licensing Exam and upon passing be qualified for employment in a cosmetology or manicuring school.

## Awards

- Certificate (C55380)


## Additional Information

Admission Requirements for Cosmetology Programs
http://www.rccc.edu/onestop/192/admission-require-ments-for-cosmetology-programs/

## Contact Information

The Manicuring Instructor (55380) program is in the RCCC Department of Health and Public Services Technologies. For additional information regarding this program, contact the program chair, Wanda Pressley-Altman (wanda.pressley-altman@ rccc. edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=1252)
The * symbol denotes a core course that may not be substituted.

## Certificate (C55380)

http://www.rccc.edu/catalog-2012-2013/?p=253

## Courses

* COS 251 Manicure Instructional Concepts 8
* COS 252 Manicure Instructional Practicum


## Total semester hour credits to complete certificate: 13

# Manicuring/Nail Technology (55400) 

http://www.rccc.edu/catalog-2012-2013/?p=1257

## Description

The manicuring/nail technology curriculum provides competen-cy-based knowledge, scientific and artistic principles, and handson fundamentals associated with the nail technology industry. The curriculum provides a simulated salon environment which enables students to develop manipulative skills.
Course work includes instruction in all phases of professional nail technology, business and computer principles, product knowledge, and other related topics.
Graduates should be prepared to take the North Carolina Cosmetology State Board Licensing Exam and upon passing be licensed and qualify for employment in beauty and nail salons, as a platform artist, and in related businesses.

## Awards

- Certificate (C55400)


## Additional Information

Admission Requirements for Cosmetology Programs
http://www.rccc.edu/onestop/192/admission-require-ments-for-cosmetology-programs/

## Contact Information

The Manicuring/Nail Technology (55400) program is in the RCCC Department of Health and Public Services Technologies. For additional information regarding this program, contact the program chair, Wanda Pressley-Altman (wanda.pressley-altman@rccc.edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=1257)
The * symbol denotes a core course that may not be substituted.

## Certificate (C55400)

http://www.rccc.edu/catalog-2012-2013/?p=256

## First 8 Weeks <br> * COS 121

## Second 8 Weeks

# Mechanical Drafting Technology (50340) 

http://www.rccc.edu/catalog-2012-2013/?p=1480

## 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 Dev., and service industries.

## Awards

- Diploma (D50340)
- Certificate (C50340)


## Contact Information

The Mechanical Drafting Technology (50340) program is in the RCCC Department of Industrial and Engineering Technologies. For additional information regarding this program, contact the program chair, George Barringer (george.barringer@rccc.edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=1480)
The * symbol denotes a core course that may not be substituted.

## Diploma (D50340)

http://www.rccc.edu/catalog-2012-2013/?p=449

| First Year Fall |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | CIS | 110 | Introduction to Computers | 3 |
| * | DFT | 111 | Technical Drafting I | 2 |
|  | DFT | 111 A | Technical Drafting I Lab | 1 |
| * | DFT | 151 | CAD I | 3 |
|  | MAT | 121 | Algebra/Trigonometry I | 3 |
| * | MEC | 111 | Machine Processes I | 3 |

## First Year Spring

| * | DFT | 112 | Technical Drafting II | 2 |
| :--- | :--- | :--- | :--- | :---: |
|  | DFT | 112 A | Technical Drafting II Lab | 1 |
|  | DFT | 121 | Intro to Geometric Dimension and Tolerance2 |  |
| * | DFT | 152 | CAD II | 3 |
|  | ENG | 111 | Expository Writing | 3 |
|  | MAC | 122 | CNC Turning | 2 |
|  | MAC | 124 | CNC Milling | 2 |

Total SHC 15

## First Year Summer

| DDF | 211 | Design Process I | 4 |
| :--- | :--- | :--- | :--- |
| DFT | 153 | CAD III | 3 |

## Total SHC 7

## Total semester hour credits to complete diploma: 37

## Certificate (C50340)

http://www.rccc.edu/catalog-2012-2013/?p=1483

## Courses

| DFT | 111 | Technical Drafting I | 2 |
| :--- | :--- | :--- | :--- |
| DFT | 111 A | Technical Drafting I Lab | 1 |
| DFT | 112 | Technical Drafting II | 2 |
| DFT | 112 A | Technical Drafting II Lab | 1 |
| DFT | 151 | CAD I | 3 |
| DFT | 152 | CAD II | 3 |

Total semester hour credits to complete certificate: 12

# Mechanical Engineering Technology (40320) 

http://www.rccc.edu/catalog-2012-2013/?p=1502

## 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, Dev., 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.

## Awards

- Associate in Applied Science Degree (A40320)


## Contact Information

The Mechanical Engineering Technology (40320) program is in the RCCC Department of Industrial and Engineering Technologies. For additional information regarding this program, contact the program chair, George Barringer (george.barringer@rccc. edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=1502)
The * symbol denotes a core course that may not be substituted.

## Associate in Applied Science Degree (A40320)

http://www.rccc.edu/catalog-2012-2013/?p=446

## Course Requirements

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

## First Year Fall

| DFT | 111 | Technical Drafting I | 2 |
| :--- | :--- | :--- | :--- |
| DFT | 111 A | Technical Drafting I Lab | 1 |
| DFT | 151 | CAD I | 3 |
| MAC | 114 | Introduction to Metrology | 2 |
| MEC | 111 | Machine Processes I | 3 |

Take one of the following courses.

| MAT | 121 | Algebra/Trigonometry I | 3 |
| :--- | :--- | :--- | :--- |
| MAT | 161 | College Algebra | 3 |

Total SHC 14

| First Year Spring |  |  |  |
| :---: | :---: | :---: | :---: |
| CIS | 110 | Introduction to Computers | 3 |
| DFT | 112 | Technical Drafting II | 2 |
| DFT | 112A | Technical Drafting II Lab | 1 |
| DFT | 121 | Intro to Geometric Dimens |  |
| DFT | 152 | CAD II | 3 |
| MEC | 142 | Physical Metallurgy | 2 |

Take one of the following courses.

| MAT | 122 | Algebra/Trigonometry II | 3 |
| :--- | :--- | :--- | :--- |
| MAT | 175 | Precalculus | 4 |

Total SHC 16-17

## First Year Summer

* DDF 211 Design Process I 4

DFT 153 CAD III 3
PHY 131 Physics-Mechanics 4
Total SHC 11

## Second Year Fall

| ENG | 111 | Expository Writing | 3 |
| :--- | :--- | :--- | ---: |
| MEC | 275 | Engineering Mechanisms | 3 |
| --- | --- | Technical Electives | 10 |

Total SHC 16

## Second Year Spring

ENG 114 Professional Research and Reporting 3

* MEC 251 Statics 3
--- --- Humanities/Fine Arts Elective 3
--- --- Social/Behavioral Sciences Elective 3
Total SHC 12


## Technical Electives

Select a minimum of 10 SHC from the following electives. This may include up to 2 SHC from COE course/combination of courses. ELC, MAT, and WLD Technical Electives are limited to 9 SHC.
BSET/MEET Transfer Option

| CHM | 151 | General Chemistry I | 4 |
| :--- | :--- | :--- | :--- |
| CIS | 115 | Intro to Programming and Logic | 3 |
| CSC | 134 | C++ Programming | 3 |
| CSC | 139 | Visual BASIC Programming | 3 |
| ELC | 112 | DC/AC Electricity | 5 |
| MAT | 151 | Statistics I | 3 |
| MAT | 151 A | Statistics I Lab | 1 |
| MAT | 263 | Brief Calculus | 3 |
| MAT | 271 | Calculus I | 4 |
| PHY | 132 | Physics-Electricity and Magnetism | 4 |

Manufacturing Option

| ELC | 125 | Diagrams and Schematics | 2 |
| :--- | :--- | :--- | :--- |

ELC 128 Introduction to PLC 3
ISC 112 Industrial Safety 2
ISC 132 Manufacturing Quality Control 3
MAC 122 CNC Turning 2
MAC 124 CNC Milling 2
MEC 110 Introduction to CAD/CAM 2
WLD 110 Cutting Processes 2
WLD 121 GMAW (MIG) FCAW/Plate 4
WLD 131 GTAW (TIG) Plate 4
2 SHC may be selected from the following courses.

| COE | 111 | Co-Op Work Experience I | 1 |
| :--- | :--- | :--- | :--- |
| COE | 112 | Co-Op Work Experience I | 2 |
| COE | 121 | Co-Op Work Experience II | 1 |

Total semester hour credits to complete degree: 69-70

## Medical Office Administration (25310)

http://www.rccc.edu/catalog-2012-2013/?p=683

## 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.

## Awards

- Associate in Applied Science Degree (A25310)
- Diploma (D25310)
- Medical Office Administration Certificate (C25310)
- Medical Office Administration Dental Office Specialist Certificate (C25310DS)


## Additional Information

This program does not certify students to be medical transcriptionists but may provide students with medical transcribing skills to transcribe medical documents.

## Contact Information

The Medical Office Administration (25310) program is in the RCCC Department of Science, Biotechnology, Mathematics and Information Technologies. For additional information regarding this program, contact the program chair, Kathy Knight (kathy. knight@rccc.edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=683) The * symbol denotes a core course that may not be substituted.

## Associate in Applied Science Degree (A25310)

http://www.rccc.edu/catalog-2012-2013/?p=685

## Course Requirements

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

## First Year Fall

ENG 111
Expository Writing

* OST 130 Comprehensive Keyboarding 3

OST 136 Word Processing 3

* OST 141 Medical Terms I-Medical Office 3
* OST 181 Introduction to Office Systems 3

Take one of the following courses.

| COM | 110 | Introduction to Communication | 3 |
| :--- | :--- | :--- | :--- |
| COM | 231 | Public Speaking | 3 |

Total SHC 18

## First Year Spring

|  | ENG | 114 | Professional Research and Reporting | 3 |
| :--- | :--- | :--- | :--- | :--- |
| * | OST | 134 | Text Entry and Formatting | 3 |
| * | OST | 137 |  | Office Software Applications |

Total SHC 18

## Second Year Fall

ACC 115 College Accounting 4
OST 244 Medical Document Production 2
OST 247 Procedure Coding 2
--- --- Social/Behavioral Sciences Elective 3
Take one of the following courses.
BIO 163 Basic Anatomy and Physiology 5
BIO 168 Anatomy and Physiology I 4
Total SHC 15-16

## Second Year Spring

* OST 149 Medical Legal Issues 3

OST 184 Records Management 3
OST 236 Adv. Word Or Information Processsing 3

* OST 243 Medical Office Simulation 3
--- --- Humanities/Fine Arts Elective 3
--- --- Major Electives 3
Total SHC 18-19


## Major Electives

Select 3-4 SHC from the following courses. This may include up to 3 SHC from COE course/combination of courses.

| BIO | 169 | Anatomy and Physiology II | 4 |
| :--- | :--- | :--- | :--- |
| BUS | 121 | Business Math | 3 |
| BUS | 137 | Principles of Management | 3 |
| CIS | 110 | Introduction to Computers | 3 |
| COE | 110 | World of Work | 1 |
| COE | 111 | Co-Op Work Experience I | 1 |
| COE | 112 | Co-Op Work Experience I | 2 |
| COE | 113 | Co-Op Work Experience I | 3 |
| COE | 121 | Co-Op Work Experience II | 1 |
| COE | 122 | Co-Op Work Experience II | 2 |
| COE | 131 | Co-Op Work Experience III | 1 |
| CTS | 120 | Hardware/Software Support | 3 |
| DEN | 105 | Practice Management | 2 |
| OST | 122 | Office Computations | 2 |
| OST | 132 | Keyboard Skill Building | 2 |
| OST | 135 | Advanced Text Entry and Formatting | 4 |
| OST | 143 | Dental Office Terminology | 3 |
| OST | 147 | Dental Billing and Coding | 3 |
| OST | 165 | Advanced Text Editing Applications | 3 |
| OST | 241 | Medical Office Transcription I | 2 |
| OST | 242 | Medical Office Transcription II | 2 |
| OST | 245 | Dental Office Management | 3 |
| OST | 246 | Dental Office Simulation | 3 |
| OST | 248 | Diagnostic Coding | 2 |
| OST | 249 | CPC Certification | 4 |
| OST | 284 | Emerging Technologies | 2 |
| OST | 289 | Administrative Office Management | 3 |

Total semester hour credits to complete degree: 69-71

## Diploma (D25310)

http://www.rccc.edu/catalog-2012-2013/?p=688

| Courses |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| ENG |  | 111 |  |  |
| * | OSp | 130 |  | Comprehensive Keyboarding |

Take one of the following courses.
COM 110 Introduction to Communication 3
COM 231 Public Speaking 3

## Total semester hour credits to complete diploma: 44

## Medical Office Administration Certificate (C25310)

http://www.rccc.edu/catalog-2012-2013/?p=692

## Courses

| OST | 130 | Comprehensive Keyboarding | 3 |
| :--- | :--- | :--- | :--- |
| OST | 134 | Text Entry and Formatting | 3 |
| OST | 141 | Medical Terms I-Medical Office | 3 |
| OST | 142 | Medical Terms II-Medical Office | 3 |
| OST | 149 | Medical Legal Issues | 3 |

## Total semester hour credits to complete certificate: 15

## Medical Office Administration Dental Office Specialist Certificate (C25310DS)

http://www.rccc.edu/catalog-2012-2013/?p=696

| Courses |  |  |  |
| :---: | :---: | :--- | :--- |
| CIS | 110 | Introduction to Computers | 3 |
| OST | 130 | Comprehensive Keyboarding | 3 |
| OST | 143 | Dental Office Terminology | 3 |
| OST | 147 | Dental Billing and Coding | 3 |
| OST | 246 | Dental Office Simulation | 3 |

Take one of the following courses.
DEN 105 Practice Management 2
OST 245 Dental Office Management 3
Total semester hour credits to complete certificate: 17-18

# Motorsports Management Technology (60270) 

http://www.rccc.edu/catalog-2012-2013/?p=1461

## 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 or advancement in jobs related to management of motorsports teams, events and activities, as well as production and distribution of motorsports products and services.

## Awards

- Associate in Applied Science Degree (A60270)
- Certificate (C60270)


## Contact Information

The Motorsports Management Technology (60270) program is in the RCCC Department of Industrial and Engineering Technologies. For additional information regarding this program, contact the program chair, Richmond Gage (richmond.gage @rccc.edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=1461)
The * symbol denotes a core course that may not be substituted.

## Associate in Applied Science Degree (A60270)

http://www.rccc.edu/catalog-2012-2013/?p=338

## First Year Fall

| * | BUS | 137 | Principles of Management | 3 |
| :--- | :--- | :--- | :--- | :--- |
|  | CIS | 110 | Introduction to Computers | 3 |
|  | ENG | 111 | Expository Writing | 3 |
| * | MSM | 110 | Intro to Motorsports Mgmt | 3 |
| * | MSM | 112 | Engine/Drivetrain Fundamentals | 2 |

Total SHC 14

| First Year Spring |  |  |  |
| :--- | :--- | :--- | ---: |
| BUS | 121 | Business Math | 3 |
| CTS | 130 | Spreadsheet | 3 |
|  | ENG | 114 | Professional Research and Reporting |
| * | MSM | 216 | Organization Mobility |
|  | --- | --- | Natural Sciences/Mathematics Elective |
|  | $3-4$ |  |  |

Total SHC 14-15
Note: Students wishing to pursue a BS degree in Manufacturing Systems, Motorsports, through North Carolina AandT State University are strongly recommended to take MAT 161 for the Natural Sciences/Mathematics course and PHY 151 as a major elective or CHM 151 as an approved substitution for a major elective. The requirement for meeting basic mathematical computation skills must be met for the Natural Sciences/Mathematics course. This can be accomplished by receiving an acceptable score on the basic math section of the placement test or successfully completing MAT 060.

## First Year Summer

| --- | Major Electives | 6 |  |
| :--- | :--- | :--- | :--- |
| --- | --- | Humanities/Fine Arts Elective | 3 |

Total SHC 9

| Second Year Fall |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | BUS | 280 | REAL Small Business | 4 |
| * | MSM | 210 | Motorsports Marketing | 3 |
| * | MSM | 212 | Chassis/Handling Fundamentals | 3 |
|  | --- | --- | Social/Behavioral Sciences Elective | 3 |
|  | --- | --- | Major Elective | 3 |

Total SHC 16

## Second Year Spring

BUS 253 Leadership and Management Skills 3
COM 231 Public Speaking 3

* MSM 214 Fabrication Fundamentals 2
* MSM 218 Safety/Environment 2

Take one of the following courses.

| ACC | 115 | College Accounting | 4 |
| :--- | :--- | :--- | :--- |
| ACC | 120 | Principles of Financial Accounting | 4 |

Total SHC 14
Note: Students who wish to transfer to a four-year school should select ACC 120 instead of ACC 115.

## Natural Sciences/Mathematics Electives

Take one of the following courses.

| BIO | 140 | Environmental Biology | 3 |
| :--- | :--- | :--- | :--- |
| MAT | 121 | Algebra/Trigonometry I | 3 |
| MAT | 140 | Survey of Mathematics | 3 |
| MAT | 161 | College Algebra | 3 |
| MAT | 175 | Precalculus | 4 |
| PHY | 110 | Conceptual Physics | 3 |

## Major Electives

Select 9 SHC from the following courses. This may include up to 2 SHC from COE course/combination of courses.

| BUS | 115 | Business Law I | 3 |
| :--- | :--- | :--- | :--- |
| BUS | 153 | Human Resource Management | 3 |
| BUS | 240 | Business Ethics | 3 |
| BUS | 260 | Business Communication | 3 |
| COE | 110 | World of Work | 1 |
| COE | 111 | Co-Op Work Experience I | 1 |
| COE | 112 | Co-Op Work Experience I | 2 |
| COE | 121 | Co-Op Work Experience II | 1 |
| JOU | 110 | Introduction to Journalism | 3 |
| MKT | 220 | Advertising and Sales Promotion | 3 |
| MSM | 220 | Advanced Chassis Analysis | 2 |
| MSM | 285 | Motorsport Capstone Project | 2 |
| PHY | 151 | College Physics I | 4 |
| WLD | 112 | Basic Welding Processes | 2 |

## Total semester hour credits to complete degree: 67-68

## Certificate (C60270)

http://www.rccc.edu/catalog-2012-2013/?p=342

## Courses

MSM 110 Intro to Motorsports Mgmt 3
Take 11 SHC 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 | 112 | Engine/Drivetrain Fundamentals | 2 |
| MSM | 210 | Motorsports Marketing | 3 |
| MSM | 212 | Chassis/Handling Fundamentals | 3 |
| MSM | 214 | Fabrication Fundamentals | 2 |
| MSM | 216 | Organization Mobility | 2 |
| MSM | 218 | Safety/Environment | 2 |
| MSM | 220 | Advanced Chassis Analysis | 2 |
| WLD | 112 | Basic Welding Processes | 2 |

Note: MSM 110, MSM 112, MSM 212, MSM 214, MSM 220 and WLD 112 will also be offered at Manpower to Horsepower, 5240 US 601, Salisbury, NC, 28147-8794, for Disabled Veterans as approved by the Veterans Administration.

## Total semester hour credits to complete certificate: 14

# Networking Technology (25340) 

http://www.rccc.edu/catalog-2012-2013/?p=1547

## Computer Technology Integration

Computer technology integration (CTI) will replace networking technology effective Fall 2012.

## 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.

## Awards

- Associate in Applied Science Degree (A25340)
- Diploma (D25340)
- Networking Cisco Track Certificate (C25340CS)
- Networking Microsoft Track Certificate (C25340MS)


## Contact Information

The Networking Technology (25340) program is in the RCCC Department of Science, Biotechnology, Mathematics and Information Technologies. For additional information regarding this program, contact the program chair, John Brand (john.brand@ rccc.edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=1547) The * symbol denotes a core course that may not be substituted.

## Associate in Applied Science Degree (A25340)

http://www.rccc.edu/catalog-2012-2013/?p=393

## Course Requirements

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

## First Year Fall

| * | CIS | 110 | Introduction to Computers | 3 |
| :--- | :--- | :--- | :--- | :--- |
|  | ENG | 111 | Expository Writing | 3 |
| * | NET | 125 | Networking Basics | 3 |
| * | NET | 126 | Routing Basics | 3 |
| * | NOS | 110 | Operating Systems Concepts | 3 |

Total SHC 15

## First Year Spring

|  | ENG | 114 | Professional Research and Reporting | 3 |
| :--- | :--- | :--- | :--- | :--- |
| * | NET | 225 | Routing and Switching I | 3 |
| * | NET | 226 | Routing and Switching II | 3 |
| * | NOS | 130 | Windows Single User | 3 |
| * | NOS | 230 |  | Windows Administration I |

Total SHC 15

## First Year Summer

* BUS 110 Introduction to Business 3
--- --- Humanities/Fine Arts Elective 3
Total SHC 6
Second Year Fall

| * | CIS | 115 | Intro to Programming and Logic | 3 |
| :--- | :--- | :--- | :--- | :--- |
| * | NOS | 120 | Linux/UNIX Single User | 3 |
| * | SEC | 110 | Security Concepts | 3 |
|  | --- | --- | Social/Behavioral Science Elective | 3 |
|  | --- | --- | Major Electives | 6 |

Total SHC 18

## Second Year Spring

* CTS 120 Hardware/Software Support 3
* DBA 110 Database Concepts 3
* NET 289 Networking Project 3
--- --- Major Electives 3
Take one of the following courses.

| MAT | 115 | Mathematical Models | 3 |
| :--- | :--- | :--- | :--- |
| MAT | 140 | Survey of Mathematics | 3 |
| MAT | 161 | College Algebra | 3 |

Total SHC 15

## Major Elective

Select 9 SHC from the following courses. This may include up to 4 SHC from COE course/combination of courses.
CCT 110 Introduction to Cyber Crime 3

CCT 112 Ethics and High Technology 3
CCT 121 Computer Crime Investigationn 4
CCT 220 Forensic Accounting 4
CCT 231 Technology Crimes and Law 3
CCT 240 Data Recovery Techniques 3
CCT 241 Advanced Data Recovery 3
CCT 250 Network Vulnerabilities I 3
COE 110 World of Work 1
COE 111 Co-Op Work Experience I 1
COE 112 Co-Op Work Experience I 2
COE 113 Co-Op Work Experience I 3
COE 114 Co-Op Work Experience I 4
COE 121 Co-Op Work Experience II 1
COE 122 Co-Op Work Experience II 2
COE 123 Co-Op Work Experience II 3
COE 131 Co-Op Work Experience III 1
COE 211 Co-Op Work Experience IV 1
CTI 110 Web, Prog., and Database Foundation 3
CTI 120 Network and Security Foundation 3
CTS 115 Information Systems Business Concepts 3
CTS 210 Computer Ethics 3
CTS 220 Advanced Hardware/Software Support 3
NET 110 Networking Concepts 3
NET 175 Wireless Technology 3
NOS 231 Windows Administration II 3
SEC 160 Security Administration I 3
SEC 210 Intrusion Detection

## Total semester hour credits to complete degree: 69

## Diploma (D25340)

http://www.rccc.edu/catalog-2012-2013/?p=397

\left.| Courses |  |  |  |
| :--- | :--- | :--- | :--- |
| CIS | 110 |  |  |
|  | Introduction to Computers | 120 |  |
|  | Hardware/Software Support | 3 |  |
| CTS | 220 |  | Advanced Hardware/Software Support |$\right] 3$

Total semester hour credits to complete diploma: 45

## Networking Cisco Track Certificate (C25340CS)

http://www.rccc.edu/catalog-2012-2013/?p=412

## Courses

| NET | 125 | Networking Basics | 3 |
| :--- | :--- | :--- | :--- |
| NET | 126 | Routing Basics | 3 |
| NET | 225 | Routing and Switching I | 3 |
| NET | 226 | Routing and Switching II | 3 |

## Total semester hour credits to complete certificate: 12

## Networking Microsoft Track Certificate (C25340MS)

http://www.rccc.edu/catalog-2012-2013/?p=406

## Courses

| CIS | 110 | Introduction to Computers | 3 |
| :--- | :--- | :--- | :--- |
| NOS | 110 | Operating Systems Concepts | 3 |
| NOS | 130 | Windows Single User | 3 |
| NOS | 230 | Windows Administration I | 3 |
| NOS | 231 | Windows Administration II | 3 |

## Total semester hour credits to complete certificate: 15

## Office Administration (25370)

http://www.rccc.edu/catalog-2012-2013/?p=658

## Description

The office administration curriculum prepares individuals for positions in administrative support careers. It equips office professionals to respond to the demands of a dynamic computerized workplace.
Students will complete courses designed to develop proficiency in the use of integrated software, oral and written communication, analysis and coordination of office duties and systems, and other support topics. Emphasis is placed on non-technical as well as technical skills.
Graduates should qualify for employment in a variety of positions in business, government and industry. Job classifications range from entry-level to supervisor to middle management.

## Awards

- Associate in Applied Science Degree (A25370)
- Diploma (D25370)
- Office Administration Certificate (C25370)
- Office Administration Office Software Specialist Certificate (C25370OS)


## Additional Information

This program does not certify students to be medical transcriptionists but may provide students with medical transcribing skills to transcribe medical documents.

## Contact Information

The Office Administration (25370) program is in the RCCC Department of Science, Biotechnology, Mathematics and Information Technologies. For additional information regarding this program, contact the program chair, Kathy Knight (kathy. knight@rccc.edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=658)
The * symbol denotes a core course that may not be substituted.

## Associate in Applied Science Degree (A25370)

http://www.rccc.edu/catalog-2012-2013/?p=649

## Course Requirements

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

## First Year Fall

| CIS | 110 | Introduction to Computers | 3 |
| :--- | :--- | :--- | :--- |
| ENG | 111 | Expository Writing | 3 |
| OST | 130 | Comprehensive Keyboarding | 3 |
| OST | 136 | Word Processing | 3 |
| OST | 164 | Text Editing Applications | 3 |
| OST | 181 | Introduction to Office Systems | 3 |

Total SHC 18

## First Year Spring

ENG 114 Professional Research and Reporting 3
OST 132 Keyboard Skill Building 2

* OST 134 Text Entry and Formatting 3
* OST 184 Records Management 3

OST 236 Adv. Word Or Information Processsing 3
--- --- Social/Behavioral Sciences Elective 3
Total SHC 17

## Second Year Fall <br> ACC 115 College Accounting 4 <br> BUS 137 Principles of Management 3 <br> OST 135 Advanced Text Entry and Formatting 4 <br> * OST 137 Office Software Applications 3 <br> --- --- Major Electives 3

Total SHC 17

## Second Year Spring

MAT 115 Mathematical Models 3

OST 122 Office Computations 2

* OST 289 Administrative Office Management 3
--- --- Humanities/Fine Arts Elective 3
--- --- Major Electives 3
Take one of the following courses.
COM 110 Introduction to Communication 3
COM 231 Public Speaking 3
Total SHC 17


## Major Electives

Select 6 SHC from the following courses. This may include up to 3 SHC from COE course/combination of courses:

| BUS | 115 | Business Law I | 3 |
| :--- | :--- | :--- | :--- |
| BUS | 121 | Business Math | 3 |
| BUS | 230 | Small Business Management | 3 |
| COE | 110 | World of Work | 1 |
| COE | 111 | Co-Op Work Experience I | 1 |
| COE | 112 | Co-Op Work Experience I | 2 |
| COE | 113 | Co-Op Work Experience I | 3 |
| COE | 121 | Co-Op Work Experience II | 1 |
| COE | 122 | Co-Op Work Experience II | 2 |
| COE | 131 | Co-Op Work Experience III | 1 |
| CTS | 120 | Hardware/Software Support | 3 |
| OST | 141 | Medical Terms I-Medical Office | 3 |
| OST | 142 | Medical Terms II-Medical Office | 3 |
| OST | 148 | Medical Coding Billing and Insurance | 3 |
| OST | 149 | Medical Legal Issues | 3 |
| OST | 165 | Advanced Text Editing Applications | 3 |
| OST | 223 | Administrative Office Transcription I | 3 |
| OST | 224 | Administrative Office Transcription II | 2 |
| OST | 284 | Emerging Technologies | 2 |

Total semester hour credits to complete degree: 69

## Diploma (D25370)

http://www.rccc.edu/catalog-2012-2013/?p=656

## Courses

| BUS | 137 | Principles of Management | 3 |
| :--- | :--- | :--- | :--- |
| CIS | 110 | Introduction to Computers | 3 |
| ENG | 111 | Expository Writing | 3 |
| OST | 130 | Comprehensive Keyboarding | 3 |
| * OST | 134 | Text Entry and Formatting | 3 |
|  | OST | 136 | Word Processing |
| * OST | 137 | Office Software Applications | 3 |
| * OST | 164 | Text Editing Applications | 3 |
| OST | 181 | Introduction to Office Systems | 3 |
| * OST | 184 | Records Management | 3 |
| OST | 236 | Adv. Word Or Information Processsing | 3 |
| * OST | 289 | Administrative Office Management | 3 |
|  | --- | --- | Major Electives |

Take one of the following courses.
COM 110 Introduction to Communication 3

COM 231 Public Speaking 3

## Major Electives

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

| BUS | 115 | Business Law I | 3 |
| :--- | :--- | :--- | :--- |
| BUS | 121 | Business Math | 3 |
| BUS | 230 | Small Business Management | 3 |
| COE | 110 | World of Work | 1 |
| COE | 111 | Co-Op Work Experience I | 1 |
| COE | 112 | Co-Op Work Experience I | 2 |
| COE | 113 | Co-Op Work Experience I | 3 |
| COE | 121 | Co-Op Work Experience II | 1 |
| COE | 122 | Co-Op Work Experience II | 2 |
| COE | 131 | Co-Op Work Experience III | 1 |
| CTS | 120 | Hardware/Software Support | 3 |
| OST | 141 | Medical Terms I-Medical Office | 3 |
| OST | 142 | Medical Terms II-Medical Office | 3 |
| OST | 148 | Medical Coding Billing and Insurance | 3 |
| OST | 149 | Medical Legal Issues | 3 |
| OST | 165 | Advanced Text Editing Applications | 3 |
| OST | 223 | Administrative Office Transcription I | 3 |
| OST | 224 | Administrative Office Transcription II | 2 |
| OST | 284 | Emerging Technologies | 2 |

## Total semester hour credits to complete diploma: 42

## Office Administration Certificate (C25370)

http://www.rccc.edu/catalog-2012-2013/?p=665

## Courses

| OST | 130 | Comprehensive Keyboarding | 3 |
| :--- | :--- | :--- | :--- |
| OST | 134 | Text Entry and Formatting | 3 |
| OST | 136 | Word Processing | 3 |
| OST | 137 | Office Software Applications | 3 |
| OST | 164 | Text Editing Applications | 3 |
| OST | 184 | Records Management | 3 |

## Total semester hour credits to complete certificate: 18

## Office Administration Office Software Specialist Certificate (C25370OS)

http://www.rccc.edu/catalog-2012-2013/?p=668

## Courses

CIS 110 Introduction to Computers 3
OST 130 Comprehensive Keyboarding 3
OST 134 Text Entry and Formatting 3
OST 136 Word Processing 3
OST 137 Office Software Applications 3
OST 236 Adv. Word Or Information Processsing 3
Total semester hour credits to complete certificate: 18

# Practical Nursing <br> (45660) 

http://www.rccc.edu/catalog-2012-2013/?p=1056

## 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 are eligible to apply to take the National Council Licensure Examination (NCLEX-PN), which is required for practice as a licensed practical nurse. Employment opportunities include hospitals; rehabilitation, long term care and home health facilities; clinics; and physicians' offices.

## Awards

- Diploma (D45660)


## Additional Information

Nursing Education Checklist
http://www.rccc.edu/onestop/87/admissions-checklist-for-nurs-ing-programs/

## Health Information Sessions

http://www.rccc.edu/healthpublicservices/information-ses-sions-for-health-public-services-programs/

## Admission Requirements

http://www.rccc.edu/onestop/95/admission-require-ments-for-nursing-education-programs/

## LPN Philosophy

http://www.rccc.edu/healthpublicservices/practical-nursing-pro-gram-philosophy/

## Competency Standards

http://www.rccc.edu/onestop/124/competency-stan-dards-and-progression-policy-for-nursing-programs/

## Advanced Placement Policy

http://www.rccc.edu/onestop/111/advanced-placement-poli-cy-for-practical-nursing-programs/

## Attendance Requirements

http://www.rccc.edu/onestop/120/attendance-require-ments-for-nursing-programs/
Clinical Behavior Policy
http://www.rccc.edu/onestop/122/clinical-behavior-poli-cies-for-nursing-programs/

## Graduation Policy

http://www.rccc.edu/onestop/129/graduation-policy-for-nurs-ing-programs/

## Contact Information

The Practical Nursing (45660) program is in the RCCC Department of Health and Public Services Technologies. For additional information regarding this program, contact the director, Cathy Norris (cathy.norris@rccc.edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=1056)
The * symbol denotes a core course that may not be substituted.

## Diploma (D45660)

http://www.rccc.edu/catalog-2012-2013/?p=435

| Fall Semester |  |  |  |  |
| :--- | :--- | :--- | :--- | :---: |
| BIO | 163 | Basic Anatomy and Physiology | 5 |  |
| * | NUR | 101 | Practical Nursing I |  |

Total SHC 19

## Spring Semester

ENG 111 Expository Writing 3

* NUR 102 Practical Nursing II 12

Total SHC 15

## Summer Term

* NUR 103 Practical Nursing III 10

Total SHC 10

## Total semester hour credits to complete diploma: 44

## Note 1

Class sessions and clinical rotations in NUR courses may be scheduled during weekdays, evenings, or weekends.

## Note 2

For students enrolled in the Associate Degree Nursing, Associate Degree Nursing LPN to ADN Transition Option, or the Practical Nursing programs, numerical grades below 77 (C) in all required nursing and non-nursing courses are considered unsatisfactory attainment of course competencies.

## Note 3

Students considering entering the Associate Degree Nursing (ADN) Program or the LPN to ADN Transition Option should take the following: BIO 168, BIO 169, PSY 150, and PSY 241 instead of BIO 163 and PSY 110.

## Radiography (45700)

http://www.rccc.edu/catalog-2012-2013/?p=967

## 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.

## Awards

- Associate in Applied Science Degree (A45700)


## Additional Information <br> Checklist for Radiography

http://www.rccc.edu/onestop/170/admission-checklist-for-radiography/

## Radiography Health Information Sessions

Health Information Sessions http://www.rccc.edu/healthpub-licservices/events/category/information-sessions-for-radiography/
Admission Requirements for Radiography
http://www.rccc.edu/onestop/173/admission-require-ments-for-radiography/
Radiography Mission Statement
http://www.rccc.edu/healthpublicservices/radiography-pro-gram-mission-statement/

## Contact Information

The Radiography (45700) program is in the RCCC Department of Health and Public Services Technologies. For additional information regarding this program, contact the program chair, Krista Lambert (krista.lambert@rccc.edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=967) The * symbol denotes a core course that may not be substituted.

## Associate in Applied Science Degree (A45700)

http://www.rccc.edu/catalog-2012-2013/?p=970

| First Year Fall |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | BIO | 168 | Anatomy and Physiology I | 4 |
| * | RAD | 110 | Rad Intro and Patient Care | 3 |
| * | RAD | 111 | Rad Procedures I | 4 |
| * RAD | 151 | Rad Clinical Education I | 2 |  |

Take one of the following courses. MAT 171 requires MAT 171A.

| MAT | 140 | Survey of Mathematics | 3 |
| :--- | :--- | :--- | :--- |
| MAT | 161 | College Algebra | 3 |
| MAT | 171 | Precalculus Algebra | 3 |
| MAT | 171 A | Precalculus Algebra Lab | 1 |

Total SHC 16-17

## First Year Spring

BIO 169
Anatomy and Physiology II
ENG 111 Expository Writing ..... 3

* RAD 112 RAD Procedures II ..... 4
* RAD 121 Radiographic Imaging I ..... 3
* RAD 161 RAD Clinical Education II ..... 5
Total SHC 19
First Year Summer
* RAD 122 Radiographic Imaging II ..... 2
* RAD 131 Radiographic Physics I ..... 2
* RAD 171 Rad Clinical Ed III ..... 4


## Second Year Fall

PSY 150 General Psychology 3

* RAD 211 Rad Procedures III 3
* RAD 231 Radiographic Physics II 2
* RAD 241 Radiobiology/Protection 2
* RAD 251 Rad Clinical Ed IV 7

Total SHC 17

## Second Year Spring

COM 231 Public Speaking 3

* RAD 245 Image Analysis 2
* RAD 261 RAD Clinical Education V 7
* RAD 271 Radiography Capstone 1
--- --- Humanities/Fine Arts 3
Total SHC 16


## Total semester hour credits to complete degree: 76-77

# School-Age Education (55440) 

http://www.rccc.edu/catalog-2012-2013/?p=835

## 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 and Dev.; computer technology in education; physical and 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 and language; physical and motor; social and emotional ; and creative Dev. of school-age populations.
Graduates are prepared to plan and implement Dev.ally appropriate programs in school-aged environments. Employment opportunities include school-age teachers in child care programs, before and after-school programs, paraprofessional positions in public and private schools, recreational centers, and other programs that work with school-age populations.

## Awards

- Associate in Applied Science Degree - General Program (A55440)
- Associate in Applied Science Degree - Pfieffer University Elementary Education and Special Education Transfer Program (A55440TR)


## Additional Information

A criminal background check will be required prior to students entering into EDU 184 and EDU 285. A negative report may prevent students from participating in this required course which means that the student cannot complete the program requirements. Students must have at least a 2.5 GPA in order to register for EDU 184 and EDU 285. Please contact the program chair of school-age education if you have any questions.

## Contact Information

The School-Age Education (55440) program is in the RCCC Department of Health and Public Services Technologies. For additional information regarding this program, contact the program chair, Jeannie Morgan-Campola (jeannie.morgancampola@rccc. edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=835)
The * symbol denotes a core course that may not be substituted.

## Associate in Applied Science Degree - General Program (A55440)

http://www.rccc.edu/catalog-2012-2013/?p=864

## Course Requirements

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

## First Year Fall

| *Assistant 3 118 <br>  EDU 119 | Principles and Practices of the Instructional |  |  |
| ---: | :--- | :--- | :--- |
| * | Intro. to Early Childhood Education | 4 |  |
|  | EDU | 144 | Child Dev. I |

Total SHC 16

## First Year Spring

* EDU 131 Child, Family, and Community 3
* EDU 145 Child Dev. II 3

EDU 151 Creative Activities 3
EDU 281 Instructional Strategies in Reading and Writ-
ing 3
ENG 111 Expository Writing 3
Total SHC 15

## First Year Summer

PSY 150 General Psychology 3
Take one of the following courses.

| ENG | 112 | Argument-Based Research | 3 |
| :--- | :--- | :--- | :--- |
| ENG | 113 | Literature-Based Research | 3 |

Total SHC 6

| Second Year Fall |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| $*$ | EDU | 163 | Classroom Management and Instruction | 3 |
|  | EDU | 184 | Early Childhood Introductory Practicum | 2 |
| $*$ | EDU | 221 | Children With Exceptionalities | 3 |
|  | EDU | 251 | Exploration Activities | 3 |
|  | --- | --- | Humanities/Fine Arts Elective | 3 |

Total SHC 14
Note: Students may take any of the Humanities/Fine Arts electives except for ENG courses.

## Second Year Spring

|  | COM | 231 | Public Speaking | 3 |
| :--- | :--- | :--- | :--- | ---: |
|  | EDU | 282 | Early Childhood Literature | 3 |
| * | EDU | 285 |  | Internship Experiences-School Age |

Total SHC 15-16
Note: The requirement for meeting basic mathematical computation skills must be met for the Natural Sciences/Mathematics course. This can be accomplished by receiving an acceptable score on the basic math section of the placement test or successfully completing MAT 060.

## Natural Sciences/Mathematics Electives

Take 3-4 SHC from the following courses.

| AST | 111 | Descriptive Astronomy | 3 |
| :--- | :--- | :--- | :--- |
| BIO | 111 | General Biology I | 4 |
| BIO | 140 | Environmental Biology | 3 |
| MAT | 140 | Survey of Mathematics | 3 |
| PHY | 110 | Conceptual Physics | 3 |

## Total semester hour credits to complete degree: 66-67

## Criminal Background Check

A criminal background check will be required prior to students entering into EDU 184 and EDU 285. A negative report may prevent students from participating in these required courses which means that the student cannot complete the program requirements. Students must have at least a 2.5 GPA in order to register for EDU 184 and EDU 285. Please contact the program chair of School-Age Education if you have any questions.

## Associate in Applied Science Degree - Pfieffer University Elementary Education and Special Education Transfer Program (A55440TR)

http://www.rccc.edu/catalog-2012-2013/?p=922

## Course Requirements

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

## First Year Fall

| * EDU | 118 | Principles and Practices of the Instructional |  |  |  |
| :--- | :--- | :--- | :--- | :---: | :---: |
| Assistant | 3 |  | 3 |  |  |
| * EDU | 144 | Child Dev. I | 3 |  |  |
| EDU | 151 | Creative Activities | 3 |  |  |
| * EDU | 271 | Educational Technology |  |  |  |
| Take one of the following courses. |  |  |  |  |  |
| HIS | 111 | World Civilizations I | 3 |  |  |
| HIS | 112 | World Civilizations II | 3 |  |  |

Total SHC 15

## First Year Spring

| $*$ | EDU | 131 |  | Child, Family, and Community | 3 |
| ---: | :--- | :--- | :--- | :--- | ---: |
| $*$ | EDU | 145 |  | Child Dev. II | 3 |
|  | EDU | 281 |  | Instructional Strategies in Reading and Writ- |  |
| ing | 3 |  |  |  |  |
|  | ENG | 111 |  | Expository Writing |  |

Take one of the following courses.

| HIS | 131 | American History I | 3 |
| :--- | :--- | :--- | :--- |
| HIS | 132 | American History II | 3 |

Total SHC 15

## First Year Summer

| ENG | 114 | Professional Research and Reporting | 3 |
| :--- | :--- | :--- | :--- |
| PSY | 150 | General Psychology | 3 |

Total SHC 6

## Second Year Fall

| BIO | 111 | General Biology I | 4 |
| :--- | :--- | :--- | :--- |
| EDU | 163 | Classroom Management and Instruction | 3 |
| EDU | 221 | Children With Exceptionalities | 3 |
| EDU | 254 | Music and Movement for Children | 2 |
| --- | --- | Religion Elective | 3 |

Total SHC 15

## Second Year Spring

| BIO | 112 | General Biology II | 4 |
| :--- | :--- | :--- | :--- |
| EDU | 282 | Early Childhood Literature | 3 |
| EDU | 285 | Internship Experiences-School Age | 4 |
| EDU | 289 | Advanced Issues/School Age | 2 |
| MAT | 140 | Survey of Mathematics | 3 |

Total SHC 16

## Religion Electives

Take one of the following courses.

| REL | 110 | World Religions | 3 |
| :--- | :--- | :--- | :--- |
| REL | 211 | Introduction to Old Testament | 3 |
| REL | 212 | Introduction to New Testament | 3 |
| REL | 221 | Religion in America | 3 |

## Total semester hour credits to complete degree: 67

## Criminal Background Check

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. Students must have at least a 2.5 GPA in order to register for EDU 285. Please contact the program chair of School-Age Education if you have any questions.

# Web Technologies (25290) 

http://www.rccc.edu/catalog-2012-2013/?p=893

## Computer Technology Integration

Computer technology integration (CTI) will replace web technologies effective Fall 2012.

## Description

The web technologies curriculum prepares graduates for careers in the information technology arena using computers and mobile devices to disseminate and collect information via the Internet.
Course work in this program covers the terminology and use of computers, internet-ready devices, servers, databases, programming languages, as well as internet applications, site Dev. 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 internet and mobile applications, websites, web services and related areas of internet technologies.

## Awards

- Associate in Applied Science Degree (A25290)
- Diploma (D25290)
- Web Designer Certificate (C25290DS)
- Web E-Commerce Certificate (C25290EC)
- Web Graphics Certificate (C25290GR)
- Web Internet Technologies Certificate (C25290IN)
- Web Programming Certificate (C25290WP)
- Web Simulation and Gaming Fundamentals Certificate (C25290GF)
- Web Simulation and Gaming Design Certificate (C25290GD)


## Contact Information

The Web Technologies (25290) program is in the RCCC Department of Science, Biotechnology, Mathematics and Information Technologies. For additional information regarding this program, contact the program chair, Scott Nason (scott.nason@ rccc.edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=893)
The * symbol denotes a core course that may not be substituted.

## Associate in Applied Science Degree (A25290)

http://www.rccc.edu/catalog-2012-2013/?p=897

## Course Requirements

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

## First Year Fall

| ACA | 122 | College Transfer Success | 1 |
| :--- | :--- | :--- | :--- |
| CIS | 110 | Introduction to Computers | 3 |
| HUM | 110 | Technology and Society | 3 |
| * | WEB | 110 | Internet/Web Fundamentals |

Total SHC 13

## First Year Spring

* DBA 110 Database Concepts 3
* WEB 115 Web Markup and Scripting 3
* WEB 120 Introduction to Internet Multimedia 3

Take one MAT course (MAT 171 requires MAT 171A)
MAT 140 Survey of Mathematics 3
$\begin{array}{llll}\text { MAT } & 171 & \text { Precalculus Algebra } & 3\end{array}$
MAT 171 A Precalculus Algebra Lab 1
Total SHC 12-13

## First Year Summer

| * | BUS | 110 | Introduction to Business | 3 |
| :--- | :--- | :--- | :--- | :--- |
| ENG | 111 | Expository Writing | 3 |  |
| * | WEB | 125 | Mobile Web Design | 3 |
|  | WEB | 140 | Web Dev. Tools | 3 |

Total SHC 12

| Second Year Fall |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| * | CIS | 115 | Intro to Programming and Logic | 3 |
|  | ENG | 114 | Professional Research and Reporting | 3 |
| * | WEB | 210 | Web Design | 3 |
| * | WEB | 220 | Advanced Multimedia | 3 |
| * | WEB | 250 | Database Driven Websites | 3 |

Total SHC 15
Second Year Spring

| ECM | 210 | Introduction to E-Commerce | 3 |
| :--- | :--- | :--- | :--- |
| SEC | 110 | Security Concepts | 3 |
| WEB | 287 | Web E-Portfolio | 2 |
| --- | --- | Major Electives | 3 |
| --- | --- | Social/Behavioral Sciences Elective | 3 |

Total SHC 14

## Major Electives

Select 3 SHC from the following courses. This may include up to 3 SHC from COE course/combination of courses.

| COE | 110 | World of Work | 1 |
| :--- | :--- | :--- | :--- |
| COE | 111 | Co-Op Work Experience I | 1 |
| COE | 112 | Co-Op Work Experience I | 2 |
| COE | 113 | Co-Op Work Experience I | 3 |
| COE | 114 | Co-Op Work Experience I | 4 |
| COE | 121 | Co-Op Work Experience II | 1 |
| COE | 122 | Co-Op Work Experience II | 2 |
| COE | 123 | Co-Op Work Experience II | 3 |
| COE | 131 | Co-Op Work Experience III | 1 |
| COE | 211 | Co-Op Work Experience IV | 1 |
| CSC | 134 | C++ Programming | 3 |
| CSC | 151 | JAVA Programming | 3 |
| CSC | 251 | Advanced JAVA Programming | 3 |
| CTI | 110 | Web, Prog., and Database Foundation | 3 |
| CTI | 120 | Network and Security Foundation | 3 |
| CTS | 115 | Information Systems Business Concepts | 3 |
| CTS | 240 | Project Management | 3 |
| NET | 110 | Networking Concepts | 3 |
| NET | 125 | Networking Basics | 3 |
| NET | 126 | Routing Basics | 3 |
| NOS | 110 | Operating Systems Concepts | 3 |
| NOS | 120 | Linux/UNIX Single User | 3 |
| NOS | 130 | Windows Single User | 3 |
| NOS | 220 | Linus/UNIX Administration I | 3 |
| NOS | 230 | Windows Administration I | 3 |
| SGD | 111 | Introduction to Simulation and Game Dev. | 3 |
| SGD | 112 | Simulation and Game Dev. Design | 3 |
| SGD | 113 | Simulation and Game Dev. Programming | 3 |
| SGD | 212 | Simulation and Game Dev. Design II | 3 |
| SGD | 289 | Simulation and Game Dev. Project | 3 |
| WEB | 179 | JAVA Web Programming | 3 |
| WEB | 180 | Active Server Pages | 3 |
| WEB | 182 | PHP Programming | 3 |
| WEB | 187 | Programming for Mobile Devices | 3 |
| WEB | 211 | Advanced Web Graphics | 3 |
| WEB | 225 | Content Management Systems | 3 |
|  |  |  |  |

Total semester hour credits to complete degree: 66-67

## Diploma (D25290)

http://www.rccc.edu/catalog-2012-2013/?p=901


Total semester hour credits to complete diploma: 36

## Web Designer Certificate (C25290DS) <br> http://www.rccc.edu/catalog-2012-2013/?p=1151

## Courses

WEB 110 Internet/Web Fundamentals 3
WEB 115 Web Markup and Scripting 3
WEB 140 Web Dev. Tools 3
WEB 210 Web Design 3
Total semester hour credits to complete certificate: 12

## Web E-Commerce Certificate (C25290EC)

http://www.rccc.edu/catalog-2012-2013/?p=1147

## Courses

CTS 240 Project Management 3
DBA 110 Database Concepts 3
ECM 210 Introduction to E-Commerce 3
WEB 250 Database Driven Websites 3

## Total semester hour credits to complete certificate: 12

## Web Graphics Certificate (C25290GR)

http://www.rccc.edu/catalog-2012-2013/?p=1153

## Courses

WEB 110
WEB 111
WEB 120
WEB 211

Internet/Web Fundamentals
Introduction to Web Graphics
Introduction to Internet Multimedia

Total semester hour credits to complete : 12

## Web Internet Technologies Certificate (C25290IN)

http://www.rccc.edu/catalog-2012-2013/?p=1149

## Courses

| CIS | 110 | Introduction to Computers | 3 |
| :--- | :--- | :--- | :--- |
| WEB | 110 | Internet/Web Fundamentals | 3 |
| WEB | 115 | Web Markup and Scripting | 3 |
| ke one of the following courses. |  |  |  |
| NET | 110 | Networking Concepts | 3 |
| NET | 125 | Networking Basics | 3 |

Total semester hour credits to complete certificate: 12

## Web Programming Certificate (C25290WP)

http://www.rccc.edu/catalog-2012-2013/?p=1155

## Courses

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 Dev. Tools 3
Total semester hour credits to complete certificate: 15

## Web Simulation and Gaming Fundamentals Certificate (C25290GF)

http://www.rccc.edu/catalog-2012-2013/?p=1157

## Courses

SGD 111 Introduction to Simulation and Game Dev. 3
SGD 112 Simulation and Game Dev. Design 3
SGD 113 Simulation and Game Dev. Programming 3
WEB 111 Introduction to Web Graphics 3
Total semester hour credits to complete : 12

## Web Simulation and Gaming Design Certificate (C25290GD)

http://www.rccc.edu/catalog-2012-2013/?p=1159

| Courses |  |  |  |
| :---: | :---: | :--- | :--- |
| SGD | 112 | Simulation and Game Dev. Design | 3 |
| SGD | 212 | Simulation and Game Dev. Design II | 3 |
| SGD | 289 | Simulation and Game Dev. Project | 3 |
| WEB | 111 | Introduction to Web Graphics | 3 |
| WEB | 211 | Advanced Web Graphics | 3 |

Total semester hour credits to complete certificate: 15

## Welding Technology (50420)

http://www.rccc.edu/catalog-2012-2013/?p=1729

## 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.

## Awards

- Associate in Applied Science Degree (A50420)
- Diploma (D50420)
- Advanced TIG Welding Certificate (C50420AT)
- Advanced Welding Certificate (C50420AD)
- Basic Welding Certificate (C50420BC)
- High Performance Fabrication Welding Certificate (C50420HP)
- Intermediate Welding Certificate (C50420IN)
- MIG Welding Certificate (C50420MI)
- Stick Welding Certificate (C50420ST)
- TIG Welding Certificate (C50420TI)


## Additional Information

At the end of each semester, students whose skills qualify them to take a qualification test (certification test) will need to fill out the request form available in the welding area and submit it to their instructors. With the approval of the instructors, students will be given the opportunity to take the test.

## Contact Information

The Welding Technology (50420) program is in the RCCC Department of Industrial and Engineering Technologies. For additional information regarding this program, contact the program chair, Robert Simpson (robert.simpson@rccc.edu).

## Gainful Employment

For more information about our graduation rates, the median debt of students who have completed this program and other important information, please view this program in the online RCCC catalog (http://www.rccc.edu/catalog-2012-2013/?p=1729)
The * symbol denotes a core course that may not be substituted.

## Associate in Applied Science Degree (A50420)

http://www.rccc.edu/catalog-2012-2013/?p=539

## Course Requirements

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

## First Year Fall

|  | CIS | 110 | Introduction to Computers | 3 |
| :---: | :---: | :---: | :---: | :---: |
|  | MAT | 115 | Mathematical Models | 3 |
| * | WLD | 110 | Cutting Processes | 2 |
| * | WLD | 115 | SMAW (Stick) Plate | 5 |
| * | WLD | 131 | GTAW (TIG) Plate | 4 |

Total SHC 17
Note: Earn Basic Welding Certificate: The Basic Welding Certificate (C50420BC) is earned upon successful completion of the First Year Fall Semester courses.

## First Year Spring

| * WLD | 116 | SMAW (Stick) Plate/Pipe | 4 |  |
| :--- | :--- | :--- | :--- | :--- |
| WLD | 121 | GMAW (MIG) FCAW/Plate | 4 |  |
|  | WLD | 132 | GTAW (TIG) Plate/Pipe | 3 |
| * | WLD | 141 | Symbols and Specifications | 3 |

Total SHC 14
Note: Earn Intermediate Welding Certificate: The Intermediate Welding Certificate (C50420IN) is earned upon successful completion of the First Year Spring Semester courses.

## First Year Summer

| ENG | 111 | Expository Writing | 3 |
| :--- | :--- | :--- | :--- |
| WLD | 122 | GMAW (MIG) Plate/Pipe | 3 |
| WLD | 151 | Fabrication I | 4 |

Total SHC 10
Second Year Fall
DFT 151 CAD I 3
WLD 143 Welding Metallurgy 2
WLD 231 GTAW (TIG) Pipe 3
WLD 261 Certification Practices 2
--- --- Humanities/Fine Arts Elective 3
Total SHC 13

## Second Year Spring

| WLD | 215 | SMAW (stick) Pipe | 4 |
| :--- | :--- | :--- | ---: |
| WLD | 262 | Inspection and Testing | 3 |
| --- | --- | Major Electives | $2-4$ |
| --- | --- | Social/Behavioral Sciences Elective | 3 |
|  |  |  | Total SHC 12-14 |

## Second Year Summer

COM 231 Public Speaking
WLD 251 Fabrication II

Total SHC 6

## Major Electives

Select a minimum of 2 SHC from the following courses. This may include up to 3 SHC from COE course/combination of courses.

| COE | 111 | Co-Op Work Experience I | 1 |
| :--- | :--- | :--- | :--- |
| COE | 112 | Co-Op Work Experience I | 2 |
| COE | 113 | Co-Op Work Experience I | 3 |
| COE | 121 | Co-Op Work Experience II | 1 |
| COE | 122 | Co-Op Work Experience II | 2 |
| COE | 131 | Co-Op Work Experience III | 1 |
| COE | 132 | Co-Op Work Experience III | 2 |
| DFT | 152 | CAD II | 3 |
| MEC | 111 | Machine Processes I | 3 |
| MEC | 142 | Physical Metallurgy | 2 |
| PHY | 110 | Conceptual Physics | 3 |
| PHY | 110 A | Conceptual Physics Lab | 1 |
| WLD | 111 | Oxy-Fuel Welding | 2 |
| WLD | 221 | GMAW (MIG) Pipe | 3 |
| WLD | 265 | Automated Welding/Cutting | 4 |

Total semester hour credits to complete degree: 72-74

## Diploma (D50420)

http://www.rccc.edu/catalog-2012-2013/?p=544

| Fall Semester |  |  |  |
| :--- | :--- | :--- | :--- |
|  | CIS | 110 | Introduction to Computers |
| MAT | 115 | Mathematical Models | 3 |
| * | WLD | 110 |  |
| Cutting Processes | 3 |  |  |
| * | WLD | 115 | SMAW (Stick) Plate |

Total SHC 16
Note: Earn Basic Welding Certificate: The Basic Welding Certificate (C50420BC) is earned upon successful completion of the Fall Semester courses.

| Spring Semester |  |  |  |
| :--- | :--- | :--- | :--- |
|  | WLD | 116 | SMAW (Stick) Plate/Pipe |

Total SHC 14
Note: Earn Intermediate Welding Certificate: The Intermediate Welding Certificate (C50420IN) is earned upon successful completion of the Spring Semester courses.

| Summer Term |  |  |  |
| :---: | :--- | :--- | :--- |
| ENG | 111 | Expository Writing | 3 |
| WLD | 122 | GMAW (MIG) Plate/Pipe | 3 |
| WLD | 151 | Fabrication I | 4 |

Total SHC 10

## Advanced TIG Welding Certificate (C50420AT)

http://www.rccc.edu/catalog-2012-2013/?p=577

## Courses

WLD 110 Cutting Processes 2
WLD 131 GTAW (TIG) Plate 4

WLD 132 GTAW (TIG) Plate/Pipe 3
WLD 141 Symbols and Specifications 3
WLD 231 GTAW (TIG) Pipe
Total semester hour credits to complete certificate: 15

## Advanced Welding Certificate (C50420AD)

http://www.rccc.edu/catalog-2012-2013/?p=558

## Courses

| ENG | 111 | Expository Writing | 3 |
| :--- | :--- | :--- | :--- |
| MAT | 115 | Mathematical Models | 3 |
| WLD | 122 | GMAW (MIG) Plate/Pipe | 3 |

Take one of the following courses.

| WLD | 151 | Fabrication I | 4 |
| :--- | :--- | :--- | :--- |
| WLD | 215 | SMAW (stick) Pipe | 4 |
| WLD | 231 | GTAW (TIG) Pipe | 3 |

## Total semester hour credits to complete certificate: 12-13

## Basic Welding Certificate (C50420BC) <br> http://www.rccc.edu/catalog-2012-2013/?p=550

| Courses |  |  |  |
| :---: | :---: | :--- | :--- |
| CIS | 110 | Introduction to Computers | 3 |
| MAT | 115 | Mathematical Models | 3 |
| WLD | 110 | Cutting Processes | 2 |
| WLD | 115 | SMAW (Stick) Plate | 5 |
| WLD | 131 | GTAW (TIG) Plate | 4 |

## Total semester hour credits to complete certificate: 16

## Total semester hour credits to complete diploma: 40

## High Performance Fabrication Welding Certificate (C50420HP)

http://www.rccc.edu/catalog-2012-2013/?p=574

## Courses

| 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 hour credits to complete certificate: 13

## Intermediate Welding Certificate (C50420IN)

http://www.rccc.edu/catalog-2012-2013/?p=553

## Courses

WLD 116 SMAW (Stick) Plate/Pipe 4
WLD 121 GMAW (MIG) FCAW/Plate 4
WLD 132 GTAW (TIG) Plate/Pipe 3
WLD 141 Symbols and Specifications 3
Total semester hour credits to complete certificate: 14

## MIG Welding Certificate (C50420MI)

http://www.rccc.edu/catalog-2012-2013/?p=570

## Courses

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 hour credits to complete certificate: 12

## Stick Welding Certificate (C50420ST)

http://www.rccc.edu/catalog-2012-2013/?p=561

## Courses

WLD $110 \quad$ Cutting Processes 2
WLD 115 SMAW (Stick) Plate 5
WLD 116 SMAW (Stick) Plate/Pipe 4
WLD 141 Symbols and Specifications 3
Total semester hour credits to complete certificate: 14

## TIG Welding Certificate (C50420TI)

http://www.rccc.edu/catalog-2012-2013/?p=567

## Courses

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 hour credits to complete certificate: 12

## Course Descriptions



## 2012-2013 <br> Course Descriptions

## Courses

The courses listed in this catalog 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 hour 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 education 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 placement 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 these courses will only satisfy the prerequisites for entry into a curriculum level course.


## ACA - Academic Related

## ACA 115 - Success and Study Skills <br> 02001

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.

## ACA 122 - College Transfer Success <br> 10001

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 for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## ACC - Accounting

## ACC 115 - College Accounting

32004
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.

## ACC 120 - Principles of Financial Accounting 32004

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 decisionmaking and address ethical considerations. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.
This course has been approved to satisfy the Independent Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

## Corequisites

Take CIS-110.

## Prerequisites

[^0]ACC 121 - Principles of Managerial Accounting3 2004
This course includes a greater emphasis on managerial and cost accounting skills. Emphasis is placed on managerial accounting concepts for externam 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 for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Prerequisites

Take ACC-120(S10290);

## ACC 129 - Individual Income Taxes

22003
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 income tax returns. Upon completion, students should be able to analyze basic tax scenarios, research applicable tax law, and complete various individual tax forms.

## ACC 132 - NC Business Taxes

20002
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.

## ACC 140 - Payroll Accounting

12002
This course covers federal and state laws pertaining to wages, payroll taxes, payroll tax forms, and journal and general ledger transactions. Emphasis is placed on computing wages; calculating social security, income, and unemployment taxes; preparing appropriate payroll tax forms; and journalizing/posting transactions. Upon completion, students should be able to analyze data, make appropriate computations, complete forms, and prepare accounting entries using appropriate technology.

## Prerequisites

Take ACC-115(S12924) or ACC-120(S10290);

## ACC 149 - Intro to Acc Spreadsheets

12002
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.

## Prerequisites

Take ACC-115(S12924) or ACC-120(S10290);

## ACC 150 - Accounting Software Applications 12002

This course introduces microcomputer applications related to accounting systems. Topics include general ledger, accounts receivable, accounts payable, inventory, payroll, and correcting, adjusting, and closing entries. Upon completion, students should be able to use a computer accounting package to solve accounting problems.

## Prerequisites

Take ACC-115(S12924) or ACC-120(S10290);

## ACC 175 - Hotel and Restaurant Accounting 32004

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.

## ACC 215 - Ethics in Accounting

30003
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 discussion 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.

## Prerequisites

Take ACC-121(S20282);

## ACC 220 - Intermediate Accounting I

32004
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 analysis of balance sheet components. Upon completion, students should be able to demonstrate competence in the conceptual framework underlying financial accounting, including the application of financial standards.

## Prerequisites

Take ACC-120(S20278) or ACC-120(S10290);

## ACC 221 - Intermediate Accounting II

32004
This course is a continuation of ACC 220. Emphasis is placed on special problems which may include leases, bonds, investments, ratio analyses, present value applications, accounting changes, and corrections. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered.

## Prerequisites

Take ACC-220(S10646);

ACC 225 - Cost Accounting
30003
This course introduces the nature and purposes of cost accounting as an information system for planning and control. Topics include direct materials, direct labor, factory overhead, process, job order, and standard cost systems. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered.

## Prerequisites

Take ACC-121(S10328);

## ACC 227 - Practices in Accounting

30003
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, 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.

## Prerequisites

Take ACC-220(S10646);

## ACC 240 - Gov. and Not-For Profit Accounting 30003

This course introduces principles and procedures applicable to governmental and not-for-profit organizations. Emphasis is placed on various budgetary accounting procedures and fund accounting. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered.

## Prerequisites

Take ACC-121(S10328);

## ACC 250 - Advanced Accounting

30003
This course is designed to analyze the 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.

## Prerequisites

Take ACC-220(S10646);

## ACC 268 - Info. Sys. and Internal Controls 30003

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 to communicate effectively their analysis in written and oral presentations.

## Prerequisites

Take ACC-121(S20282);

## ACC 269 - Auditing and Assurance Services <br> 30003

This course introduces selected topics pertaining to the objectives, theory and practices in engagements providing auditing and other assurance services. Topics include planning, conducting and reporting, with emphasis on the related professional ethics and standards. Upon completion, students should be able to demonstrate an understanding of the types of professional services, the related professional standards, and engagement methodology.

## Prerequisites

Take ACC-220(S 10646);

## AGR - Agriculture

AGR 160 - Plant Science<br>22003

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.

## AGR 214 - Agricultural Marketing

30003
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.

## AHR - Air Conditioning, Heating and Refrigeration

## AHR 110 - Introduction to Refrigeration

26005
This course introduces the basic refrigeration process used in mechanical refrigeration and air conditioning systems. Topics include terminology, safety, and identification and function of components; refrigeration cycle; and tools and instrumentation used in mechanical refrigeration systems. Upon completion, students should be able to identify refrigeration systems and components, explain the refrigeration process, and use the tools and instrumentation of the trade.

## AHR 111 - HVACR Electricity

22003
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.

## AHR 112 - Heating Technology

24004
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.

AHR 113 - Comfort Cooling
24004
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 psychrometrics, manufacturer specifications, and test instruments to determine proper system operation.

## Prerequisites

Take AHR-110;

## AHR 114 - Heat Pump Technology

24004
This course covers the principles of air source and water source heat pumps. Emphasis is placed on safety, modes of operation, defrost systems, refrigerant charging, and system performance. Upon completion, students should be able to understand and analyze system performance and perform routine service procedures.

## Prerequisites

Take AHR-110 or AHR-113;

## AHR 115 - Refrigeration Systems

13002
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.

## Prerequisites

Take AHR-110;

## AHR 130 - HVAC Controls

22003
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 analyis and troubleshooting of electrical systems. Upon completion, students should be able to diagnose and repair common residential and commercial comfort system controls.

## Prerequisites

Take AHR-111 or ELC-111;

## AHR 151 - HVAC Duct Systems I

13002
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.

## 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 placed on the skills required to work with complex rectangular and round fittings and transitions. Upon completion, students should be able to lay out and fabricate complex rectangular and round fittings.

## Prerequisites

Take AHR-151;

## AHR 160 - Refrigerant Certification

10001
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.

## AHR 211 - Residential System Design

22003
This course introduces the principles and concepts of conventional residential heating and cooling system design. Topics include heating and cooling load estimating, basic psychrometrics, equipment selection, duct system selection, and system design. Upon completion, students should be able to design a basic residential heating and cooling system.

## AHR 212 - Advanced Comfort Systems <br> 26004

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.

## Prerequisites

Take AHR-114;

## AHR 215 - Commercial HVAC Controls

13002
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.

## Prerequisites

Take AHR-111 ELC-111 or ELC-112(S21587);

## AHR 220 - Commercial Building Codes

20002
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.

## AHR 225 - Commercial System Design

23003
This course covers the principles of designing heating and cooling systems for commercial buildings. Emphasis is placed on commercial heat loss/gain calculations, applied psychometrics, airflow calculations, air distribution system design, and equipment selection. Upon completion, students should be able to calculate heat loss/gain, design and size air and water distribution systems, and select equipment.

## Prerequisites

Take AHR-211;

AHR 235 - Refrigeration Design
22003
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.

## Prerequisites

Take AHR-110;

## AHR 250 - HVAC System Diagnostics

04002
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.

## Corequisites

Take AHR-212.

## AHR 255 - Indoor Air Quality

12002
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.

## Prerequisites

Take AHR-211;

## ALT - Alternative Energy Technology

## ALT 120 - Renewable Energy Technologies 22003

This course provides an introduction to multiple technologies that allow for the production and conservation of energy from renewable sources. Topics include hydo-electric, 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.

## ANT - Anthropology

## ANT 210 - General Anthropology <br> 30003

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 has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences. This course may satisfy a general education requirement for Catawba College.

## ANT 220 - Cultural Anthropology

30003
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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences.

## ANT 221 - Comparative Cultures

30003
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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences.

## ANT 230 - Physical Anthropology

This course introduces the scientific study of human evolution and adaptation. Emphasis is placed on evolutionary theory, population genetics, biocultural adaptation and human variation, as well as non-human primate evolution, morphology, and behavior. Upon completion, students should be able to demonstrate an understanding of the biological and cultural processes which have resulted in the formation of the human species. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences.

## ANT 230A - Physical Anthropology Lab

02001
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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences.

## Corequisites

Take ANT-230.

## ANT 240 - Archaeology

30003
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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences.

## ANT 240A - Archaeology Field Lab

04002
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 premajor and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Corequisites

Take ANT-240.

## ANT 245 - World Prehistory

30003
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 premajor and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## ART - Art

## ART 111 - Art Appreciation

30003
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 has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts. This course may satisfy a general education requirement for Catawba College.

## ART 114 - Art History Survey I

30003
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.

This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.

## ART 115 - Art History Survey II

30003
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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.

## ART 116 - Survey of American Art

30003
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 has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts. This course may satisfy a general education requirement for Catawba College.

## ART 121 - Two-Dimensional Design

06003
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 for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## ART 122 - Three-Dimensional Design

06003
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 for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## ART 131 - Drawing I

06003
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 premajor and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## ART 132 - Drawing II

06003
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. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Prerequisites

Take ART-131;

## ART 135 - Figure Drawing I

06003
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 premajor and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Prerequisites

Take ART-131;

## ART 212 - Gallery Assistantship I

02001
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 premajor and/ or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## ART 214 - Portfolio and Resume

02001
This course covers resume 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 resume 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 resume.
This course has been approved for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## ART 235 - Figure Drawing II

06003
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 premajor and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement

## Prerequisites

Take ART-135(S10806);

ART 240 - Painting I
06003
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 premajor and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement

## ART 241 - Painting II

06003
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 premajor and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement

## Prerequisites

Take ART-240;

## ART 244 - Watercolor

06003
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 premajor and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement

## ART 261 - Photography I

06003
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 premajor and/or elective course requirement.

This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement

## ART 262 - Photography II

06003
This course introduces the creative manipulation of alternative photographic materials and processes such as toning, hand coloring, infrared, and multiple exposure. Emphasis is placed on personal vision and modes of seeing. Upon completion, students should be able to create properly exposed images using a variety of photographic materials and processes.
This course has been approved for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement

## Prerequisites

Take ART-261(S11371);

## ART 264 - Digital Photography I

14003
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 premajor and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement

## ART 265 - Digital Photography II

14003
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 premajor and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement

## Prerequisites

Take ART-264;

## ART 266 - Videography I

06003
This course introduces various aspects of basic video production including concept development, scripting, camera operation, and post-production. Emphasis is placed on creative expression, camera handling, story boarding, and editing. Upon completion, students should be able to demonstrate a basic understanding of video camera operation and production techniques.
This course has been approved for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

ART 267 - Videography II
06003
This course is designed to provide a framework for the production of a long-term video project. Emphasis is placed on realization of the unique creative vision. Upon completion, students should be able to produce a thematically coherent, edited video with sound and titling.
This course has been approved for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Prerequisites

Take ART-266(S11306);

## ART 281 - Sculpture I

06003
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 for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## ART 282 - Sculpture II

06003
This course builds on the visual and technical skills learned in ART 281. Emphasis is placed on developing original solutions to sculptural problems in a variety of media. Upon completion, students should be able to express individual ideas using the techniques and materials of sculpture.
This course has been approved for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Prerequisites

Take ART-281(S16229);

## ART 283 - Ceramics I

06003
This course provides an introduction to three-dimensional design principles using the medium of clay. Emphasis is placed on fundamentals of forming, surface design, glaze application, and firing. Upon completion, students should be able to demonstrate skills in slab and coil construction, simple wheel forms, glaze technique, and creative expression.
This course has been approved for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## ART 288 - Studio

06003
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 premajor and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## AST - Astronomy

## AST 111 - Descriptive Astronomy

30003
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.

This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.

## AST 111A - Descriptive Astronomy Lab

02001
The 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.

This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in natural science.

## Corequisites

Take AST-111.

## AST 151 - General Astronomy I

30003
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 has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in natural science. This course may satisfy a general education requirement for Catawba College.

## Prerequisites

Take MAT-070;

AST 151A - General Astronomy I Lab
02001
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 has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in natural science. This course may satisfy a general education requirement for Catawba College.

## Corequisites

Take AST-151.

## AST 152 - General Astronomy II

30003
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 has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in natural science. This course may satisfy a general education requirement for Catawba College.

## Prerequisites

Take AST-151;

## AST 152A - General Astronomy II Lab <br> 02001

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 is approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in natural science. This course may satisfy a general education requirement for Catawba College.

## Corequisites

Take AST-152.
Prerequisites
Take AST-151; Take AST-151A;

## AST 251 - Observational Astronomy

13002
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 as a premajor and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Prerequisites

Take AST-111 or AST-152; Take AST-152A;

## AUT - Automotive

## AUT 110 - Intro to Automotive Technology

22003
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, identify and use basic tools and shop equipment.

## AUT 113 - Automotive Servicing I <br> 06002

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.

## Prerequisites

> Take AUT-181(S21701) AUT-183(S21703) AUT141(S21690) AUT-151(S21692) AUT-163(S21698);

## AUT 116 - Engine Repair

23003
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.

## Corequisites

Take AUT-116A.

AUT 116A - Engine Repair Lab
03001
This course is an optional lab to be used as an alternative to coop 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.

## Corequisites

Take AUT-116.

## AUT 141 - Suspension and Steering Systems 23003

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.

## Corequisites

Take AUT-141A.

## AUT 141A - Suspension and Steering Lab 03001

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.

## Corequisites

Take AUT-141.

## AUT 151 - Brake Systems

23003
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.

## Corequisites

Take AUT-151A.

## AUT 151A - Brakes Systems Lab

03001
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, vacuumboost, 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.

## Corequisites

Take AUT-151.

## AUT 161 - Basic Auto Electricity

43005
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.

## AUT 163 - Advanced Automotive Electricity 23003

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.

## Corequisites

Take AUT-163A.
Prerequisites
Take AUT-161(S21697);

## AUT 163A - Adv. Automotive Electricity Lab 03001

This course is an optional lab to be used as an alternative to coop 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.

## Corequisites

Take AUT-163.

## AUT 171 - Automotive Climate Control

This course covers the theory of refrigeration and heating, electri$\mathrm{cal} /$ 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.

## Prerequisites

Take AUT-161(S21697);

AUT 181 - Engine Performance 1
23003
This course covers the introduction, theory of operation, and basic diagnostic procedures required to restore engine performance to vehicles equipped with complex engine control systems. Topics include an overview of engine operation, ignition components and systems, fuel delivery, injection components and systems and emission control devices. Upon completion, students should be able to describe operation and diagnose/repair basic ignition, fuel and emission related driveability problems using appropriate test equipment/service information.

## Corequisites

Take AUT-181A.

## Prerequisites

Take AUT-161(S21697);

## AUT 181A - Engine Performance 1 Lab <br> 03001

This course is an optional lab to be used as an alternative to co-op placement in meeting the NATEF standards for total hours. Topics include overviews of engine operation, ignition components and systems, fuel delivery, injection components and systems and emission control devices and emerging engine performance technologies. Upon completion, students should be able to describe operation and diagnose/repair basic ignition, fuel and emission related driveability problems using appropriate test equipment/ service information.

## Corequisites

Take AUT-181.

## AUT 183 - Engine Peformance 2

26004
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 (onboard diagnostics) and inter-related electrical/electronic systems. Upon completion, students should be able to diagnose and repair complex engine performance concerns using appropriate test equipment and service information.

## Prerequisites

Take AUT-181(S21701);

## AUT 186 - PC Skills for Auto Techs

22003
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.

## AUT 221 - Automatic Transmissions/Transaxles 23003

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.

## Corequisites

Take AUT-221A.

## Prerequisites

## Take AUT-161(S21697);

## AUT 221A - Auto. Transmissions/Transaxles Lab 03001

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.

## Corequisites

Take AUT-221.

## AUT 231 - Manual Transmissions/Transaxles/ Drive|Trains <br> 23003

This course covers the operation, diagnosis, and repair of manual transmissions/transaxles, clutches, driveshafts, axles, and final drives. Topics include theory of torque, power flow, and manual drive train 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.

## Corequisites

Take AUT-231A.

## Prerequisites

Take AUT-161(S21697);

## AUT 231A - Man. Trans./Transaxles/Drive Trains Lab0 3001

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.

## Corequisites

Take AUT-231.

AUT 285 - Intro to Alternative Fuels
22003
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.

## Prerequisites

Take AUT-141(S21690) AUT-151(S21692) AUT163(S21698) AUT-181(S21701) AUT-183(S21703);

## BIO - Biology

BIO 106 - Intro to Anatomy/Phys./Microbiology 22003
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. This course is restricted to diploma and/or certificate programs.

## BIO 110 - Principles of Biology

33004
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 approve to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.
Under the Comprehensive Articulation Agreement, this course satisfies the general education Natural Science requirement for the AA and AFA degrees. It does not satisfy the general education Natural Science requirement for the AS degree. Under the Independent Comprehensive Articulation Agreement, this course satisfies the general education Natural Science requirement for the AA and AFA degrees. It does not satisfy the general education Natural Science requirement for the AS degree.

## BIO 111 - General Biology I

33004
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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in natural science. This course may satisfy a general education requirement for Catawba College.

## Prerequisites

Take RED-090 or ENG-111;

## BIO 112 - General Biology II

33004
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 has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in natural science. This course may satisfy a general education requirement for Catawba College.

## Prerequisites

Take BIO-111;

## BIO 140 - Environmental Biology

30003
This course introduces environmental processes and the influence of human activities upon them. Topics include ecological concepts, population growth, natural resources, and a focus on current environmental problems from scientific, social, political, and economic perspectives. Upon completion, students should be able to demonstrate an understanding of environmental interrelationships and of contemporary environmental issues. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in natural science.

## BIO 140A - Environmental Biology Lab

03001
This course provides a laboratory component to complement BIO 140. Emphasis is placed on laboratory and field experience. Upon completion, students should be able to demonstrate a practical understanding of environmental interrelationships and of contemporary environmental issues. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in natural science.

## Corequisites

Take BIO-140.

## BIO 163 - Basic Anatomy and Physiology <br> 42005

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 premajor and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Prerequisites

Take RED-090 or ENG-111;

BIO 168 - Anatomy and Physiology I
33004
This course provides a comprehensive study of the anatomy and physiology of the human body. Topics include body organization, homeostasis, cytology, histology, and the integumentary, skeletal, muscular, and nervous systems and special senses. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Prerequisites

Take RED-090 or ENG-111;

## BIO 169 - Anatomy and Physiology II

33004
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 indepth understanding of principles of anatomy and physiology and their interrelationships.

This course has been approved for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Prerequisites

Take BIO-168(S11555); Take BIO-168(S11555); Minimum grade C ;

BIO 250 - Genetics
33004
This course covers principles of prokaryotic and eukaryotic cell genetics. Emphasis is placed on the molecular basis of heredity, chromosome structure, patterns of Mendelian and non-Mendelian inheritance, evolution, and biotechnological applications. Upon completion, students should be able to recognize and describe genetic phenomena and demonstrate knowledge of important genetic principles. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Prerequisites

Take BIO-112;

## 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 for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Prerequisites

> Take 1 group; \# $\quad$ Take BIO-110; ; $\quad$ Take BIO-111; \# Take BIO-163; $\quad$ \#Take BIO-165; $\#$ Take BIO168(S11555);

## BIO 280 - Biotechnology

23003
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 for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Prerequisites

> Take BIO-111 CHM-131 or CHM-151;

## BPR - Blueprint Reading

## BPR 111 - Blueprint Reading

12002
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.

## BPR 121 - Blueprint Reading-Mechanical

12002
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.

## Prerequisites

Take BPR-111 or MAC-131;

## BPR 130 - Blueprint Reading-Construction

12002
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.

BPR 230 - Commercial Blueprints
12002
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.

## Prerequisites

Take BPR-130;

## 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.

## Corequisites

Take RED-090.

## BTC 181 - Basic Lab Techniques

33004
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 labware, solutions, and equipment according to prescribed protocols.

## Prerequisites

Take MAT-070;

## BTC 270 - Recombinant DNA Technology

33004
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 be able to demonstrate an understanding of the theory, practice, and application of recombinant DNA techniques.
This course may satisfy a biology elective requirement for $\mathrm{Ca}-$ tawba College.

## Prerequisites

Take 1 group; \# Take BTC-250(S20616) BTC-181; \# Take BIO-250 BTC-181;

## BTC 281 - Bioprocess Techniques

26004
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.

## Prerequisites

Take BTC-181;

## BTC 282 - Biotechnology Fermentation I

26004
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.

## Prerequisites

Take BTC-181;

## BTC 283 - Biotechnology Fermentation II <br> 26004

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.

## Prerequisites

Take BTC-282;

## BTC 285 - Cell Culture

23003
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.

## Prerequisites

Take BIO-175(S20491) or BIO-275(S12975);

## BTC 286 - Immunological Techniques

33004
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.

## Prerequisites

Take BTC-285(S14192);

BTC 288 - Biotech Lab Experience
06002
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.

## Prerequisites

\# Take BIO-250 or BTC-270(S20322); \# Take BTC281 BTC-285(S20617) or BTC-286;

## BUS - Business

## BUS 110 - Introduction to Business

30003
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 premajor and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## BUS 115 - Business Law I

30003
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 premajor and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## BUS 121 - Business Math

22003
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.

## Prerequisites

Take MAT-060;

## BUS 125 - Personal Finance

30003
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.

## BUS 137 - Principles of Management

30003
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 premajor and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.
This course is also available through the Virtual Learning Community (VLC).

## BUS 153 - Human Resource Management

30003
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.

BUS 217 - Employment Law and Regulations 30003
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.

## BUS 225 - Business Finance

22003
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.

## Prerequisites

Take ACC-120(S10290);

## BUS 230 - Small Business Management

30003
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.

## BUS 240 - Business Ethics

30003
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.

BUS 253 - Leadership and Management Skills 30003
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.

## BUS 260 - Business Communication

30003
This course is designed to develop skills in writing business communications. Emphasis is placed on business reports, correspondence, and professional presentations. Upon completion, students should be able to communicate effectively in the work place.

## Prerequisites

Take ENG-111;

## BUS 280 - REAL Small Business

40004
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.

## CAR - Carpentry

CAR 120 - Commercial Carpentry I
212006
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.

## CAR 125 - Commercial Carpentry II

212006
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.

## Prerequisites

Take CAR-120;

## CAR 135 - Commercial Carpentry IV

212006
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.

## Prerequisites

Take CAR-120;

## CAR 150 - Concrete Construction

29005
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.

## CCT - Cyber Crime Technology

## CCT 110 - Introduction to Cyber Crime

30003
This course introduces and explains the various types of offenses that qualify as cyber crime activity. Emphasis is placed on identifying cyber crime activity and the response to these problems from both the private and public domains. Upon completion, students should be able to accurately describe and define cyber crime activities and select an appropriate response to deal with the problem.

## CCT 112 - Ethics and High Technology

30003
This course covers ethical considerations and accepted standard practices applicable to technological investigations and computer privacy issues relative to the cyber crime investigator. Topics include illegal and unethical investigative activities, end-justifying-the-means issues, and privacy issues of massive personal database information gathered by governmental sources. Upon completion, students should be able to examine their own value systems and apply ethical considerations in identifiable cyber crime investigations.

## CCT 121 - Computer Crime Investigation <br> 32004

This course introduces the fundamental principles of computer crime investigation processes. Topics include crime scene/incident processing, information gathering techniques, data retrieval, collection and preservation of evidence, preparation of reports and court presentations. Upon completion, students should be able to identify cyber crime activity and demonstrate proper investigative techniques to process the scene and assist in case prosecution.

## CCT 220 - Forensic Accounting

33004
This course introduces the basic principles and procedures of investigative accounting and anyalysis of financial evidence. Emphasis is placed on collecting data and evidence, evaluation of internal control systems, accounting systems, concealed income analysis and fraud detection. Upon completion, students should be able to apply generally accepted accounting standards and procedures for conducting a criminal investigation audit for financial information.

## CCT 231 - Technology Crimes and Law

30003
This course covers the applicable technological laws dealing with the regulation of cyber security and criminal activity. Topics include an examination of state, federal and international laws regarding cyber crime with an emphasis on both general and North Carolina statutes. Upon completion, students should be able to identify the elements of cyber crime activity and discuss the trends of evolving laws.

CCT 240 - Data Recovery Techniques
23003
This course introduces the unique skills and methodologies necessary to assist in the investigation and prosecution of cyber crimes. Topics include hardware and software issues, recovering erased files, overcoming encryption, advanced imaging, transient data, Internet issues and testimony considerations. Upon completion, students should be able to recover digital evidence, extract information for criminal investigation and legally seize criminal evidence.

## CCT 241 - Advanced Data Recovery

23003
This course further explores the methodologies necessary to assist in the investigation and analysis of cyber crimes. Topics include commercial and open-source software tools for working with evidence acquisition, data recovery, and encryption. Upon completion, students should be able to perform the data recovery and analysis for a complete criminal or corporate investigation.

## Prerequisites

Take CCT-240;

## CCT 250 - Network Vulnerabilities I

22003
This course introduces students to penetration testing, network vulnerabilities, and hacking. Topics include an overview of traditional network security, system hardening, and known weaknesses. Upon completion, students should be able to evaluate weaknesses of traditional and wireless network for the purpose of incident response, reconstruction, and forensic investigation.

## Prerequisites

Take NET-110(S21056);

## CHM - Chemistry

## CHM 121 - Foundations of Chemistry

30003
This course is designed for those who have no previous high school chemistry or a grade of C or less in high school chemistry. Topics include matter, structure of the atom, nomenclature, chemical equations, bonding and reactions; mathematical topics include measurements, scientific notation, and stoichiometry. Upon completion, students should be able to demonstrate an understanding of chemical concepts and an ability to solve related problems in subsequent chemistry courses.

## Prerequisites

Take 1 group; \# Take MAT-070 RED-090; \# Take MAT-070 ENG-111;

## 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 has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in natural science. This course may satisfy a general education requirement for Catawba College.
This course is available through the Virtual Learning Community (VLC).

## Corequisites

## Take CHM-131A.

## Prerequisites

Take 1 group; \# Take MAT-070 ENG-111; \# Take MAT-070 RED-090;

## CHM 131A - Introduction to Chemistry Lab $\begin{array}{llll}0 & 3001\end{array}$

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 has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in natural science. This course may satisfy a general education requirement for Catawba College.

## Corequisites

Take CHM-131.

## CHM 132 - Organic and Biochemistry <br> 33004

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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in natural science.
This course is available through the Virtual Learning Community (VLC).

## Prerequisites

Take 1 group; \# Take CHM-131 CHM-131A; \# Take CHM-151;

CHM 151 - General Chemistry I
33004
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 has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in natural science. This course may satisfy a general education requirement for Catawba College.
High school chemistry or equivalent within the last five years is also required.

## Corequisites

Take MAT-161, MAT-171, or MAT-175.

## Prerequisites

Take 1 group; \# Take MAT-080 RED-090; \# Take MAT-080 ENG-111;

CHM 152 - General Chemistry II
33004
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 has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in natural science. This course may satisfy a general education requirement for Catawba College.

## Prerequisites

Take CHM-151; Take CHM-151; Minimum grade C;

## CHM 263 - Analytical Chemistry

34005
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 for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement

## Prerequisites

Take CHM-132(S12618);

## CIS - Information Systems

## CIS 110 - Introduction to Computers

22003
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 science/mathematics (Quantitative Option).
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in Mathematics (Quantitative). This course may satisfy a general education requirement for Catawba College.
This course is also available through the Virtual Learning Community (VLC).

## Prerequisites

Take CTS-080 RED-090;

## CIS 115 - Intro to Programming and Logic 23003

This course introduces computer programming and problem solving in a structured program logic environment. Topics include language syntax, data types, program organization, problem solving methods, algorithm design, and logic control structures. Upon completion, students should be able to manage files with operating system commands, use top-down algorithm design, and implement algorithmic solutions in a programming language.
This course has been approved for transfer under the Comprehensive Articulation Agreement as a general education course in mathematics (Quantitative). This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in mathematics (Quantitative).
This course is also available through the Virtual Learning Community (VLC).

## Prerequisites

Take 1 group; \# Take MAT-060 MAT-070; \# Take MAT-060 MAT-080; \# Take MAT-060 MAT-090; \# Take MAT-095; \# Take MAT-120(S20803); \# Take MAT-121(S20804); \# Take MAT-161(S20916); \# Take MAT-171(S20807); \# Take MAT-175; \# Take DMA-010 DMA-020 DMA-030 DMA-040; Also take CTS080 RED-090;

## CIV - Civil Engineering

## CIV 110 - Statics/Strength of Mater

26004
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.

## Prerequisites

Take MAT-121(S20804) MAT-161(S20916) MAT171(S20807) or MAT-175;

## CIV 111 - Soils and Foundations

23003
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.

## Prerequisites

Take CIV-110(S11294) or MEC-250(S13619);

## CIV 115 - Geotechnical Engineering

26004
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.

## Prerequisites

Take CIV-110(S21887) or MEC-250(S20660);

## CIV 210 - Engineering Materials

13002
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.

## CIV 222 - Reinforced Concrete

23003
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.

## Prerequisites

Take CIV-110(S11294) or MEC-250(S13619);

## CIV 230 - Construction Estimating

23003
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.

## Prerequisites

Take CIS-111(S12478) EGR-115(S12560) CIS-110(S12456) or ARC-111;

## CIV 240 - Project Management

23003
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.

## CJC - Criminal Justice

CJC 100 - Basic Law Enforcement Training 9300019
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 the topics and areas required for the state comprehensive certification examination. This is a certificate-level course.

## CJC 111 - Introduction to Criminal Justice 30003

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 premajor and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## CJC 112 - Criminology

30003
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.

CJC 113 - Juvenile Justice
30003
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.

## CJC 121 - Law Enforcement Operations

30003
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 premajor and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## CJC 131 - Criminal Law

30003
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.

## CJC 132 - Court Procedure and Evidence <br> 30003

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.

## CJC 141 - Corrections

30003
This course covers the history, major philosophies, components, and current pracices 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 premajor and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## CJC 160 - Terrorism: Underlying Issues

30003
This course identifies the fundamental reasons why America is a target for terrorists, covering various domestic/international terrorist groups and ideologies from a historical aspect. Emphasis is placed upon recognition of terrorist crime scene; weapons of mass destruction; chemical, biological, and nuclear terrorism; and planning considerations involving threat assessments. Upon completion, students should be able to identify and discuss the methods used in terrorists' activities and complete a threat assessment for terrorists' incidents.

## CJC 212 - Ethics and Community Relations

30003
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.

## Corequisites

Take ENG-112.

## CJC 214 - Victimology

30003
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.

## CJC 221 - Investigative Principles

32004
This course introduces the theories and fundamentals of the investigative process. Topics include crime scene/incident processing, information gathering techniques, collection/preservation of evidence, preparation of appropriate reports, court presentations, and other related topics. Upon completion, students should be able to identify, explain, and demonstrate the techniques of the investigative process, report preparation, and courtroom presentation.

## CJC 223 - Organized Crime

30003
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.

## CJC 231 - Constitutional Law

30003
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.

CJC 233 - Correctional Law
30003
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.

## CJC 241 - Community-Based Corrections <br> 30003

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.

## CMT - Construction Management

## CMT 210 - Prof. Construction Supervision <br> 30003

This course introduces the student to the fundamentals of effective supervision emphasizing professionalism through knowledge and applied skills. Topics include safety, planning and scheduling, contracts, 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.

## CMT 212 - Total Safety Performance

30003
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, the student should be able to properly supervise safety at a construction jobsite and qualify for OSHA Training Certification.

## Corequisites

Take CMT-210.

## CMT 214 - Planning and Scheduling

This course covers the need for and the process of planning construction projects, as well as the mechanics and vocabulary of project scheduling. Topics include project preplanning, scheduling formats, 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.

## Prerequisites

Take CMT-210 BPR-130;

## CMT 216 - Costs and Productivity

30003
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.

## Prerequisites

## Take CMT-210;

## CMT 218 - Human Relations Issues

30003
This course provides instruction on human relations issues as they relate to construction project supervision. Topics include relationships, human behavior, 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.

## Prerequisites

Take CMT-210;

## COE - Cooperative Education

## COE 110 - World of Work

10001
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.

## COE 111 - Co-Op Work Experience I

000101
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.

Completion of 12 credit hours with at least a 2.25 cumulative GPA is required.

## COE 112 - Co-Op Work Experience I

000202
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.

Completion of 12 credit hours with at least a 2.25 cumulative GPA is required.

COE 113 - Co-Op Work Experience I
000303
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.

Completion of 12 credit hours with at least a 2.25 cumulative GPA is required.

## COE 114 - Co-Op Work Experience I

000404
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.

Completion of 12 credit hours with at least a 2.25 cumulative GPA is required.

## COE 121 - Co-Op Work Experience II

000101
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.

## Prerequisites

Take COE-111 COE-112 COE-113 or COE-114;

## COE 122 - Co-Op Work Experience II

000202
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.

## Prerequisites

Take COE-111 COE-112 COE-113 or COE-114;

## COE 123 - Co-Op Work Experience II

000303
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.

## Prerequisites

Take COE-111 COE-112 COE-113 or COE-114;

## COE 131 - Co-Op Work Experience III

000101
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.

## Prerequisites

Take COE-121 COE-122 or COE-123;

## COE 132 - Co-Op Work Experience III

000202
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.

## Prerequisites

Take COE-121 COE-122 or COE-123;

## COE 211 - Co-Op Work Experience IV

000101
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.

## Prerequisites

Take COE-131 or COE-132;

## COM - Communication

## COM 110 - Introduction to Communication 30003

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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in Humanities/Fine Arts (Substitute). This course may satisfy a general education requirement for Catawba College.

COM 120 - Intro to Interpersonal Comm.
30003
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, selfdisclosure, 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).
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in Humanities/Fine Arts (Substitute).
This course is also available through the Virtual Learning Community (VLC).

## COM 130 - Nonverbal Communication

30003
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 pre-major and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Prerequisites

Take COM-110 or COM-120(S21722);
COM 140 - Intro. to Intercultural Comm.
30003
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 for transfer under the Comprehensive Articulation Agreement as a general education course in Humanities/Fine Arts (Substitute). This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in Humanities/Fine Arts (Substitute).

## COM 150 - Intro. to Mass Communication

30003
This course introduces print and electronic media and the new information technologies in terms of communication theory and as economic, political, and social institutions. Topics include 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 be able to demonstrate awareness of the pervasive nature of mass media and how media operate in an advanced post-industrial society.
This course has been approved for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Prerequisites

## Take ENG-111;

## COM 160 - Small Group Communication

30003
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 for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## COM 231 - Public Speaking

30003
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 has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in Humanities/Fine Arts (Substitute). This course may satisfy a general education requirement for Catawba College.

## COM 232 - Election Rhetoric

 30003This 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 pre-major and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

COM 233 - Persuasive Speaking
30003
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 for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Prerequisites

Take ENG-112 or ENG-113;
COM 251 - Debate I
30003
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 for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Prerequisites

Take COM-231;

## COM 252 - Debate II

30003
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 for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Prerequisites

Take COM-251;

## COS - Cosmetology

## COS 111 - Cosmetology Concepts I <br> 40004

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.

## Corequisites

## Take COS-112.

## COS 111AB - Cosmetology Concepts I-Part A 20002

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.

## Corequisites

Take COS-112AB.

## COS 111BB - Cosmetology Concepts I-Part B 20002

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.

## Corequisites

Take COS-112BB.
Prerequisites
Take COS-111AB;

## COS 112 - Salon I

024008
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.

## Corequisites

Take COS-111.

## COS 112AB - Salon I-Part A

012004
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.

## Corequisites

Take COS-111AB.

## COS 112BB - Salon I-Part B

012004
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.

## Corequisites

Take COS-111BB.
Prerequisites
Take COS-112AB;

## COS 113 - Cosmetology Concepts II

40004
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.

## Corequisites

Take COS-114.

## Prerequisites

Take COS-111;

## COS 113AB - Cosmetology Concepts II-Part A 20002

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.

## Corequisites

Take COS-114AB.

## Prerequisites

Take COS-111;

## COS 113BB - Cosmetology Concepts II-Part B 20002

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.

## Corequisites

Take COS-114BB.
Prerequisites
Take COS-111 COS-113AB;

## COS 114 - Salon II

024008
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.

## Corequisites

Take COS-113.

## Prerequisites

Take COS-112;

## COS 114AB - Salon II-Part A

012004
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.

## Corequisites

Take COS-113AB.

## Prerequisites

Take COS-112;

## COS 114BB - Salon II-Part B

012004
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.

## Corequisites

Take COS-113BB.

## Prerequisites

Take COS-112 COS-114AB;

## COS 115 - Cosmetology Concepts III

40004
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.

## Corequisites

Take COS-116.
Prerequisites
Take COS-111;

COS 115AB - Cosmetology Concepts III-Part A 20002
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.

## Corequisites

Take COS-116AB.

## Prerequisites

Take COS-111;

## COS 115BB - Cosmetology Concepts III-Part B 20002

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.

## Corequisites

Take COS-116BB.

## Prerequisites

Take COS-111 COS-115AB

## COS 116 - Salon III

012004
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.

## Corequisites

Take COS-115.

## Prerequisites

Take COS-112;

## COS 116AB - Salon III-Part A

06002
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.

## Corequisites

Take COS-115AB.
Prerequisites
Take COS-112;

## COS 116BB - Salon III-Part B

06002
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.

## Corequisites

Take COS-115BB.
Prerequisites
Take COS-112 COS-116AB;

## COS 117 - Cosmetology Concepts IV <br> 20002

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.

## Corequisites

Take COS-118.
Prerequisites
Take COS-115;

## COS 117AB - Cosmetology Concepts IV-Part A 10001

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.

## Corequisites

Take COS-118AB.

## Prerequisites

Take COS-115;

## COS 117BB - Cosmetology Concepts IV-Part B 10001

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.

## Corequisites

Take COS-118BB.

## Prerequisites

Take COS-115 COS-117AB;

## COS 118 - Salon IV

021007
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.

## Corequisites

Take COS-117.
Prerequisites
Take COS-116;

## COS 118AB - Salon IV-Part A

011004
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.

## Corequisites

Take COS-117AB.

## Prerequisites

Take COS-116;

## COS 118BB - Salon IV-Part B

011004
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.

## Corequisites

Take COS-117BB.

## Prerequisites

Take COS-116 COS-118AB;

## COS 119 - Esthetics Concepts I

20002
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.

## Corequisites

Take COS-120.

## COS 119AB - Esthetics Concepts I - Part 1

10001
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.

## Corequisites

Take COS-120AB.

## COS 119BB - Esthetics Concepts I - Part 2 <br> 10001

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.

## Corequisites

Take COS-120BB.
Prerequisites
Take COS-119AB;

## COS 120 - Esthetics Salon I

018006
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.

## Corequisites

Take COS-119.

## COS 120AB - Esthetics Salon I - Part 1

09003
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.

## Corequisites

Take COS-119AB.

## COS 120BB - Esthetics Salon I - Part 2

09003
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.

## Corequisites

Take COS-119BB.

## Prerequisites

Take COS-120AB;

COS 121 - Manicure/Nail Technology I
46006
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.

## COS 125 - Esthetics Concepts II

20002
This course covers more comprehensive esthetics concepts. Topics include nutrition, business management, makeup, and color analysis.Upon completion students should be able to demonstrate an understanding of the advanced esthetics concepts and meet course requirements.

## Corequisites

Take COS-126.

## Prerequisites

Take COS-119 COS-120(S10851);
COS 125AB - Esthetics Concepts II-Part A 10001
This course covers more comprehensive esthetics concepts. Topics include nutrition, business management, makeup, and color analysis.Upon completion students should be able to demonstrate an understanding of the advanced esthetics concepts and meet course requirements.

## Corequisites

Take COS-126AB.

## Prerequisites

Take COS-119 COS-120(S10851);

## COS 125BB - Esthetics Concepts II-Part B 10001

This course covers more comprehensive esthetics concepts. Topics include nutrition, business management, makeup, and color analysis.Upon completion students should be able to demonstrate an understanding of the advanced esthetics concepts and meet course requirements.

## Corequisites

Take COS-126BB.
Prerequisites
Take COS-119 COS-120(S10851) COS-125AB;

## COS 126 - Esthetics Salon II

018006
This course provides experience in a simulated esthetics setting. Topics include machine facials, aromatherapy, 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.

## Corequisites

Take COS-125

## Prerequisites

Take COS-119 COS-120(S10851);

## COS 126AB - Esthetics Salon II-Part A

09003
This course provides experience in a simulated esthetics setting. Topics include machine facials, aromatherapy, 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.

## Corequisites

Take COS-125AB.

## Prerequisites

Take COS-119 COS-120(S10851);

## COS 126BB - Esthetics Salon II-Part B <br> 09003

This course provides experience in a simulated esthetics setting. Topics include machine facials, aromatherapy, 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.

## Corequisites

Take COS-125BB.

## Prerequisites

Take COS-119 COS-120(S10851) COS-126AB;

## COS 222 - Manicure/Nail Technology II

46006
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.

## Prerequisites

Take COS-121;

## COS 223 - Contemporary Hair Coloring 13002

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 clients color needs and safely and competently perform color applications and correct problems.

## Corequisites

Take COS-240.
Prerequisites
Take COS-111 COS-112; Take COS-115 COS-116;

COS 240 - Contemporary Design
13002
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.

## Corequisites

Take COS-223.

## Prerequisites

Take COS-111 COS-112; Take COS-115 COS-116;

## COS 251 - Manicure Instructional Concepts 80008

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.
Current North Carolina Manicurist or Cosmetologist License and six months experience as a licensed cosmetologist or manicurist is required.

## Corequisites

Take COS-252.

## COS 252 - Manicure Instructional Practicum 015005

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.
Current North Carolina Manicurist or Cosmetologist License and six months experience as a licensed cosmetologist or manicurist is required.

## Corequisites

Take COS-251.

## COS 253 - Esthetics Instructional Concepts I 6150011

This course introduces esthetic instructional concepts and skills. Topics include orientation, theories of education, unit planning, daily lesson plans, laboratory management, 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.
Current North Carolina Cosmetologist or Esthetician License and six months experience as a licensed esthetician or cosmetologist is required.

## COS 254 - Esthetic Instructional Concepts II

6150011
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 demonostrate competencies in the areas covered by the Esthetics Instructor Licensing Examination and meet program requirements.
Current North Carolina Cosmetologist or Esthetician License and six months experience as a licensed esthetician or cosmetologist is required.

## COS 271 - Instructor Concepts I

50005
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.
Current North Carolina Cosmetologist License and six months experience as a licensed cosmetologist is required.

## Corequisites

Take COS-272.

## COS 272 - Instructor Practicum I

021007
This course covers supervisory and instructional skills for teaching entry-level cosmetology students in a laboratory setting.
Topics include demonstrations of services, supervision, and entrylevel student assessment. Upon completion, students should be able to demonstrate salon services and instruct and objectively assess the entry-level student.
Current North Carolina Cosmetologist License and six months experience as a licensed cosmetologist is required.

## Corequisites

Take COS-271.

## COS 273 - Instructor Concepts II

50005
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.

## Corequisites

Take COS-274.

## Prerequisites

Take COS-271 COS-272;

COS 274 - Instructor Practicum II
021007
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.

## Corequisites

Take COS-273.
Prerequisites
Take COS-271 COS-272;

## CSC - Computer Science

## CSC 134 - C++ Programming

23003
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 premajor and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.
This course is also available through the Virtual Learning Community (VLC).

## Corequisites

Take CIS-115 or ELN-133.

## Prerequisites

\# Take MAT-070 MAT-080 MAT-090 MAT-095 MAT120(S20803) MAT-121(S20804) MAT-161(S20916) MAT-171(S20807) or MAT-175; \# Take CTS-080 RED-090;

## CSC 139 - Visual BASIC Programming

23003
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 for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.
This course is also available through the Virtual Learning Community (VLC).

## Corequisites

Take CIS-115 or ELN-133.

## Prerequisites

\# Take MAT-070 MAT-080 MAT-090 MAT-095 MAT120(S20803) MAT-121(S20804) MAT-161(S20916) MAT-171(S20807) or MAT-175; \# Take CTS-080 RED-090;

## CSC 151 - JAVA Programming

23003
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. Upon completion students should be able to design, code, test, debug JAVA language programs. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Prerequisites

```
# Take MAT-070 MAT-080 MAT-090 MAT-095 MAT-
120(S20803) MAT-121(S20804) MAT-161(S20916) MAT-
171(S20807) or MAT-175; # Take CTS-080 RED-090;
# Take CIS-115(S21061) or CSC-134(S21066);
```


## CSC 153 - C\# Programming

23003
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.

## Prerequisites

\# Take MAT-070 MAT-080 MAT-090 MAT-095 MAT120(S20803) MAT-121(S20804) MAT-161(S20916) MAT-171(S20807) MAT-175; \# Take CTS-080 RED090; \# Take CIS-115(S21061) or CSC-134(S21066);

CSC 234 - Advanced C++ Programming
23003
This course is a continuation of CSC 134 using the C++ programming language with standard programming principles. Emphasis is placed on advanced arrays/tables, file management/processing techniques, data structures, sub-programs, interactive processing, sort/merge routines, and libraries. Upon completion, students should be able to design, code, test, debug and document programming solutions.

## Prerequisites

Take CSC-134(S21066); Take CIS-115(S21061);

## CSC 239 - Advanced Visual BASIC Prog. <br> 23003

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 for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.
This course is also available through the Virtual Learning Community (VLC).

## Prerequisites

Take CSC-139(S21071); Take CIS-115(S21061);

## CSC 251 - Advanced JAVA Programming <br> 23003

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.

## Prerequisites

Take CSC-151; Take CIS-115(S21061);
CSC 253 - Advanced C\# Programming
23003
This course is a continuation of CSC 153 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.

## Prerequisites

Take CSC-153;

## CSC 289 - Programming Capstone Project

14003
This course provides an opportunity to complete a significant programming project from the design phase through implementation with minimal instructor support. Emphasis is placed on project definition, testing, presentation, and implementation. Upon completion, students should be able to complete a project from the definition phase through implementation.

## Prerequisites

Take CTS-285; Take CIS-115(S21061) CSC-134(S21066)
CSC-139(S21071); and completion of 36 credit hours

## CST - Construction

## CST 110 - Intro to Construction

12002
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.

## CST 131 - OSHA/Safety/Certification

22003
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.

## CST 231 - Soils and Site Work

32004
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.

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Prerequisites
Take MAT-115(S20802) MAT-120(S12252) MAT-
121(S13643) MAT-161(S20916) MAT-171(S11257) or
MAT-175;
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## CST 241 - Planning/Estimating I

22003
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.

## Prerequisites

Take BPR-130 MAT-120(S12252) MAT-121(S13643)
MAT-161(S16425) MAT-171(S11257) or MAT-175;

## CTI - Computer Technology Integration

CTI 110 - Web, Prog., and Database Foundation 22003

This course covers the introduction of the tools and resources available to students in programming, mark-up language and services on the Internet. Topics include standard mark-up language Internet services, creating web pages, using search engines, file transfer programs; and database design and creation with DBMS products. Upon completion students should be able to demonstrate knowledge of programming tools, deploy a web-site with mark-up tools, and create a simple database table.

## CTI 120 - Network and Security Foundation <br> 22003

This course introduces students to the Network concepts, including networking terminology and protocols, local and wide area networks, and network standards. Emphasis is placed on securing information systems and the various implementation policies. Upon completion, students should be able to perform basic tasks related to networking mathematics, terminology, media and protocols.

## CTS - Computer Information Technology

CTS 080 - Computing Fundamentals<br>23003

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.

## CTS 115 - Info. Systems Business Concepts 30003

The course introduces the role of IT in managing business processes and the need for business process and IT alignment. Emphasis is placed on industry need for understanding business challenges and developing/managing information systems to contribute to the decision making process based on these challenges. Upon completion, students should be able to demonstrate knowledge of the 'hybrid business manager' and the potential offered by new technology and systems.

## CTS 120 - Hardware/Software Support

23003
This course covers the basic hardware of a personal computer, including installation, operations and interactions with software. Topics include component identification, memory-system, peripheral installation and configuration, preventive maintenance, hardware diagnostics/repair, installation and optimization of system software, commercial programs, system configuration, and device-drivers. Upon completion, students should be able to select appropriate computer equipment and software, upgrade/ maintain existing equipment and software, and troubleshoot/repair non-functioning personal computers.

## Prerequisites

Take CIS-110(S21058) CIS-110(S12456) CIS-111(S21059) or CIS-111(S12478);

## CTS 125 - Presentation Graphics

22003
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.

## Prerequisites

Take CIS-110(S21058) or CIS-111(S21059);

## CTS 130 - Spreadsheet

22003
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.

## Prerequisites

Take CIS-110(S21058) CIS-111(S21059) or OST137(S14241); Take MAT-060;

## CTS 135 - Integrated Software Intro

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.

## Prerequisites

Take CIS-110(S21058) or CIS-111(S21059);

## CTS 155 - Tech Support Functions <br> 22003

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.

CTS 210 - Computer Ethics
30003
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.

## Prerequisites

Take NET-110(S21056) CIS-110(S21058) CIS-111(S21059) or TNE-111(S10460);

## CTS 220 - Adv. Hardware/Software Support <br> 23003

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.

## Prerequisites

Take CTS-120;

## CTS 230 - Advanced Spreadsheet

22003
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.

## Prerequisites

## Take CTS-130;

## CTS 240 - Project Management

22003
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.

## Prerequisites

Take CIS-110(S21058) or CIS-111(S21059);

## CTS 285 - Systems Analysis and Design

30003
This course introduces established and evolving methodologies for the analysis, design, and development of an information system. Emphasis is placed on system characteristics, managing projects, prototyping, CASE/OOM tools, and systems development life cycle phases. Upon completion, students should be able to analyze a problem and design an appropriate solution using a combination of tools and techniques.

## Prerequisites

Take CIS-115(S20794);

## CTS 289 - System Support Project

14003
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.

## Prerequisites

Take CTS-285; Take CTS-135 DBA-115;

## DBA - Database Management Technology

## DBA 110 - Database Concepts

23003
This course introduces database design and creation using a DBMS product. Emphasis is placed on data dictionaries, normalization, data integrity, data modeling, and creation of simple tables, queries, reports, and forms. Upon completion, students should be able to design and implement normalized database structures by creating simple database tables, queries, reports, and forms.

## Prerequisites

Take CIS-110(S21058) or CIS-110(S12456);

## DBA 115 - Database Applications

22003
This course applies concepts learned in DBA 110 to a specific DBMS. Topics include manipulating multiple tables, advanced queries, screens and reports, linking, and command files. Upon completion, students should be able to create multiple table systems that demonstrate updates, screens, and reports representative of industry requirements.

## Prerequisites

Take DBA-110; Take DBA-110; Minimum grade C;

## DBA 120 - Database Programming I

22003
This course is designed to develop SQL programming proficiency. Emphasis is placed on data definition, data manipulation, and data control statements as well as on report generation. Upon completion, students should be able to write programs which create, update, and produce reports.

## DDF - Design Drafting

## DDF 211 - Design Process I

16004
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.

## Prerequisites

Take DFT-112(S16296);

## DEN - Dental

## DEN 100 - Basic Orofacial Anatomy <br> 20002

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 course is restricted to diploma and/or certificate programs.

## DEN 101 - Preclinical Procedures

46007
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 course is restricted to diploma and/or certificate programs.

## DEN 102 - Dental Materials

34005
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 course is restricted to diploma and/or certificate programs.

## DEN 103 - Dental Sciences

20002
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 course is restricted to diploma and/or certificate programs.

## DEN 103AB - Dental Sciences - Part A

10001
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 course is restricted to diploma and/or certificate programs.

## DEN 103BB - Dental Sciences - Part B <br> 10001

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 course is restricted to diploma and/or certificate programs.

## DEN 104 - Dental Health Education

22003
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 course is restricted to diploma and/or certificate programs.

## DEN 105 - Practice Management

20002
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 course is restricted to diploma and/or certificate programs.

## DEN 105AB - Practice Management - Part A 10001

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 course is restricted to diploma and/or certificate programs.

## DEN 105BB - Practice Management - Part B 10001

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 course is restricted to diploma and/or certificate programs.

## DEN 106 - Clinical Practice I

101205
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 course is restricted to diploma and/or certificate programs.

## Prerequisites

Take DEN-101(S20496);

## DEN 107 - Clinical Practice II

101205
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 course is restricted to diploma and/or certificate programs.

## Prerequisites

Take DEN-106(S14145);

DEN 111 - Infection/Hazard Control
20002
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.

DEN 112 - Dental Radiography
23003
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.

## DFT - Drafting

DFT 111 - Technical Drafting I
13002
This course introduces basic drafting skills, equipment, and applications. Topics include sketching, measurements, lettering, dimensioning, geometric construction, orthographic projections and pictorials drawings, sections, and auxiliary views. Upon completion, students should be able to understand and apply basic drawing principles and practices.

## Corequisites

Take DFT-111A.

## DFT 111A - Technical Drafting I Lab

03001
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.

## Corequisites

Take DFT-111 and DFT-151.

## DFT 112 - Technical Drafting II

13002
This course provides for advanced drafting practices and procedures. Topics include detailed working drawings, hardware, fits and tolerances, assembly and sub-assembly, geometric dimensioning and tolerancing, intersections, and developments. Upon completion, students should be able to produce detailed working drawings.

## Corequisites

Take DFT-112A.
Prerequisites
Take DFT-111(S16295) or DFT-111(S12693);

## DFT 112A - Technical Drafting II Lab

03001
This course provides a laboratory setting to enhance advance 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.

## Corequisites

Take DFT-112.
DFT 121 - Intro. to Geometric Dimension \& Tolerance1 2002
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.

## Prerequisites

Take DFT-111(S16295);

## DFT 151 - CAD I

23003
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.

## DFT 152 - CAD II

23003
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.

## Prerequisites

Take DFT-151;

## DFT 153 - CAD III

23003
This course introduces advanced CAD applications. Emphasis is placed upon advanced applications of CAD skills. Upon completion, students should be able to use advanced CAD applications to generate and manage data.

## Prerequisites

Take DFT-152(S20642);
DFT 170 - Engineering Graphics
22003
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. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## DRA - Drama/Theatre

## DRA 111 - Theatre Appreciation

30003
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.

This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.

## DRA 112 - Literature of the Theatre

30003
This course provides a survey of dramatic works from the classicalGreek through the present. Emphasis is placed on the language ofdrama, critical theory, and background as well as on play reading andanalysis. Upon completion, students should be able to articulate,orally and in writing, their appreciation and understanding ofdramatic works. This course has been approved to satisfy the Comprehensive Articulation Agreement general education corerequirement in humanities/fine arts.

This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.

## DRA 122 - Oral Interpretation

30003
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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.

## DRA 126 - Storytelling

30003
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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.

## DRA 130 - Acting I

06003
This course provides an applied study of the actor's craft. Topics include role analysis, training the voice, and body concentration, discipline, and self-evaluation. Upon completion, students should be able to explore their creativity in an acting ensemble.
This course has been approved for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## DRA 170 - Play Production I

09003
This course provides an applied laboratory study of the processes involved in the production of a play. Topics include fundamental practices, principles, and techniques associated with producing plays of various periods and styles. Upon completion, students should be able to participate in an assigned position with a college theatre production.
This course has been approved for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## ECM - Electronic Commerce

ECM 210 - Introduction to E-Commerce
22003
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, and site administration. Upon completion, students should be able to setup a working e-commerce Internet web site.

## ECO - Economics

## ECO 151 - Survey of Economics

30003
This course, for those who have not received credit for ECO 251 or 252 , 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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences.

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Prerequisites
Take MAT-080 MAT-115(S20802) MAT 120 MAT-
121(S20804) MAT-122(S20805) MAT-140(S20907)
MAT-151(S21171) MAT-161(S20916) MAT-175 MAT-
263(S20922) MAT-271 MAT-272 or MAT-273;
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ECO 251 - Principles of Microeconomics
30003
This course introduces economic analysis of individual, business, and industry in the market economy. Topics include the price mechanism, supply and demand, optimizing economic behavior, costs and revenue, market structures, factor markets, income distribution, market failure, and government intervention. Upon completion, students should be able to identify and evaluate consumer and business alternatives in order to efficiently achieve economic objectives.
This course has been approved for transfer under the Comprehensive Articulation Agreement as a general education course in social/behavioral sciences. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences. This course may satisfy a general education requirement for Catawba College.

This course is available through the Virtual Learning Community (VLC).

## Prerequisites

Take MAT-080 MAT-115(S20802) MAT 120 MAT121(S20804) MAT-122(S20805) MAT-140(S20907) MAT-151(S21171) MAT-161(S20916) MAT-175 MAT263(S20922) MAT-271 MAT-272 or MAT-273;

## ECO 252 - Principles of Macroeconomics

30003
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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences. This course may satisfy a general education requirement for Catawba College.

## Prerequisites

Take MAT-080 MAT-115(S20802) MAT 120 MAT-
121(S20804) MAT-122(S20805) MAT-140(S20907)
MAT-151(S21171) MAT-161(S20916) MAT-175 MAT-
263(S20922) MAT-271 MAT-272 or MAT-273;

## EDU - Education

## EDU 118 - Princ. and Prac. of the Instructional Asst. 30003

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.

## Prerequisites

Take 1 group; \# Take ENG-080 RED-080; \# Take ENG-085;

## EDU 119 - Introduction to Early Childhood Educ|Education

40004
This course covers the foundations of the education profession, the diverse educational settings for young children, professionalism and planning developmentally appropriate programs for all children. Topics include historical foundations, program types, career options, professionalism and creating inclusive environments and curriculum responsive to the needs of all children and families. Upon completion, students should be able to design career plans and develop schedules, environments and activity plans appropriate for 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.

## EDU 131 - Child, Family, and Community

30003
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.

## Prerequisites

Take 1 group; \# Take ENG-080 RED-080; \# Take ENG-085;

EDU 144 - Child Development I
30003
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 for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course may satisfy a major course for the Birth-Kindergarten Education Major at Catawba College, UNCCharlotte and Livingstone College.

## Prerequisites

Take 1 group; \# Take ENG-080 RED-080; \# Take ENG-085;

## EDU 145 - Child Development II

30003
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 has been approved for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course may satisfy a major course for the Birth-Kindergarten Education Major at Catawba College, UNCCharlotte and Livingstone College.

## Prerequisites

Take 1 group; \# Take ENG-080 RED-080; \# Take ENG-085;

## EDU 146 - Child Guidance

30003
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 for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course may satisfy a major course for the Birth-Kindergarten Education Major at Catawba College, UNCCharlotte and Livingstone College.

## Prerequisites

Take 1 group; \# Take ENG-080 RED-080; \# Take ENG-085;

## EDU 151 - Creative Activities

30003
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 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.

## Prerequisites

Take 1 group; \# Take ENG-080 RED-080; \# Take ENG-085;

## EDU 153 - Health, Safety and Nutrition

30003
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 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.

## Prerequisites

Take 1 group; \# Take ENG-080 RED-080; \# Take ENG-085;

## EDU 162 - Observation and Assess. in Early Childhood Education

30003
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.

## Prerequisites

Take 1 group; \# Take ENG-080 RED-080; \# Take ENG-085;

EDU 163 - Classroom Mgmt. and Instruction 30003
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.

## Prerequisites

Take 1 group; \# Take ENG-080 RED-080; \# Take ENG-085;

## EDU 184 - Early Childhood Intro. Practicum 13002

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.

## Prerequisites

Take 1 group; \# Take EDU-119(S20176) ENG-080
RED-080; \#Take EDU-119(S20176) ENG-085;

## EDU 221 - Children With Exceptionalities 30003

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 for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement at select institutions. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement at select institutions. 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 is a writing intensive course.

## Prerequisites

Take 1 group; \# Take ENG-090 RED-090 EDU144(S22288) EDU-145(S22289); \# Take ENG-090 RED-090 PSY-244(S12069) PSY-245(S11997); \# Take ENG-095 EDU-144(S22288) EDU-145(S22289); \# Take ENG-095 PSY-244(S12069) PSY-245(S11997);

## EDU 234 - Infants, Toddlers, and Twos

30003
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.

## Prerequisites

Take 1 group; \# Take ENG-090 RED-090 EDU119(S22283); \#Take ENG-095 EDU-119(S22283);

## EDU 235 - School-Age Dev. and Programs 30003

This course includes developmentally appropriate practices in group settings for school-age children. Emphasis is placed on principles of development, environmental planning, and positive guidance techniques. Upon completion, students should be able to discuss developmental principles for all children ages five to twelve and plan and implement developmentally-appropriate activities.

## Prerequisites

Take 1 group; \# Take ENG-090 RED-090; \# Take ENG-095;

## EDU 247 - Sensory and Physical Disabilities 30003

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.

## Prerequisites

Take 1 group; \# Take ENG-090 RED-090 EDU144(S22288) EDU-145(S22289); \# Take ENG-090 RED-090 PSY-244(S12069) PSY-245(S11997); \# Take ENG-095 EDU-144(S22288) EDU-145(S22289); \# Take ENG-095 PSY-244(S12069) PSY-245(S11997);

## EDU 251 - Exploration Activities

30003
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.

## Prerequisites

Take 1 group; \# Take ENG-090 RED-090; \# Take ENG-095;

EDU 254 - Music and Movement for Children 12002
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.

## Prerequisites

Take 1 group; \# Take ENG-090 RED-090; \# Take ENG-095;

## EDU 259 - Curriculum Planning

30003
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.

## Prerequisites

Take 1 group; \# Take ENG-090 RED-090 EDU119(S22283); \#Take ENG-095 EDU-119(S22283);

## EDU 261 - Early Childhood Administration I 30003

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. This course is also available through the Virtual Learning Community (VLC).

## Corequisites

Take EDU-119.

## Prerequisites

Take 1 group; \# Take ENG-090 RED-090; \# Take ENG-095;

## EDU 262 - Early Childhood Administration II 30003

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. This course is also available through the Virtual Learning Community (VLC).

## Corequisites

Take EDU-119.

## Prerequisites

Take 1 group; \# Take ENG-090 RED-090 EDU261(S22346); \#Take ENG-095 EDU-261(S22346);

## EDU 271 - Educational Technology

22003
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.

## Prerequisites

Take 1 group; \# Take ENG-090 RED-090; \# Take ENG-095;

EDU 280 - Language and Literacy Experiences 30003
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.

## Prerequisites

Take 1 group; \# Take ENG-090 RED-090; \# Take ENG-095;

## EDU 281 - Instructional Strategies in Reading and|Writing <br> 22003

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. This course is also available through the Virtual Learning Community (VLC).

## Prerequisites

Take 1 group; \# Take ENG-090 RED-090; \# Take ENG-095;

## EDU 282 - Early Childhood Literature

30003
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 is a writing intensive course.

## Prerequisites

Take 1 group; \# Take ENG-090 RED-090; \# Take ENG-095;

EDU 284 - Early Childhood Capstone Practicum 19004
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.

## Prerequisites

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Take 1 group; # Take ENG-090 RED-090 EDU-
119(S22283) PSY-244(S12069) PSY-245(S11997)
EDU-146(S22290) EDU-151(S22294); # Take ENG-
090 RED-090 EDU-119(S22283) EDU-144(S22288)
EDU-145(S22289) EDU-146(S22290) EDU-151(S22294);
# Take ENG-090 RED-090 EDU-119(S22283) EDU-
144(S22288) PSY-245(S11997) EDU-146(S22290)
EDU-151(S22294); # Take ENG-090 RED-090 EDU-
119(S22283) EDU-145(S22289) PSY-244(S12069)
EDU-146(S22290) EDU-151(S22294); #Take ENG-095
EDU-119(S22283) PSY-244(S12069) PSY-245(S11997)
EDU-146(S22290) EDU-151(S22294); # Take ENG-095
EDU-119(S22283) EDU-144(S22288)EDU-145(S22289)
EDU-146(S22290) EDU-151(S22294); # Take ENG-095
EDU-119(S22283) EDU-144(S22288) PSY-245(S11997)
EDU-146(S22290) EDU-151(S22294); # Take ENG-095
EDU-119(S22283) EDU-145(S22289) PSY-244(S12069)
EDU-146(S22290) EDU-151(S22294);
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## EDU 285 - Internship Experiences-School Age 19004

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.

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Prerequisites
Take 1 group; # Take ENG-090 RED-090 PSY-
244(S12069) PSY-245(S11997) EDU-118(S22282)
EDU-163(S22306); # Take ENG-090 RED-090 EDU-
144(S22288) EDU-145(S22289) EDU-118(S22282)
EDU-163(S22306); #Take ENG-090 RED-090 EDU-
145(S22289) PSY-244(S12069) EDU-118(S22282)
EDU-163(S22306); # Take ENG-090 RED-090
EDU-144(S22288) PSY-245(S11997)EDU-118(S22282)
EDU-163(S22306); # Take ENG-090 RED-090 PSY-
244(S12069) PSY-245(S11997) EDU-216(S22317)
EDU-163(S22306); # Take ENG-090 RED-090 EDU-
144(S22288) EDU-145(S22289) EDU-216(S22317)
EDU-163(S22306); # Take ENG-090 RED-090 EDU-
144(S22288) PSY-245(S11997) EDU-216(S22317)
EDU-163(S22306); #Take ENG-090 RED-090 EDU-
145(S22289) PSY-244(S12069) EDU-216(S22317)
EDU-163(S22306); # Take ENG-095 PSY-244(S12069)
PSY-245(S11997) EDU-118(S22282) EDU-163(S22306);
# Take ENG-095 EDU-144(S22288) EDU-145(S22289)
EDU-118(S22282) EDU-163(S22306); # Take ENG-095
EDU-144(S22288) PSY-245(S11997) EDU-118(S22282)
EDU-163(S22306); # Take ENG-095 EDU-145(S22289)
PSY-244(S12069) EDU-118(S22282) EDU-163(S22306);
# Take ENG-095 PSY-244(S12069) PSY-245(S11997)
EDU-216(S22317) EDU-163(S22306); # Take ENG-095
EDU-144(S22288) EDU-145(S22289) EDU-216(S22317)
EDU-163(S22306); # Take ENG-095 EDU-144(S22288)
PSY-245(S11997) EDU-216(S22317) EDU-163(S22306);
# Take ENG-095 EDU-145(S22289) PSY-244(S12069)
EDU-216(S22317) EDU-163(S22306);
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## EDU 289 - Advanced Issues/School Age <br> 20002

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.

## Prerequisites

Take 1 group; \# Take ENG-090 RED-090; \# Take ENG-095;

## EGR - Engineering

## EGR 115 - Introduction to Technology <br> 23003

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.

## EGR 125 - Applications Software for Tech. <br> 12002

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 programs 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.

## EGR 131 - Intro. to Electronics Technology 12002

This course introduces the basic skills required for electrical/ electronics technicians. Topics include soldering/desoldering, 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/desolder, operate test equipment, apply problem-solving techniques, and use a scientific calculator.

## EGR 150 - Intro to Engineering

12002
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 for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## EGR 285 - Design Project

04002
This course provides the opportunity to design an instructorapproved project using previously acquired skills. Emphasis is placed on selection, proposal, design, testing, and documentation of the approved project. Upon completion, students should be able to present and demonstrate projects.

## Prerequisites

Take ELN-131(S21622) ELN-133(S16330);

## ELC - Electrical

## ELC 112 - DC/AC Electricity

36005
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, troubleshoot, and repair DC/AC circuits.

## Corequisites

Take ELC-126.

## ELC 113 - Basic Wiring I

26004
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, layout; and installation of electrical distribution equipment; lighting; overcurrent protection; conductors; branch circuits; and conduits. Upon completion, students should be able to properly install conduits, wiring, and electrical distribution equipment associated with basic electrical installations.

## Corequisites

Take ELC-118.

## ELC 115 - Industrial Wiring

26004
This course covers layout, planning, and installation of wiring systems in industrial facilities. Emphasis is placed on industrial wiring methods and materials. Upon completion, students should be able to install industrial systems and equipment.

## Prerequisites

Take ELC-113 ELC-117(S21589);

## ELC 117 - Motors and Controls

26004
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.

## Prerequisites

Take ELC-111 ELC-112(S21587) or ELC-131(S21593);

## ELC 118 - National Electrical Code <br> 12002

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.

## ELC 119 - NEC Calculations

12002
This course covers branch circuit, feeder, and service calculations. Emphasis is placed on sections of the National Electrical Code related to calculations. Upon completion, students should be able to use appropriate code sections to size wire, conduit, and overcurrent devices for branch circuits, feeders, and service.

## Prerequisites

Take ELC-118;

ELC 125 - Diagrams and Schematics
12002
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.

## ELC 126 - Electrical Computations

22003
This course introduces the fundamental applications of mathematics which are used by an electrical/electronics 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.

## ELC 128 - Introduction to PLC

23003
This course introduces the programmable logic controller (PLC) and its associated applications. Topics include ladder logic diagrams, input/output modules, power supplies, surge protection, selection/installation of controllers, and interfacing of controllers with equipment. Upon completion, students should be able to install PLCs and create simple programs.

## Prerequisites

Take ELC-117(S21589) ELC-125 or ELN-229(S21638);

## ELC 138 - DC Circuit Analysis

23003
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.

## Corequisites

Take MAT-060.

## ELC 139 - AC Circuit Analysis

23003
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.

## ELC 215 - Electrical Maintenance

23003
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.

## Prerequisites

Take ELC-117(S21589);

ELC 228 - Programmable Logic Controllers App. 26004
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.

## Prerequisites

Take ELC-128;

## ELN - Electronics

## ELN 131 - Semiconductor Applications

33004
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.

## Corequisites

Take ELC-139.

## ELN 132 - Linear Integrated Circuits App.

33004
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.

## ELN 133 - Digital Electronics

33004
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.

## ELN 135 - Electronic Circuits

23003
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 applications.

## Prerequisites

Take ELN-131(S21622);
ELN 150 - Computer-Aided Drafting for Electronics1 3002
This course introduces computer-aided drafting (CAD) with an emphasis on applications in the electronics field. Topics include electronics industry standards (symbols, schematic diagrams, 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.

ELN 229 - Industrial Electronics
33004
This course covers semiconductor devices used in industrial applications. Topics include the basic theory, application, and operating characteristics of semiconductor devices. Upon completion, students should be able to install and/or troubleshoot these devices for proper operation in an industrial electronic circuit.

## Prerequisites

Take ELC-139;

## ELN 232 - Introduction to Microprocessors <br> 33004

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.

## ELN 234 - Communication Systems

33004
This course introduces the fundamentals of electronic communication systems. Topics include the frequency spectrum, electrical noise, modulation techniques, characteristics of transmitters and receivers, and digital communications. Upon completion, students should be able to interpret analog and digital communication circuit diagrams, analyze transmitter and receiver circuits, and use appropriate communication test equipment.

## Prerequisites

Take ELN-131(S21622) ELN-131(S13980) or ELN131(S20752);

## EMS - Emergency Medical Science

## EMS 110 - EMT-Basic

56007
This course introduces basic emergency medical care. Topics include preparatory, airway, patient assessment, medical emergencies, trauma, infants and children, and operations. Upon completion, students should be able to demonstrate the knowledge and skills necessary to achieve North Carolina State or National Registry EMT-Basic certification.

## ENG - English

## ENG 080 - Writing Foundations

32004
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.

## Prerequisites

Take 1 group; \# Take ENG-070(S16349); \# Take ENG-075;

## ENG 085 - Reading and Writing Foundations 50005

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.

## Prerequisites

Take 1 group; \# Take RED-070(S10648) ENG070(S16349); \#Take ENG-075;

ENG 090 - Composition Strategies
30003
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.

## Prerequisites

## Take ENG-080 or ENG-085;

## ENG 090A - Composition Strategies Lab

02001
This writing lab is designed to practice the skills introduced in ENG 090. 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.

## Corequisites

Take ENG-090

## Prerequisites

Take ENG-080 or ENG-085;

## ENG 091 - Fast Track Composition Strategies 10001

This course provides an intensive review of selected ENG $090-\mathrm{level}$ writing skills. Topics include the following writing skills: composing coherent paragraphs and writing effective essays. Upon completion, students should be able to write coherent paragraphs and effective essays.

## Prerequisites

Take ENG-080 or ENG-085;

## ENG 095 - Reading and Comp Strategies

50005
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 collegse 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 prerequisite for entry into a curriuum level course.

## Prerequisites

Take 1 group; \# Take RED-080 ENG-080; \# Take ENG-085;

## ENG 102 - Applied Communications II

30003
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 course is restricted to diploma and/or certificate programs.

## ENG 111 - Expository Writing

30003
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, 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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in English Composition. This course may satisfy a general education requirement for Catawba College.

## Prerequisites

Take 1 group; \# Take RED-090 ENG-090; \# Take ENG-095;

## ENG 112 - Argument-Based Research

30003
This course, the second in a series of two, introduces research techniques, documentation styles, and argumentative strategies. Emphasis is placed on analyzing information and ideas 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 Agreement general education core requirement in English composition.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in English Composition. This course may satisfy a general education requirement for Catawba College.

## Prerequisites

Take ENG-111;

ENG 113 - Literature-Based Research 30003

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 has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in English Composition. This course may satisfy a general education requirement for Catawba College.

## Prerequisites

Take ENG-111;

## ENG 114 - Pro. Research and Reporting <br> 30003

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. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in English composition.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in English Composition. This course may satisfy a general education requirement for Catawba College. 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 is available through the Virtual Learning Community (VLC)

## Prerequisites

Take ENG-111;
ENG 125 - Creative Writing I
30003
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 premajor and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement. Please note that this course is a writing intensive course.

## Prerequisites

Take ENG-111;

## ENG 126 - Creative Writing II

30003
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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement. Please note that this course is a writing intensive course.

## Prerequisites

Take ENG-125(S16350);

## ENG 131 - Introduction to Literature

30003
This course introduces the principal genres of literature. Emphasis is placed on literary terminology, devices, structure, and interpretation. Upon completion, students should be able to analyze and respond to literature.
This course has been approved for transfer under the Comprehensive Articulation Agreement as a general education course in humanities/fine arts. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts. This course may satisfy a general education requirement for Catawba College.
For the ENG-131 telecourse, ENG-112, ENG-113, or ENG-114 is a required prerequisite.

## Corequisites

Take One: ENG-112, ENG-113, or ENG-114
Prerequisites
Take ENG-111;

## ENG 132 - Introduction to Drama

30003
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 for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Corequisites

Take One: ENG-112, ENG-113, or ENG-114
Prerequisites
Take ENG-111;

ENG 231 - American Literature I
30003
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 has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts. This course may satisfy a general education requirement for Catawba College.

## Prerequisites

Take ENG-112 ENG-113 or ENG-114;

## ENG 232 - American Literature II

30003
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 has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts. This course may satisfy a general education requirement for Catawba College.

## Prerequisites

Take ENG-112 ENG-113 or ENG-114;

## ENG 235 - Survey of Film As Lit

30003
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 for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Prerequisites

Take ENG-113;

## ENG 241 - British Literature I

30003
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 has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts. This course may satisfy a general education requirement for Catawba College.

## Prerequisites

Take ENG-112 ENG-113 or ENG-114;

## ENG 242 - British Literature II

30003
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 has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts. This course may satisfy a general education requirement for Catawba College.

## Prerequisites

Take ENG-112 ENG-113 or ENG-114;

## ENG 243 - Major British Writers

30003
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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.

## Prerequisites

Take ENG-112 ENG-113 or ENG-114;

ENG 251 - Western World Literature I
30003
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 has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts. This course may satisfy a general education requirement for Catawba College.

## Prerequisites

Take ENG-112 ENG-113 or ENG-114;
ENG 252 - Western World Literature II
30003
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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.

## Prerequisites

Take ENG-112 ENG-113 or ENG-114;

## ENG 261 - World Literature I

30003
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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.
This course is available through the Virtual Learning Community (VLC).

## Prerequisites

Take ENG-112 ENG-113 or ENG-114;

## ENG 262 - World Literature II

30003
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 has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts. This course may satisfy a general education requirement for Catawba College.

## Prerequisites

Take ENG-112 ENG-113 or ENG-114;

## ENG 272 - Southern Literature

30003
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 premajor and/ or elective course requirement.

This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Prerequisites

Take ENG-112 ENG-113 or ENG-114;
ENG 273 - African-American Literature 30003
This course provides a survey of the development of AfricanAmerican 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 premajor and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.
This course is available through the Virtual Learning Community (VLC).

## Prerequisites

Take ENG-112 ENG-113 or ENG-114;

ENG 274 - Literature by Women
30003
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 premajor and/ or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Prerequisites

Take ENG-112 ENG-113 or ENG-114;

## FIP - Fire Protection

## FIP 120 - Introduction to Fire Protection

30003
This course provides an overview of the development, methods, systems and regulations that apply to the fire protection field. Topics include history, evolution, statistics, suppression, organizations, careers, curriculum, and related subjects. Upon completion, students should be able to demonstrate a broad understanding of the fire protection field.

## FIP 124 - Fire Prevention and Public Education3 0003

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.

## FIP 128 - Detection and Investigation

30003
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.

## FIP 132 - Building Construction

30003
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 and their positive or negative aspects as related to fire conditions, meeting NFPA 1021.

## FIP 136 - Inspections and Codes

30003
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.

## FIP 144 - Sprinklers and Automatic Alarms

22003
This course introduces various types of automatic sprinklers, standpipes, and fire alarm systems. Topics include wet or dry systems, testing and maintenance, water supply requirements, fire detection and alarm systems, and other related topics. Upon completion, students should be able to demonstrate a working knowledge of various sprinkler and alarm systems and required inspection and maintenance.

## FIP 164 - OSHA Standards

30003
This course covers public and private sector OSHA work site requirements. Emphasis is placed on accident prevention and reporting, personal safety, machine operations, and hazardous material handling. Upon completion, students should be able to analyze and interpret specific OSHA regulations and write workplace policies designed to achieve compliance.

## FIP 176 - HazMat: Operations

40004
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.

## FIP 184 - Wildland Fire Safety

30003
This course covers safety principles used when working in the wildland fire environment. Emphasis is placed on personal safety and working with equipment, aircraft, and fire-ground operations. Upon completion, students should be able to understand and demonstrate fire safety procedures through written and performance evaluations.

## FIP 220 - Fire Fighting Strategies

30003
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 as it relates to operations involving various emergencies in fire and non-fire situations, meeting NFPA 1021.

## FIP 221 - Advanced Fire Fighting Strategies 30003

This course covers command-level operations for multi-company/ agency operations involving fire and non-fire emergencies. Topics include advanced ICS, advanced incident analysis, commandlevel fire operations, and control of both man made and natural major disasters. Upon completion, students should be able to describe proper and accepted systems for the mitigation of emergencies at the level of overall scene command.

## Prerequisites

Take FIP-220(S13944);

FIP 224 - Fire Instructor I and II
40004
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 the requirements of the Fire Instructor I and II objectives from National Fire Protection Association (NFPA) 1041.

## FIP 229 - Fire Dynamics and Combustion

30003
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, 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.

## FIP 230 - Chemistry of Hazardous Materials I 50005

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.

## FIP 232 - Hydraulics and Water Distribution 22003

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.

## Prerequisites

Take MAT-115(S20802) MAT-120(S20803) MAT-
121(S20804) MAT-140(S20907) MAT-151(S21171) MAT161(S20916) MAT-171(S20807) or MAT-175;

## FIP 236 - Emergency Management

30003
This course covers the four phases of emergency management: mitigation, preparedness, response, and recovery. Topics include organizing for emergency management, coordinating for community resources, public sector liability, and the roles of government agencies at all levels. Upon completion, students should be able to demonstrate an understanding of comprehensive emergency management and the integrated emergency management system.

## FIP 240 - Fire Service Supervision

30003
This course covers supervisory skills and practices in the fire protection field. Topics include the supervisor's job, supervision skills, the changing work environment, managing change, organizing for results, discipline and grievances, and safety. Upon completion, students should be able to demonstrate an understanding of the roles and responsibilities of effective fire service supervision, meeting elements of NFPA 1021.

## FIP 256 - Municipal Public Relations

30003
This course is a general survey of municipal public relations and their effect on the governmental process. Topics include principles of public relations, press releases, press conferences, public information officers, image surveys, and the effects of perceived service on fire protection delivery. Upon completion, students should be able to manage public relations functions of organizations which meet elements of NFPA 1021 for Fire Officer I and II.

## FIP 264 - Flame Properties \& Materials Rating 14003

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.

## FIP 276 - Managing Fire Services

30003
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.

## FIP 277 - Fire and Social Behavior

30003
This course covers fire-related aspects of human behavior, with an emphasis on research and a systems approach to humanbehavior analysis. Topics include identification of populations and structures at high risk, evaluation of systems models, and use of computer models to predict human behavior during fires. Upon completion, students should be able to identify and anticipate human behavior in response to various residential, commercial, board-and-care facility, and wildland/rural fire events.

## FRE - French

## FRE 111 - Elementary French I

30003
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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts. This course may satisfy a general education requirement for Catawba College.

FRE 112 - Elementary French II 30003

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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts. This course may satisfy a general education requirement for Catawba College.

## Prerequisites

Take FRE-111;

## GEO - Geography

## GEO 111 - World Regional Geography

30003
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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences.

## GEO 112 - Cultural Geography

30003
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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences.

## GEO 113 - Economic Geography

30003
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 for transfer under the Comprehensive Articulation Agreement as a general education course in social/behavioral sciences. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences.

## GEO 121 - North Carolina Geography

30003
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 for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement

## GEO 130 - General Physical Geography

30003
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 for transfer under the Comprehensive Articulation Agreement as a general education course in social/behavioral sciences. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences.

## GER - German

## GER 111 - Elementary German I

30003
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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.

## GER 112 - Elementary German II

30003
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.
. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.

## Prerequisites

Take GER-111;

HEA - Health
HEA 110 - Personal Health/Wellness
30003
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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## HIS - History

## HIS 111 - World Civilizations I

30003
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 has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences. This course may satisfy a general education requirement for Catawba College.

## Prerequisites

Take RED-090 or ENG-111;

## HIS 112 - World Civilizations II

30003
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 has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences. This course may satisfy a general education requirement for Catawba College.

## Prerequisites

Take RED-090 or ENG-111;

## HIS 115 - Intro to Global History

30003
This course introduces the study of global history. Emphasis is placed on topics such as colonialism, industrialism, and nationalism. Upon completion, students should be able to analyze significant global historical issues.
This course has been approved for transfer under the Comprehensive Articulation Agreement as a general education course in social/behavioral sciences. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences. This course may satisfy a general education requirement for Catawba College

## HIS 121 - Western Civilization I

30003
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 has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences. This course may satisfy a general education requirement for Catawba College.

## Prerequisites

## Take RED-090 or ENG-111;

## HIS 122 - Western Civilization II

30003
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 has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences. This course may satisfy a general education requirement for Catawba College.

Prerequisites
Take RED-090 or ENG-111;

HIS 131 - American History I
30003
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. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/ behavioral sciences.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences. This course may satisfy a general education requirement for Catawba College.

## Prerequisites

## Take RED-090 or ENG-111;

## HIS 132 - American History II

30003
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. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences. This course may satisfy a general education requirement for Catawba College.

## Prerequisites

Take RED-090 or ENG-111;

## HIS 162 - Women and History

30003
This course surveys the experience of women in historical perspective. Topics include the experiences and contributions of women in culture, politics, economics, science, and religion. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural contributions of women in history.
This course has been approved for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## 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 for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Prerequisites

Take RED-090 or ENG-111;
HIS 226 - The Civil War
30003
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 for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Prerequisites

Take RED-090 or ENG-111;

## HIS 236 - North Carolina History

30003
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 pre-major and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Prerequisites

Take RED-090 or ENG-111;

HIS 260 - History of Africa
30003
This course surveys the history of Africa from pre-history to the present. Emphasis is placed on the evolution of social, political, economic, and governmental structures in Africa. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in Africa.
This course has been approved for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## HOR - Horticulture

## HOR 134 - Greenhouse Operations

22003
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.

## HOR 168 - Plant Propagation

22003
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.

## HSE - Human Services

## HSE 245 - Stress Management

22003
This course covers stressors and techniques for stress management. Topics include anger, assertiveness, breathing, change, coping skills, family, time management, meditation, guided imagery, and journaling. Upon completion, students should be able to identify areas of stress and the skills and management techniques for dealing with stressors.

## HUM - Humanities

## HUM 110 - Technology and Society <br> 30003

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.

This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.

## HUM 115 - Critical Thinking

30003
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 general education core requirement in humanities/fine arts.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts. This course may meet the SACS humanities requirements for AAS degree programs.

## Prerequisites

Take 1 group; \# Take ENG-095; \# Take RED-090 ENG-090;

## HUM 120 - Cultural Studies

30003
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 for transfer under the Comprehensive Articulation Agreement as a general education course in humanities/fine arts. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.

## HUM 122 - Southern Culture

30003
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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.

HUM 130 - Myth in Human Culture
30003
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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.

## HUM 150 - American Womens Studies

30003
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 for transfer under the Comprehensive Articulation Agreement as a general education course in humanities/fine arts. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.

## HUM 160 - Introduction to Film

22003
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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts. This course may satisfy a general education requirement for Catawba College.

## HUM 161 - Advanced Film Studies

22003
This course provides an advanced study of film art and production, building on skills learned in HUM 160. Topics include advanced 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 general education core requirement in humanities/fine arts.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.

## Prerequisites

Take HUM-160(S16395);

## HUM 211 - Humanities I

30003
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.

This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.

## Prerequisites

Take ENG-111;

## HUM 212 - Humanities II

30003
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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.

## Prerequisites

Take ENG-111;

## INT - International Business

## INT 110 - International Business

30003
This course provides an overview of the environment, concepts, and basic differences involved in international business. Topics include forms of foreign involvement, international trade theory, governmental influences on trade and strategies, international organizations, multinational corporations, personnel management, and international marketing. Upon completion, students should be able to describe the foundation of international business.

## INT 115 - Global Communication

30003
This course introduces principles and techniques basic to intercultural business communications. Topics include selected cultural values and customs, verbal and non-verbal communication skills, and global etiquette. Upon completion students should be able to demonstrate beginning skills in effective verbal and non-verbal intercultural communications.

## ISC - Industrial Science

ISC 112 - Industrial Safety
20002
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.

## ISC 113 - Industrial Specifications

10001
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.

## ISC 115 - Construction Safety

20002
This course introduces the basic concepts of construction site safety. Topics include ladders, lifting, lock-out/tag-out, personal protective devices, scaffolds, and above/below ground work based on OSHA regulations. Upon completion, students should be able to demonstrate knowledge of applicable safety regulations and safely participate in construction projects.

## ISC 121 - Environmental Health and Safety

30003
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.

## ISC 132 - Manufacturing Quality Control

23003
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.

## ISC 136 - Productivity Analysis I

23003
This course covers modern 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.

## ISC 214 - Job Analysis/Wages and Salary

23003
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.

## ISC 220 - Lean Manufacturing

22003
This course introduces students to the concept of lean manufacturing as a means of waste reduction. Topics include the examination of manufacturing operations and the incorporation of lean techniques to reduce waste, cost, time, and materials in manufacturing processes. Upon completion, students should be able to demonstrate an understanding of lean manufacturing systems and how they benefit the environment and business.

## ISC 225 - Facility Layout

32004
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.

## ISC 237 - Quality Management

23003
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.

ISC 243 - Production and Operations Mgmt. I 23003
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.

## ISC 255 - Engineering Economy

22003
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.

## JOU - Journalism

## JOU 110 - Introduction to Journalism

This course presents a study of journalistic news, feature, and sports writing. Emphasis is placed on basic news writing techniques and on related legal and ethical issues. Upon completion, students should be able to gather, write, and edit news, feature, and sports articles. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Prerequisites

Take ENG-111;

## JOU 216 - Writing for Mass Media

22003
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 for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## JOU 217 - Feature/Editorial Writing

22003
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 for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Prerequisites

Take ENG-111;

## JOU 242 - Introduction to Multimedia

22003
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 placed 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 for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Prerequisites

Take CIS-110(S12456);

## MAC - Machining

## MAC 111 - Machining Technology I

212006
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.

## Corequisites

Take MAC-114.

## MAC 111AB - Machining Technology I-Part A 16003

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.

## Corequisites

Take MAC-114.

## MAC 111BB - Machining Technology I-Part B 16003

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.

## Prerequisites

Take MAC-111AB;

## MAC 112 - Machining Technology II

212006
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.

## Prerequisites

## Take MAC-111;

## MAC 112AB - Machining Technology II

16003
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.

## Prerequisites

Take MAC-111;

MAC 112BB - Machining Technology II
16003
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.

## Prerequisites

Take MAC-111 MAC-112AB(L27970);

## MAC 113 - Machining Technology III

212006
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.

## Prerequisites

Take MAC-112(S22988);
MAC 113AB - Machining Technology III - Part A 16003
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.

## Prerequisites

Take MAC-112(S11762);

## MAC 113BB - Machining Technology III - Part B 16003

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.

## Prerequisites

Take MAC-112(S11762); Take MAC-113AB(L27671);

## MAC 114 - Introduction to Metrology <br> 20002

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.

## MAC 122 - CNC Turning

13002
This course introduces the programming, setup, and operation of CNC turning centers. Topics include programming formats, control functions, program editing, part production, and inspection. Upon completion, students should be able to manufacture simple parts using CNC turning centers.

## Prerequisites

\# Take MAC-111 or MEC-111(S20654); \# Take CTS080;

## MAC 124 - CNC Milling

13002
This course introduces the manual programming, setup, and operation of CNC machining centers. Topics include programming formats, control functions, program editing, part production, and inspection. Upon completion, students should be able to manufacture simple parts using CNC machining centers.

## Prerequisites

## \# Take MAC-111 or MEC-111(S20654); \# Take CTS080;

## MAC 151 - Machining Calculations

12002
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.

MAC 152 - Advanced Machining Calculations 12002
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.

## Prerequisites

Take MAC-151;

## MAC 214 - Machining Technology IV

212006
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.

## Prerequisites

Take MAC-113(S22989);

## 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.

## Prerequisites

Take MAC-122;

## MAC 224 - Advanced CNC Milling <br> 13002

This course covers advanced methods in setup and operation of CNC machining centers. Emphasis is placed on programming and production of complex parts. Upon completion, students should be able to demonstrate skills in programming, operations, and setup of CNC machining centers.

## Prerequisites

Take MAC-124;

MAC 229 - CNC Programming
20002
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.

## Prerequisites

Take MAC-122 MAC-124;

## MAC 233 - Appl. in CNC Machining

212006
This capstone course provides students the opportunity to apply skills learned throughout the curriculum. Emphasis is placed on production of parts and assemblies using modern CNC machine tools. Upon completion, students should be able to manufacture complex parts using a variety of CNC machine tools.

## Prerequisites <br> Take MAC-113(S22989) MAC-222(S22994) MAC224(S23000) MEC-232;

## MAC 248 - Production Procedures

12002
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.

## Prerequisites

Take MAC-122 MAC-124;

## MAT - Mathematics

## MAT 060 - Essential Mathematics

32004
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, percents, 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.

## Prerequisites

Take MAT-050;

## MAT 070 - Introductory Algebra

32004
This course establishes a foundation in algebraic concepts and problem solving. Topics include signed numbers, exponents, 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.
A TI-84 Plus graphing calculator is required of all students in this course. Online sections require students to take all tests in an approved college testing center. 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.
This course is available through the Virtual Learning Community (VLC).

## Corequisites

Take One: RED-080 or ENG-085

## Prerequisites

Take MAT-060;

## MAT 080 - Intermediate Algebra

32004
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 TI-84 Plus graphing calculator is required of all students in this course. Online sections require students to take all tests in an approved college testing center. 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.

## Corequisites

Take One: RED-080 or ENG-085
Prerequisites
Take MAT-060 MAT-070;

MAT 115 - Mathematical Models
22003
This course develops the ability to utilize mathematical skills and technology to solve problems at a level found in non-mathemat-ics-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.
A graphing calculator is required of all students enrolled in this course.

## Prerequisites

Take 1 group; \# Take MAT-060 MAT-070; \# Take MAT-060 MAT-080; \# Take MAT-060 MAT-090; \# Take MAT-095; \# Take MAT-120(S20803); \# Take MAT-121(S20804); \# Take MAT-161(S20916); \# Take MAT-171(S20807); \# Take MAT-175; \# Take DMA-010 DMA-020 DMA-030 DMA-040 DMA-050;

## MAT 120 - Geometry and Trigonometry <br> 22003

This course introduces the concepts of plane trigonometry and geometry with emphasis on applications to problem solving. Topics include the basic definitions and properties of plane and solid geometry, area and volume, right triangle trigonometry, and oblique triangles. Upon completion, students should be able to solve applied problems both independently and collaboratively using technology.
A TI-84 Plus graphing calculator is required of all students enrolled in this course.

## Prerequisites

Take 1 group; \# Take MAT-060 MAT-070; \# Take MAT-060 MAT-080; \# Take MAT-060 MAT-090; \# Take MAT-095; \# Take MAT-121(S20804); \# Take MAT-161(S20916); \# Take MAT-171(S20807); \# Take MAT-175; \# Take DMA-010 DMA-020 DMA-030 DMA-040; Take DMA-050;

## MAT 121 - Algebra/Trigonometry I <br> 22003

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 TI-84 Plus graphing calculator is required of all students enrolled in this course.

## Prerequisites

Take 1 group; \# Take MAT-070 MAT-060; \# Take MAT-080 MAT-060; \# Take MAT-090 MAT-060; \# Take MAT-095; \# Take DMA-010 DMA-020 DMA-030 DMA-040 DMA-050; Take DMA-060;

## MAT 122 - Algebra/Trigonometry II

22003
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.

## Prerequisites <br> Take MAT-121(S13643) MAT-161(S16425) MAT171(S11257) or MAT-175;

## MAT 140 - Survey of Mathematics

30003
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.

Under the Comprehensive Articulation Agreement, this course satisfies the general education Mathematics requirement for the AA and AFA degrees. It does not satisfy the general education Mathematics requirement for the AS degree. Under the Independent Comprehensive Articulation Agreement, this course satisfies the general education Mathematics requirement for the AA and AFA degrees. It does not satisfy the general education Mathematics requirement for the AS degree.
A TI-84 Plus graphing calculator is required of all students enrolled in this course. Online sections are restricted from WebAdvisor registration, require at least a " B " in the prerequisite course, and require students to take all tests in an approved college testing center.

## Prerequisites

Take 1 group; \# Take MAT-070 MAT-060; \# Take MAT-080 MAT-060; \# Take MAT-090 MAT-060; \# Take MAT-095; \# Take MAT-120(S20803); \# Take MAT-121(S20804); \# Take MAT-161(S20916); \# Take MAT-171(S20807); \# Take MAT-175; \# Take DMA-010 DMA-020 DMA-030 DMA-040; Take DMA050;

MAT 151 - Statistics I
30003
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.
This course has been approved for transfer under the Comprehensive Articulation Agreeent as a general education course in Mathematics (Quantitative). This course has been approved for transfer under the Independent Comprehensive Articulation Agreeent as a general education course in Mathematics (Quantitative). A graphing calculator is required of all students enrolled in this course.

## Corequisites

Take MAT-151A.

## Prerequisites

Take 1 group; \# Take MAT-080 MAT-060; \# Take MAT-090 MAT-060; \# Take MAT-095; \# Take MAT120(S20803); \# Take MAT-121(S20804); \# Take MAT-140(S20907); \# Take MAT-161(S20916); \# Take MAT-171(S20807); \# Take MAT-175; \# Take DMA-010 DMA-020 DMA-030 DMA-040 DMA-050;

## MAT 151A - Statistics I Lab

02001
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 pre-major and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Corequisites

## Take MAT-151.

## Prerequisites

Take 1 group; \# Take MAT-080 MAT-060; \# Take MAT-090 MAT-060; \# Take MAT-095; \# Take MAT120(S20803); \# Take MAT-121(S20804); \# Take MAT-140(S20907); \# Take MAT-161(S20916); \# Take MAT-171(S20807); \# Take MAT-175;

## MAT 161 - College Algebra

30003
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.
Under the Comprehensive Articulation Agreement, this course satisfies the general education Mathematics requirement for the AA and AFA degrees. It does not satisfy the general education Mathematics requirement for the AS degree. Under the Independent Comprehensive Articulation Agreement, this course satisfies the general education Mathematics requirement for the AA and AFA degrees. It does not satisfy the general education Mathematics requirement for the AS degree. This course may satisfy a general education requirement for Catawba College.
A TI-84 Plus graphing calculator is required of all students enrolled in this course. Online sections are restricted from WebAdvisor registration, require at least a " B " in the prerequisite course, and require students to take all tests in an approved college testing center.

## Prerequisites

Take 1 group; \# Take MAT-080 MAT-060; \# Take MAT-090 MAT-060; \# Take MAT-095; \# Take DMA010 DMA-020 DMA-030 DMA-040 DMA-050 DMA-060 DMA-070 DMA-080;

## MAT 171 - Precalculus Algebra

30003
This is the first of two courses designed to emphasize topics which are fundamental to the study of calculus. Emphasis is placed on equations and inequalities, functions (linear, polynomial, rational), systems of equations and inequalities, and parametric equations. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and predictions.
This course has been approved for transfer under the Comprehensive Articulation Agreement as a general education course in mathematics. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in mathematics.
A TI-84 Plus graphing calculator is required of all students enrolled in this course. Online sections require at least a " B " in the prerequisite course and require students to take all tests in an approved college testing center.

## Corequisites

Take MAT-171A.

## Prerequisites

Take 1 group; \# Take MAT-080 MAT-060; \# Take MAT-090 MAT-060; \# Take MAT-095; \# Take MAT161(S20916); \# Take DMA-010 DMA-020 DMA-030 DMA-040 DMA-050 DMA-060 DMA-070 DMA-080;

## MAT 171A - Precalculus Algebra Lab

02001
This course is a laboratory for MAT 171. 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 for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Corequisites

Take MAT-171

## Prerequisites

Take 1 group; \# Take MAT-080 MAT-060; \# Take MAT-090 MAT-060; \# Take MAT-095; \# Take MAT161(S20916);

## MAT 172 - Precalculus Trigonometry

30003
This is the second of two courses designed to emphasize topics which are fundamental to the study of calculus. Emphasis is placed on properties and applications of transcendental functions and their graphs, right and oblique triangle trigonometry, conic sections, vectors and polar coordinates. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and prediction. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in natural sciences/mathematics.

A TI-84 Plus graphing calculator is required of all students enrolled in this course. Online sections require at least a " B " in the prerequisite course and require students to take all tests in an approved college testing center.

## Corequisites

Take MAT-172A.

## Prerequisites

Take MAT-171(S11257);

## MAT 172A - Precalculus Trigonometry Lab 02001

This course is a laboratory for MAT 172. 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 for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Corequisites

Take MAT-172

## Prerequisites

Take MAT-171(S11257);

## MAT 175 - Precalculus

40004
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, 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.
This course has been approved for transfer under the Comprehensive Articulation Agreement as a general education course in mathematics. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in mathematics.
A TI-84 Plus graphing calculator is required of all students enrolled in this course.

## Prerequisites

Take DMA-010 DMA-020 DMA-030 DMA-040 DMA-050 DMA-060 DMA-070 DMA-080; Take MAT-080;

## MAT 263 - Brief Calculus

This course is designed for students needing only one semester of calculus. Topics include functions, graphing, differentiation, and integration with emphasis on applications drawn from business, economics, and biological and behavioral sciences. Upon completion, students should be able to demonstrate an understanding of the use of basic calculus and technology to solve problems and to analyze andcommunicate results. This course has been approved to satisfy the Comprehensive Articulation Agreement general education corerequirement in natural sciences/ mathematics.

This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in natural sciences/mathematics. This course may satisfy a general education requirement for Catawba College.
A TI-84 Plus graphing calculator is required of all students enrolled in this course.

## Prerequisites

Take MAT-161(S20916) MAT-171(S20807) or MAT-175;

## MAT 271 - Calculus I

32004
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. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in natural sciences/mathematics.
A TI-84 Plus graphing calculator is required of all students enrolled in this course.

Prerequisites
Take MAT-172(S11061) or MAT-175;

MAT 272 - Calculus II
32004
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. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in natural sciences/mathematics.
A TI-84 Plus graphing calculator is required of all students enrolled in this course.

## Prerequisites

Take MAT-271;

## MAT 273 - Calculus III

32004
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, multipleintegrals, 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. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in natural sciences/mathematics.
A TI-84 Plus graphing calculator is required of all students enrolled in this course.

## Prerequisites

Take MAT-272;

## MEC - Mechanical

MEC 110 - Introduction 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.

## Prerequisites

Take CTS-080;

## MEC 111 - Machine Processes I

14003
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 manufacture simple parts to specified tolerance.

## MEC 142 - Physical Metallurgy

12002
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.

## MEC 231 - Computer-Aided Manufacturing I 14003

This course introduces computer-aided design/ manufacturing (CAD/CAM) applications and concepts. Topics include software, programming, data transfer and verification, and equipment setup. Upon completion, students should be able to produce parts using CAD/CAM applications.

## Prerequisites

Take MEC-110;

## MEC 232 - Computer-Aided Manufacturing II 14003

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.

## Prerequisites

Take MEC-231(S14280);

## MEC 242 - Value/Supply Chain Management 30003

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.

## MEC 251 - Statics

22003
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.

## Prerequisites

Take PHY-131(S20809) or PHY-151(S20924);

## MEC 275 - Engineering Mechanisms <br> 22003

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.

## Prerequisites

\# Take DFT-151; \#Take PHY-131(S13319) or PHY151(S16517);

# MKT - Marketing and Retailing 

## MKT 120 - Principles of Marketing

30003
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.

MKT 122 - Visual Merchandising
30003
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 requirement of the Marketing and Retailing concentration in the Business Administration program.

## MKT 123 - Fundamentals of Selling

30003
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.

## MKT 125 - Buying and Merchandising

30003
This course includes an analysis of the organization for buyingwhat, 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.

## MKT 220 - Advertising and Sales Promotion

30003
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.

## MKT 221 - Consumer Behavior

30003
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.

## MKT 223 - Customer Service

30003
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.

## MKT 224 - International Marketing

30003
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.

## MKT 225 - Marketing Research

30003
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 requirement of the Marketing and Retailing concentration in the Business Administration program

This course is also available through the Virtual Learning Community (VLC).

## Prerequisites

Take MKT-120;

## MKT 226 - Retail Applications

30003
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 requirement of the Marketing and Retailing concentration in the Business Administration program.

## MSM - Motorsports <br> 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.

## MSM 112 - Engine/Drivetrain Fundamentals 12002

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.

## 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 a marketing and media plan for a motorsports product or service.

MSM 212 - Chassis/Handling Fundamentals
22003
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 set-ups.

## MSM 214 - Fabrication Fundamentals

12002
This course introduces the basic elements of race vehicle fabrication. Topics include chassis design (driver safety, "crus" 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.

## MSM 216 - Organization Mobility

20002
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.

## MSM 218 - Safety/Environment

20002
This course covers safety and environmental 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.

## MSM 220 - Advanced Chassis Analysis <br> 12002

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.

## Prerequisites

Take MSM-212(S13283);

## MSM 285 - Motorsport Capstone Project

13002
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 start-up, major event management, or major sales promotion.

## Prerequisites

Take MSM-110 BUS-137;

## MUS - Music

## MUS 110 - Music Appreciation

30003
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 has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts. This course may satisfy a general education requirement for Catawba College.

## MUS 113 - American Music

30003
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.

This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.

## MUS 131 - Chorus I

02001
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 pre-major and/or elective course requirement.

This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## MUS 210 - History of Rock Music

30003
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 for transfer under the Comprehensive Articulation Agreement as a general education course in humanities/fine arts. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.

MUS 212 - American Musical Theatre
30003
This course covers the origins and development of the musical from Show Boat to the present. Emphasis is placed on the investigation of the structure of the musical and its components through listening and analysis. Upon completion, students should be able to demonstrate skills in listening and understanding this form of American music.
This course has been approved for transfer under the Comprehensive Articulation Agreement as a general education course in humanities/fine arts. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.

## MUS 213 - Opera and Musical Theatre

30003
This course covers the origins and development of opera and musical theatre from the works of Claudio Monteverdi to the present. Emphasis is placed on how the structure and components of opera and musicals effect dramaturgy through listening examples and analysis. Upon completion, students should be able to demonstrate analytical and listening skills in understanding both opera and the musical. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.

## NET - Networking <br> Technology

## NET 110 - Networking Concepts

22003
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, subnetting, and TCP/IP Protocols.
This course is also available through the Virtual Learning Community (VLC).

## Prerequisites

Take CIS-110(S21058) or CIS-110(S12456);

## NET 125 - Networking Basics

14003
This course introduces the networking field. Emphasis is placed on network terminology and protocols, local-area networks, wide-area networks, OSI model, cabling, router programming, Ethernet, IP addressing, and network standards. Upon completion, students should be able to perform tasks related to networking mathematics, terminology, and models, media, Ethernet, subnetting, and TCP/IP Protocols.

## NET 126 - Routing Basics

14003
This course focuses on initial router configuration, router software management, routing protocol configuration, TCP/IP, and access control lists (ACLs). Emphasis will be placed on the fundamentals of router configuration, managing router software, routing protocol, and access lists. Upon completion, students should have an understanding of routers and their role in WANs, router configuration, routing protocols, TCP/IP, troubleshooting, and ACLs.

## Prerequisites

Take NET-125(S21095);

## NET 175 - Wireless Technology

22003
This course introduces the student to wireless technology and interoperability with different communication protocols. Topics include Wireless Application Protocol (WAP), Wireless Markup language (WML), link manager, service discovery protocol, transport layer and frequency band. Upon completion, students should be able to discuss in written and oral form protocols and procedures required for different wireless applications.

## Prerequisites

Take NET-110(S21056) or NET-125(S21095); Take NET126(S21096);

## NET 225 - Routing and Switching I

14003
This course focuses on advanced IP addressing techniques, intermediate routing protocols, command-line interface configuration of switches, Ethernet switching, VLANs, STP, and VTP. Emphasis will be placed on application and demonstration of skills acquired in pre-requisite courses. Upon completion, students should be able to perform tasks related to VLSM, routing protocols, switching concepts and configuration, STP, VLANs, and VTP.

## Prerequisites

Take NET-126(S21096);

## NET 226 - Routing and Switching II <br> 14003

This course introduces WAN theory and design, WAN technology, PPP, Frame Relay, ISDN, and additional case studies. Topics include network congestion problems, TCP/IP transport and network layer protocols, advanced routing and switching configuration, ISDN protocols, PPP encapsulation operations on a router. Upon completion, students should be able to provide solutions for network routing problems, identify ISDN protocols, and describe the Spanning Tree protocol.

## Prerequisites

Take NET-225(S21098);

## NET 289 - Networking Project

14003
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.

## Corequisites

Take NET-226.

## NOS - Network Operating Systems

## NOS 110 - Operating Systems Concepts <br> 23003

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, maintenance, using a variety of operating systems.

## NOS 120 - Linux/UNIX Single User

22003
This course develops the necessary skills for students to develop both GUI and command line skills for using and customizing a Linux workstation. Topics include Linux file system and access permissions, GNOME Interface, VI editor, X Window System expression pattern matching, I/O redirection, network and printing utilities. Upon completion, students should be able to customize and use Linux systems for command line requirements and desktop productivity roles.

## Prerequisites

Take NOS-110 or CET-211(S21575);

## NOS 130 - Windows Single User

22003
This course introduces operating system concepts for single-user systems. Topics include hardware management, file and memory management, system configuration/optimization, and utilities. Upon completion, students should be able to perform operating systems functions at the support level in a single-user environment.

## Prerequisites

Take NOS-110 or CET-211(S21575);

## NOS 220 - Linus/UNIX Administration I

22003
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.

## Prerequisites

Take NOS-120(S20982);
NOS 230 - Windows Administration I
22003
This course covers the installation and administration of a Windows Server network operating system. Topics include managing and maintaining physical and logical devices, access to resources, the server environment, managing users, computers, and groups, and Managing/ Implementing Disaster Recovery. Upon completion, students should be able to manage and maintain a Windows Server environment.

## Prerequisites

Take NOS-130(S20983);

## 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.

## Prerequisites

Take NOS-230;

## NUR - Nursing

## NUR 101 - Practical Nursing I

766011
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 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.

## Corequisites

Take BIO-163 or (BIO-168 and BIO-169); and PSY-110 orl(PSY-150 and PSY-241).

## NUR 102 - Practical Nursing II

8012012
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. This course is restricted to diploma and/or certificate programs.

Clinical experiences will focus on discipline- specific roles in the care of medical and surgical clients.

## Corequisites

Take ENG-111.

## Prerequisites

Take NUR-101 BIO-163 PSY-110;

NUR 103 - Practical Nursing III
6012010
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, 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 course is restricted to diploma and/ or certificate programs.
Clinical experiences include geriatrics, medical- surgical, obstetrical and a medical-surgical preceptorship experience in a longterm care setting.

## Prerequisites

Take NUR-102 ENG-111;

## NUR 111 - Introduction to Health Concepts 46608

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.

## Corequisites

Take ENG-111, BIO-168, and PSY-150.

## NUR 112 - Health-IIIness Concepts

30605
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-wellnessillness, 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.

## Corequisites

Take NUR-211AB, ENG-112, BIO-169, and PSY-241.

## Prerequisites

Take NUR-111; Take ENG-111 BIO-168(S11555) PSY-150;

## NUR 113 - Family Health Concepts

30605
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.

## Corequisites

Take NUR-211BB.

## Prerequisites

Take NUR-111; Take NUR-112 NUR-211AB(L27296) ENG-112 BIO-169(S11629) PSY-241;

## NUR 114 - Holistic Health Concepts

30605
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.

## Corequisites

Take NUR-212 and BIO-275.

## Prerequisites

Take NUR-111; Take NUR-112 NUR-211 NUR-113;

## NUR 211 - Health Care Concepts

30605
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-wellnessillness, clinical decision-making, caring interventions, managing care, and safety. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.

## Prerequisites

## Take NUR-111;

## NUR 211AB - Health Care Concepts, Part A <br> 20303

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-wellnessillness, clinical decision-making, caring interventions, managing care, and safety. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.

## Prerequisites

Take NUR-111;

## NUR 211BB - Health Care Concepts, Part B 20303

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-wellnessillness, clinical decision-making, caring interventions, managing care, and safety. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.

## Prerequisites

Take NUR-111; Take NUR-211AB(L27298);

NUR 212 - Health System Concepts
30605
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

## Corequisites

Take NUR-114 and BIO-275.

## Prerequisites

Take NUR-111; Take NUR-112 NUR-211 NUR-113;

## 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.

## Corequisites

Take All: NUR-112, NUR-113, NUR-114, NUR-211, and NUR-212
Prerequisites
Take NUR-111; Take BIO-275(S22585);

## NUR 214 - Nsg Transition Concepts

30304
This course is designed to introduce concepts within the three domains of the individual, healthcare, and nursing as the LPN transitions to the ADN role. Emphasis is placed on the concepts within each domain including evidenced-based practice, quality improvement, communication, safety, interdisciplinary team, clinical decision-making, informatics, assessment, caring, and health-wellness-illness. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.

## OMT - Operations Management

## OMT 240 - Customers and Products

30003
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.

## OMT 241 - Logistics

30003
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.

## OMT 243 - Support Functions

30003
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.

## OST - Office Systems Technology

## OST 122 - Office Computations

12002
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.

## OST 130 - Comprehensive Keyboarding

22003
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.

## OST 132 - Keyboard Skill Building

12002
This course is designed to increase speed and improve accuracy in keyboarding. Emphasis is placed on diagnostic tests to identify accuracy and speed deficiencies followed by corrective drills. Upon completion, students should be able to keyboard rhythmically with greater accuracy and speed.

## Prerequisites

Take OST-130; Minimum grade C;

OST 134 - Text Entry and Formatting
22003
This course is designed to provide 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

## Prerequisites

Take OST-130; Minimum grade C;
OST 135 - Adv. Text Entry and Formatting
32004
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.

## Prerequisites

Take OST-134(S22142);

## OST 136 - Word Processing

22003
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.

## OST 137 - Office Software Applications

22003
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.

## Prerequisites

Take OST-130 or OST-136
OST 141 - Medical Terms I-Medical Office 30003
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.

## OST 142 - Medical Terms II-Medical Office

30003
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.

## Prerequisites

Take OST-141; Take OST-141; Minimum grade C;

## OST 143 - Dental Office Terminology

30003
This course introduces prefixes, suffixes, and word roots used in the dental office. Topics include dental anatomy and oral structures, tooth origin and formation, examination and prevention, tooth restorations, radiography, pain management and pharmacology. Upon completion, students should be able to pronounce, spell, and define dental terms as related to a dental practice.

## OST 147 - Dental Billing and Coding

30003
This course introduces Current Procedural Terminology, International Classification of Diseases, and Healthcare Common Procedural Coding System coding as they apply to dental insurance and billing. Topics include Current Dental Terminology-2 Dental Codes, office collections, American Dental Association Dental Claim Form, and insurance coverage. Upon completion, students should be able to describe the steps of the total billing/collections cycle for a dental office.

## Prerequisites

Take OST-143;

## OST 148 - Medical Coding Billing \& Insurance 30003

This course introduces fundamentals of medical coding, billing, and insurance. Emphasis is placed on the medical billing cycle to include third party payers, coding concepts, and form preparation. Upon completion, students should be able to explain the life cycle of and accurately complete a medical insurance claim.

## Prerequisites

Take OST-141;

## OST 149 - Medical Legal Issues

30003
This course introduces the complex legal, moral, and ethical issues involved in providing health-care services. Emphasis is placed on the legal requirements of medical practices; the relationship of physician, patient, and office personnel; professional liabilities; and medical practice liability. Upon completion, students should be able to demonstrate a working knowledge of current medical law and accepted ethical behavior.

## Prerequisites

## Take OST-164;

## OST 164 - Text Editing Applications

30003
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.

OST 165 - Advanced Text Editing Applications 22003
This course is designed to develop proficiency in advanced editing skills needed in the office environment. Emphasis is placed on the application of creating effective electronic office documents. Upon completion, students should be able to apply advanced editing skills to compose text.

## Prerequisites

Take OST-164;

## OST 181 - Introduction to Office Systems

22003
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.

## OST 184 - Records Management

22003
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.

OST 223 - Administrative Office Transcription I2 2003
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.

## Prerequisites

\# Take OST-164; \#Take OST-134(S22142) or OST136(S22144);

OST 224 - Administrative Office Transcription II 12002
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.

## Prerequisites

Take OST-223(S22154);

## OST 236 - Adv. Word Or Information Proc.

22003
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.

## Prerequisites

Take OST-136 (S22144); minimum grade C;

## OST 241 - Medical Office Transcription I

12002
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.

## Corequisites

Take OST-136.

## Prerequisites

Take MED-121 or OST-141; Take OST-164;

## OST 242 - Medical Office Transcription II <br> 12002

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.

## Prerequisites

Take OST-241;

## OST 243 - Medical Office Simulation

22003
This course introduces medical systems used to process information in the automated office. Topics include traditional and electronic information resources, storing and retrieving information, and the billing cycle. Upon completion, students should be able to use the computer accurately to schedule, bill, update, and make corrections.

## Prerequisites

Take OST-148(S11620); Take OST-130 OST-142;

## OST 244 - Medical Document Production

12002
This course provides production-level skill development in processing medical documents. Emphasis is placed on producing mallable 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.

## Prerequisites

Take OST-134(S11818) or OST-134(S16488); Take OST142 OST-241;

## OST 245 - Dental Office Management

22003
This course introduces the organizational structures, professional issues, and major functions of management in a dental office. Topics include communication skills, telephone techniques, patient relations, clinical records, bookkeeping procedures, office equipment, and inventory management. Upon completion, students should be able to apply the concepts of management within a dental office.

## Prerequisites

Take OST-147;

OST 246 - Dental Office Simulation
22003
This course introduces dental software systems used to process information in the dental office. Topics include electronic information entering, storing, and retrieving in the dental office billing cycle. Upon completion, students should be able to use the computer accurately to schedule, bill, update, and make corrections in a dental office software system.

## Prerequisites

Take OST-147;

## OST 247 - Procedure Coding

12002
This course provides in-depth coverage of procedural coding. Emphasis is placed on CPT and HCPCS coding systems. Upon completion, students should be able to properly code procedures and services performed in a medical facility.

## Prerequisites

Take MED-121 or OST-141;

## OST 248 - Diagnostic Coding

12002
This course provides an in-depth study of diagnostic coding. Emphasis is placed on ICD coding system. Upon completion, students should be able to properly code diagnoses in a medical facility.

## Prerequisites

Take MED-121 or OST-141;
OST 249 - CPC Certification
32004
This course provides instruction that will prepare students to sit for the American Association of Professional Coders (AAPC) CPC Exam. Topics include diagnostic and procedural coding. Upon completion, students should be able to sit for the AAPC CPC Exam.

## Prerequisites

Take OST-247(S12676) OST-248(S12622);

## OST 284 - Emerging Technologies

12002
This course provides opportunities to explore emerging technologies. Emphasis is placed on identifying, researching, and presenting current technological topics for class consideration and discussion. Upon completion, students should be able to understand the importance of keeping abreast of technological changes that affect the office professional.

## OST 289 - Administrative Office Management 22003

This course is designed to be a capstone course for the office professional and provides a working knowledge of modern office procedures. Emphasis is placed on scheduling, telephone procedures, travel arrangements, event planning, office design, and ergonomics. Upon completion, students should be able to adapt in an office environment.

## Prerequisites

\# Take OST-164; \#Take OST-134(S22142) or OST136(S22144);

# PED - Physical Education 

## PED 110 - Fit and Well for Life

12002
This course is designed to investigate and apply the basic concepts and principles of lifetime physical fitness and other healthrelated 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 pre-major and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## PED 111 - Physical Fitness I

03001
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 for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course may satisfy a general education requirement for Catawba College.

## PED 112 - Physical Fitness II

03001
This course is an intermediate-level fitness class. Topics include specific exercises contributing to fitness and the role exercise plays in developing body systems. Upon completion, students should be able to implement and evaluate an individualized physical fitness program.
This course has been approved for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Prerequisites

> Take PED-111;

## PED 113 - Aerobics I

03001
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 pre-major and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## PED 117 - Weight Training I

03001
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 pre-major and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## PED 121 - Walk, Jog, Run

03001
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 pre-major and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## PED 122 - Yoga I

02001
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 pre-major and/ or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

PED 128 - Golf-Beginning
02001
This course emphasizes the fundamentals of golf. Topics include the proper grips, stance, alignment, swings for the short and long game, putting, and the rules and etiquette of golf. Upon completion, students should be able to perform the basic golf shots and demonstrate a knowledge of the rules and etiquette of golf. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## PED 142 - Lifetime Sports

02001
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 pre-major and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

PED 217 - Pilates I
02001
This course provides an introduction to the pilates method of body conditioning exercise. Topics include instruction in beginning and intermediate pilates exercises using a mat or equipment, history of pilates method, and relevant anatomy and physiology. Upon completion, students should be able to perform beginning and intermediate exercises, and possess an understanding of the benefits of conditioning the body's core muscles.
This course has been approved for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## PHI - Philosophy

## PHI 210 - History of Philosophy

30003
This course introduces fundamental philosophical issues through an historical perspective. Emphasis is placed on such figures as Plato, Aristotle, Lao-Tzu, Confucius, Augustine, Aquinas, Descartes, Locke, Kant, Wollstonecraft, Nietzsche, and Sartre. Upon completion, students should be able to identify and distinguish among the key positions of the philosophers studied. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.

## Prerequisites

> Take ENG-111;

## PHI 220 - Western Philosophy I

30003
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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.

## Prerequisites

Take ENG-111;

PHI 221 - Western Philosophy II
30003
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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.

## Prerequisites

Take ENG-111;

## PHI 230 - Introduction to Logic

30003
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 for transfer under the Comprehensive Articulation Agreement as a general education course in humanities/fine arts. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts. This course may meet the SACS humanities requirement for AAS degree programs.

## Prerequisites

Take ENG-111; Take MAT-070;

## PHI 240 - Introduction to Ethics

30003
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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.

## Prerequisites

Take ENG-111;

## PHY - Physics

## PHY 110 - Conceptual Physics

30003
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.

This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in natural sciences/mathematics.

## Prerequisites

## Take MAT-060;

## PHY 110A - Conceptual Physics Lab

02001
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.

This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in natural sciences/mathematics.

## Corequisites

Take PHY-110.

## PHY 131 - Physics-Mechanics

32004
This algebra/trigonometry-based course introduces fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem-solving methods, graphical analysis, vectors, motion, forces, Newton's laws of motion, work, energy, power, momentum, and properties of matter. Upon completion, students should be able to apply the principles studied to applications in engineering technology fields.

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Prerequisites
Take MAT-121(S13643) MAT-161(S16425) MAT-
171(S11257) or MAT-175;
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## PHY 132 - Physics-Electricity and Magnetism 32004

This algebra/trigonometry-based course is a study of fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem-solving methods, graphical analysis, waves, electricity, magnetism, circuits, transformers, motors, and generators. Upon completion, students should be able to apply the principles studied to applications in engineering technology fields.

## Prerequisites

Take PHY-131(S13319);

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.

This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in natural sciences/mathematics. This course may satisfy a general education requirement for Catawba College.

## Prerequisites

Take MAT-161(S20916) MAT-171(S20807) or MAT-175;

## PHY 152 - College Physics II

32004
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 has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in natural sciences/mathematics. This course may satisfy a general education requirement for Catawba College.

## Prerequisites

Take PHY-151(S16517);

## PHY 251 - General Physics I

33004
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 for transfer under the Comprehensive Articulation Agreement as a general education course in natural science. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in natural science. This course may satisfy a general education requirement for Catawba College.

## Corequisites

Take MAT-272
Prerequisites
Take MAT-271;

## 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 has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in natural sciences/mathematics. This course may satisfy a general education requirement for Catawba College.

## Prerequisites

Take MAT-272 PHY-251;

## POL - Political Science

## POL 110 - Introduction to Political Science

30003
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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences. This course may satisfy a general education requirement for Catawba College.

## POL 120 - American Government

30003
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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences. This course may satisfy a general education requirement for Catawba College.

POL 130 - State and Local Government
30003
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 pre-major and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## POL 210 - Comparative Government

30003
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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences.

## POL 220 - International Relations

30003
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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences.

## PSY - Psychology

PSY 110 - Life Span Development
30003
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.
This course meets the SACS social/behavioral sciences requirement in AAS and diploma programs.

## Prerequisites

Take RED-090 or ENG-111;

## PSY 118 - Interpersonal Psychology

30003
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.
This is NOT a transferable course.

## PSY 150 - General Psychology

30003
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 has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences. This course may satisfy a general education requirement for Catawba College.

## Prerequisites

## Take RED-090 or ENG-111;

## PSY 211 - Psychology of Adjustment

30003
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 pre-major and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/ or elective course requirement. This course may satisfy a general education requirement for Catawba College.

## Prerequisites

Take PSY-150;

PSY 215 - Positive Psychology
30003
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 premajor and/ or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Prerequisites

Take PSY-150;

## PSY 231 - Forensic Psychology

30003
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 as a premajor and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Prerequisites

Take PSY-150;

## PSY 237 - Social Psychology

30003
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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences.

## Prerequisites

Take PSY-150 or SOC-210;

## PSY 239 - Psychology of Personality

30003
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.

This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences.

## Prerequisites

## Take PSY-150;

## PSY 241 - Developmental Psychology <br> 30003

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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences.

## Prerequisites

## Take PSY-150;

## PSY 243 - Child Psychology

30003
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 pre-major and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Prerequisites

Take PSY-150;

PSY 246 - Adolescent Psychology
30003
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 pre-major and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Prerequisites

Take PSY-150;

## PSY 249 - Psychology of Aging

30003
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 pre-major and/ or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Prerequisites

Take PSY-150;

## PSY 259 - Human Sexuality

30003
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 pre-major and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Prerequisites

Take PSY-150;

## PSY 271 - Sports Psychology

30003
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 a knowledge of psychological factors involved in sport and exercise.

This course has been approved for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Prerequisites

Take PSY-150;

## PSY 275 - Health Psychology

30003
This course covers the biopsychosocial dynamics of stress and the maintenance of good health. Topics include enhancing health and well-being, stress management, lifestyle choices and attitudes, the mind-body relationship, nutrition, exercise, and fitness. Upon completion, students should be able to demonstrate an understanding of the psychological factors related to health and well-being.
This course has been approved for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Prerequisites

Take PSY-150;

## PSY 281 - Abnormal Psychology

30003
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 for transfer under the Comprehensive Articulation Agreement as a general education course in social/behavioral sciences. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences.

## Prerequisites

Take PSY-150;

## RAD - Radiography

## RAD 110 - Rad Intro and Patient Care

23003
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.

## Corequisites

Take RAD-111 and RAD-151.

## RAD 111 - Rad Procedures I

33004
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.

## Corequisites

Take RAD-110 and RAD-151.

## RAD 112 - RAD Procedures II

33004
This course provides the knowledge and skills necessary to perform standard radiographic procedures. Emphasis is placed on radiography of the skull, bony thorax, and gastrointestinal, biliary, and urinary systems. Upon completion, students should be able to demonstrate competence in these areas.

## Prerequisites

Take RAD-110 RAD-111 RAD-151;

## RAD 121 - Radiographic Imaging I

23003
This course provides the principles of conventional film-screen radiography. Emphasis is placed on the factors that impact density, contrast, recorded detail, and distortion. Upon completion, students should be able to demonstrate an understanding of conventional film-screen radiographic imaging.

## Prerequisites

Take RAD-110 RAD-111 RAD-151;

## RAD 122 - Radiographic Imaging II

13002
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.

## Corequisites

Take All: RAD-131, and RAD-171

## Prerequisites

Take RAD-112(S13039) RAD-121(S22447) RAD-161;

## RAD 131 - Radiographic Physics I

13002
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.

## RAD 151 - Rad Clinical Education I

00602
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.

## Corequisites

Take RAD-110 and RAD-111.

## RAD 161 - RAD Clinical Education II

001505
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.

## Corequisites

Take RAD-112 and RAD-121.

## Prerequisites

Take RAD-110 RAD-111 RAD-151;

## RAD 171 - Rad Clinical Ed III

001204
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.

## Corequisites

Take RAD-122 and RAD-131.

## Prerequisites

Take RAD-112(S13039) RAD-121 (S13711) RAD-161;

## RAD 211 - Rad Procedures III

23003
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.

## Corequisites

Take All: RAD-231, RAD-241, and RAD-251

## Prerequisites

Take RAD-122(S22448);

## RAD 231 - Radiographic Physics II

13002
This course provides advanced principles of radiation characteristics and production including digital imaging and Computed Tomography (CT). Emphasis is placed on imaging equipment. Upon completion, students should be able to demonstrate an understanding of radiation characteristics and production.

## Prerequisites

Take RAD-171 or RAD-131(S22449);

RAD 241 - Radiobiology/Protection
20002
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.

## Corequisites

Take RAD-211, RAD-231, and RAD-251.

## Prerequisites

Take RAD-122(S13744) RAD-131(S11316) RAD-171;

## RAD 245 - Image Analysis <br> 13002

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.

## Corequisites

Take RAD-261

## Prerequisites

Take RAD-211(S22450) RAD-231(S22451) RAD241(S20874) RAD-251;

## RAD 251 - Rad Clinical Ed IV

002107
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.

## Corequisites

Take RAD-211, RAD-231, and RAD-241.

## Prerequisites

Take RAD-122(S13744) RAD-131(S11316) RAD-171;

## RAD 261 - RAD Clinical Education V

002107
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.

## Corequisites

Take RAD-245.

## Prerequisites

Take RAD-251;

## RAD 271 - Radiography Capstone

03001
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 demonstrat the knowledge required of an entry-level radiographer.

## Corequisites

Take RAD-245 and RAD-261.
Prerequisites
Take RAD-211(S11492) RAD-231(S12795) RAD241(S13626) RAD-251;

## RED - Reading

## RED 080 - Introduction to College Reading 32004

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 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.

## Prerequisites

Take RED-070(S10648) or ENG-075;

## RED 090 - Improved College Reading

32004
This course is designed to improve reading and critical thinking skills. Topics include vocabulary enhancement; extracting implied meaning; analyzing 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 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.

## Prerequisites

Take RED-080 or ENG-085;

RED 091 - Fast Track Improv. College Reading 10001
This course provides an intensive review of selected RED
$090-$ level reading strategies. Topics include the following reading strategies at the RED 090 level: critical thinking, major question types, main idea, patterns of organization, vocabulary, and inference. Upon completion, students should be able to apply selected RED 090 reading strategies to various texts.

## Prerequisites

Take RED-080 or ENG-085;

## REL - Religion

## REL 110 - World Religions

30003
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 has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts. This course may satisfy a general education requirement for Catawba College.

## REL 211 - Introduction to Old Testament <br> 30003

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 has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts. This course may satisfy a general education requirement for Catawba College.

## REL 212 - Introduction to New Testament

30003
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 has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts. This course may satisfy a general education requirement for Catawba College.

## REL 221 - Religion in America

30003
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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts. This course may satisfy a general education requirement for Catawba College.

## SEC - Information Systems Security

## SEC 110 - Security Concepts

30003
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.

## SEC 150 - Secure Communications

22003
This course provides an overview of current technologies used to provide secure transport of information across networks. Topics include data integrity through encryption, Virtual Private Networks, SSL, SSH, and IPSec. Upon completion, students should be able to implement secure data transmission technologies.

## Prerequisites

\# Take SEC-110(S21053); \# Take NET-110(S21056) or NET-125(S21095);

## SEC 160 - Security Administration I

22003
This course provides an overview of security administration and fundamentals of designing security architectures. Topics include networking technologies, TCP/IP concepts, protocols, network traffic analysis, monitoring, and security best practices. Upon completion, students should be able to identify normal network traffic using network analysis tools and design basic security defenses.

## Prerequisites

\# Take SEC-110(S21053); \# Take NET-110(S21056) or NET-125(S21095); Take NET-226(S21099);

## SEC 210 - Intrusion Detection

22003
This course introduces the student to intrusion detection methods in use today. Topics include the types of intrusion detection products, traffic analysis, and planning and placement of intrusion detection solutions. Upon completion, students should be able to plan and implement intrusion detection solution for networks and host-based systems.

## Prerequisites

Take SEC-160;

SEC 220 - Defense-In-Depth
22003
This course introduces students to the concepts of defense-indepth, 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.

## Corequisites

Take SEC-160

## SEC 289 - Security Capstone Project <br> 14003

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.

## Prerequisites

Take SEC-220;

# SGD - Simulation and Game Development 

## SGD 111 - Introduction to Simulation and Game|Development <br> 23003

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.

SGD 112 - Simulation and Game Dev. Design 23003
This course introduces the fundamentals of simulation and game design. Topics include industry standards and design elements for simulation and games. Upon completion, students should be able to design simple simulations and/or games.

SGD 113 - Simulation and Game
Development|Programming Development|Programming

23003
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.
SGD 212 - Simulation and Game Dev. Design II 23003
This 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.

## Prerequisites

Take SGD-112;

## SGD 289 - Simulation and Game Dev. Project 23003

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.

## Prerequisites

Take SGD-212 SGD-213(S21266) SGD-214 or SGD285(S22374);

## SOC - Sociology

## SOC 210 - Introduction to Sociology

30003
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 has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences. This course may satisfy a general education requirement for Catawba College.

## SOC 213 - Sociology of the Family

30003
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 has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences. This course may satisfy a general education requirement for Catawba College.

## SOC 220 - Social Problems

30003
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 has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences. This course may satisfy a general education requirement for Catawba College.

SOC 225 - Social Diversity
30003
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 has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences. Please note that this course is a writing intensive course.

## SOC 230 - Race and Ethnic Relations

30003
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 for transfer under the Comprehensive Articulation Agreement as a general education course in social/behavioral sciences. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences.

## SOC 234 - Sociology of Gender

 30003This 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 pre-major and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## SOC 240 - Social Psychology

30003
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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences. Please note that this is a writing intensive course.

## SOC 242 - Sociology of Deviance

30003
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 pre-major and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## SOC 245 - Drugs and Society

30003
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 premajor and/or elective course requirement.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## Prerequisites

Take RED-090 SOC-210;

## SOC 250 - Sociology of Religion

30003
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 religous systems.
This course has been approved for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

## SPA - Spanish

## SPA 111 - Elementary Spanish I

30003
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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts. This course may satisfy a general education requirement for Catawba College.
MAY BE USED ONLY AS SECOND HF COURSE

## Prerequisites

Take RED-090 or ENG-111;

## SPA 112 - Elementary Spanish II

30003
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.
This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts. This course may satisfy a general education requirement for Catawba College.

## MAY BE USED ONLY AS SECOND HF COURSE

## Prerequisites

Take SPA-111;
SPA 120 - Spanish for the Workplace
30003
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 careerspecific 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.

## SPA 211 - Intermediate Spanish I

30003
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 has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts. This course may satisfy a general education requirement for Catawba College.

## Prerequisites

Take SPA-112;

## SPA 212 - Intermediate Spanish II

30003
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 for transfer under the Comprehensive Articulation Agreement as a general education course in humanities/fine arts. This course has been approved for transfer under the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts. This course may satisfy a general education requirement for Catawba College.

## Prerequisites

Take SPA-211;

## SRV - Surveying

## SRV 110 - Surveying I

26004
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.

## Corequisites

Take One: MAT-121, MAT-161, MAT-171, or MAT-175

## SRV 111 - Surveying II <br> 26004

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 crosssection 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.

## Prerequisites

Take SRV-110(S12339);

# WEB - Web Technologies 

## WEB 110 - Internet/Web Fundamentals 22003

This course introduces World Wide Web Consortium (W3C) standard markup language and services of the Internet. Topics include creating web pages, search engines, FTP, and other related topics. Upon completion, students should be able to deploy a hand-coded website created with mark-up language, and effectively use and understand the function of search engines.

## Corequisites

Take CIS-110.

## WEB 111 - Introduction to Web Graphics <br> 22003

This course introduces the creation of web graphics, and addressing problems peculiar to WWW display using appropriate software. Topics include web graphics file types, optimization, RGB color, web typography, elementary special effects, transparency, animation, slicing, basic photo manipulation, and other related topics. Upon completion, students should be able to create graphics, such as animated banners, buttons, backgrounds, logos, and manipulate photographic images for Web delivery.

## WEB 115 - Web Markup and Scripting <br> 22003

This course introduces Worldwide Web Consortium (W3C) standard client-side Internet programming using industry-established practices. Topics include JavaScript, markup elements, stylesheets, validation, accessibility, standards, and browsers. Upon completion, students should be able to develop hand-coded web pages using current markup standards.

## Prerequisites

Take WEB-110(S22058);

## WEB 120 - Introduction to Internet Multimedia 22003

This is the first of two courses covering the creation of internet multimedia. Topics include internet multimedia file types, filetype 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.

## WEB 125 - Mobile Web Design

22003
This course introduces students to web design for mobile devices. Topics include planning an effective mobile Web site, industry standard Mobile Markup Language, CSS3, multimedia, m-commerce, social media, testing and publishing. Upon completion, students should be able to plan, develop, test, and publish Web content designed for mobile devices.

## Prerequisites

Take WEB-110(S22058);

## WEB 140 - Web Development Tools

22003
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.

## WEB 179 - JAVA Web Programming

23003
This course introduces the development of dynamic, databasedriven web applications using the JAVA programming languages. Topics include Object Oriented Programming JAVA Server Pages, servlets, database interactions, and form handling. Upon completion, students should be able to create and modify JAVA-based internet applications.

## WEB 180 - Active Server Pages

22003
This course introduces active server programming. Topics include HTML forms processing and other issues related to developing active web applications. Upon completion, students should be able to create and maintain a dynamic website.

## Prerequisites

Take CIS-115(S21061);

## WEB 182 - PHP Programming

22003
This course introduces students to the server-side, HTML-embedded scripting language PHP. Emphasis is placed on programming techniques required to create dynamic web pages using PHP scripting language features. Upon completion, students should be able to design, code, test, debug, and create a dynamic web site using the PHP scripting language.

## Prerequisites

Take CIS-115(S21061);

## WEB 187 - Programming for Mobile Devices 22003

This course introduces content development for mobile electronic devices with a focus on business-related, social media, and entertainment applications. Emphasis is placed on developing web content and creating applications for mobile devices, including internet/business practices and techniques for delivery on mobile platforms. Upon completion, students should be able to develop web content and business or entertainment applications for use on mobile electronic devices.

## Prerequisites

Take CIS-115(S21061);

## WEB 210 - Web Design

22003
This course introduces intermediate to advanced web design techniques. Topics include customer expectations, advanced markup language, multimedia technologies, usability and accessibility practices, and techniques for the evaluation of web design. Upon completion, students should be able to employ advanced design techniques to create high impact and highly functional web sites.

## Prerequisites

Take WEB-115(S22059);

## WEB 211 - Advanced Web Graphics

22003
This course covers the advanced concepts related to the creation and manipulation of graphic images for web delivery. Topics include graphics acquisition, use of masks and channels, advanced special effects, advanced photo manipulation, and other related topics. Upon completion, students should be able to create, manipulate, and optimize web graphics with advanced techniques and maintain an online coursework portfolio.

## Prerequisites

Take WEB-111(S22416);

WEB 220 - Advanced Multimedia
22003
This is the second of two courses covering internet multimedia.
Topics include use of advanced internet multimedia applications. Upon completion, students should be able to create interactive Internet multimedia presentations.

## Prerequisites

Take WEB-120;

## WEB 225 - Content Management Systems 22003

This course introduces students to Content Management Systems (CMS) designed for the publication of Web content to Web sites. Topics include individual user accounts, administration menus, RSS-feeds, customizable layout, flexible account privileges, logging, blogging systems, creating online forums, and modules. Upon completion, students should be able to register and maintain individual user accounts and create a business website and/or an interactive community website.

## Prerequisites

Take WEB-110(S22058);

## WEB 250 - Database Driven Websites <br> 22003

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.

## Corequisites

Take CIS-115.
Prerequisites
Take DBA-110;

## WEB 287 - Web E-Portfolio

12002
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.

## WLD - Welding

## WLD 110 - Cutting Processes

13002
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.

## WLD 111 - Oxy-Fuel Welding

13002
This course introduces the oxy-fuel welding process. Topics include safety, proper equipment setup, and operation of oxy-fuel welding equipment with emphasis on bead application, profile, and discontinuities. Upon completion, students should be able to oxy-fuel weld fillets and grooves on plate and pipe in various positions.

## WLD 112 - Basic Welding Processes

13002
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.

## WLD 115 - SMAW (Stick) Plate

29005
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.

## WLD 116 - SMAW (Stick) Plate/Pipe

19004
This course is designed to enhance skills with the shielded metal arc (stick) welding process. Emphasis is placed on advancing manipulative skills with SMAW electrodes on varying joint geometry. Upon completion, students should be able to perform groove welds on carbon steel with prescribed electrodes in the flat, horizontal, vertical, and overhead positions.

## Prerequisites

Take WLD-115;

## WLD 121 - GMAW (MIG) FCAW/Plate

26004
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.

## WLD 122 - GMAW (MIG) Plate/Pipe

16003
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 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.

## Prerequisites

Take WLD-121;

WLD 131 - GTAW (TIG) Plate
26004
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.

## WLD 132 - GTAW (TIG) Plate/Pipe

16003
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.

## Prerequisites

Take WLD-131;

## WLD 141 - Symbols and Specifications <br> 22003

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.

## WLD 143 - Welding Metallurgy

12002
This course introduces the concepts of welding metallurgy. Emphasis is placed on basic metallurgy, effects of welding on various metals, and metal classification and identification. Upon completion, students should be able to understand basic metallurgy, materials designation, and classification systems used in welding.

## WLD 151 - Fabrication I

26004
This course introduces the basic principles of fabrication. Emphasis is placed on safety, measurement, layout techniques, cutting, joining 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.

## Prerequisites

Take WLD-110 WLD-115 WLD-131;

## WLD 215 - SMAW (stick) Pipe

19004
This course covers the knowledge and skills that apply to welding pipe. Topics include pipe positions, joint geometry, and preparation with emphasis placed on bead application, profile, and discontinuities. Upon completion, students should be able to perform SMAW welds to applicable codes on carbon steel pipe with prescribed electrodes in various positions.

## Prerequisites

Take WLD-115 or WLD-116;

## WLD 221 - GMAW (MIG) Pipe

16003
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 GMAW welds to applicable codes on pipe with prescribed electrodes in various positions.

## Prerequisites

Take WLD-122;

## WLD 231 - GTAW (TIG) Pipe

16003
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.

## Prerequisites

Take WLD-132;

## WLD 251 - Fabrication II

16003
This course covers advanced fabrication skills. Topics include advanced layout and assembly methods with emphasis on the safe and correct use of fabrication tools and equipment. Upon completion, students should be able to fabricate projects from working drawings.

## Prerequisites

Take WLD-151(S11114);

## 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.

## Prerequisites

Take WLD-115 WLD-121 WLD-131;

## WLD 262 - Inspection and Testing <br> 22003

This course introduces destructive and non-destructive testing methods. Emphasis is placed on safety, types and methods of testing, and the use of testing equipment and materials. Upon completion, students should be able to understand and/or perform a variety of destructive and non-destructive testing processes.

## WLD 265 - Automated Welding/Cutting <br> 26004

This course introduces automated welding equipment and processes. Topics include setup, programming, and operation of automated welding and cutting equipment. Upon completion, students should be able to set up, program, and operate automated welding and cutting equipment.

## Prerequisites

Take WLD-110 WLD-121;

## Faculty and Staff



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