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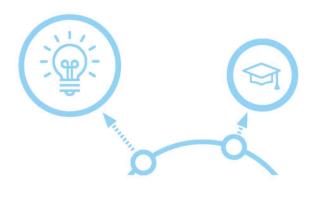
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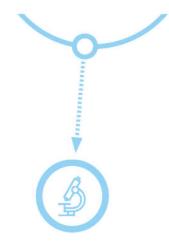
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The College



Central Carolina Community College is a tax-supported, public, non-profit educational institution under the control of its board of trustees. The College is a member of the North Carolina Community College System, which is governed by the State Board of Community Colleges. The College is governed in accordance with the NC General Statutes and State Board of Community Colleges Code. The College serves Chatham, Harnett, and Lee counties as assigned by the authority of the State Board of Community Colleges. The College's Board of Trustees is responsible for ensuring that the College's financial resources are adequate to provide a sound educational program.

The College is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award associate degrees, diplomas, and certificates. The College was accredited by the North Carolina State Board of Education in 1970, by the Southern Association of Colleges and Schools in 1972 and reaffirmed in 1976, 1987, 2008, and 2018. The College offers university transfer and career/technical programs as described in its catalog, which is available electronically at http://www.cccc.edu/catalog/. Each program has appropriately qualified faculty and a program coordinator who reports through an instructional dean to the Chief Academic Officer. The College's operations are guided by its mission: "Central Carolina Community College fosters individual, community, and economic development through transformative lifelong learning."

## Welcome to CCCC

Welcome to Central Carolina Community College, a top-rated community college within the North Carolina Community College System.

Central Carolina Community College was established to help you achieve your educational goals, whether finishing high school, learning a valuable vocational skill, or completing the first two years of college–at minimal cost–before transferring to a university or four-year college.

At Central Carolina Community College, you can explore different kinds of job opportunities, identify your personal strengths, and start on the path toward new levels of success.

The foundation of Central Carolina Community College's strength is a competent and caring faculty, staff, and administration. We genuinely want to see students succeed and are willing to go the extra mile to ensure that success. Our commitment to student success includes a comprehensive program of student financial and academic assistance.

We are committed to helping our students become well-rounded individuals, and we offer a diversified program of student activities designed to develop social and leadership skills and to make the learning experience enjoyable.

## College Mission, Vision, & Values

#### Mission

Central Carolina Community College fosters individual, community, and economic development through transformative lifelong learning.

#### Vision

Exceptional Learning for All

#### Values

CCCC is dedicated to providing pathways to achievable dreams by cultivating a culture of care and advocacy:

Compassion: We recognize the challenges we all face and respond to them with empathy, understanding, and a willingness to help.

Inclusion: We respect and appreciate the qualities that make each of us unique at the College and in the community

Opportunity: Through purposeful action we provide pathways to achievable dreams.

Integrity: We create an environment where everyone is encouraged to consistently make choices that reflect honesty and high standards. Courage: We inspire everyone to take risks and move forward in the face of challenges and uncertainty.

People: We provide students, employees, employees, supporters, and other stakeholders with the tools, learning opportunities, and support needed to be successful.

# CCCC Is an Equal Opportunity College

Central Carolina Community college serves the public without regard to race, color, national origin, religion, age, sex and sexual orientation, gender, family status, disability status, veteran status, or any health or genetic information.

## Services to Students with Disabilities

Central Carolina Community College has approved the following policy to guide its delivery of services to students with disabilities: No individual shall, by reason of disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity for which otherwise qualified. The college may make program adjustments in instructional delivery and may provide supplemental services to enable students with disabilities to participate in activities compatible with their condition and interest. For more information, see <u>Student Accessibility</u> <u>Services</u>.

### Programs

Student success, community service, and educational leadership distinguish Central Carolina Community College. The college takes great pride in its long history of innovative program development to meet the ever-changing educational needs of its students and the communities and businesses it serves.

## Curriculum

Programs for college credit are classified as curriculum programs. Central Carolina Community College offers Associate in Arts, Associate in Engineering, Associate in Science, Associate in Arts in Teacher Preparation, and Associate in Science in Teacher Preparation degree programs that transfer to four-year colleges and universities; two-year programs that lead to an Associate in Applied Science degree; and programs that can be completed in one year or less and lead to a diploma and/or a certificate. Articulation agreements with four-year colleges and universities enable graduates to move seamlessly into additional education, if that is their goal.

A strong asset of the North Carolina Community College System is the flexibility in programs. When the job market no longer provides employment for graduates in certain areas, programs can be phased out so more critical labor needs may be met. It is not the purpose of the college to adopt a fixed curriculum; rather, its aim is to modify all programs to meet the ever-changing needs in the fields of employment.

The college reserves the right to cancel any course or program in cases of low enrollment or decreased budget. The college reserves the right to change any curriculum, and such changes may be made without prior notice.

## Non-curriculum

The college also offers non-credit courses in basic education and in technical, vocational, enrichment, and general interest areas. These non-curriculum courses do not count toward a college degree or diploma, but a certificate of completion is given and continuing education units are awarded. The Adult High School/High School Equivalency program awards a diploma or certificate. Continuing education classes award a diploma or certificate with continuing education units.

#### **Continuing Education**

Continuing Education provides opportunities for adults, regardless of educational backgrounds, to train and update their skills for employment, develop leadership and civic responsibility, improve in-home and community life, expand knowledge in general education, and develop creativity in the fine arts.

The Continuing Education division awards Continuing Education Units (CEU) for appropriate programs. The CEU is a nationally recognized records device for substantive noncredit learning experiences. A CEU is defined as "10 hours of participation in an organized continuing education experience under responsible sponsorship and qualified instruction or direction." The following are continuing education programs for which CEU's may be earned:

Occupational programs provide pre-employment, on-the-job, and in-service training of personnel for area businesses and industries. Occupational courses are available to the community and may also be developed for specific employer training needs. Courses may be delivered in a classroom, online, or lab environment. These courses may be offered "on site" or at a college location.

Emergency Services programs provide courses to meet the training needs of law enforcement, fire, emergency medical, and rescue services personnel. Its programs develop skilled responders, empowering them to act more effectively in emergencies.

Community Service programs are offered as a part of the commitment of the college to serve the total community. Offered on a day or evening basis, these courses are designed

to meet the personal enrichment educational needs of adults in a variety of areas.

#### College & Career Readiness

The mission of the College & Career Readiness program is to prepare adults with the knowledge and skills necessary to be successful in postsecondary education and in the workplace. Anyone 16 years of age or older who has been out of school for a minimum of six months, may enroll in College & Career Readiness. The following programs are offered at various sites in the college's three-county service area at no cost.

#### 1. Adult Basic Education

Adult Basic Education is offered to individuals who performed below a high school level on a placement test and seek to improve basic skills in reading, writing, mathematics, and related subjects. These courses are designed to prepare students to transition into the High School Equivalency program or the Adult High School Diploma program.

#### 2. High School Completion

- The High School Equivalency and Adult High School Diploma programs provide adults the opportunity to earn a high school credential.
- High School Equivalency (HSE): The HSE program allows an adult to take a series of tests to demonstrate attainment of the academic skills equivalent to those of a high school graduate. The HSE program supports preparation for both the GED® and HiSET®. The GED® includes four tests and is computer based. The HiSET® includes five tests and offers both computer-based testing and paper-based testing. HSE tests are fee-based.
- Adult High School Diploma (AHS): The AHS diploma program offers students an opportunity to complete the high school credits needed to obtain an adult high school diploma. Course and graduation requirements are in alignment with the standards established by the North Carolina State Board of Education, the local education agencies, and Central Carolina Community College. The AHS diploma is issued jointly by the local education board of the student's residence and the Central Carolina Community College's Trustees.

#### 3. English as a Second Language (ESL)/English Literacy

The ESL program assists students whose first language is not English improve their English speaking, reading, and writing skills. Students may also choose to prepare for the US citizenship test and/or enroll in a computer literacy course.

## 4. Bridges to Living and Learning Academy (B.E.L.L.)

B.E.L.L. is a program for adults with intellectual or developmental disabilities. Eligible students must be referred by high school teachers, vocational rehabilitation counselors, academic advisors or guidance counselors. B.E.L.L. Academy's emphasis is on improving reading, writing, math, and computer skills; helping adults become more independent; and offering hands-on, real-life career experiences.

#### 5. Basic Skills Plus

Basic Skills Plus is a program that allows students who are enrolled in College & Career Readiness and performing at the adult secondary education level to co-enroll in certain curriculum or continuing education career pathways. Tuition is waived for the first 12 credit hours of a curriculum program or 96 hours of a continuing education program.

#### YouthBuild

Central Carolina YouthBuild is a grant-funded program administered by the U.S. Department of Labor that assists youth between the ages of 16 and 24 and have barriers to education and/or employment. Participants are able to complete a high school credential, enroll in a career pathway in Construction Technology, Nurse Aide I or Culinary, and participate in leadership and community development activities. Support services, such as help finding employment, housing, child care, and transportation are offered. Email YouthBuild@cccc.edu for additional information.

#### **Small Business Centers**

The college's small business centers support the development of new businesses and the growth of existing small businesses through training, counseling, and resources. The college operates three small business centers, one in each of the counties within the college's service area. Through the centers, seminars are offered related to small business operations for entrepreneurs and prospective small business owners. Direct counseling and resources are provided to small business center clients. Additionally, the small business centers work in conjunction with other service organizations in the three-county service area to provide resources and support to small businesses. Centers have a special focus of assistance and loan referral for small businesses as needed.

#### **Customized Training & Industry Services**

The customized training program provides education and training opportunities for eligible businesses and industries. Those businesses and industries eligible for support through customized training include manufacturing, technology intensive, regional or national warehousing and distribution centers, customer support centers, air courier services, national headquarters with operations outside North Carolina, and Civil Service employees providing technical support to US military installations located in North Carolina. Resources may support training assessment, instructional design, instructional costs, job profiling, and training delivery for personnel involved in the direct production of goods and services. In order to receive assistance, eligible businesses and industries must demonstrate two or more of the following criteria:

- The business is making an appreciable capital investment.
- The business is deploying new technology.
- The business is creating jobs, expanding an existing workforce, or enhancing the productivity and profitability of the operations with the state
- The skills of workers will be enhanced by the assistance.

## Facilities

Central Carolina Community College has full-service campuses in Chatham, Harnett and Lee counties as well as multiple centers that provide environments conducive to learning.

#### **Cooperative Innovative High Schools**

#### Lee Early College

The college's Lee Main Campus is home to Lee Early College, an innovative partnership with Lee County Schools. Students earn both a high school diploma and an associate degree in five years. The student body is diverse, but its members are united by their personal motivation and ability to thrive in a college setting.

#### Harnett County Early College (HCEC)

The college's Dunn Center is home to HCEC, which encourages access to and completion of a college degree by year 13 with opportunities for transfer to senior institutions and options for accelerated coursework in the areas of business, culinary, early education, and information technology.

#### Chatham School of Science & Engineering (CSSE)

CSSE is an innovative opportunity that includes a focus on science, math, engineering, and advanced course options. Ninth graders have the opportunity to earn a high school diploma and an associate degree and transfer credits. CSSE is housed primarily at the Chatham Center for Innovation in Siler City with students visiting the Chatham Main Campus for most college coursework.

## Accreditations

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

NOTE: The Commission on Colleges should be contacted only if there is evidence that appears to support an institution's significant non-compliance with a requirement or standard.

The college was accredited by the North Carolina State Board of Education in 1970, by the Southern Association of Colleges and Schools in 1972 and accreditation was reaffirmed in 1976, 1987, 1997, 2008, and 2018.

CCCC is a member of the American Association of Community Colleges. Its trustees are members of the Association of Community College Trustees.

In addition to being accredited by the Southern Association of Colleges and Schools Commission on Colleges, a number of curriculum programs are approved by various accrediting or licensing agencies:

- Barbering: North Carolina Board of Barber Examiners
- The Basic Law Enforcement Training program is certified by the North Carolina Criminal Justice Education and Training Standards Commission.
- The Computer-Integrated Machining with an emphasis in Tool, Die, and Mold Making program is accredited by the National Institute for Metalworking Skills (NIMS).
- The Cosmetology program is licensed by the North Carolina Board of Cosmetic Art Examiners.
- The Dental Assisting program is accredited by the
- Commission on Dental Accreditation.
- The Dental Hygiene program is accredited by the
- Commission on Dental Accreditation.
- The Health Information Technology Program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM).
- The Medical Assisting Diploma program is accredited by the Commission on Accreditation of Allied Health Education Programs upon the recommendation of the Medical Assisting Education Review Board (MAERB).
- The Nursing programs are approved by the North Carolina Board of Nursing.
- The Radio Broadcasting program is approved by the Federal Communications Commission.
- The Veterinary Medical Technology program is accredited by the Committee on Veterinary Technician Educational Activities (CVTEA) of the American Veterinary Medical Association (AVMA).

## Onboarding and Advising & Student Services Divisions

The purpose of the Onboarding and Advising and Student Services Divisions is to assist students with various aspects of their education, from admissions through graduation. More specifically, Onboarding and Advising handles admissions, testing, registration and records, graduation ceremonies, and transfer assistance. Student Services handles athletics, financial aid, veterans' benefits assistance, assistance to the disabled, coordination of student activities, and strategic initiatives such as TRIO.

## **College Policies**

College policies related to visitors and children on campus, drones on campus, student conduct, intellectual property, computer and internet use, housing, communicable diseases, tobacco on campus, solicitation and fundraising, and copyright can be found on the CCCC web site, in the Student Handbook, and in the CCCC <u>Policies & Procedures Manual</u>.

## Admissions

## **General Information**

All students are admitted to the college without regard to race, color, national origin, religion, age, sex or sexual orientation, gender, family status, disability status, veteran status, or any health or genetic information. Admission policies are in accordance with 1D SBCCC 400.2. To be admitted to a curriculum program, applicants must have a high school diploma or a high school equivalency. Exceptions to admissions policies may be determined after a conference between the applicant and the Vice President of Student Services or his or her designee.

## **Home-schooled Applicants**

Home-schooled applicants must provide the following documentation for admission:

- Proof of listing with the N.C. Division of Non-Public Education (DNPE).
- A full, final high school transcript including a list of all courses taken, the term and year courses were taken, final course grades, and a final grade point average. The transcript should include the official school name and the administrator's signature (usually parents or guardian).

**NOTE:** All academic instruction in core subjects MUST come from parents, legal guardians, or a member of the household and not from anyone outside the household. (Two household schools are permitted to work together.) Colleges generally assume that a member of the household was the supervising instructor for each of the core subjects unless contrary evidence is presented. The home school may be asked

to present a statement that a member of the household was the instructor of the core subjects. The NCDNPE can provide information identifying which subjects are core subjects.

• Nationally standardized test scores for the last two years of home school instruction, measuring competencies in verbal and quantitative areas. The home school is permitted to establish its own minimum scores on this test. The home school established minimum score must be indicated on the transcript and scores must meet or exceed such scores.

Failure to meet all transcript verification requirements may result in the college's inability to certify the secondary school's validity for the purpose of Title IV funding.

Persons home schooled may also elect to take the high school equivalency exam from their local community college in lieu of a high school diploma. If the student passes this test, the high school equivalency is equivalent and can take the place of a high school diploma. The cost of the high school equivalency exam is minimal.

## Correspondence Schools for High School Diplomas

Central Carolina Community College will accept any correspondence school registered with the state of North Carolina's Department of Non-Public Education for admission to the college. However, the college may be unable to certify the validity of some schools for the purpose of Title IV funding.

While Central Carolina Community College does not endorse any of the following schools, successful completion of one of these programs will fulfill the high school graduation admissions requirement for the college. This is not an exhaustive list.

- American School
- A Becka Academy
- Continental Academy degree must have been received after July 2006
- Keystone National High School
- Penn Foster, formerly Thompson Educational Direct
   degree must have been completed after November 1, 2002
- Ashworth High School (part of Ashworth University) formerly James Madison High School

If you have questions about another correspondence school, please contact the Registrar's Office. Correspondence schools must have regional accreditation at the time of graduation for the college to accept the diploma. For more information about regional accreditation, please go to <u>Regional Accreditation for Online Schools</u> or <u>Council for Higher Education Accreditation Directory</u>.

## Undocumented Immigrant Applicants

Under the State Board of Community Colleges' rule "Admission to Colleges," undocumented immigrants will be admitted if the following requirements are met:

- Must be a graduate of a United States public high school, private high school, or home school that operates in compliance with state or local law
- Must pay the out-of-state tuition rate
- Undocumented immigrants will be permitted to register for classes once the late registration period begins.

Additionally, when considering a program of study, undocumented immigrants should be aware that federal law prohibits states from granting professional licenses to undocumented immigrants (see NCCCS CC-13-019, 8 U.S.C. 1621(a) and (c)(1)(A) and SBCC Code 1D SBCCC 400.2(b)(5)). Further, students lawfully present in the United States shall have priority over any undocumented immigrant in any class or program of study when capacity limitations exist, such as programs with competitive-entry waitlists.

## Deferred Action for Childhood Arrivals (DACA) Applicants

Applicants who have been granted deferral under the DACA program are responsible for presenting documentation to establish that they have DACA classification. This documentation includes the I-797, Employment Authorization Document (EAD), and social security card. DACA students are held to the general admission standards and procedures and pay the out-of-state tuition rate. Per State Board of Community College Code 1D-SBCC 400.2, Deferred Action Childhood Arrival (DACA) students may not be eligible to sit for licensure but are not prohibited from enrolling in a health science program that leads to licensure. However, acceptance into the college does not guarantee acceptance to a specific program. DACA students MUST meet all of the program requirements for consideration and acceptance as does any other student. Verified DACA students do not have to wait until the late registration period to enroll in classes.

# Students Needing State Authorization

Central Carolina Community College has been approved by North Carolina to participate in the National Council for State Authorization Reciprocity Agreements (NC-SARA). SARA is an agreement among member states, districts, and territories that establishes comparable national standards for interstate offering of postsecondary distance education. CCCC is approved to serve students in 49 states (all but California), the District of Columbia, Puerto Rico and the U.S. Virgin Islands (St. Thomas, St. Croix, and St. John). Students who live in a state or pursue programs of study other than those for which the college is approved will be admitted to CCCC, but will not be allowed to register until authorization has been obtained. Students should consult with their state prior to enrolling in programs that require licensure or certification.

Central Carolina Community College determines a student's location for the purposes of state authorization at the time of a student's initial enrollment. If a student's location changes, a Change of Student Data Form is completed by the student and is processed by the Student Records and Registrar's Office.

## **General Admissions**

### General Standards and Procedures

All applicants to CCCC will be provisionally admitted to the college. To be officially accepted into a curriculum program, a student must complete all curriculum program admission requirements. Only students who have been officially accepted into a curriculum program will be eligible to receive federal aid, Veteran's benefits, or third-party sponsorship.

- 1. Complete and submit the admission application.
- 2. Submit an official high school transcript or high school equivalency. Official transcripts are required. A transcript is an "official transcript" when it is received by the college through the mail or secure electronic document provider directly from the high school, college, or other institution. It is the applicant's responsibility to request that transcripts be sent.
- 3. Students who desire to have the Student Records and Registrar's Office evaluate any previous coursework for transfer credit evaluation must request transcripts from previously attended institutions of higher education. If transcripts are not requested by the student and received by the college, the student is therefore forfeiting any potential credit and must take all of the prescribed courses in their chosen program of study here at the college.
- 4. Students must satisfy the placement testing requirement by meeting the state-required waiver or qualifying GPA by submitting an official high school transcript and/or official placement test scores, or taking the placement test.

**NOTE:** Applicants who take the placement test, but do not meet the minimum required test scores may be required to take developmental courses. These courses may lengthen the time required to complete a credential. See specific course descriptions and prerequisites/corequisites. Only students who graduated high school more than 10 years ago or who have completed high school in another country are eligible to take the placement assessment. The following students may be exempt from taking the placement test at CCCC:

- Beginning spring 2019 semester, students who have graduated high school within the last ten years with a qualifying unweighted GPA OR have acceptable SAT/ACT scores within the last ten years.
- Students who have acceptable SAT, ACT, Asset, Compass, or Accuplacer test scores within the last five to ten years.
- Students who have transfer credits for English and mathematics courses required for the curriculum major. If students switch to a major requiring additional English and/or mathematics courses for which they do not have transfer credits, they may need to take the placement test or be evaluated by the placement model to determine appropriate proficiency level.
- Students who enter CCCC under the terms of an articulation agreement with another college, provided they have completed the English and mathematics courses required for the articulated program.
- Students who have acceptable Advanced Placement (AP) credits earned in the last ten years for required English and mathematics courses.
- 5. Students using VA benefits must obtain all college transcripts from all previously attended institutions of higher education.
- 6. Students applying for competitive academic programs (Dental Programs, Medical Sonography, Medical Assisting, Nursing, Veterinary Medical Technology, and Esthetics) must submit college transcripts from all previously attended institutions of higher education.
- 7. Students must supply additional information if requested. The admissions decision for the Associate Degree Nursing, Dental Assisting, Dental Hygiene, Medical Sonography, Medical Assisting, Practical Nursing, and Veterinary Medical Technology, and Certificate in Esthetics is made by an admissions committee that selects the most academically qualified candidates for entry guided by college approved standards. Students must meet the Minimum Admissions Criteria in order to apply by the published application deadline. Please see the individual program curriculum descriptions for additional information. Additional admission procedures and requirements for certain programs are listed in the catalog and on the individual program website. The programs are:
  - Associate Degree Nursing
  - Basic Law Enforcement Training (BLET)
  - Certificate in Esthetics
  - Cosmetology Instructor Training
  - Dental Assisting
  - Dental Hygiene
  - Esthetics Instructor Training
  - Medical Assisting
  - Medical Sonography

- Practical Nursing
- Veterinary Medical Technology

# Admissions and the Open Door Policy

All 58 campuses of the North Carolina Community College System operate under an "open door" admissions policy to all applicants who are legal residents of the United States. This means that any person, whether a high school graduate or non-graduate, who is eighteen years old or older and who is able to profit from further formal education, will be served by the institution. An "open door" policy, however, does not mean that an applicant will not have to meet additional admissions requirements set for specific, individual curriculum programs. Such requirements can be found in this College Catalog (also available online), a curriculum guide sheet, or from an Education Navigator. Students who withdraw from such programs must meet these specific program admissions requirements, plus any new or modified ones, should they wish to attempt to re-enter the program. The college reserves the right to limit enrollment in a curriculum program to a number that can be accommodated by the resources of the college and to satisfy accreditation standards.

The college may refuse admissions to applicants who meet at least one of the following exceptions:

- 1. Admissions may be denied to any applicant during any period of time that they were suspended or expelled from any other educational entity.
- 2. Admission may be denied to any applicant to protect the safety of the applicant, student body, faculty/staff, and library patrons when there is an articulable, imminent, and significant threat by documenting (a) the detailed facts supporting the rationale for denying admission, (b) the time period within which the refusal to admit the applicant shall be applicable, and (c) the conditions upon which the applicant would be eligible to be admitted.

The Dean of Student Advising and Success, working through the Admissions staff, will recommend to the Vice President of Student Services if an applicant should be denied admission based on safety concerns. The Vice President of Student Services, who is designated as the Chief Admissions Officer of the college, will then notify the applicant in writing of the college's admissions decision. Any appeals of admission denials should be made in writing directly to the Office of the College President.

## Readmission of Military Students

The college will promptly readmit a student with the same academic status as they had when last attending or accepted for admission if they cannot attend school due to military service. The student must notify the college of the military

service and intention to return through oral or written notice of such service as far in advance as is reasonable under the circumstances, or by an attestation of military service that necessitated the student's absence from school upon readmission. Notification can be provided to Student Onboarding and Success, the Registrar's Office, or the Office of the Vice President of Student Services. No notice is required if precluded by military necessity, such as service in operations that are classified or would be compromised by such notice. Notice of intent to return to school must be within three years after the completion of the period of service. If a student is hospitalized or convalescing due to an illness or injury incurred or aggravated during the performance of service, the student must notify the college within two years after the end of the period needed for recovery from the illness or injury. A student who fairs to apply for readmission within these periods will be subject to the college's established general practices concerning leave of absence.

## **Communicable Diseases**

Please refer to the Central Carolina Community College Policy and Procedure Manual for the college's most current communicable disease information and policy.

## **Career and College Promise**

Career and College Promise provides seamless dual enrollment educational opportunities tuition-free for eligible North Carolina high school students in order to accelerate completion of college certificates, diplomas, and associate degrees that lead to college transfer or provide entry-level job skills. Central Carolina offers Career and College Promise pathways aligned with the K-12 curriculum and career and college ready standards adopted by the State Board of Education.

## Central Carolina Promise Program

The Central Carolina Promise program provides recent high school graduates with free tuition and fees for two academic years, up to five consecutive semesters. The requirements differ slightly by the student's home county. Full details of each county's eligibility requirements can be found at www.cccc.edu/promise.

## **International Students**

CCCC does not currently accept international applicants who do not reside in the United States. Central Carolina Community College does not issue any student an I-20 required for an F-1 immigration student visa.

## **Special Credit Students**

An applicant 18 years or older may enroll as a special credit student without specifying an educational objective or program of study. To be admitted, the special credit student needs only to complete an application. It is to the student's advantage to declare an educational objective and to complete all of the admission procedures as soon as possible after enrollment. Special credit students are not eligible to receive financial aid or veteran's benefits and must meet all prerequisite requirements for each course enrollment.

## Testing

Student Onboarding and Success administers the placement test to students who have been out of high school more than 10 years or graduated high school outside of the United States. The purpose of the test is to assess a student's readiness for the requirements of the curriculum. Test scores are used for academic advisement and course placement, to include a transitions course or a math or English course with a co-requisite course if needed.

Students enrolled in select Health Science programs are required to complete additional testing. Please see the program Education Navigator for further information.

The following placement testing policies will apply:

- 1. Students must present photo identification in order to take the placement test.
- 2. Placement test scores will be valid to use for placement for ten (10) years.
- Students are permitted to take the placement test two times total as a student at CCCC, twice within five (5) years. If a student retests, the highest score on each section will be used for advisement and course placement.
- 4. Students are not permitted to take the placement test if they are currently enrolled in a developmental course.
- 5. Placement test scores are transferable to other colleges with permission of the student.
- 6. It is the discretion of the Dean of Admission and/or the Associate Vice President of Onboarding and Advising to grant or deny further retesting attempts or testing exemptions.

## Quality Enhancement Plan: My Academic Pathway (M.A.P.)

CCCC is committed to providing guidance for students exploring possible career options and selecting an appropriate program of study for each student at the college. CCCC also provides ongoing assistance and support to students for completing their academic goals. The college's quality enhancement plan (QEP) is an initiative to guide students so that they have selected an academic and career pathway consistent with their interests and academic goals. More information about the QEP can be found at www.cccc.edu/map.

# Residence Status for Tuition Payment

The tuition charge for persons who have been legal residents of North Carolina for at least 12 months is less than for nonresidents. Session Law 2013 – 360 directs the University of North Carolina (UNCGA), the North Carolina Community College System (NCCCS), the North Carolina State Education Assistance Authority (NCSEAA), and the North Carolina Independent Colleges and Universities (NCICU) to create a centralized, uniform process for determining residency for tuition purposes and for administration of state financial aid.

#### Purpose and Background

The state of North Carolina partially subsidizes the cost of tuition for all students whose domicile, or permanent legal residence, is in North Carolina. Since it first became a state, North Carolina has abided by the philosophy that an educated public is necessary to a democratic government and that the State, therefore, has an obligation to provide for the education of its people. Article IX, Section 9, of the State Constitution states: "The General Assembly shall provide that the benefits of the University of North Carolina and other public institutions of higher education, as far as practicable, be extended to the people of the State free of expense." Therefore, while North Carolina welcomes out-of-state students it considers the privilege of providing a reduced in-state tuition rate to be a taxpayer benefit.

This centralized process is known as the Residency Determination Service (RDS). In order for a student to receive the benefits of in-state tuition, a residency determination from RDS is required as part of admission. To learn more about residency and complete a determination go to: www.NCresidency.org.

#### **Residency Determination Service (RDS)**

The purpose and mission of RDS is to provide leadership and administration of residency determinations in accordance with North Carolina residency laws and applicable federal statutes. The RDS goal is to provide students access to transparent information and the opportunity to claim NC residency in a simple, accurate, and straightforward manner. For more information on residency for tuition purposes contact RDS at: Email: rdsinfo@ncresidency.org

Phone: (844) 896-2411 Fax: (919) 835-2427 http://www.NCresidency.org

#### **Determining Residency Status**

The specific requirements for establishing residency for tuition classification purposes are prescribed by state law. A North

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Carolina resident for tuition purposes is a person or a dependent person (dependent according to IRS tax code) whose parent or legal guardian has established and maintained legal residence in North Carolina for at least 12 months. Residence in North Carolina must be legitimate and be a permanent situation rather than just for the purpose of maintaining a residence prior to enrollment at an institution of higher education.

Under North Carolina law, to qualify for in-state tuition, you must show that:

- You have established your legal residence (domicile) in North Carolina.
- You have maintained that domicile for at least twelve (12) consecutive months before the beginning of the term.
- You have a residentiary presence in the state.
- You intend to make North Carolina your permanent home indefinitely (rather than being in North Carolina solely to attend college).

Other persons not meeting the 12-month legal residence requirement may be classified as North Carolina residents for tuition purposes only if they fall within one of the limited categories authorized by the North Carolina Legislature. All other persons are ineligible for classification as a North Carolina "resident for tuition purposes" and will be charged out-of-state tuition. To learn more about residency and complete a determination go to http://www.NCresidency.org.

Information relating to claimed North Carolina Residence for tuition purposes will be required from all applicants. The NC Residency Determination Service, RDS, provides the sole determination for NC residency status. Applicants seeking reclassification who claim to be North Carolina residents must work through RDS for reclassification or to appeal. When a student is reclassified, the student must notify the college to have the new status applied to the student's account. Individuals on active military duty in North Carolina and their dependents may be granted waivers that reduce tuition to in-state rates. The federally mandated Choice Act allows recently discharged military personnel or their dependents certified to use VA benefits to be awarded in-state rates. The burden of establishing facts that justify classification of a student as a non-resident entitled to in-state tuition rates is the responsibility of the applicant. Decisions by school officials will be based on the requirements of the North Carolina General Statutes and regulations specified in the Residence Manual to assist the public higher education institutions for North Carolina in the matter of student residence classification for tuition purposes.

Applicants with questions not covered by this section should read detailed guidelines provided in the North Carolina State Residence Classification Manual which may be found at <u>https://www.cccc.edu/registrar/residency</u>/. The Residency Status determination is a part of the application; however, applicants will be required to complete a more in-depth form if reclassification or waiver is requested.

## **Expenses**

#### **Business Office**

Receipt of tuition and fees, collection of parking fines, and payment of refunds are major responsibilities of the Business Office. The Business Office is open between 8:00 a.m. and 5:00 p.m. daily, Monday through Thursday, and between 8:00 a.m. and 3:30 p.m. on Friday, excluding holidays. The Business Office is also open during evening hours during the registration period at the beginning of each term.

### Tuition

The tuition rate is set by the North Carolina General Assembly and is subject to change. Visit the Business Office website (CCCC tuition) for the most up-to-date information.

A senior citizen may audit a course section without payment of any required tuition or registration fee.

#### **Refund Policy – Tuition**

A tuition refund shall not be made except for the following circumstances:

- A 100% refund shall be made if the student officially drops prior to the first day of the academic semester as noted in the college calendar. Also, a student is eligible for a 100% refund if the class in which the student is officially registered is canceled.
- A 75% refund shall be made if the student officially withdraws from classes prior to or on the official 10% point of the course session or semester. State Board of Community College Code IE SBCCC 900.

Should a student, having paid the required tuition for a term, die during that term (prior to or on the last day of examinations), all tuition and fees for that semester may be refunded to the estate of the deceased. This is state policy as stated in the North Carolina Administrative Code, Chapter 23 2D.0202.

### **Bookstores**

The bookstores on the Lee Main Campus and the Harnett Main Campus are operated by Follett Higher Education Group. Students may come on campus to purchase books and supplies, or they may use

https://www.bkstr.com/centralcarolinaccstore/home to purchase books and course materials and have them shipped directly to their home. The bookstore offers textbooks, course materials, school supplies and clothing and gift items featuring the college logo.

Follett Higher Education offers a wide variety of options to students, including a rental program and ebooks.

Buybacks are conducted daily to give the students an opportunity to sell their books.

The hours of operation are posted on the bookstore website listed above and also on the college's website <u>www.cccc.edu</u>. Special hours are observed during registration and from the first day of class through the drop add period of each term.

## **Special Apparel and Equipment**

Students enrolled in the Automotive Technician, Barbering, Basic Law Enforcement Training, Cosmetology, Dental Assisting, Dental Hygiene, Esthetics, Machining, Medical Assisting, Medical Sonography, Motorcycle Mechanics, Associate Degree Nursing, Tool and Die Making, Welding, and Veterinary Medical Technology curriculums will be required to purchase special items of apparel and/or equipment, such as uniforms, lab jackets, tools, gloves, etc. Most of these items may be purchased in the college bookstore.

## Fees

## Student Insurance

Certain risks are inherent in any work involving regular contact with mechanical and electrical equipment. While stringent precautions will be taken to ensure safety, it is in the best interest of all students to provide some measure of insurance protection. All students in healthcare and personal service programs must have malpractice insurance.

The college will maintain a group policy providing insurance protection, and all students will be covered. The cost of accident insurance to the student is included in the student fee for curriculum students. International students are encouraged to secure more complete coverage.

## **Malpractice Insurance**

A \$10 malpractice insurance fee will be charged each fall and spring semester for students enrolled in applicable programs. There will be no malpractice insurance charged for the summer semester. For questions regarding the malpractice insurance policy, please contact the Business Office.

## **Security Fee**

A security fee of \$10 per semester is charged to all curriculum students.

## Breakage Fee

Breakage, damage, or loss due to student negligence, carelessness, or other mishandling of school supplies, materials, or equipment is the responsibility of the student. The student will be required to pay for such items and may be subject to disciplinary action.

## Student Fee

Students registering for credit classes on campus during the fall and spring semesters are charged a student activity fee of \$30 and a security fee of \$10, for a total fee of \$40. Summer term student activity fees are \$5.

The student activity fee provides the revenue necessary to provide services and activities for the student body. Typically, student activity fees provide the following benefits: student handbook, student ID's, parking stickers, various student activities, guest speakers, as well as other events. The student fee also funds the CCCC intercollegiate athletic program.

The student fee includes the cost of accident insurance. Students are covered for accidents that occur while traveling to and from college.

## Computer Use and Technology Fee

The computer use and technology fee is used to support the procurement, operations, and repair of computer and other instructional technology including supplies and materials that support technology.

Curriculum students enrolled in 12 or more credit hours will be charged \$16 per semester. Curriculum students enrolled in fewer than 12 credit hours will be charged \$8 per semester. Continuing education students will be charged \$5 per class.

## **Distance Education Fee**

A \$15 distance education fee will be charged for each course taken online. Hybrid, blended, video-conference, web-conference, and lab co-requisite courses are exempt from this fee. This fee is used to support the licensing, hosting, and maintenance of online technologies used in distance education, including the learning management system, plagiarism detection service, and streaming video content. No separate fees or costs associated with verification of student identity are required.

## Follett ACCESS Book Fee

The Follett ACCESS book fee is added to courses that utilize the Follett ACCESS's first-day inclusive access program and covers the cost of the digital resources associated with a designated course.

## **Financial Aid**

Financial aid options are available at Central Carolina

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Community College for degree-seeking students in qualified programs. CCCC awards federal and state grants, scholarships, and/or work-study employment. Eligible students may receive one or more of these types of financial aid to assist with tuition, fees, books, and other educational related expenses.

The Financial Aid Office utilizes the Free Application for Federal Student Aid (FAFSA) to determine student eligibility for financial aid. All students are encouraged to complete the FAFSA as early as possible each year.

To learn more about the types of aid available, visit <u>Types of</u> <u>Aid at CCCC</u>.

## Financial Aid Eligibility Requirements

In order to receive financial aid from federal and state programs and to continue one's eligibility once aid has been awarded, the following criteria must be met:

- Be a U.S. citizen or eligible non-citizen
- Not be in default of any prior student loan or owe monies to any Federal Student Aid program
- Have a high school diploma or a General Education Development (GED) certificate, or have completed homeschooling. If you don't, you may still be eligible for federal student aid if you were enrolled in college or career school prior to July 1, 2012. Go to <u>https://studentaid.gov/eligibility/basic-criteria</u> for additional information.
- Have a valid Social Security number
- Demonstrate financial need
- Be registered with Selective Service if you are a male
- Apply for admissions to CCCC and have all admissions requirements met:
- Submit an official high school transcript from an accredited high school/home school or an official GED transcript.
- Be enrolled in an eligible program as a regular student seeking a degree or certificate.
- Be currently maintaining Satisfactory Academic Progress (SAP). The SAP Policy can be found at: <u>cccc.edu/financialaid/policies</u>

## Dependency Status for Financial Aid

A student will need to determine whose information to report on the FAFSA. An independent student will report income and asset information for themselves and spouse, if married. A dependent student will report income and asset information for themselves and parents. Not living with parents or not being claimed by them on tax forms does not determine dependency status for federal student aid. For more information, you may view studentaid.gov.

## Financial Aid Application Process

Students interested in applying for federal and/or state financial aid must:

- Create a Federal Student Aid (FSA) username (ID) and password
- Complete the Free Application for Federal Student Aid (FAFSA) at studentaid.gov

#### **Review the FAFSA:**

The FSA ID has replaced the FAFSA PIN. The FSA ID confirms your identity when you access your financial aid information and electronically sign Federal Student Aid documents. If you do not already have an FSA ID (different than the old PIN number) you can create one when logging into studentaid.gov. You can still create an FSA ID if you have forgotten or do not have a PIN.

OR

Request a paper FAFSA by calling (800) 433-3242; for hearing impaired contact (800) 730-8913.

#### Follow up:

You will receive a Student Aid Report (SAR) at the address and/or the email address you listed on the FAFSA. This form is for your records. You will receive notification from the Financial Aid Office when or if:

- additional information is required to complete your application
- your eligibility status has been determined
- an award has been placed on your student record

## Federal Aid Enrollment Status for Credit Hour Programs

Federal student aid is awarded based on the expected family contribution (EFC) as determined by the FAFSA and prorated depending on the student's enrollment status. Full-time awards are subject to change based on the Federal Pell Grant LEU (Lifetime Eligibility Used). The Federal Pell Grant proration chart is shown below.

ENROLLMENT STATUS	# OF CREDIT HOURS	PRORATION PERCENTAGE
Full Time	12+ Credits Hours	100% of award
Three – Quarter Time	9-11 Credit Hours	75% of award
Half Time	6-8 Credit Hours	50% of Award
Less than Half Time	1-5 Credit Hours	25% of Award

#### State Aid:

Students enrolled for less than 6 credit hours are NOT eligible to receive the North Carolina Guarantee Scholarship. State aid is not awarded by the state for summer terms.

#### **Enrollment Status for Clock Hour Programs**

BLET – Basic Law Enforcement Training (C55120) and Esthetics Certificate (C55230) are clock hour programs, not credit hour programs. Enrollment status is determined by the number of clock hours completed as the semester progresses. For additional information regarding clock hour programs, contact the Financial Aid Office.

## **Financial Aid Award Process**

Students are notified of financial aid award decisions for the academic year once the financial aid file is complete. All notifications will be emailed and available on Self-Service unless the student has opted in to receiving paper notifications. To ensure prompt processing of the financial aid application, students must complete the FAFSA early and turn in all required paperwork to the CCCC Financial Aid Office via eforms by notated priority dates (available on the web site: cccc.edu/financialaid) each semester.

## Financial Aid Satisfactory Academic Progress

In accordance with federal and state regulations, CCCC's Financial Aid Office is required to evaluate a student's satisfactory academic progress at the end of each term (fall, spring, summer), to determine financial aid eligibility for the following term. Satisfactory academic progress evaluations will include all periods of enrollment whether students received or did not receive financial aid for periods of enrollment and include credit hours earned at other institutions and transferred into the student's program of study at CCCC.

In order to be eligible for federal, state, and institutional aid, students must meet both quantitative (time-based) and qualitative (grade-based) standards.

#### **Grade-based Standard (GPA)**

Grade Point: Maintain a minimum cumulative grade point average (GPA) of 2.0.

#### **Time-based Standard (PACE)**

Completion Rate: Complete 67% percent of the total cumulative credit hours attempted. For example, if a student has attempted 100 credits, the student must complete 67 credits to meet the completion rate requirement.

#### **Maximum Timeframe:**

Complete the requirements for an eligible program of study within a timeframe not to exceed 150% of the published program length. For example, if an academic program length is 60 credit hours, the maximum credit hours eligible for financial aid is 90 (60 \* 150% = 90). Students may only receive financial aid for two Associate programs at CCCC.

Note: Developmental coursework will be included in the time-based standard and is limited to 30 credit hours.

#### **Financial Aid Treatment of Selected Grades**

**Withdrawals/Drops:** Credit hours in which a student receives a grade of "W" or "WF" are included in the number of attempted hours, but do not count toward successfully completed hours. Excessive withdrawals may affect your ability to meet satisfactory academic progress standards.

**Incompletes:** Credit hours in which a student receives a grade of "I" are included in the number of attempted hours, but do not count toward successfully completed hours. Grades of "I" are treated as an "F", which negatively affects GPA.

**Fails:** Credit hours in which a student receives a grade of "F", "WF", "R" are included in the number of attempted hours, but do not count toward successfully completed hours. In addition, these grades negatively affect GPA. Students with failed grades may have difficulty meeting the satisfactory academic progress standards.

Audit and Never Attend: An audit "AU" or never attended "NA" grade is not considered attempted coursework. It is not included in the students' GPA or completion rate evaluation. A student cannot receive financial aid for courses that they audit or never attend.

**Repeat Courses:** Per federal regulations, a student may repeat a previously passed course (grade of "D" or better) one additional time. Repeat courses are included in total attempted earned hours.

**Credit by Exam:** Credit hours in which a student receives a "CE" is included in attempted and completed hours for the time-based standards of completion rate and maximum time frame. A student cannot receive financial aid for a "CE" credit.

**Transfer Credit:** All hours transferred and accepted from other institutions are included in the number of hours attempted and completed. In addition, a student's maximum time to receive financial aid will be reduced by the equivalent transfer of credit hours towards the degree.

#### **Eligibility Status**

- **Satisfactory:** Students who meet the minimum requirements (cumulative 2.0 GPA, 67% completion rate, and have not reached 150% maximum time frame for enrolled program of study) of satisfactory academic progress standards are placed on this status.
- **Warning:** Students who do not meet the minimum requirements (cumulative 2.0 GPA and 67% completion rate) after an official evaluation at the end of a semester will be placed on warning for the following semester. Students may continue to receive financial aid during the warning period.

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- **Suspension:** Students on warning status who fail to meet the minimum requirements (cumulative 2.0 GPA and 67% completion rate) or have not met the minimum requirements for two consecutive terms will no longer be eligible for financial aid.
- **Maximum Time Frame:** Students who have reached the maximum credit hours allowed for the program of study will be placed on this status. Attempted credits from all enrollment periods at the college plus all applicable transfer credits are counted; whether the student received financial aid for those terms is of no consequence.
- **Probation:** Students who have successfully appealed financial aid suspension are placed in probation status. Students in probation status are eligible to receive financial aid for one (1) semester, after which they must be in satisfactory status or meeting the requirements of a satisfactory academic progress terms and conditions.
- **Termination:** Students on probation status who do not adhere to the success plan that they were given will be placed on Financial Aid Termination. Students who have been terminated are no longer eligible for financial aid until the minimum satisfactory academic progress standards are met.

#### **Appeals/Regaining Eligibility for Financial Aid**

Students who fail to meet the standards of the satisfactory academic progress policy will become ineligible for financial aid immediately. Students with documented extenuating circumstances beyond their control may submit an appeal to the Financial Aid Office for review. If the appeal is approved, financial aid eligibility will be reinstated on a probationary status.

Students may also regain financial aid eligibility if they meet the minimum requirements of CCCC's Satisfactory Academic Progress Policy. Students may achieve good standing by enrolling for classes at their own expense.

## SAP Evaluations and Notifications of Eligibility Status

Returning students are evaluated on a continuous basis from the first enrollment at CCCC unless a mitigating circumstance is considered. Returning students who were previously enrolled under an academic progress policy other than the current satisfactory academic progress policy will be required to meet the standards of the current policy at the end of the returning semester.

The Financial Aid Office will send correspondence of eligibility status to students receiving federal and/or state aid when SAP is evaluated at the end of the semester.

#### **Return of Title IV/State Funds Policy**

Students who are receiving financial aid and withdraw/drop from all classes prior to completing more than 60 percent of the semester will have their eligibility for financial aid recalculated and may be required to repay all or a portion of any federal and/or state financial aid funds received for that semester. Students are responsible for paying any debts to Central Carolina Community College. A "hold" will be placed on the student's record until all charges are paid in full.

### **Academic Information**

Central Carolina Community College offers Associate in Arts, Associate in Science, Associate in Engineering, Associate in Arts in Teacher Preparation, Associate in Science in Teacher Preparation, and Associate in Applied Science degrees, as well as diplomas and certificates.

## Transfer to Four-Year Institutions

In accordance with the Comprehensive Articulation Agreement and Transfer Assured Admissions Policy between the North Carolina Community College System and the University of North Carolina (UNC) System, CCCC graduates who complete an Associate in Arts or Associate in Science degree and meet all other requirements are assured admission into one of the UNC system's 16 public universities. Students who complete the Associate in Engineering and its corresponding requirements are not guaranteed admission into a public or private university but will meet the core requirements for transfer to the state's public and private universities with undergraduate engineering programs. The Associate in Arts in Teacher Preparation degree and the Associate in Science in Teacher Preparation degree prepare students for articulated transfer to designated senior institutions. CCCC also has transfer agreements with several colleges and universities outside the UNC System. Check with vour academic advisor for more information on transfer credits.

### Associate in Applied Science Degree (AAS) Transfer

Although the Associate in Applied Science degree is designed for workforce training, many colleges and universities will accept transfer credit from CCCC Associate in Applied Science degree students who wish to pursue a four-year degree. Credit granted may range from partial to full credit toward a bachelor's degree program. AAS students wanting to transfer are encouraged to meet with a CCCC college transfer advisor and with the appropriate admissions officer at the four-year college to discuss transfer credit.

### Orientation

All new students are expected to participate in an orientation process that is intentionally planned and guided by Onboarding and Academic Advising. CCCC's orientation model consists of (1) in-person and virtual orientation sessions that will help students make an initial connection to the campus, faculty and staff, students, services, and policies; and (2) ACA "first-year experience" courses designed with a common core curriculum that help to introduce students to more intensive academic and college-related concepts to encourage persistence and college/career success. Students are expected to enroll in the required ACA course during one of their first two terms of enrollment. Students who do not enroll or successfully complete the required ACA course in their first term will be expected to take it in the next term.

## **ACA Course Waiver Guidelines**

The following students may be waived from the ACA requirement by an academic dean but may still need to fulfill the one credit hour on their program of study:

- a) Individuals who have earned a college degree from a regionally accredited institution or individuals who have completed and received credit for at least 18 hours credit for prior academic work and/or who demonstrate competency and skills that will facilitate the successful transfer into and persistence in the chosen degree program at Central Carolina Community College will qualify for a waiver for the ACA requirement. At the dean's discretion, transfer students with 12 hours of earned credit will also be considered if earned as a fulltime student; or
- b) Those who have completed an ACA course at the 100-level or above from Central Carolina Community College or another North Carolina community college, or who have received prior credit for an equivalent course.

Students who received proof createrion an equivalent counse. Students who receive the proper signatures on the Credit by Experience form will then be referred to Student Advising and Success to complete an online ACA tutorial that covers CCCC success.

## Registration

All curriculum students must register prior to or at the beginning of each term during the time specified for that purpose on the college calendar. Each semester, returning students are encouraged to register early for the subsequent semester. Students are expected to pay tuition charges in full by the designated pay date. Failure to do so results in the student losing their schedule.

## **Course Load**

Students enrolled for 12 or more semester credit hours during the fall and spring semesters are designated as full-time students.

No additional tuition is charged for credit hours over and above 16. Normally, the course load range is from 16-19 semester credit hours.

Students may take no more than 19 semester credit hours during fall or spring semester without special permission of their advisor and the chief academic officer or vice president of student services. Students enrolled for six or more semester credit hours during the summer semester are designated as full-time students. Pell recipients must enroll in at least 12 semester credit hours to receive a full Pell award for a summer semester. Students may take no more than 12 semester credit hours during the summer semester without special permission of their advisor and the vice president student services or chief academic officer. Students are not permitted to register for more than 14 semester credit hours during the summer semester.

Students experiencing academic difficulty will be advised to take a reduced course load.

## **Definition of a Credit Hour**

According to CCCC policy, the college follows the requirements of the North Carolina State Board of Community Colleges in awarding curriculum credit hours for instruction. The amount of credit hours awarded for each course is determined by the North Carolina Community College System and listed in the Combined Course Library available on the North Carolina Community College System webpage. Following is the NCCCS convention for awarding credit hours from course hours:

- For every 16 classroom hours, one semester (credit) hour is awarded.
- For every 32 hours of "experiential laboratory work," one semester (credit) hour is awarded.
- For every 48 hours of "faculty directed laboratory work" one semester (credit) hour is awarded.
- For every 48 clinical hours, one semester (credit) hour is awarded.
- For every 160 work experience hours, one semester (credit) hour is awarded.

All programs of study meet the NCCCS requirement set forth in statewide curriculum standards. Following are the number of credit hours required for associate degree, diploma, and certificate programs:

	AAS	Diploma	Certificate
Minimum General Education Hours	15	6	0
Minimum Major Hours	49	30	12
Other Required Hours	0-7	0-4	0-1
*Total Semester Hours Credit (SHC)	64-7 6	36-48	12-18

\*Any CCCC credential that contains a total number of credit hours that falls outside of the defined range are exceptions approved by the NCCCS and show accurately in the required state curriculum standards.

## **Double Major**

Students wanting to pursue two degrees at the same time may do so by meeting with an Educational Navigator and completing a Change of Program form. On the form under the question of "New Program," the name of both degrees to be pursued must be indicated. The current college catalog in effect on the date the form is completed will be used to determine the course requirements for the degree(s).

## **Distance Education**

CCCC provides quality and fully-accredited distance education courses. Distance education courses maintain the same student learning outcomes, provide regular and substantive interactions with the instructor, and offer the same semester credits as courses taught fully on-campus. Distance education uses five delivery methods: online, hybrid, blended, video-conference, and web-conference. Hybrid and blended courses reduce travel to campus for required sessions. Distance education gives students an opportunity to take courses that are more flexible around the demands of work and family. Distance education courses provide meaningful learning and engagement opportunities and require active participation in learning activities from students. Students who are considering enrolling in a distance education course or program should work closely with their faculty advisor or an Education Navigator.

#### **Distance Education Online Courses**

Online courses use Blackboard, the Internet, email, and other media to provide meaningful learning and engagement opportunities for faculty-to-student, student-to-faculty, and student-to-student interaction. All modalities maintain the same student learning outcomes and provide regular and substantive interactions with the instructor. Students need access to a reliable computer with Internet access.

While online courses provide more flexibility around the demands of work and family, they are not self-paced and require active participation in learning activities from students. The NC Community College System requires students to participate in classes by the course Census Date, which occurs 10% into the term. In online courses, students are required to submit academic work by 11:59 pm on the course census date to remain enrolled in the course.

#### Distance Education Hybrid, Blended, Video-Conference, and Web-Conference Courses

Hybrid, blended, video-conference, and web-conference course modalities combine live classes with an online experience. Hybrid courses are taught mostly online with less than half of the class meetings held in-person on campus. Blended courses are held mostly on campus with less than or equal to half of the class meetings held online.

Video-conference classes are taught synchronously across main campuses or approved CCCC locations and may be taught in a solely on-campus, hybrid, or blended delivery method. Web-conference classes are taught synchronously through a web-conference software and may be taught solely in a web-conference, hybrid, or blended delivery method.

All modalities, including hybrid, blended, video-conference, and web-conference courses, maintain the same student learning outcomes, and provide regular and substantive interactions with the instructor. Students need access to a reliable computer with Internet access and the availability to attend scheduled class sessions. Students are required to either attend a scheduled class session or submit academic work by 11:59 pm on the census date to remain enrolled in the course.

## **Auditing Courses**

A student who desires to take a course without credit may choose to audit the course by completing the Audit Declaration form available through their faculty advisor on the college intranet; having it signed by the instructor, department chair, and dean; turning it in at registration; and paying full tuition. An audit student cannot change the course from audit to credit or from credit to audit after the last day to register or drop/add a course. A grade of "AU" will be assigned to the student upon completion of the course.

Auditing a course is subject to permission of the instructor and is contingent upon space available in the class.

The registrar will ensure that all faculty receive a copy of the completed Audit Declaration Form in order to know who is auditing their classes.

Financial aid is not available for course audit.

A special exclusion exists for senior citizens who wish to audit a class. Individuals 65 years and older may elect to audit a course if space allows. No tuition will be charged to the individual although the student will be responsible for any applicable fees. A grade of SR will be assigned to the student at the time of enrollment. No credits attempted or completed will be reflected on the student's transcript and no quality points will be awarded. The student must provide a photo ID documenting the age requirement or a birth certificate and complete the auditing form. This exclusion cannot be utilized until the add registration period has ended to insure space availability for credit-seeking students.

## **Course Substitution**

Central Carolina Community College may allow courses to be substituted in a curriculum for a student only under extenuating circumstances and only if the substitution is within the North Carolina Community College System's curriculum standards.

The course(s) used as a substitute must have credit hours that are at least equal to the number of credit hours of the original course.

- The substitute course(s) must have relevance to the curriculum and to the course for which the substitution is made, unless the course is being used as a free elective.
- Required core courses as outlined in North Carolina Community College System curriculum standards may not be substituted without review and approval of the chief academic officer.
- Requests to substitute courses that were completed at institutions other than a North Carolina community college must be accompanied by a full course description and accreditation status at the time the course was completed from the institution from which the course is being transferred. If necessary, the department chair/program director may request a course syllabus if the course description is not detailed enough. It is the responsibility of the student to provide all requested documentation.
- Course substitutions must be submitted and processed prior to the census date of the substituted course.
- The Registrar's Office requires documentation in order to process the substitution in the student information system.
- The Course Substitution form must be used.

## **Independent Study**

Under extenuating circumstances, a student may enroll in a course through independent study, adhering to the following steps for an independent study course:

- 1. The student must complete the Independent Study form.
- 2. Approval of the instructor of record, the department chairperson/program director, and the appropriate curriculum dean, demonstrated by their signature on the Independent Study Form, is required.
- 3. The student enrolling in the independent study course must also complete regular registration procedures.
- 4. The student and instructor of record must meet for a minimum of 10 contact hours for any independent study course.
- 5. Course requirements must be completed in the same term as registered.

Faculty serving as instructor of record for one or more Independent Study courses are subject to the following:

- Must meet with student for a minimum of ten contact hours during the semester
  - Contact for independent study purposes is defined as synchronous interaction between the student(s) and the instructor of record.
  - Examples of approved methods of contact may include, but are not limited to, face-to-face meetings, phone calls, shop/lab time, and the use of interactive communication technology, such as

FaceTime, Zoom, and/or Video Conferencing.

- Must meet with the student at least once before the ten percent point.
- Must record and document all contact hours met for attendance purposes.
- Must follow all college policies related to student attendance, communication, and grading.
- Must submit grades to the Registrar's office by the due date.
- Instructor compensation for Independent Study Courses is supplemented in the form of a stipend.

Independent Study courses are not considered as part of the course load for the instructor of record

## Academic Advisors

The role of the academic advisor is to serve as the primary contact with the student for their total academic activities while enrolled at CCCC, to provide referrals to college resources, and to assist in overall academic and career planning.

The student is expected to confer periodically with their advisor (at least twice each semester) regarding academic standing, early registration, or any other areas of concern. Students are required to meet with their advisor to approve their courses for registration for the subsequent semester.

More information about advising at CCCC, including the roles of advisors and how they work with students, can be found at <u>Advising, CCCC - Central Carolina Community College</u>.

Students in non-curriculum courses who are interested in curriculum programs or courses are encouraged to contact Student Onboarding and Success.

## Alternative Credit

The Student Learning and Student Services divisions collaboratively ensure appropriate procedures and guidelines exist for granting and recording the amount and level of credit for each course.

#### Amount of Alternative Credit Allowed

At least 1/4 of credit for a certificate, diploma, or associate degree required for graduation must be earned at Central Carolina Community College.

No more than 20% of credit for a certificate, diploma, or associate degree required for graduation may be earned through credit by experience.

A student may earn alternative credit in the following ways:

#### **Resident Transfer Credit**

When a student transfers from one curriculum to another within the college, all courses applicable to the new program for which the student has earned credit will transfer as resident credit depending upon the curriculum guidelines and academic policies in effect at the time of transfer. Some courses may be ineligible for transfer based on time limitations set by specific curriculum programs.

#### **Transfer Credit from Another Institution**

CCCC accepts transfer credit from regionally accredited institutions under the following rules:

- Higher education institutions (colleges) transfer credits may be accepted only from regionally accredited institutions.
- A course grade of "C-" or better is required for all transfer credit.
- Students must request official transcripts to be sent to the Student Records and Registrar's Office for evaluation.
- When deemed necessary, students must provide course descriptions and/or course syllabi if they are needed to determine credit eligibility.
- Some courses may be ineligible for transfer credit based on time limitations as set by specific curriculum programs.

Credit will be granted on a course-by-course basis for courses closely paralleling those offered at the college and must meet the credit hours of the CCCC course for which transfer credit is granted. Transferred credit will not be calculated in the grade point average.

#### **Advanced Placement (AP), CLEP, DANTES**

Students may request credit for subjects tested under advanced placement exams such as AP, CLEP, and DANTES. Subjects must be applicable to the student's current curriculum program requirements and test scores must meet American Council on Education (ACE) recommendations. Such credit must be supported by official test score reports. The following rules apply:

- Students must request that official score reports be sent to the CCCC Student Records and Registrar's Office for evaluation.
- Credit will be granted only for scores earned within the last ten (10) years unless approved by the chief academic officer.
- Credit will be granted on a course-by-course basis for courses closely paralleling those offered at the college and must meet the credit hours of the CCCC course for which transfer credit is granted.
- Such credit will not be calculated in the grade point average.
- An exam score of 3 or better is required to receive credit for an AP course.
- Recommended ACE cut-off scores will be used for CLEP and DANTES.
- Advanced Placement Credit will not be calculated into the GPA.

#### **Credit by Examination**

Students with prior proficiency in a course due to previous educational or work experience may wish to apply for credit for prior learning. The college helps to facilitate this goal by allowing challenge exam requests to award credit by exam. This option is available for selected courses as determined by the department chair/program director. A proficiency demonstration may be a written exam, oral exam, shop exercise, lab exercise, or combination.

To receive credit by examination, the student must complete the following:

- Complete the <u>Challenge Exam Request</u> form prior to the start of the semester/session or within the first few days (fourth day of the 16-week session; third day the 12-week session; second day of an 8-week session).
- Show evidence of preparedness for a proficiency demonstration (e.g., high achievement in secondary school, military service, and/or work experience) that must be submitted to and approved by the department chair/program director or their delegate.
- Take the proficiency exam administered by the instructor no later than the fourth day of the 16-week session; no later than the third day of the 12-week session; no later than the second day of an 8-week session for the term in which the Registrar will transcribe the course. This allows the student to register for the subsequent class following in sequence.
- Earn a grade of 85% or better on the proficiency exam.

College faculty and staff must complete the following:

- Department chairs will approve or deny requests in a timeframe consistent with procedure and assign an instructor to administer the exam.
- The assigned instructor records the challenge exam score on the Challenge Exam Request form and submits the form to the Records Office to award credit.
- The Records Office enters the student's proficiency exam score under 'Other Tests' in the Student Information System and assigns a grade of "CE" (Credit by Examination).

Proficiency demonstrations may:

- only be attempted once.
- only be attempted for the initial enrollment in the course.
- not be attempted for courses being audited.
- not be attempted for courses where the student has previously received a grade of A, B, C, D, F, W, or WF.

Credit granted through a proficiency exam:

• Will not be calculated in the grade point average.

• May not be transferred to other institutions.

## Articulated CTE High School to Community College Credit

Students may request articulated credit based on CTE courses completed from a NC public high school if they meet the following criteria:

- To receive articulated credit, students must enroll at the community college within two years of their high school graduation date.
- Students must have earned a final grade of B or higher in high school CTE courses.
- Students must have earned a score of 93 or higher on the standardized CTE post-assessment.
- Students will complete a HS to CC Articulated Credit form available on the website.
- The registrar will verify high school graduation date, CTE course taken, course grade and post-assessment grade.
- Awarded credit will be issued tech prep non-course credit with a grade of CE which will not be included in GPA calculations.

#### **Credit by Experience**

Students may request credit for work experience, skills, or professional licensure or certification that directly correlate with competencies required in a specific course. The following procedures apply:

- Requests for credit by experience must be properly made and acted upon prior to the 10% point of the class and must be made in writing on the <u>Request for</u> <u>Credit by Experience</u> form.
- Credit by experience may not be granted for work based learning courses.
- The department chairperson/program director or lead instructor will guide the student in determining the appropriate documentation necessary to evaluate the request. Documentation required will vary depending upon the field of study.
- For guidance, the following are examples of the appropriate documentation: official work history with job responsibilities and proficiency ratings verified by supervisors and human resource officers within the company; a completed thesis verified by an official transcript could serve as verification that a student should receive credit for a technical writing course; electronically recorded presentations (taped presentations could be evaluated to determine credit by experience for an oral communications class); and brochures announcing a pottery exhibit and displaying the creations of the student could be used for an art class.
- Experiences, which may require a demonstration of one's ability, must be approved by the student's curriculum department chairperson/program director or lead instructor, the subject area department

chairperson/program director, and the chief academic officer.

- Experiences must be officially documented per the college's request.
- Veterans may apply credit for training received under the armed forces college training programs and some specialized and technical training completed under the auspices of the armed forces. Appropriate documentation must be provided.
- The approved credit recommendation should be submitted to the Records and Registrar's Office.
- The registrar will record a grade of "EL" on the transcript with credit hours; however, no quality points will be assigned.
- Documentation shall be kept on file for five (5) years in the Registrar's Office.
- Credit granted for experience will not be calculated in the grade point average.
- Financial aid is not available for credit by experience.
- Credit by experience will not be entered on a student's record until after the census date of the student's first enrolled curriculum course with the college.

#### **Internal Articulated Credit**

Students may be granted articulated curriculum credit for non-credit courses that have an approved internal articulation agreement on file in the Registrar's Office.

### Prerequisites/Corequisites

Central Carolina Community College and each student are responsible for ensuring that prerequisite (course taken prior to another course) and corequisite (course taken at the same time or prior to another course) requirements have been satisfied.

Prerequisites and corequisites serve as safeguards to successful course and program completion in that they ensure proper knowledge and background for higher-level courses. In the case of corequisites, the goal is to ensure a proper educational experience when two courses depend upon one another for coherence and knowledge application.

In rare cases, prerequisites or corequisites may be waived using the appropriate form upon review and recommendation by the department chair to the dean or provost and in consultation with the chief academic officer. Permissible reasons for waiver of local prerequisites are limited to the following:

- Grade of at least "C" in a course judged of similar or higher-level content to that of either the prerequisite/corequisite or the requested course.
- Demonstrated competency in the content of the prerequisite/corequisite obtained through professional application. In this case, the student must request credit by experience.

- Life experiences that are deemed equivalent to or that supersede the prerequisite or corequisite; a formal review of course level outcomes would occur and be maintained in the student's records.
- Transfer in of a course that has a prerequisite or corequisite (for example: a student transferring in MAT-271 with the prerequisite of MAT-172 would not have to take MAT-172).
- Satisfactory completion of proficiency exams administered by CCCC (when such exams are available).
- Enrollment in another course deemed suitable to satisfy the corequisite.
- Students engaged in a job experience during the duration of the course that would provide a similar purpose of the corequisite.
- An associate or higher level degree when enrolling in beginning college level courses (e.g. ENG 111; PSY 150) or other reasons as approved by the academic dean and chief academic officer.
- For visiting students, written documentation from their college/university to enroll in a specified course that has a prerequisite.

# Time Provisions for Completing a Curriculum Program

The catalog of record is the catalog that is current at the time a student enrolls at CCCC in a program of study. If a student changes the program of study, then the catalog of record becomes the catalog that is current at the time of that change of program. To graduate under a program of study, a student must meet the requirements of the catalog of record or any catalog in effect within the next five years as long as the student has been continuously enrolled.

If a student breaks enrollment for one academic year (fall and spring consecutively, or spring and fall consecutively), the catalog of record will become the catalog that is current at the time of re-entry. From that point of reentry, the rule of continuous enrollment will apply. The assigned faculty advisor and/or registrar have/has the authority to choose a catalog within a five-year period of continuous enrollment that best suits the student's needs for the particular program of study at the time of graduation.

Exceptions to this policy must be approved by the chief academic officer or designee. External agencies, accrediting agencies, and the North Carolina Community College System may make changes which impact program requirements.

## **Uniform Grading System**

The college operates on a uniform grade point system in curriculum areas. All subjects must be completed satisfactorily for academic credit. This grade system is followed for all subjects in curriculum areas except in cases an alternate grading scale is prescribed by an external regulatory agency. CCCC computes curriculum GPA using the quality point system explained below. All subjects must be completed with satisfactory grades if the student is to be awarded a certificate of completion, diploma, or degree. This grade system is followed for all subjects in curriculum areas. Students enrolled in a course that includes integrated and/or corequisite lecture and lab components will earn a single course grade. A cumulative grade point average is maintained which includes all courses taken. If a course is retaken, only the highest grade will be averaged in the cumulative and program grade point average; however, both grades will be recorded on the transcript.

LETTER GRADE	MEANING	QUALITY POINTS (PER CREDIT HR.)
A (90-100)	Excellent	4
B (80-89)	Above Average	3
C (70-79)	Average	2
D (60-69)	Below Average	1
F (59 & under)	Failure	0
Ι	Incomplete	0
W	Withdrew	0
WF	Withdrawal/Failing	0
AU	Audit	0
P/R	Developmental Pass/Repeat	0
P/F	Pass/Fail	0
CE	Credit by Exam	0
* (Grade)	Indicates grade not applicable	0
EL	Learning by Experience	0
TR	Transfer Credit	0
SR	Senior Audit 0	

#### How to Compute the Grade Point Average (GPA)

Academic quality must be achieved in order to graduate from any program at CCCC. The standard for students' work is determined by the quality point system. Under this system, a letter grade is assigned a certain number of quality points (QPs) per credit hour; i.e., an "A" is given four QPs; a "B", three QPs; a "C", two QPs; a "D", one QP; and "F", no QPs. Quality points are computed by multiplying the number of credit hours per course by the value of the grade earned. The grade point average (GPA) is then computed by dividing the total number of quality points by the total number of credit hours attempted

#### **Example of Computing Grade Point Average**

Thirty-eight (38) QPs divided by seventeen (17) credit hours equals 2.235 GPA. *NOTE:* Grade point averages are not rounded up or down for graduation or honor awards.

Course Earned	Credit Hrs.	Grade		QPs
ENG 111	3	C (2)	3x2=	6
BIO 163	5	A (4)	5x4=	20
PSY 150	3	B (3)	3x3=	9
SOC 210	3	D (1)	3x1=	3
BUS 110	3	F (0)	3x0=	0

Note: Developmental course grades of courses below 100 level are not calculated into the academic GPA. However, all grades are calculated into the Financial Aid GPA to determine eligibility for financial aid.

## General Education Competencies

The college is committed to teaching and learning excellence. Every degree program includes a minimum of fifteen semester hours credit of general education as prescribed by the North Carolina Community College System Curriculum Standards, and CCCC believes that every degree student should successfully master general education competencies regardless of the degree discipline.

The general education competencies developed by the college represent the academic proficiencies believed necessary for graduates to be successful and productive employees as well as successful community citizens.

In support of the college mission, CCCC students will be able to demonstrate:

- 1. Problem-solving skills that identify, analyze, and evaluate content and processes in order to implement effective solutions or strategies
- 2. Writing skills that exhibit clear, coherent topic development and proficient use of mechanics
- 3. Effective communication that reflects proficiency in oral presentation skills in group and/or one-on-one settings
- 4. Appropriate mathematical skills in collecting, analyzing, and communicating quantitative data

## **General Academic Standards**

If a student does not meet minimum placement criteria to take the mathematics and English composition course of their choice, they must enroll in the appropriate non-credit 25 developmental course(s) to learn the skills necessary to meet the placement scores for the general education course desired.

Students who do not earn a 2.0 GPA for any given term will be held to the Academic Sanctions policy.

Students will not be allowed to repeat any curriculum course more than twice.

Students must have an overall GPA of 2.0 and a GPA of 2.0 in the program of study to qualify for graduation. Note: for the Associate in Arts, Associate in Science, and Associate in Engineering, all coursework must be completed with a grade of C.

## President's/Dean's List Eligibility

A student will be announced as a President's List student if they are enrolled full-time in a curriculum program (minimum of 12 credit hours), receive all grades of "A" (4.0 GPA), and have no grades of "I" during the term. The required GPA will be determined by computing grades earned only in credit courses.

A student will be announced as a Dean's List student if they are enrolled full-time in a curriculum program, receive a grade point average of 3.50 with no grades lower than a "C," and have no grades of "I" during the term.

A student graduating with an average of 3.5 or higher in major program courses will be announced as an Honor Graduate.

## **Highest Academic Award**

The Highest Academic Award in four categories: AA, AS/AE, AAS and Diploma will be presented to participating graduates at the annual graduation ceremony who have the highest academic average. These graduates must have completed 75% of their course work and their last term of study at the college. Only graduates with a minimum grade point average of 3.5 will be eligible to receive this award.

## Academic Sanctions

Students who do not earn a 2.0 GPA for any given semester will be placed on academic probation and will be notified of their academic status at the end of each term. A student who remains on academic probation for two consecutive semesters as noted on the official transcript will be suspended for one semester unless the student had a break in attendance for one calendar year or longer. Certain programs may establish additional academic progress requirements and impose sanctions for failure to meet those requirements.

Probation students who are seeking a degree, diploma, or certificate will be required to enroll in and successfully complete a zero level ACA course. A reduced course load is

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recommended. If, upon receipt of grades, a student learns that they are on academic probation, they must schedule an appointment with their academic advisor immediately. The purpose of this conference is to assist the student in assessing academic problems and exploring ways of improving the student's academic status. As long as the student remains on academic probation, their advisor will make recommendations concerning the course load for which the student should register, enrollment in needed developmental courses, or referrals to other college resources.

- Academic Probation exception 1: Probation students who maintain a cumulative GPA of 3.0 or higher will not be required to enroll in a zero level ACA course. A reduced course load is recommended.
- Academic Probation exception 2: Probation students who have enrolled in and successfully completed a zero level ACA course during a previous term will not be required to repeat it. Students who are placed on academic probation for subsequent terms will only be permitted to enroll in a maximum of 12 credit hours (12 credit hours for a 16-week term, 9 credit hours for a 12-week term, and 6 credit hours for an 8-week term) during the next term of enrollment. Students can enroll in additional credit hours upon obtaining a 2.0 term GPA during the probation term. Students in selective admissions health sciences programs who are placed on academic probation will be subject to the academic standards and progression policies of their respective program.
- A student placed on academic suspension will be suspended from all coursework and all college activities for one term with the exception of enrollment in a zero-level ACA course. Academic suspension is posted to the student's official transcript for that term. A student may be considered for reentrance after one term of suspension by completing a readmission form and having it approved by the department chairperson/program director, Dean of Student Advising and Success, and the Vice president of Student Services. A zero-level ACA course will be required during the term of suspension or the term of reentrance.
- Academic suspension exception: If a student applies to change curriculum programs after two terms with a GPA below 2.0, the suspension may be extended for one term. During this suspension extension term, the student will be required to enroll in and successfully complete a zero-level ACA course. This extension of suspension must be approved by the department chairperson/program director of the new curriculum and by the Vice President of Student Services or designee. Failure to obtain at least a 2.0 GPA during the subsequent term will result in academic suspension for one term.

Per NCCCS guidelines, Career and College Promise (CCP) students, including Cooperative Innovative High School students (i.e. early college) will be held to the same standard set by the college for traditional students.

## **Curriculum Course Repetition**

A student may repeat a course to eliminate a failing grade, to attempt to earn a higher grade, or to earn credit for which transfer credit has not been granted. All course grades will be recorded on the transcript; however, the highest grade will be used for computing total credit hours attempted and passed, total grade points, and grade point averages. No course may be counted more than once for graduation. No course, except developmental courses, may be repeated more than twice. An exception may be granted for courses that receive a "W" grade, which may be repeated more than twice with approval of the dean.

Certain regulations may prohibit veterans and other financial aid recipients from receiving financial aid for repeating courses previously passed. It is the student's responsibility to determine status in regard to financial aid.

Financial aid is available to repeat a "passed" class (grade of "D" or better) one additional time for a higher grade. Students can receive financial aid to repeat a failed class. However, students must meet the minimum requirements of Satisfactory Academic Progress standards at the end of each semester. Financial aid does not do grade replacements.

### **Academic Forgiveness**

Students may request academic forgiveness for grades of D or lower guided by the following conditions:

- Students who (a) were not enrolled in college curriculum courses for 36 consecutive months (three years) or longer, and (b) have been re-admitted to the college, seeking acceptance in a selective admissions program and complete at least 12 credit hours of coursework at the 100-level or above with a minimum quality point average of 2.0.
- 2. Students meeting the criteria for 1a and 1b should visit the Student Services Office or an Education Navigator to review the Academic Forgiveness guidelines/steps with an Education Navigator and will be assisted with making an appointment with an academic dean to discuss and seek signature for academic forgiveness. Distance students may contact the <u>Student Onboarding and Success</u>.

If the student is granted academic forgiveness, the following conditions apply:

- 1. Previous grades of D, F, and WF will not be used when calculating the cumulative GPA. Recalculated grades must not have been counted under a previously-granted certificate, diploma, or degree from Central Carolina Community College.
- 2. The student's full academic record from Central Carolina Community College will still be recorded on all subsequent transcripts.
- 3. Academic forgiveness is only available once for each student.

- 4. Academic forgiveness is used for calculation of the cumulative academic GPA for consideration of acceptance into selective admission programs only and will not be changed on the student's transcript.
- 5. Due to federal regulations, the Financial Aid Office takes all attempted courses into account from a student's transcript when determining financial aid eligibility.
- 6. The Vice President of Student Services and Chief Academic Officer must approve any exceptions to this policy on a case-by-case basis.

## **Removal of Incomplete**

Instructors may assign in accordance with NCCCS guidelines a grade of "I" (Incomplete) to any student who needs additional time to complete course requirements.

For each grade of "I," the instructor must fill out a Requirements to Remove Incomplete form indicating what the student must do to earn a final grade, attach a copy to the grade report submitted to the registrar, and send a copy to the student and the appropriate dean. The student must take the initiative to remove the Incomplete by the midterm date of the next semester (fall, spring, or summer) as specified on the college calendar.

Unusual and extenuating circumstances may be cause for allowing extended time to remove an Incomplete. These circumstances must be determined by the instructor and student with notification of the extended time to the registrar. A student cannot graduate with an "I" on their record if the course is required for graduation.

If the student fails to complete requirements necessary to remove the Incomplete when prescribed and/or the instructor fails to turn in a final grade on an Instructor's Grade Change report by the midterm date of the next (fall, spring, or summer) semester as specified in the college calendar, a grade of F will be assigned by the registrar and computed in the student's cumulative grade point average.

## Withdrawals

A student who initiates a withdrawal from a curriculum course should complete an official Withdrawal form with appropriate personnel. An instructor may initiate a student withdrawal in accordance with the college's attendance policy. If after withdrawing, a student has a break in enrollment for one academic year (fall and spring or spring and fall consecutively), then the student will enroll under the provisions of the current catalog at the time of re-entry. Withdrawals follow all state, federal, and third-party requirements.

A student who wishes to withdraw from a curriculum course should consult with their advisor and the course instructor

before completing an official Withdrawal form with an Education Navigator. The last date of attendance (including withdrawal resulting from disciplinary suspension or expulsion) from a course can affect the final grade for that course. Distance education students who cannot physically come to campus can initiate withdrawal from a course by phoning or emailing the advisor and course instructor before contacting an Education Navigator. The completed form is submitted to and processed by the Records Office. When a student withdraws from the college, they may apply for readmission at the beginning of the subsequent term for which they are eligible.

A student may withdraw within the first 75% of the course session or semester and receive a "W" as long as they do not return to class. After the 75% point as specified in the college calendar, withdrawal from a course results in a final grade of "WF" if a student attended past the 75% date in the class. A grade of "WF" is treated as an "F" and affects the grade point average. While a "W" does not adversely affect the student's GPA, a grade of "WF" may adversely affect third-party payments (e.g. financial aid, VA benefits). Students should contact the Financial Aid Office, their Education Navigator, or their academic advisor before deciding to withdraw from one or more courses.

Withdrawal after the 75% point of the course will be designated with a "WF" except in the case of hardship/medical withdrawal from the college. A hardship/medical withdrawal may be requested from the Vice President of Student Services and documented and filed with the registrar before the end of the term. A medical withdrawal is applied to all attempted courses in the semester, not an individual attempted course.

When a student has not attended class for two consecutive weeks, has not contacted the instructor, and has not completed an official withdrawal form, the faculty may complete and submit to the registrar a "student termination" or the online Withdrawal form. The grade assigned to the student on the Termination form or Withdrawal form will be determined by the last day of attendance; i.e., a "W" if the last day of attendance was on or before the 75% date or a "WF" if the last date of attendance was after the 75% point of the course session.

## Readmission

When a student withdraws from the college, they may apply for readmission at the beginning of the next term in which courses are offered and for which they are eligible.

A student reentering must do so under the provision of the catalog in effect at the time of reentry.

## Transcripts

A student may request via electronic request that an official copy of their CCCC transcript be sent to another institution, an agency, or employer. A student may request a copy of their transcript in person, but will be responsible for submitting any such transcript to a third party. Central Carolina Community College does not accept third-party transcript requests. Curriculum transcripts are the responsibility of the Registrar's Office and non-credit transcripts are the responsibility of the Workforce Development Division.

An official curriculum transcript is a copy of a student's entire curriculum-level academic record for Central Carolina Community College. In recognition of the confidentiality of student records, an official transcript will be released only at the request of the student except under due process of the law. Central Carolina Community College retains the right to not issue an official transcript under the following circumstances: 1) the student owes an outstanding balance to the college, 2) the student owes outstanding materials to the college, and 3) the student has not obtained a verified residential status for tuition purposes.

To request a transcript in person, please visit the Registrar's Office at 1105 Kelly Drive, Sanford, NC between the hours of 8:00 a.m. and 5:00 p.m. Monday-Thursday or 8:00 a.m. to 3:30 p.m. on Fridays. Summer hours may vary. In-person requests will be charged a \$5.00 fee for each transcript requested. Please bring a picture ID to pick up your transcript. For electronic requests, the student's Central Carolina student ID number is required for this service, not the social security number. If you place an order without using your student ID number, the order will be canceled. Please contact the Registrar's Office at (919) 718-7201 to obtain your student ID number. Online requests will be charged a \$3.75 fee for each transcript and must be paid with a debit/credit card. All online transcript fees are collected by a third-party agency that provides the transcript management and certification system. Through this service, students can order:

- A paper transcript sent via USPS first-class mail
- Electronic transcript that is delivered to any valid email address as a secure PDF

Note: For students who attended prior to 1997, electronic transcripts may not be available. Please contact the Registrar's Office at (919) 718-7201 to inquire before placing an order.

Students wishing to order end-of-term transcripts, should wait two days after the semester has ended to submit their request. Students waiting for degrees to be posted, should submit their request after graduation.

The Registrar's Office will process orders within two business days.

Central Carolina Community College certifies that an electronic transcript (e-transcript) issued by Parchment is an

official college transcript. The acceptability of an e-transcript will be determined by the receiving institution/recipient in accordance with their policies and procedures.

## **Graduation Requirements**

Graduation exercises are held biannually for an academic year at the close of the spring and summer terms. A student who graduates or anticipates graduation during the academic year (fall or spring) may participate in the ceremonies held on graduation day in the spring. Summer graduates may participate in the summer graduation exercise. Participation in graduation exercises does not signify completion of all graduation requirements. A graduation fee may be charged to students. Graduation fees are used to cover costs for degrees, diplomas, certificates, honorariums, flowers, etc.

Graduation requires the student to have earned at least a 2.0 GPA in the student's academic program and to have maintained at least a 2.0 cumulative GPA. Students who complete graduation requirements and apply for graduation in the fall when a ceremony is not held for degrees to be conferred will have their credentials released after the Board of Trustees meets during the subsequent quarter and confers students' credentials. Graduation is not an automatic process. The student must apply for their degree, diploma, or certificate by the midterm of the term in which coursework is scheduled for completion in order to process their graduation. In compliance with the Student-Right-To-Know and Campus Security Act of 1991, the college's graduation rate and annual crime statistics are available on request from Onboarding and Advising.

## Attendance

Central Carolina Community College values a philosophy that supports the attainment of education, skills, and competencies integrated with a strong awareness of a workplace ethic of responsibility and commitment to excellence. Regular attendance is required and demonstrates a commitment to educational achievement and good workplace ethics.

Procedures guiding student attendance in curriculum classes are as follows:

- All work missed during absences must be made up to the satisfaction of the instructor, and failure to make up work may adversely affect the student's final grade.
- Students may be withdrawn by the instructor for missing more than 20% of class meetings before the last day to drop a course will receive a grade of "W."
- The college establishes attendance requirements and instructors maintain accurate records of membership/attendance in accordance with state, federal, and third-party regulatory guidelines.
- Central Carolina Community College authorizes two absences from classes each academic year for religious observances required by the faith of a

student. For the purposes of this policy, an academic year begins on the first day of fall classes in August and ends on the last day of summer classes in July each year. Absences due to religious observance are in addition to allowed absences set forth by 80% attendance requirement.

- Students requesting absence from class for religious observance must obtain approval at least two weeks prior to the date of the absence. Students who miss class for religious observance will be granted the opportunity to make up work missed due to the absence.
- Making up absences is at the discretion of the instructor or may be guided by internal policies determined by individual departments or programs when necessary to comply with guidelines prescribed by accrediting or licensing agencies. Allied Health, Barbering, Basic Law Enforcement Training (BLET), Cosmetology, and Esthetics are examples of such programs and courses where external agency requirements may influence attendance guidelines.
- At the discretion of the instructor, a student may be referred to their Education Navigator to address absences in courses. The visit must be documented prior to reentry to the class.
- In all cases, instructors are required to maintain accurate attendance records. Absences due to late registration shall be counted as regular absences. If a student has been in attendance prior to the 10% census date, but has also been absent during that time, the instructor should not initiate a student withdrawal except for students who have never attended class.
- When the instructor decides to withdraw a student, the instructor will notify the student through the student's official college email in a timely manner.
- If a student wishes to appeal an instructor's decision to withdraw them for absences, the student should consult the instructor's immediate supervisor. Further appeals should be made to the next ranking official up to the Chief Academic Officer. The official to whom the appeal is made may reverse the withdrawal. The decision of the Chief Academic Officer is final.
- Students who anticipate an absence should contact their instructor before the class meets. Should this prior notice to the instructor be impossible, the student should expect to explain their absence upon return to class.
- Excessive tardiness will be dealt with in a manner similar to that for absences. Three tardies constitute one (1) absence. Students who are late by 10 minutes or more will be marked absent for that hour of class.

**NOTE:** A grade of "W" may adversely affect third-party payments (e.g., financial aid, VA benefits).

• Disciplinary withdrawals may be appealed through the procedures

outlined under Students Rights (Disciplinary Procedures).

## **Distance Education Attendance**

Attendance or participation in the online portion of distance education courses is defined as submitting academic work. At the semester start, students are required to complete course-specific academic work by the census date to remain enrolled in the course.

Clicking into a Blackboard site does not qualify as attendance in a distance education course. Students should refer to their course's syllabus for more detailed requirements regarding active participation in their distance education course. Students who do not meet the attendance policy requirement in their distance education course may be withdrawn by the instructor from the course.

## **Disciplinary Withdraws**

A student may be suspended from a course for disciplinary reasons at any point during a course. Disciplinary withdrawals may be appealed through the procedures outlined under student rights (disciplinary procedures). If a student wishes to appeal an instructor's decision to withdraw them for absences, the student should follow the grade appeals procedure guided by the form posted on the Student Records and Registrar's Office web page.

### Withdrawing Students from Class Roll

A student will be withdrawn when the student gives notice of withdrawal or has been absent from class for more than two consecutive weeks without making personal contact with the instructor indicating intention to continue in the course. Absence must be for a valid reason, and the student must make personal contact with the instructor to give or receive information or assignments relative to the course. All work missed during the period of absence must be made up to the satisfaction of the instructor.

A student withdrawn for more than two consecutive weeks of absences without contact or for any other reason may be readmitted through the Student Services Department. Permission to re-enroll will be given only with approval of the instructor. All work missed must be made up. A student may be withdrawn from a course for disciplinary reasons.

## Alternate Assignments

Instructors who cancel instructional time due to unforeseen circumstances should utilize and document one of the following options to make-up time: a) providing an alternate assignment relevant to course objectives, b) scheduling extra class sessions, c) holding conferences with individual students, or d) extending scheduled class time (requires dean approval). The appropriate form should be submitted to the department chair/program director.

## **Inclement Weather Policy**

When the college determines that weather conditions are severe enough to warrant closing, the information will be made available as soon as possible. Students, staff, and faculty should visit the college website for the most up-to-date inclement weather postings. The chief academic officer or designee maintains a contact list for local news stations and is responsible for facilitating the process to notify the media.

All inclement weather days not made up by an administrative change in the college's calendar will be made up by the instructor utilizing one of the following options: a) using an alternate assignment relevant to course objectives, b) scheduling extra class sessions, c) holding conferences with individual students, or d) extending scheduled class time (requires dean approval). The appropriate form should be submitted to the department chair/program director.

#### **Types of Announcements**

- CCCC will be closed. Optional staff workday. (No classes will be held, but administrators, faculty, and clerical staff are expected to report for work).
- CCCC will be closed. (This applies to extreme conditions and no one is expected to report for work).
- College will open at announced time (Classes that meet at that time or after will meet).

In the absence of announcements A, B, or C listed above, classes will be held as usual.

## **Enhanced Transfer Partnerships**

Central Carolina students have a number of transfer options and can transfer credits to in-state public and private colleges and universities as well as out of state institutions. Students are advised to work with their advisor to explore the transferability of credits and credentials. CCCC has worked with a number of institutions, known as Enhanced Transfer Partners, which provide extra incentives or guarantees related to transfer.

For more information, contact the Associate Dean of Advising and Transfer.

## Student Rights & Responsibilities

## Conduct and Student Due Process

CCCC has a genuine concern for the integrity of all students enrolled. Students are required to conduct themselves in a mature and responsible manner. Student Rights, Responsibilities, and Judicial Procedures are detailed in the Student Handbook and CCCC Policies & Procedures Manual.

## Title IX

#### **Title IX/Sexual Misconduct**

Title IX of the Education Amendments of 1972 provides protection to all members of the campus community against discrimination based on Sex. Central Carolina Community College is committed to upholding Title IX protections by providing an environment that is free from sex/gender-based misconduct in any form. To accomplish these commitments, the College has developed a strict Title IX policy, a strong Student Code of Conduct, and established a Title IX Coordinator and a Deputy Title IX Coordinator who enforces Title IX laws and regulations.

## What types of misconduct/discrimination is included in Title IX?

Any misconduct that is sex/gender-based is prohibited under Title IX, and includes sexual/gender-based harassment, rape, sexual assault, forcible and non-forcible sex offenses, domestic or dating violence, and stalking. For more information and definitions, please see the CCCC Title IX policy in the <u>Policies and Procedures Manual</u> or <u>Student</u> <u>Handbook</u>.

#### How do I report a Title IX violation?

You can report in person to the Title IX Coordinator, the Deputy Title IX Coordinator, to a faculty or staff member, or online. You can report a violation that has happened to someone else, or you can report a violation for yourself. The College prohibits Retaliation (any adverse action against a reporting party) against someone who reports a possible Title IX violation. False accusations are also prohibited.

#### Is my report confidential?

We understand the desire to keep information confidential, and will do everything we can to maintain confidentiality as allowed under law. However, full confidentiality is not always possible. If there is an immediate threat to the campus community, to other information that is required by law to be reported, the Title IX Coordinator/Deputy Title IX Coordinator will act appropriately.

Even if a person does not wish to file a formal complaint with the college or with law enforcement, interim measures may be enacted to ensure their safety. These measures may include adjusting their class schedule, additional time to complete class, or other adjustments that will alleviate any barriers to education.

#### What happens when a report is made?

When there is a report of a possible Title IX violation, the Title IX Coordinator will act promptly to end the discrimination, provide remedies for the victim and the campus community, and put steps in place to prevent reoccurrence of the misconduct. The Title IX Coordinator will also provide outside resource information and assistance as appropriate to the situation.

## Tips for assisting someone who has experienced sexual assault or violence:

- If you are a CCCC employee, be sure to tell the person that you are required to report Title IX violations that occur on campus or that involve a student, faculty, or staff member
- Actively listen, provide nonjudgmental support, and do not ask questions that suggest blame or doubt
- Encourage the person to seek medical assistance as soon as possible, if needed
- Refer them to appropriate agencies and/or police
- Encourage them to speak to Security, Title IX Coordinator, or appropriate staff
- Use the <u>online reporting form</u> to alert the college about the incident

#### Where Can I Find Out More About Title IX?

To review the complete Title IX policy see the college's <u>Policies and Procedures Manual</u> or the CCCC <u>Student</u> <u>Handbook</u>.

#### Questions

For questions regarding Title IX policy, please contact: Title IX Coordinator, Kevin Pearson, Dean of College Access Services

Lee Main Campus, Marchant Hall 9125 1105 Kelly Dr. | Sanford, NC 27330 Phone: (919) 718-7386 Email: titleix@cccc.edu

## Campus Sex Crimes Prevention Act Information

The Campus Sex Crimes Prevention Act is a federal law that requires institutions of higher education to inform the campus community where law enforcement agency information on registered sex offenders is available. Additionally, the law requires persons registered as sex offenders, and who are employed by the institution, who carry on a vocation at the institution, or who attend classes at the institution, to notify the institutions of higher learning of their presence on campus. Information regarding individuals on the registered sex offenders' list can be obtained from the sheriff's office in Chatham, Harnett, and Lee counties. Additionally, the North Carolina Department of Corrections website (doc.state.nc.us) provides access to search offender information by the offense committed, the county in which the offense was committed, the date of admission into a correctional facility, and the offender's status and release date.

# Family Educational Rights and Privacy Act

CCCC protects the privacy of students in accordance with the Family Educational Rights and Privacy Act (FERPA) of 1974 (the "Act"), as amended, enacted as Section 444 of the General Education Provisions Act. This policy is applicable for all students, regardless of the mode of instructional delivery for the courses in which the students are enrolled.

Under this Act, students have the right to:

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

CCCC allows disclosure of education records to administrative officials, faculty, and staff who are determined to have a legitimate educational interest. Administrative officials and faculty/staff are considered to have a legitimate educational interest if they might reasonably need to access information to advise or assist a student with any college-related matter.

CCCC may disclose directory information without consent. Directory information means information contained in the education record of a student which would not generally be considered harmful or an invasion of privacy if disclosed. CCCC has designated directory information to be the following:

- Name
- County of residence
- Academic major
- Enrollment periods
- Hours earned
- Degrees awarded
- Awards received

A student has the right to refuse to let CCCC designate any or all types of information about him/her as directory information.

### Veterans' Information

### **Recruitment of Service Members**

In compliance with Department of Defense MOU paragraph 3.j.(3), Central Carolina Community College does not participate in high pressure recruitment tactics of military students including, but not limited to, providing commissions, bonuses, or other incentive payment programs to employees or contractors for the purpose of securing service member enrollments.

#### **Loan Information for Service Members**

Central Carolina Community College does not participate in the Federal Direct Loan Program. The Student Loan Cohort Default Rate (CDR) for Central Carolina is 0%. The college certifies private loans. Before certification of a private loan can take place, service members are required to meet with a trained and qualified Financial Aid Specialist for loan counseling.

#### **Financial Aid Information for Service Members**

Information regarding the financial aid process and deadlines is located on the CCCC website at https://www.cccc.edu/financialaid/important-dates/.

Active duty military may be eligible to receive Tuition Assistance to help with the cost of attending CCCC. Please follow this link for information on applying for these benefits. <u>https://www.militaryonesource.mil/education-employment/for-</u> <u>service-members/how-to-use-the-military-tuition-assistance-pr</u><u>ogram/</u>

#### **Veterans Affairs Office**

Central Carolina Community College's Veterans Affairs Office is available to assist the veterans and their eligible dependents in processing their VA applications to receive educational benefits (GI Bill®), as well as to help them solve VA problems. CCCC has a Veterans Affairs Coordinator whose office is located in Student Services.

Students eligible for VA educational benefits should follow the procedures outlined below:

- Notify the Veterans Affairs Coordinator of intent to apply for VA benefits.
- Select a program and apply for admission to the college. All admission requirements must be completed before VA benefits can be certified.
- Before registration, contact the Veterans Affairs Coordinator to ensure that all enrollment and VA document data are correct and complete. Students must inform the Veterans Affairs Coordinator of their

class schedule each semester. Failure to inform the Veterans Affairs Coordinator of changes in students' schedules may result in a lapse of educational benefits.

## Standards of Progress, Attendance, and Conduct for Students receiving VA Educational Benefits

Public Law 93-508 requires that each educational institution approved for veterans to receive educational benefits (GI Bill®) must establish written policies that clearly state what is expected of the veteran in the areas of academic progress, class attendance, and conduct. These standards are as follows:

1. Academic Progress for VA Educational Benefits recipients

Students receiving VA Educational Benefits must maintain a grade point average (GPA) of 2.0 each semester or term in which they are enrolled. Failure to maintain a GPA of 2.0 will result in probation for the subsequent term of enrollment. If, at the end of that probationary term the GPA is still less than a 2.0, VA Educational Benefits will be terminated. Benefits cannot be reinstated until such time as the student regains satisfactory academic progress. Information on CCCC's grade system and GPA calculation is located in the college catalog. Eligible veterans or dependents can appeal their termination of benefits by completing the appeal form in the VA Office. This policy is used as the basis for determining a student's status for enrollment certification purposes to the Veterans Administration.

2. Attendance

Classroom attendance requirements are the same for veterans and non-veterans. Policies regarding class attendance are listed in the college catalog and the student handbook. Veterans who receive educational benefits and are dropped from class due to inadequate attendance may be terminated from receiving educational benefits. Failure to notify the veteran's coordinator of any change in classes, including class hours, may result in an overpayment in educational benefits and a debt for the student.

3. Conduct

Student conduct requirements are the same for veterans and non-veterans. Policies regarding student conduct are listed in the college catalog and in the student handbook.

#### **Veterans Upward Bound**

Veterans Upward Bound is a federal grant-funded program designed to motivate and assist veterans in the development of academic and other requisite skills necessary for success in a program of postsecondary education. The primary goal of the program is to increase the rate at which participants enroll in and complete postsecondary education programs.

The program provides: academic refresher courses; tutorial services; academic, financial, or personal counseling;

mentoring programs; information on postsecondary education opportunities; assistance in preparing for college entrance exams; assistance in completing college entrance and financial aid applications; Information on the full range of Federal student financial aid programs and benefits; education or counseling services designed to improve financial and economic literacy; and assistance in securing support services from other locally available resources such as the Veterans Administration, state veterans agencies, veteran associations, and other state and local agencies that serve veterans.

All services are provided free of charge to eligible participants. Anyone interested in receiving additional information may contact the program by visiting Hockaday Hall, by calling 919-718-7463, or by emailing <u>veteransub@cccc.edu</u>. You can also find more information about the program online at <u>www.cccc.edu/vub.</u>

## **Student Accessibility Services**

Central Carolina Community College is in compliance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act signed into law on July 26, 1990. In 1994, Central Carolina Community College established the Office of Student Accessibility Services to facilitate the provisions of reasonable accommodations for all students with disabilities. This office coordinates services between the faculty and the special populations students. Our instructors and staff have experience working with students who have disabilities to help them obtain the education they need to enter the workforce or transfer to a four-year institution.

Central Carolina Community College has a commitment to its students to help them succeed. Therefore, Central Carolina Community College has adapted the following policy to guide its delivery of services to students with disabilities:

No otherwise qualified individual shall, by reason of disability, be excluded from the participation in, be denied the benefits of, or subjected to discrimination under any program or activity at Central Carolina Community College. The college will make program modifications in instructional delivery and provide supplemental services to enable students with disabilities to participate in activities compatible with their condition and interests.

#### To Receive Accommodations:

- 1. A student completes a standard admission application.
- 2. The student must identify himself or herself to the Office of Student Accessibility Services and request accommodations appropriate for his or her disability. (Please request a packet from the Office of Student Accessibility Services.)
- 3. The student may be referred to the Office of Student Accessibility Services by high school officials, community agencies, parents, Central Carolina

Community College faculty or staff, or may self-refer.

- 4. The student must provide current documentation (no older than 5 years) of the disability for which accommodations are requested. See <u>cccc.edu/ada</u> for documentation standards.
- 5. Once documentation is received, the student and coordinator will meet to determine necessary accommodations and complete a service contract.
- 6. The student completes a Student Schedule Request at the beginning of each semester enrolled as well as anytime their schedule changes, giving the student accessibility coordinator permission to notify instructors of accommodations.
- 7. The Coordinator of Student Accessibility Services sends Accommodations Request form to the student's instructors each term outlining accommodations to which the student is entitled.

#### Academic Standards

Students with disabilities are expected to meet the same level of academic standards as all other students. The purpose of an accommodation is to minimize the impact of the disability.

## **Student Resources**

## Academic Assistance Center

The Academic Assistance Center (AAC) supports the mission of Central Carolina Community College by providing in-person and virtual tutoring services in a learner-centered environment. The STEM Lab has daily drop-in hours Monday - Friday and Upswing Virtual Tutoring access is available to students every day at any hour. The AAC also offers test proctoring services and open computer lab usage. All of these services are free to CCCC students with locations on each main campus:

- Lee AAC
  - Marchant Hall, Room #9127
     (919) 718-7361
- Harnett AAC
  - Miriello Building, Room #126
     (910) 814-8869
- Chatham AAC
  - Building 42, Room #202
  - o (919) 545-8029

## **Student Activities**

The college shall attempt to enrich the academic and social growth of the students and promote a vibrant, positive student life experience by offering a wide range of student activities under the supervision of the Student Services Division. The Office of Student Activities oversees the Student Government Association, all student clubs and organizations, student leadership programs, the Angel Tree

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program, and plans fun, interactive, and educational programs both on-campus and virtually. All events and activities hosted by the Office of Student Activities are completely free for all students.

The Student Activities Coordinator will assist club advisors and students with the club application process and yearly paperwork required to continue existing clubs. Student fee funds may be available to active student clubs. Current clubs and organizations can be found on the "Get Involved" section on the CCCC Campus Life webpage (https://www.cccc.edu/campus-life/).

Upcoming Student Activities can be found on the Student Activities Website, Student Activities Social Media, and the College Activities Calendar.

Website: www.cccc.edu/studentlife Calendar: www.cccc.edu/calendar Facebook: Central Carolina Community College Student Activities Instagram: @ccccStudentActivities

### **Student Centers**

Student Centers are located on all three campuses to provide an area for students to relax while not attending class. Students are encouraged to use the centers as places to meet, chat, eat, and relax. Visit <u>https://www.cccc.edu/studentlife/centers/</u> to learn more, including information about hours of operation.

## Alumni

CCCC values its alumni! If you'd like to give back to the college, consider making an annual gift of any amount. For more information, call (919)718-7230.

## Athletics

Central Carolina Community College is a member of the National Junior College Athletic Association (NJCAA)-Division III, Region 10. Students participating in intercollegiate athletics must meet NJCAA eligibility requirements and standards. CCCC College athletic programs include the following:

- Basketball: CCCC sponsors intercollegiate men's and women's teams when there is sufficient student interest. Intramural basketball may also be sponsored if sufficient interest is indicated and facilities are available for use.
- Volleyball: CCCC sponsors a women's volleyball team in intercollegiate play when there is sufficient student interest.
- Cross Country: CCCC sponsors a men's and women's team where there is sufficient student interest.
- Other Athletics: Other athletic teams may be formed for men and/or women's sports as dictated by student interest.

## **Career Center Services**

Career services are available through the Career Center in Workforce Development. The Career Center assists students in selecting a curriculum major, preparing for a career, and transitioning from a student to a professional. The center offers online career assessments, a reference library, Internet research stations, and workshops and individual one-on-one sessions covering areas such as resume writing, cover letters, thank you notes, interviewing techniques, and job searches. The Career Center maintains partnerships with North Carolina Works Career Centers, Vocational Rehabilitation, Veterans Office and business and industries throughout the college's service area.

## Phi Theta Kappa Honor Society

The Phi Theta Kappa Honor Society at Central Carolina Community College serves to promote scholarship, development of leadership and service, and cultivation of fellowship among its members. To qualify as candidates for membership, students must meet the following requirements:

- 1. Must have completed 12 semester hours of associate degree coursework.
- 2. Must have achieved a grade point average of 3.7 on a 4.0 scale and subsequently, maintain a cumulative grade point average of 3.5 on a 4.0 scale.
- 3. Must adhere to the Student Code of Conduct and be a student in good standing.

Members of Phi Theta Kappa are honored at college commencement exercises by a special designation on their diplomas and special regalia worn with their graduation robes.

## Student Government Association

The Student Government Association (SGA) is the student body's self-government and the official voice of the student body. The SGA is committed to promoting student personal, social, and academic growth through student activities. The SGA provides the environment for students to create and implement activities as they desire under the direction of Student Services staff. The Student Activities office is the home of the Student Government Association where a team of students work alongside the Student Activities Coordinator to plan and implement special events for CCCC students.

The SGA's organizational structure consists of an Executive Committee made up of the following officers: President, Vice President, Secretary, Treasurer, Historian, and student club representatives. The President of the SGA represents the student body as a non-voting member on the Board of Trustees. SGA Elections are held once a year at the end of the Spring semester where new officers are voted in by their peers. Officers receive stipends to help pay for their college expenses in return for their work with the SGA. To learn more about the Student Government Associaiton, including ways to get involved, please visit: https://www.cccc.edu/studentlife/sga/

## **Library Services**

The CCCC Libraries consist of the Lee Main Campus Library (Sanford), the Harnett Main Campus Library (Lillington), and the Chatham Community Library (Pittsboro). The Chatham Campus Library merged with the Chatham Public Library in September 2010 to form a joint-use library located on the Chatham Main Campus in Pittsboro. All libraries provide assistance to students, faculty, and community patrons.

Library campus locations and phone numbers:

- Lee Main Campus Library (Sanford) Phone: (919) 718-7244 Fax: (919) 718-7378
- Harnett Main Campus Library (Lillington) Phone: (910) 814-8843 Fax: (910) 814-8894
- **Chatham Community Library (Pittsboro)** Phone: (919) 545-8084

Library hours are on the library web site at https://www.cccc.edu/library/.

NOTE: Summer hours and semester break hours at the libraries vary and are posted at each campus library.

## Library Cards and Student IDs

Student ID cards are required for students to borrow materials. You must be registered for current classes to receive a student ID card. For students at the Lee and Harnett Main campuses, the student ID card is also the library card and can be made at the Lee and Harnett Libraries. At the Chatham Main Campus, IDs are made in Student Onboarding and Success in the Administration Building. Students at the Chatham Main Campus should go to the reference desk at the Chatham Community Library for a library card. Please let the Chatham library staff know that you are a CCCC student. Alternatively, all students may request a student ID card online at bit.ly/CCCC-ID. This card may be mailed to your home address or picked up in person.

## **TRiO Student Support Services & STEM-Health Sciences**

Student Support Services (SSS) is a federally-funded TRiO program designed to assist college students with academic skills and motivation to successfully complete a postsecondary education degree. The goal of the Student Support Services program is to increase the college retention and graduation rates of its participants. The program serves 260 eligible students of all majors each year. Eligibility criteria is any combination of the following: first generation, low income, or

disability. Selected students are also eligible to receive grant aid awards of at least \$700.00.

Program services include:

- Academic tutoring, which may include instruction in • reading, writing, study skills, mathematics, science, and other subjects;
- Advice and assistance in postsecondary course selection:
- Information on both the full range of student financial aid programs and benefits;
- Assistance in completing financial aid applications, including the FAFSA and scholarship information;
- Education or counseling services designed to improve the financial and economic literacy of students,
- Assistance in applying for transfer admission to, and obtaining financial assistance for enrollment in, four-year postsecondary education programs.
- Individualized counseling for personal, career, and academic matters;
- Career exploration;
- Exposure to cultural events and academic programs; and
- Mentoring programs.

#### Campus Contact:

sss@cccc.edu Phone: 919-718-7536 Appointments available at all campus locations.

## **Developmental Studies Program**

Minimum proficiency requirements have been established in English, math, and reading. If a student's placement test scores or high school GPA (within the last ten years) are below the minimum requirements, they will take developmental courses designed to improve their skills. The Developmental Studies Program is located in the Marchant Hall on the Lee Main Campus, in the Miriello Building on the Harnett Main Campus, and in the General Classroom and Science Lab Building on the Chatham Main Campus.

## Writing and Reading Center

The Writing and Reading Center helps students develop their writing and reading skills with free services such as one-on-one coaching, group coaching sessions, and content-specific workshops. Through these services, students receive constructive feedback on writing assignments, resources to improve reading, research, and writing skills, and recognition of their growth as readers, researchers, and writers.

Writing and Reading Center coaches will help students refine and revise their work at any stage of their academic assignment.

In addition to physical services in the Writing and Reading

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Center, tutoring is also available via the Online Writing Center (OWL). Students taking online or evening classes can submit work for review and receive constructive feedback in no more than 48 business hours. To access the OWL, use the A - Z index on the homepage.

The Writing and Reading Center is located in the Miriello Building on the Harnett Main Campus in Room 119, Room 202 Building 42 on the Chatham Main Campus, and on the Lee Main Campus in Marchant Hall.

Campus phone numbers: Lee (919) 718-7210 Harnett (910) 814-8858 Chatham (919) 545-8049

#### **Self-Service**

Students can use Self-Service to collaborate with their faculty advisors and Education Navigators to develop a comprehensive academic course plan for current and future semesters. Self-Service also provides students with access to transcripts, plans of study, and other important advising information.

#### Logging into Self-Service

Self-Service is an online academic planning tool where CCCC students can:

- Communicate with Education Navigators and faculty advisors.
- Create course success plans.
- Plan for upcoming class registration periods to have faculty advisors approve course selections
- Once your advisor has approved the course selections, students can register themselves via Self-Service

Self-Service can be accessed at

https://www.cccc.edu/login/self-service

- STEP 1: Self-Service can be accessed via above link or through the login option in the upper right corner of www.cccc.edu.
- STEP 2: Select your student status. If you are a current student at CCCC, select the login button under "Already a student?" If you have not yet completed an application, select the button under "Prospective student?"
- STEP 3: For your first login, in the username field, use your first initial + the first four letters of your last name + the last three numbers of your Student ID number.
- STEP 4: For your first login, your password will be your birthdate in MMDDYY format. After successfully logging in for the first time, you will be prompted to change your password.

For technical assistance contact (919) 718-7201 or (800) 682-8353 ext. 7201

# Career Communities and Programs



**Applied Technologies** 



# **Applied Technologies Career Community**

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For the Associate in Applied Science degree or diploma programs, students will choose from the following lists of approved electives.

## Approved Humanities/Fine Arts Electives Associate in Applied Science Degree/Diploma

	<b>–</b> –	
		C-L-SHC
ART 111	Art Appreciation	3-0-3
ART 114	Art History Survey I	3-0-3
ART 115	Art History Survey II	3-0-3
DRA 111	Theatre Appreciation	3-0-3
ENG 125	Creative Writing I	3-0-3
ENG 231	American Literature I	3-0-3
ENG 232	American Literature II	3-0-3
*ENG 241	British Literature I	3-0-3
*ENG 242	British Literature II	3-0-3
HUM 110	Technology and Society	3-0-3
HUM 115	Critical Thinking	3-0-3
HUM 120	Cultural Studies	3-0-3
HUM 122	Southern Culture	3-0-3
HUM 150	American Women's Studies	3-0-3
HUM 160	Introduction to Film	2-2-3
MUS 110	Music Appreciation	3-0-3
MUS 112	Introduction to Jazz	3-0-3
PHI 240	Introduction to Ethics	3-0-3
REL 110	World Religions	3-0-3
REL 211	Intro to Old Testament	3-0-3
REL 212	Intro to New Testament	3-0-3

\*Not applicable for some health sciences programs. Health sciences students should see their advisor or an Education Navigator before registering for electives.

## Approved Social/Behavioral Science Electives Associate in Applied Science Degree/Diploma

-	-	
		C-L-SHC
ANT 210	General Anthropology	3-0-3
ANT 220	Cultural Anthropology	3-0-3
ECO 151	Survey of Economics	3-0-3
ECO 251	Principles of Microeconomics	3-0-3
ECO 252	Principles of Macroeconomics	3-0-3
HIS 111	World Civilization I	3-0-3
HIS 112	World Civilization II	3-0-3
HIS 131	American History I	3-0-3
HIS 132	American History II	3-0-3
HIS 222	African-American History I	3-0-3
HIS 223	African-American History II	3-0-3
HIS 226	The Civil War	3-0-3
HIS 236	North Carolina History	3-0-3
POL 120	American Government	3-0-3
PSY 150	General Psychology	3-0-3
PSY 237	Social Psychology	3-0-3
PSY 241	Developmental Psychology	3-0-3
PSY 246	Adolescent Psychology	3-0-3
PSY 281	Abnormal Psychology	3-0-3
SOC 210	Introduction to Sociology	3-0-3
SOC 213	Sociology of the Family	3-0-3
SOC 220	Social Problems	3-0-3
SOC 225	Social Diversity	3-0-3
SOC 232	Social Context of Aging	3-0-3
SOC 240	Social Psychology	3-0-3

# Air Conditioning, Heating, and Refrigeration Technology

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. AAS degree graduates should be able to demonstrate an understanding of system selection and balance and advanced systems.

## Air Conditioning, Heating, and Refrigeration Technology

#### **Credential: Associate in Applied Science in Air Conditioning, Heating, & Refrigeration Degree** A35100

Program Length: 6 semesters

Program Location: Center for Workforce Innovation/Howard James Industry Training Center

#### Suggested Course Schedule:

1 <sup>st</sup> Semeste	r, Fall	
AHR 110	Intro to Refrigeration	2-6-5
AHR 111		2-2-3
ACA 122		0-2-1
	C	
	uirement, select one:	
ENG 110	Freshman Composition	3-0-3
ENG 111	Writing & Inquiry	3-0-3
2 <sup>nd</sup> Semeste	er, Spring	
AHR 112	Heating Technology	2-4-4
AHR 113	Comfort Cooling	2-4-4
AHR 114		2-4-4
COM 110	Intro to Communication	3-0-3
2rd Com out		
	er, Summer	1 2 0
AHR 115	0 3	1-3-2
AHR 160		1-0-1
Humanities	/Fine Arts Elective	3-0-3
4 <sup>th</sup> Semeste	r. Fall	
AHR 125	,	2-2-3
AHR 133		2-6-4
AHR 151	HVAC Duct Systems I	1-3-2
	· · · ·	
•	cs requirement, select one:	
MAT 110	Math Measurement & Literacy	2-2-3
MAT 143	Quantitative Literacy	2-2-3
PHY 121	Applied Physics I	3-2-4
5 <sup>th</sup> Semeste	r, Spring	
	Advanced Comfort Systems	2-6-4
	-	

AHR 215	Commercial HVAC Controls	1-3-2
AHR 225	Commercial System Design	2-3-3
AHR 180	HVACR Customer Relations	1-0-1
AHR 213	HVACR Building Code	1-2-2
	-	
6 <sup>th</sup> Semeste	r, Summer	
AHR 211	Residential System Design	2-2-3
WBL 111	Work-based Learning I	0-10-1
Social/Beha	vioral Science Elective	3-0-3

Total Semester Hours Credit required for graduation: 64

#### Air Conditioning, Heating, and Refrigeration Technology Credential: Diploma in Air Conditioning, Heating, & Refrigeration D35100

Program Length: 4 Semesters Program Location: Howard-James Industry Training Center

#### **Suggested Course Schedule:**

1 <sup>st</sup> Semeste	er, Fall	
ACA 122	College Transfer Success	0-10-1
AHR 110	Intro to Refrigeration	2-6-5
AHR 111	HVACR ElectricitySU-F	2-2-3
	uirement, select one:	
ENG 110	1	3-0-3
ENG 111	Writing & Inquiry	3-0-3
2 <sup>nd</sup> Semest	er, Spring	
AHR 112	Heating Technology	2-4-4
AHR 113	Comfort Cooling	2-4-4
AHR 114	Heat Pump Technology	2-4-4
3 <sup>rd</sup> Semeste	er, Summer	
AHR 115	Refrigeration Systems	1-3-2
AHR 160	Refrigerant Certification	1-0-1
Math/Physi	cs requirement, select one:	
MAT 110	Math Measurement & Literacy	2-2-3
MAT 143	Quantitative Literacy	2-2-3
PHY 121	Applied Physics I	3-2-4
4 <sup>th</sup> Semeste	er, Fall	
AHR 125	HVACR Electronics	2-2-3
AHR 133	HVAC Servicing	2-6-4
AHR 151	HVAC Duct Systems I	1-3-2

Total Semester Hours Credit Required for Gradation: 39

## Credential: ACHR Tech Basic Certificate C35100B

Program Length: 3 Semesters Program Location: Howard-James Industry Training Center

#### **Suggested Course Schedule:**

1 <sup>st</sup> Semeste	er, Fall	
AHR 110	Intro to Refrigeration	2-6-5
2 <sup>nd</sup> Semest	er Spring	
	, <b>1</b> S	
AHR 112	Heating Technology	2-4-4
AHR 113	Comfort Cooling	2-4-4
AHR 114	Heat Pump Technology	2-4-4
ard Someet		
5 Semesu	er, Summer	
AHR 160	Refrigerant Certification	1-0-1

Total Semester Hours Credit Required for Graduation: 18

#### Air Conditioning, Heating, and Refrigeration Technology Credential: ACHR Tech Core I Certificate C35100C1

Program Length: 2 Semesters Program Location: Howard-James Industry Training Center

#### Suggested Course Schedule:

1 <sup>st</sup> Semester, Fall		
AHR 110	Intro to Refrigeration	2-6-5
AHR 111	HVACR Electricity	2-2-3

2 - 4 - 4

#### 2<sup>nd</sup> Semester, Spring

AHR 113 Comfort Cooling

Total Semester Hours Credit Required for Gradation: 12

#### Air Conditioning, Heating, and Refrigeration Technology Credential: ACHR Tech Core II Certificate C35100C2

Program Length: 4 Semesters Program Location: Howard-James Industry Training Center

Suggested Course Schedule: 1 <sup>st</sup> Semester, Spring		
	Heat Pump Technology	2-4-4
2 <sup>nd</sup> Semeste AHR 115	<b>r, Summer</b> Refrigeration Systems	1-3-2
<b>3<sup>rd</sup> Semeste</b> AHR 213	r, Spring HVACR Building Code	1-2-2

#### 4<sup>th</sup> Semester, Summer

AHR 211	Residential System Design	2-2-3
WBL 111	Work Based Learning I	0-10-1

Total Semester Hours Credit Required for Graduation: 12

#### Air Conditioning, Heating, and Refrigeration Technology Credential: ACHR Tech Intermediate Certificate C35100I

Program Length: 4 Semesters Program Location: Howard-James Industry Training Center

#### Suggested Course Schedule:

1 <sup>st</sup> Semeste	r, Summer	
AHR 115	Refrigeration Systems	1-3-2
2 <sup>nd</sup> Semeste	er, Fall	
AHR 125	HVACR Electronics	2-2-3
AHR 133	HVAC Servicing	2-6-4
AHR 151	HVAC Duct Systems I	1-3-2
3rd Semeste	er, Spring	
AHR 215	Commercial HVAC Controls	1-3-2
AHR 225	Commercial System Design	2-3-3
AHR 180	HVACR Customer Relations	1-0-1
4 <sup>th</sup> Semeste	r. Summer	
	Work-based Learning I	0-10-1

Total Semester Hours Credit Required for Graduation: 18

# Automotive Restoration Technology

#### Credential: Diploma in Automotive Restoration Technology D60140

The Automotive Restoration Technology curriculum is designed to provide individuals with the competencies needed to work in the automotive restoration industry. The program prepares individuals to apply technical knowledge and skills to repair, reconstruct, finish and restore automobile bodies, fenders, and external features of a wide range of classic vehicles that typically are at least 35 years old. It includes instruction in internal combustion engines, transmissions, brakes, restoring original sheet metal, upholstery, and wood components, rebuilding starters, generators, and painting and refinishing techniques.

Graduates of the curriculum should qualify for entry-level employment opportunities in the automotive restoration industry.

Program Length: 3 semesters

Career Pathway Options: Diploma in Automotive Restoration Technology

Program Sites: West Harnett Center - Day Program

#### **Suggested Course Schedule:**

1 <sup>st</sup> Semester	r, Fall	
ARS 118	Wood & Metal Restoration	2-2-3
AUB 131	Structural Damage I	2-4-4
TRN 110	Intro to Transport Tech	1-2-2
TRN 120	Basic Transp Electricity	4-3-5
TRN 180	Basic Welding for Transp	1-4-3
2 <sup>nd</sup> Semeste	er, Spring	
ARS 112	Auto Restoration Research	3-0-3
ARS 117	Automotive Engines	1-3-2
AUB 111	Painting & Refinishing I	2-6-4
AUB 112	Painting & Refinishing II	2-6-4
AUB 121	Non-structural Damage I	1-4-3
ENG 102	Applied Communications II	3-0-3
3 <sup>rd</sup> Semeste	r, Summer	
ARS 113	Automobile Upholstery	2-4-4
	Restoration Skills I	2-4-4
Math/Science	ce Requirement, select one:	
PHY121	Applied Physics I	3-2-4
MAT 110	Math Measurement & Literacy	2-2-3

Total Semester Hours Credit required for graduation: 47

#### Automotive Restoration Technology Credential: Certificate in Automotive Restoration Technology C60140

The Automotive Restoration Technology curriculum is designed to provide individuals with the competencies needed to work in the automotive restoration industry. The program prepares individuals to apply technical knowledge and skills to repair, reconstruct, finish and restore automobile bodies, fenders, and external features of a wide range of classic vehicles that typically are at least 35 years old. It includes instruction in basic electricity, rebuilding starters, generators, and painting and refinishing techniques.

Graduates of the curriculum should qualify for entry-level employment opportunities in the automotive restoration industry.

#### Program Length: 2 semesters

Career Pathway Options: Diploma in Automotive Restoration Technology (Higher entrance standards required). Program Sites: West Harnett Center- Day Program

#### Suggested Course Schedule:

#### 1<sup>st</sup> Semester, Fall

	,	
TRN 110	Intro to Transport Tech	1-2-2
TRN 120	Basic Transp Electricity	4-3-5

2 <sup>nd</sup> Semeste	r, Sp	ring					
ATTD 111	ъ ·	. •	0	ъ	c	•	1

AUB 111	Painting & Refinishing I	2-6-4
AUB 121	Non-Structural Damage I	1-4-3

Total Semester Hours Credit required for graduation: 14

## **Automotive Systems Technology**

#### **Credential:** Associate in Applied Science Degree in Automotive Systems Technology A60160

The Automotive System Technology curriculum prepares individuals for employment as automotive service technicians. The program prepares individuals to apply technical knowledge and skills to repair, service, and maintain all types of automobiles. Emphasis is placed on theory, servicing and operation of brake systems, electrical systems, engine performance, engine repair, suspension and steering, automatic and manual transmissions and drivetrains, and heating and air condition systems. Classroom and lab experiences integrate technical and academic coursework.

Upon completion of this curriculum students should be prepared for ASE certification and be ready for full-time employment in dealerships and repair shops in the automotive service industry.

Program Length: 5 semesters

Career Pathway Options: Associate in Applied Science Degree in Automotive Systems Technology

#### Program Sites: Lee Main Campus - Day Program

#### **Suggested Course Schedule:**

1 <sup>st</sup> Semester,	Fall	
ACA 122	College Transfer Success	0-2-1
AUT 151	Brake Systems	2-3-3
AUT 151A	Brake Systems Lab	0-3-1
TRN 170	Pc Skills for Transp	1-2-2
TRN 110	Intro to Transport Tech	1-2-2
TRN 120	Basic Transp Electricity	4-3-5
Math/Science	e requirement, select one:	
MAT 110	Math Measurement & Literacy	2-2-3
	OR	
PHY 110	Conceptual Physics	3-0-3
PHY 110A	Conceptual Physics Laboratory	0-2-1
2 <sup>nd</sup> Semester,	, Spring	
AUT 141	Suspension & Steering Systems	2-3-3
AUT 141A	Suspension & Steering Lab	0-3-1
AUT 163	Adv. Automotive Electricity	2-3-3
AUT 163A	Adv. Automotive Electricity Lab	0-3-1
AUT 181	Engine Performance I	2-3-3
AUT 181A	Engine Performance Lab	0-3-1
ENG 111	Writing & Inquiry	3-0-3
3 <sup>rd</sup> Semester,	Summer	
AUT 114	Safaty and Emissions	1 2 2

AUT 114	Safety and Emissions	1-2-2
AUT 114A	Safety and Emissions Lab	0-2-1

AUT 183	Engine Performance II	2-6-4
TRN 140	Transp. Climate Control	1-2-2
TRN 140A	Transp. Climate Control Lab	1-2-2
4 <sup>th</sup> Semester,	Fall	
AUT 116	Engine Repair	2-3-3
AUT 116A	Engine Repair Lab	0-3-1
AUT 231	Manual Drive Trans/Axles	2-3-3
AUT 231A	Manual Trans/Axles/Drtrains Lab	0-3-1
AUT 281	Advanced Engine Performance	2-2-3
ENG 114	Professional Research & Reporting	3-0-3
5 <sup>th</sup> Semester,	Spring	
AUT 221	Auto Transm/Transaxles	2-3-3
AUT 221A	Auto Transm/Transaxles Lab	0-3-1
TRN 145	Adv. Transp. Electronics	2-3-3
TRN 130	Intro to Sustainable Transp.	2-2-3
Humanities/F	Fine Arts Elective	3-0-3

Total Semester Hours Credit required for graduation: 73

#### Automotive Systems Technology Credential: Diploma in Automotive Systems Technology D60160

Program Length: 3 semesters

Social/Behavioral Science Elective

Career Pathway Options: Associate in Applied Science Degree in Automotive Systems Technology (Higher entrance standards required), Diploma in Automotive Systems Technology. Program Sites: Lee Main Campus - Day Program

#### Suggested Course Schedule:

1 <sup>a</sup> Semester	;, Fall	
AUT 151	Brake Systems	2-3-3
AUT 151A	Brake Systems Lab	0-3-1
TRN 170	PC Skills for Transp	1-2-2
TRN 110	Intro to Transport Tech	1-2-2
TRN 120	Basic Transp Electricity	4-3-5
MAT 110	Math Measurement & Literacy	2-2-3

#### 2<sup>nd</sup> Semester, Spring

AUT 141	Suspension & Steering Systems	2-3-3
AUT 141A	Suspension & Steering Lab	0-3-1
AUT 163	Adv. Automotive Electricity	2-3-3
AUT 163A	Adv. Automotive Electricity Lab	0-3-1
AUT 181	Engine Performance I	2-3-3
AUT 181A	Engine Performance Lab	0-3-1
ENG 102	Applied Communications	3-0-3

## 3<sup>rd</sup> Semester, Summer

AUT 114	Safety and Emissions	1-2-2
AUT 114A	Safety and Emissions Lab	0-2-1
AUT 183	Engine Performance II	2-6-4
TRN 140	Transp. Climate Control	1-2-2
TRN 140A	Transp. Climate Control Lab	1-2-2

Total Semester Hours Credit required for graduation: 42

#### Automotive Systems Technology Credential: Certificate in Automotive Systems Technology C60160

This curriculum prepares individuals for employment as automotive service technicians. The program prepares individuals to apply technical knowledge and skills to repair, service, and maintain all types of automobiles. Emphasis is placed on theory, servicing and operation of brake systems, electrical systems, and engine performance, Classroom and lab experiences integrate technical and academic coursework.

Upon completion of this curriculum students should be ready for full-time employment in dealerships and repair shops in the automotive service industry

#### Program Length: 2 semesters

3-0-3

. . .

Career Pathway Options: Associate in Applied Science Degree in Automotive Systems Technology (Higher entrance standards required), Diploma in Automotive Systems Technology (Higher entrance standards required), Certificate in Automotive Systems Technology.

Program Sites: Lee Main Campus - Day Program / Night Program

#### **Suggested Course Schedule:**

1 <sup>st</sup> (	Semes	ter,	Fall
-------------------	-------	------	------

AUT 151	Brake Systems	2-3-3
AUT 151A	Brake Systems Lab	0-3-1
TRN 120	Basic Transp Electricity	4-3-5

#### 2<sup>nd</sup> Semester, Spring

AUT 163	Adv. Automotive Electricity	2-3-3
AUT 163A	Adv. Automotive Electricity Lab	0-3-1
AUT 181	Engine Performance I	2-3-3
AUT 181A	Engine Performance Lab	0-3-1

Total Semester Hours Credit required for graduation: 17

#### Automotive Systems Technology Credential: Certificate in Electrical Vehicle Servicing C60160EV

Program length: 1 semester

Career Pathway: Associate in Applied Science Degree in Automotive Systems Technology (Higher entrance standards required), Diploma in Automotive Systems Technology (Higher entrance standards required), Certificate in Electrical Vehicle Servicing

Program Sites: Lee Main Campus

#### Suggested Course Schedule: 1st Semester, Fall

AUT 163	Adv. Auto Electricity	2-3-3
TRN 110	Intro to Transport Technology	1-2-2
TRN 120	Basic Transp Electricity	4-3-5

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TRN 130	Intro to Sustainable Transp	2-2-3
TRN 145	Adv Transp Electronics	2-3-3
TRN 170	Pc Skills for Transp	1-2-2

Total Semester Hours Credit Required for Graduation: 18

## **Bioprocess Technology**

#### Credential: Associate in Applied Science in Bioprocess Technology A50440

The Bioprocess Technology curriculum will prepare individuals to work as Process Operators in biological products manufacturing facilities. Students will combine foundational knowledge in basic science and communication skills, manufacturing technologies, and good manufacturing practices. Students will develop collaborative and disciplined work ethics while consistently practicing problem-solving skills. With successful completion of the program, individuals will qualify for employment in a variety of Bioprocessing industries like pharmaceutical manufacturing.

Program length: 5 full-time semesters or customized length part-time

Career Pathway options: Associate in Applied Science in Bioprocess Technology

Program Sites: Lee Main Campus; Distance Education-some courses may be available online or hybrid

#### **Suggested Course Schedule:**

#### 1<sup>st</sup> Semester, Fall

ACA 122	College Transfer Success	0-2-1
BIO 110	Principles of Biology	3-3-4
BPM 110	Bioprocess Practices*	3-4-5
PTC 110	Industrial Environment*	3-0-3
ENG 111	Writing & Inquiry	3-0-3

#### 2<sup>nd</sup> Semester, Spring

BPM 111	Bioprocess Measurements	3-3-4
CIS 110	Introduction to Computers	2-2-3
CHM 131	Introduction to Chemistry	3-0-3
CHM 131A	Introduction to Chemistry Lab	0-3-1
Math require	ement, select one:	
MAT 121	Algebra/Trigonometry I	2-2-3
MAT 171	Precalculus Algebra	3-2-4
3rd Semester	r, Summer	
<b>3<sup>rd</sup> Semester</b> ISC 121	<b>r, Summer</b> Environmental Health & Safety	3-0-3
		3-0-3 1-0-1
ISC 121	Environmental Health & Safety	
ISC 121 ISC 175	Environmental Health & Safety Quality Fundamentals Writing/Research in the Disc	1-0-1
ISC 121 ISC 175 ENG 112	Environmental Health & Safety Quality Fundamentals Writing/Research in the Disc	1-0-1
ISC 121 ISC 175 ENG 112 4 <sup>th</sup> Semester	Environmental Health & Safety Quality Fundamentals Writing/Research in the Disc <b>r, Fall</b>	1-0-1 3-0-3

PTE 116	Pathway to Employ. Bio/Chem	2-3-3
Communication elective*		3-0-3
*COM 231	recommended	

#### 5<sup>th</sup> Semester, Spring

	, I 8	
BPM 113	Downstream Bioprocessing	3-3-4
PTC 228	Pharmaceutical Issues	1-0-1
ISC 280	Validation Fundamentals	1-2-2
WBL 111	Work-based Learning	0-10-1
<b>Humanities</b>	/Fine Arts Elective	3-0-3
Social/Beha	avioral Sci Elective**	3-0-3
**ECO 251	or PSY 150 recommended	

Total semester hours required for graduation: 67

#### Bioprocess Technology Credential: Bioprocess Technology Diploma D50440

Program Length: 3 full-time semesters or customized length part-time

Career Pathway Options: Associate in Applied Science Degree in Bioprocess Technology; Diploma in Bioprocess Technology Program Sites: Lee Main Campus; Distance Education–some courses may be available online or hybrid

#### Suggested Course Schedule:

1 <sup>st</sup> Semester	, Fall	
BIO 110	Principles of Biology	3-3-4
BPM 110	Bioprocess Practices*	3-4-5
PTC 110	Industrial Environment*	3-0-3
ACA 122	College Transfer Success	0-2-1
ENG 111	Writing & Inquiry	3-0-3
2 <sup>nd</sup> Semester	r, Spring	
BPM 111	Bioprocess Measurements	3-3-4
CHM 131	Introduction to Chemistry	3-0-3
CHM 131A	Introduction to Chemistry Lab	0-3-1
CIS 110	Introduction to Computers	2-2-3
Math require	ement, select one:	
MAT 121	Algebra/Trigonometry I	2-2-3
MAT 171	Precalculus Algebra	3-2-4
3 <sup>rd</sup> Semester	; Summer	
BPM 112	Upstream Bioprocessing	3-4-5
BPM 113	Downstream Bioprocessing	3-3-4

Total semester hours required for graduation: 39

#### **Bioprocess Technology**

#### **Credential: Bioprocess Technology Certificate** C50440

Program Length: 2 part-time semesters or customized length Career Pathway Options: Associate in Applied Science Degree in Bioprocess Technology; Diploma in Bioprocess Technology Program Site/s: Lee Main Campus; Distance Education–some courses may be available online or hybrid

#### Suggested Course Schedule:

1 <sup>st</sup> Semester, Fall			
BPM 110	Bioprocess Practices*	3-4-5	
PTC 110	Industrial Environment*	3-0-3	
•			

#### 2<sup>nd</sup> Semester, Spring

BIO 110	Principles of Biology	3-3-4
BPM 111	Bioprocess Measurements	3-3-4

Total semester hours credit required for graduation: 16

\*Note: Continuing Education BioWork Students earn credit for BPM 110 and PTC 110.

## Building Construction Technology

The Building Construction Technology program prepares individuals to apply technical knowledge and skills to residential and commercial building construction and remodeling. It includes instruction in construction equipment and safety, site preparation and layout; construction estimating; print reading; building codes; framing, masonry, heating, ventilation, and air conditioning; electrical and mechanical systems; interior and exterior finishing; and plumbing.

#### Building Construction Technology Credential: Associate in Applied Science Degree in Building Construction Technology A35140

Program Length: 5 Semesters Program Site: Chatham Main Campus

#### Suggested Course Schedule:

1 <sup>st</sup> Semeste	r, Fall	
ACA 122	College Transfer Success	0-2-1
BPR 130	Print Reading Construction	3-0-3
CST 111	Construction I	3-3-4
CST 131	OSHA/Safety/Certification	2-2-3
MAS 140	Intro to Masonry	1-2-2
Math requir	rement, select one:	
MAT 110	Math Measurement & Literacy	2-2-3
MAT 143	Quantitative Literacy	2-2-3
and G	S	
2 <sup>nd</sup> Semeste	er, Spring	
CST 112	Construction II	3-3-4
		3-3-4 2-2-3
CST 112	Construction II	
CST 112 CST 241	Construction II Planning & Estimating I	2-2-3
CST 112 CST 241 CMT 120	Construction II Planning & Estimating I Codes and Inspections	2-2-3 3-0-3
CST 112 CST 241 CMT 120 ELC 113	Construction II Planning & Estimating I Codes and Inspections Residential Wiring Intro to Plumbing	2-2-3 3-0-3 2-6-4
CST 112 CST 241 CMT 120 ELC 113 PLU 111 <b>3<sup>rd</sup> Semeste</b> CST 113	Construction II Planning & Estimating I Codes and Inspections Residential Wiring Intro to Plumbing er, Summer Construction III	2-2-3 3-0-3 2-6-4
CST 112 CST 241 CMT 120 ELC 113 PLU 111 <b>3</b> <sup>rd</sup> <b>Semeste</b>	Construction II Planning & Estimating I Codes and Inspections Residential Wiring Intro to Plumbing er, Summer Construction III	2-2-3 3-0-3 2-6-4 1-3-2

#### 4<sup>th</sup> Semester, Fall

BUS 280

+ Semeste	.1, 1 411	
CST 221	Statics/Structures	3-3-4
SST 120	Energy Use Analysis	2-2-3
SST 140	Green Bldg. & Design Concepts	3-0-3
<b>Humanities</b>	/Fine Arts Elective	3-0-3
Communica	ation Elective	3-0-3
Choose from	m: ENG 112, ENG-114, or COM 120	
5 <sup>th</sup> Semeste	er, Spring	
ARC 111	Intro to Architecture	1-6-3
CST 150	Building Science	2-2-3
WBL 111	Work-based Learning	0-10-1

Total Semester Hours Credit Required for Graduation: 69

**REAL Small Business** 

#### Building Construction Technology Credential: Building Construction Technology Diploma D35140

Program Length: 3 Semesters Program Site: Chatham Main Campus

Social/Behavioral Science Elective

#### Suggested Course Schedule:

1 <sup>st</sup> Semester	r, Fall		
BPR 130	Print Reading Construction	3-0-3	
CST 111	Construction I	3-3-4	
CST 131	OSHA/Safety/Certification	2-2-3	
MAS 140	Intro to Masonry	1-2-2	
SST 140	Green Bldg & Design Concepts	3-0-3	
2 <sup>nd</sup> Semeste	r, Spring		
CST 112	Construction II	3-3-4	
CMT 120	Codes and Inspection	3-0-3	
ELC 113	Residential Wiring	2-6-4	
PLU 111	Intro to Plumbing	1-3-2	
CST 241	Planning and Estimating I	2-2-3	
3 <sup>rd</sup> Semeste	r, Summer		
CST 113	Construction III	3-3-4	
ENG 111	Writing & Inquiry	3-0-3	
Math, select one:			
MAT 110	Math Measurement & Literacy	2-2-3	
MAT 143	Quantitative Literacy	2-2-3	
Total Semes	ter Hours Credit Required for Graduation: 4	1	

Building Construction Technology Credential: Building Construction Technology Certificate C35140

Program Length: 3 Semesters

4-0-4

3-0-3

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Program Site: Chatham Main proCampus Suggested Course Schedule:		
1 <sup>st</sup> Semeste		
CST 111	Construction I	3-3-4
CST 131	OSHA/Safety/Certification	2-2-3
2 <sup>nd</sup> Semeste CST 112	er, Spring Construction II	3-3-4
3 <sup>rd</sup> Semester, Summer		
CST 113	Construction III	3-3-4
Total Semester Hours Required: 15		

#### **Building Construction Technology Credential:** Construction Electrical Technology Certificate **C35140CE**

Program Length: Semesters Program Site: Chatham Main Campus

#### **Suggested Course Schedule: T** 11

1 <sup>*</sup> Semester, Fall		
BPR 130	Blueprint Reading Construction	3-0-3
CST 131	OSHA/Safety Certification	2-2-3
ELC 113	Residential Wiring	2-6-4
CST 111	Construction I	3-3-4

Total Semester Hours Required for Graduation: 14

## Collision Repair and Refinishing Technology

#### Credential: Diploma in Collision Repair and **Refinishing Technology** D60130

The Collision Repair and Refinishing Technology program prepares individuals to apply technical knowledge and skills to repair, reconstruct and finish automobile bodies, fenders, and external features. It includes instruction in structure analysis, damage repair, non-structural analysis, mechanical and electrical components, plastics and adhesives, painting and refinishing techniques, and damage analysis and estimating.

Program Length: 3 Semesters Career Pathway Options: Diploma, Collision Repair and Refinishing Technology Program Site: West Harnett Center

### **Suggested Course Schedule:**

1 <sup>st</sup> Semester, Fall			
AUB 131	Structural Damage I	2-4-4	
TRN 110	Intro to Transport Tech	1-2-2	
TRN 120	Basic Transp Electricity	4-3-5	

TRN 180	Basic Welding for Transp	1-4-3
2 <sup>nd</sup> Semeste	er, Spring	
AUB 111	Painting & Refinishing I	2-6-4
AUB 112	Painting & Refinishing II	2-6-4
AUB 121	Non-Structural Damage I	1-4-3
AUB 162	Autobody Estimating	1-2-2
ENG 102	Applied Communications II	3-0-3
3 <sup>rd</sup> Semeste	r, Summer	
TRN 140	Transp Climate Control	1-2-2
TRN 140A	Transp Climate Cont Lab	1-2-2
AUB 114	Special Finishes	1-2-2
PHY 110	Conceptual Physics	3-0-3
PHY 110A	Conceptual Physics Lab	0-2-1

Total Semester Hours Credit required for graduation: 40

## **Computer Integrated Machining**

**Credential:** Associate in Applied Science Degree in Computer-Integrated Machining with an **Emphasis in Tool, Die and Mold Making** A50210

The Computer-Integrated Machining curriculum prepares students with the analytical, creative and innovative skills necessary to take a production idea from an initial concept through design, development and production, resulting in a finished product.

Coursework may include manual machining, computer applications, engineering design, computer-aided drafting (CAD), computer-aided machining (CAM), blueprint interpretation, advanced computerized numeric control (CNC) equipment, basic and advanced machining operations, precision measurement and high-speed multi-axis machining.

Graduates should qualify for employment as machining technicians in high-tech manufacturing, rapid-prototyping and rapid-manufacturing industries, specialty machine shops, fabrication industries, and high-tech or emerging industries such as aerospace, aviation, medical, and renewable energy, and to sit for machining certification examinations.

This Program has an emphasis on Tool, Die and Mold Making.

Program Length: 6 semesters

Career Pathway Options: Associate in Applied Science in Computer-Integrated Machining with an Emphasis in Tool, Die and Mold Making Program Sites: Lee Main Campus - Day Program

#### Suggested Course Schedule:

1 <sup>st</sup> Semester	;, Fall	
BPR 111	Print Reading	1-2-2
CIS 111	Basic PC Literacy	1-2-2
MAC 111	Machining Technology I	2-12-6
MAC 171	Measure/Material & Safety	0-2-1
MAT 110	Math Measurement & Literacy	2-2-3
MEC 142	Physical Metallurgy	1-2-2

2 <sup>nd</sup> Semester	r, Spring	
BPR 121	Blueprint Reading-Mech	1-2-2
ENG 111	Writing and Inquiry	3-0-3
MAC 112	Machining Technology II	2-12-6
MAC 124	CNC Milling	1-3-2
MAC 152	Adv. Machining Calc	1-2-2
3 <sup>rd</sup> Semester	r Summer	
	Machining Technology III	2-12-6
	Fine Arts Elective	3-0-3
<u>numannues/</u>	File Arts Elective	3-0-3
4 <sup>th</sup> Semester	r, Fall	
ENG 114	Prof Research & Reporting	3-0-3
MAC 122	CNC Turning	1-3-2
MAC 153	Compound Angles	1-2-2
MAC 241	Jigs & Fixtures I	2-6-4
MAC 245	Mold Construction I	2-6-4
5 <sup>th</sup> Semester	r Snring	
MAC 224	Advanced CNC Milling	1-3-2
MAC 226	CNC EDM Machining	1-3-2
MAC 243	Die Making I	2-6-4
MAC 246	Mold Construction II	1-9-4
MEC 110	Intro to CAD/CAM	1-2-2
6 <sup>th</sup> Semester		
MAC 244	e	1-9-4
Social/Behav	vioral Science Elective	3-0-3

Total Semester Hours Credit required for graduation: 76

#### Computer-Integrated Machining Credential: Diploma in Computer-Integrated Machining D50210

Program Length: 3 semesters

Career Pathway Options: Associate in Applied Science in Computer-Integrated Machining with an Emphasis in Tool, Die and Mold Making (Higher entrance standards required); Diploma in Computer-Integrated Machining Technology Program Sites: Lee Main Campus – Day and Evening Program; Harnett Main Campus – Day and Evening Program

#### Suggested Course Schedule:

1 <sup>st</sup> Semester	; Fall	
BPR 111	Print Reading	1-2-2
CIS 111	Basic PC Literacy	1-2-2
MAC 111	Machining Technology I	2-12-6
MAC 171	Measure/Material & Safety	0-2-1
MEC 142	Physical Metallurgy	1-2-2
MAT 110	Math Measurement & Literacy	2-2-3
2 <sup>nd</sup> Semester, Spring		
BPR 121	Blueprint Reading-Mech	1-2-2
MAC 112	Machining Technology II	2-12-6
MAC 124	CNC Milling	1-3-2

MAC 152	Adv. Machining Calc	1-2-2
English, sel	ect one:	
ENG 102	Applied Communications II	3-0-3
ENG 110	Freshman Composition	3-0-3
MAC 113	e <b>r, Summer</b> Machining Technology III /Fine Arts Elective	2-12-6 3-0-3

Total Semester Hours Credit required for graduation: 40

#### **Computer-Integrated Machining Credential: Certificate in Computer-Integrated Machining C50210**

Program Length: 2 semesters

Career Pathway Options: Associate in Applied Science in Computer-Integrated Machining with an Emphasis in Tool, Die and Mold Making (Higher entrance standards required); Diploma Computer Integrated-Machining (Higher entrance standards required); Certificate in Computer-Integrated Machining. Program Sites: Lee Main Campus –Day and Evening Program;

Harnett Main Campus –Day and Evening Program

#### **Suggested Course Schedule:**

#### 1st Semester, Fall

	.,	
BPR 111	Print Reading	1-2-2
MAC 111	Machining Technology I	2-12-6
MAC 171	Measure/Material & Safety	0-2-1
MAT 110	Math Measurement & Literacy	2-2-3
MEC 142	Physical Metallurgy	1-2-2
and Compared and C		

#### 2<sup>nd</sup> Semester, Spring

BPR 121	Blueprint Reading – Mech	1-2-2
MAC 124	CNC Milling	1-3-2

Total Semester Hours Credit required for graduation: 18

## **Electrical Systems Technology**

#### Credential: Associate in Applied Science in Electrical Systems Technology A35130

The Electrical Systems Technology curriculum is designed to provide training for persons interested in the installation and maintenance of electrical systems found in residential, commercial, and industrial facilities.

Coursework, most of which is hands-on, will include such topics as AC/DC theory, basic wiring practices, programmable logic controllers, industrial motor controls, applications of the National Electric Code, and other subjects as local needs require. Graduates should qualify for a variety of jobs in the electrical field as an on-the-job trainee or apprentice assisting in the layout, installation, and maintenance of electrical systems.

#### Program Length: 5 semesters Program Location: Chatham Main Campus

#### Suggested Course Schedule: 1<sup>st</sup> Semester, Fall ELC 112 DC/AC Electricity 3-6-5 ELC 113 **Residential Wiring** 2-6-4 1-2-2 ELC 118 National Electrical Code ISC 112 Industrial Safety 2 - 0 - 2ACA 122 **College Transfer Success** 0-2-1 2<sup>nd</sup> Semester, Spring Commercial Wiring 2-6-4 ELC 114 ELC 117 Motors and Controls 2-6-4ELC 119 **NEC** Calculations 1-2-2 3-3-4 ELN 131 Analog Electronics I 3<sup>rd</sup> Semester, Summer Software for Technicians 1-3-2 ELC 127 ELC 121 1-2-2 Electrical Estimating 2-2-3 MAT 110 Math Measurement & Literacy Humanities/Fine Arts Elective 3-0-3 English, select one: ENG 110 Freshman Composition 3-0-3 ENG 111 Writing and Inquiry 3-0-3 4<sup>th</sup> Semester, Fall BPR 130 Print Reading - Construction 3-0-3 Intro to PLC 2-3-3 ELC 128 ALT 120 Renewable Energy Tech 2-2-3 ELC 122 Advanced Residential Wiring 2-4-4 5<sup>th</sup> Semester, Spring Photovoltaic Sys Tech 2 - 3 - 3ELC 220 **BUS 110** Introduction to Business 3-0-3 Work-Based Learning WBL 111 0-10-1 Social/Behavioral Science Elective 3-0-3

#### Communications, select one: ENG 112 Writing/Research in the Disc

ENG 114	Prof Research & Reporting	3-0-3
ENG 115	Oral Communication	3-0-3
ENG 116	Technical Report Writing	3-0-3
COM 110	Introduction to Communication	3-0-3
COM 120	Intro Interpersonal Communication	3-0-3
COM 231	Public Speaking	3-0-3

Total Semester Hours Credit required for graduation: 67

#### Electrical Systems Technology Credential: Diploma D35130C

Program Length: 4 Semesters Program Location: Chatham Main Campus

#### Suggested Course Schedule:

Suggesteu	eourse seneuare.	
1 <sup>st</sup> Semeste	r, Fall	
ELC 112	DC/AC Electricity	3-6-5
ELC 113	Residential Wiring	2-6-4
ELC 118	National Electrical Code	1-2-2
ISC 112	Industrial Safety	2-0-2
ACA 122	College Transfer Success	0-2-1
2 <sup>nd</sup> Semeste	er, Spring	
ELC 114		2-6-4
ELC 117		2-6-4
ELC 119	NEC Calculations	1-2-2
ELN 131	Analog Electronics I	3-3-4
3 <sup>rd</sup> Semeste	er, Summer	
ELC 127	Software for Technicians	1-3-2
4 <sup>th</sup> Semeste	er, Fall	
ELC 128	Intro to PLC	2-3-3
Social/Beha	avioral Science Elective	3-0-3
English, sel	ect one:	
ENG 110		3-0-3
ENG-111	Writing & Inquiry	3-0-3
Total Seme	ster Hours Credit Required for Gradation: 39	

#### Electrical Systems Technology Credential: Certificate C35130

Program Length: 2 Semesters Program Location: Chatham Main Campus

#### Suggested Course Schedule:

1 <sup>st</sup> Semester,	Fall	
ELC 112	DC/AC Electricity	3-6-5
ELC 113	Residential Wiring	2-6-4

#### 2<sup>nd</sup> Semester, Spring

3-0-3

ELC 114	Commercial Wiring	2-6-4
ELC 117	Motors and Controls	2-6-4

Total Semester Hours Credit Required for Graduation: 17

Electrical Systems Technology
Credential: Residential Electrical Certificate
C35130RE

Program Length: 3 semesters Program Location: Chatham Main Campus

#### Suggested Course Schedule:

1 <sup>st</sup> Semester,	Fall	
BPR 130	Blueprint Reading Construction	3-0-3
CST 131	OSHA/Safety Certification	2-2-3
2nd Semeste	r Spring	
	Residential Wiring	2-6-4
LLC III	Residential withing	204
2rd Comparts		
3rd Semester	·	2 4 4
ELC 122	Advanced Residential Wiring	2-4-4

Total Semester Hours Required for Graduation: 14

## Industrial Systems Technology

#### Credential: Associate in Applied Science Degree in Industrial Systems Technology A50240

The Industrial Systems Technology degree equips students with comprehensive skills and training necessary to excel as a technician in an industrial environment. As a multi-craft curriculum, instruction emphasizes understanding of fundamental machine concepts, systems development, troubleshooting, maintenance practices & strategies, and practical applications. Hands-on labs provide real world scenarios and practical experience. Topics include Electricity, PLC's, Hydraulics, Pneumatics, Motors, Control Systems, Blueprints, Safety, Troubleshooting, HVAC, Welding, and Machining.

Upon completion of this degree, graduates should be able to safely troubleshoot, diagnose, repair, and maintain a wide range of industrial equipment and facilities. Employment opportunities include: Automation Technician, Robotics Technician, Industrial Technician, Manufacturing Technician, Maintenance Technician, PLC Programmer, Facilities Technician, Controls Technician, Field Service Technician, Industrial Electrician, and many others.

Program Length: 5 semesters Career Pathway Options: Associate in Applied Science in Industrial Systems Technology Program Sites: Lee Main Campus - Day Program

#### **Suggested Course Schedule:**

BPR 111 Print Reading 1-	-2-2
CIS 111 Basic PC Literacy 1-	-2-2
ELC 112 DC/AC Electricity 3-	-6-5
MEC 111 Machine Processes I 1-	4-3

MNT 110 Humanities	Intro to Maintenance Procedures <u>Fine Arts Elective</u>	1-3-2 3-0-3
2 <sup>nd</sup> Semeste	er, Spring	
ACA 122	College Transfer Success	0-2-1
ELC 128	Introduction to PLC	2-3-3
ENG 111	Writing & Inquiry	3-0-3
MNT 111	Maintenance Practices	2-2-3
PHY 121	Applied Physics I	3-2-4
WLD 112	Basic Welding Processes	1-3-2
WLD 117	Industrial SMAW	1-4-3
3 <sup>rd</sup> Semeste	r, Summer	
AHR 120	HVACR Maintenance	1-3-2
ELN 260	Programmable Logic Controllers	3-3-4
ISC 110	Workplace Safety	1-0-1
HYD 110	Hydraulics/Pneumatics	2-3-3
4 <sup>th</sup> Semeste	r, Fall	
ELC 117	Motors and Controls	2-6-4
ENG 116	Technical Report Writing	3-0-3
HYD 121	Hydraulics/Pneumatics II	1-3-2
ELC 228	PLC Application	2-6-4
5 <sup>th</sup> Semeste	r, Spring	
ELC 229	Applications Project	1-3-2
ELN 231	Industrial Controls	2-3-3
MNT 240	Industrial Equipment Troubleshooting	1-3-2
Social/Beha	vioral Science Elective	3-0-3
WBL 111	Work-based Learning I	0-10-1

Total Semester Hours Credit required for graduation: 70

#### Industrial Systems Technology Credential: Diploma in Industrial Systems Technology D50240

The Industrial Systems Technology diploma equips students with the foundational skills and training necessary to excel as a technician or operator in an industrial environment. As a multi-craft curriculum, instruction emphasizes understanding of fundamental machine concepts, systems development, troubleshooting, maintenance practices & strategies, and practical applications. Hands-on labs provide real world scenarios and practical experience Topics include Electricity, PLC's, Hydraulics, Pneumatics, Blueprints, Safety, Troubleshooting, HVAC, Welding, and Machining.

Upon completion of this diploma, graduates should have a firm understanding of how to safely troubleshoot, diagnose, repair, and maintain industrial equipment and facilities. Graduates are prepared to seek entry level technician positions or advanced operator positions.

Program Length: 3 semesters

Career Pathway Options: Associate in Applied Science in Industrial Systems Technology (Higher entrance standards required); Diploma in Industrial Systems Maintenance Technology Program Sites: Lee Main Campus - Day Program

#### **Suggested Course Schedule:**

Suggesteu Course Schedulet			
1 <sup>st</sup> Semester	r, Fall		
BPR 111	Blueprint Reading	1-2-2	
CIS 111	Basic PC Literacy	1-2-2	
ELC 112	DC/AC Electricity	3-6-5	
MEC 111	Machine Processes I	1-4-3	
MNT 110	Intro to Maintenance Procedures	1-3-2	
Humanities/	Fine Arts Elective	3-0-3	
2 <sup>nd</sup> Semeste	er, Spring		
ELC 128	Introduction to PLC	2-3-3	
ENG 111	Writing & Inquiry	3-0-3	
WLD 112	Basic Welding Processes	1-3-2	
WLD 117	Industrial SMAW	1-4-3	
PHY 121	Applied Physics I	3-2-4	
MNT 111	Maintenance Practices	2-2-3	
3 <sup>rd</sup> Semeste	r, Summer		
AHR 120	HVACR Maintenance	1-3-2	
ELN 260	Programmable Logic Controllers	3-3-4	
ISC 110	Workplace Safety	1-0-1	
HYD 110	Hydraulics/Pneumatics I	2-3-3	
	•		

Total Semester Hours Credit required for graduation: 45

#### Industrial Systems Technology Credential: Certificate in Electrical Controls C5024010

The Electrical Controls Certificate provides students with strong knowledge of industrial electricity and electrical systems. Students will learn AC/DC electricity, input devices, control relays, motor starters, control systems, and safety. Upon completion, students will have the flexibility of pursuing a Diploma or an Associate in Applied Science Degree in Industrial Systems Maintenance Technology.

#### Program Length: 4 semesters

Career Pathway Options: Associate in Applied Science in Industrial Systems Technology (Higher entrance standards required); Diploma in Industrial Systems Technology (Higher entrance standards required); Certificate in Electrical Controls Program Sites: Lee Main Campus - Day Program

#### **Suggested Course Schedule:**

1 <sup>st</sup> Semeste	er, Fall	
ELC 112	DC/AC Electricity	3-6-5
and C (	а <b>:</b>	
2 <sup>nd</sup> Semest	er, Spring	
ELC 128	Introduction to PLC	2-3-3
ELN 231	Industrial Controls	2-3-3
3 <sup>rd</sup> Semest	er, Summer	
ISC 110	Workplace Safety	1-0-1
	1 5	

#### 4<sup>th</sup> Semester, Fall

ELC 117 Motors & Controls

2-6-4

Total Semester Hours Credit required for graduation: 16

#### Industrial Systems Technology Credential: Certificate in Industrial Hydraulics C5024020

The Industrial Hydraulics Certificate provides students with strong knowledge of hydraulics and pneumatics. Students will learn about components, symbols, system development, and virtual simulation. Upon completion, students will have the flexibility of pursuing a Diploma or an Associate in Applied Science Degree in Industrial Systems Technology.

#### Program Length: 4 semesters

Career Pathway Options: Associate in Applied Science in Industrial Systems Technology (Higher entrance standards required); Diploma in Industrial Systems Maintenance Technology (Higher entrance standards required); Certificate in Industrial Hydraulics Program Sites: Lee Main Campus - Day Program

#### **Suggested Course Schedule:**

1 <sup>st</sup> Semester, Fall			
BPR 111	Print Reading	1-2-2	
MNT 110	Intro to Maintenance Procedures	1-3-2	
2 <sup>nd</sup> Semeste	r, Spring		
MNT 111	Maintenance Practices	2-2-3	
PHY 121	Applied Physics I	3-2-4	
3rd Semester	3 <sup>rd</sup> Semester, Summer		
HYD 110	Hydraulics/Pneumatics	2-3-3	
ISC 110	Workplace Safety	1-0-1	
4 <sup>th</sup> Semester	r, Fall		
HYD 121	Hydraulics/Pneumatics II	1-3-2	
	-		

Total Semester Hours Credit: 17

#### Industrial Systems Technology Credential: Certificate in Programmable Logic Controllers (PLC) C5024030

The PLC Certificate provides students with strong knowledge of PLC's and PLC applications. In addition, students will become proficient in the use of PLC software, hardware, maintenance and troubleshooting, and programming. Upon completion, students will have the flexibility of pursuing a Diploma or an Associate in Applied Science Degree in Industrial Systems Technology.

Program Length: 4 semesters

Career Pathway Options: Associate in Applied Science in Industrial Systems Technology (Higher entrance standards required); Diploma in Industrial Systems Technology (Higher entrance standards required); Certificate in Programmable Logic Controllers

Program Sites: Lee Main Campus - Day Program

	Semester,	Fall	
-	a	DOULO DI	

ELC 112	DC/AC Electricity	3-6-5
2 <sup>nd</sup> Semeste	r, Spring	
ELC 128	Introduction to PLC	2-3-3
ISC 110	Workplace Safety	1-0-1
<b>3<sup>rd</sup> Semeste</b> ELN 260	<b>r, Summer</b> Prog. Logic Controllers	3-3-4
4 <sup>th</sup> Semester ELC 228	r, Fall PLC Applications	2-6-4

Total Semester Hours Credit required for graduation: 17

#### Industrial Systems Technology Credential: Mechanical Maintenance Certificate C5024050

The Mechanical Maintenance Certificate provides students with strong knowledge of fundamental mechanical maintenance concepts. Students will learn about safety, electricity, symbols & blueprints, manual machining equipment, oxyacetylene welding & brazing, tools, hardware, drive systems & components, measuring & conversions, and maintenance practices & strategies. Upon completion, students will have the flexibility of pursuing a Diploma or an Associate in Applied Science Degree in Industrial Systems Technology.

#### Program Length: 2 semesters

Career Pathway Options: Associate in Applied Science in Industrial Systems Technology (Higher entrance standards required); Diploma in Industrial Systems Technology (Higher entrance standards required); Certificate in Mechanical Maintenance

Program Sites: Lee Main Campus

### Suggested Course Schedule:

lst Semester, Fall		
ELC 112	DC/AC Electricity	3-6-5
MEC 111	Machine Processes I	1-4-3
MNT 110	Intro to Maint Procedures	1-3-2

#### 2nd Semester, Spring

BPR 111	Print Reading	1-2-2
MNT 111	Maintenance Practices	2-2-3
WLD 112	Basic Welding Processes	1-3-2
ISC 110	Workplace Safety	1-0-1

Total Semester Hours Credit Required for Graduation: 18

## **Motorcycle Mechanics**

## **Credential: Diploma in Motorcycle Mechanics D60260**

This curriculum provides a training program for developing the basic knowledge and skills needed to inspect, maintain, diagnose, repair and/or adjust motorcycles, and other similar powered vehicles.

Coursework provides a thorough understanding of the operating principles involved in modern motorcycles and includes instruction in lubrication and cooling systems, electrical and ignition systems, carburetion, fuel systems and adjustments of moving parts.

Graduates receiving a diploma may find employment with motorcycle dealers, independent repair shops or may set up their own business after they have developed skills in the trade.

Program Length: 3 semesters

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Career Pathway Options: Diploma in Motorcycle Mechanics Program Sites: Lee Main Campus–Day Program

### Suggested Course Schedule:

; Fall	
Intro to Transport Tech	1-2-2
Basic PC Literacy	1-2-2
Motorcycle Mechanics	3-8-7
Motorcycle Chassis	1-6-3
Math Measurement & Literacy OR	2-2-3
Conceptual Physics	3-0-3
Conceptual Physics Laboratory	0-2-1
r, Spring	
Basic Transp Electricity	4-3-5
Motorcycle Engines	2-9-5
Motorcycle Dyno Tuning I	1-4-3
Machine Processes I	1-4-3
Applied Communications II	3-0-3
r, Summer	
Motorcycle Dyno Tuning II	1-4-3
Motorcycle Fuel Systems	2-6-5
Basic Welding for Transp	1-4-3
	Intro to Transport Tech Basic PC Literacy Motorcycle Mechanics Motorcycle Chassis Math Measurement & Literacy OR Conceptual Physics Conceptual Physics Laboratory <b>r, Spring</b> Basic Transp Electricity Motorcycle Engines Motorcycle Dyno Tuning I Machine Processes I Applied Communications II <b>r, Summer</b> Motorcycle Dyno Tuning II Motorcycle Fuel Systems

Total Semester Hours Credit required for graduation: 47

#### Motorcycle Mechanics Credential: Certificate in Motorcycle Mechanics C60260

Program Length: 2 semesters

Career Pathway Options: Diploma in Motorcycle Mechanics (Higher entrance standards required), Certificate in Motorcycle Mechanics Program Sites: Lee Main Campus - Day and Evening

Suggested 1 <sup>st</sup> Semester	Course Schedule: r, Fall	
TRN 110	Intro to Transport Tech	1-2-2
MCM 115	Motorcycle Chassis	1-6-3
<b>2<sup>nd</sup> Semeste</b> TRN 120 MCM 122	er, Spring Basic Transp Electricity Motorcycle Engines	4-3-5 2-9-5

Total Semester Hours Credit required for graduation: 15

## Sustainable Agriculture

#### Credential: Associate in Applied Science in Sustainable Agriculture A15410

The Sustainable Agriculture curriculum is designed to provide the entrepreneurial and technical skills necessary to manage a profitable, environmentally sound, community based small farm or agricultural business. Students learn the fundamentals of sustainable agriculture, focusing on crop production and farm business. Emphasis is placed on entrepreneurial and practical field training. Students will complete a business plan and an agricultural internship in marketing and farming. Graduates are qualified for employment in a variety of positions associated with sustainable agriculture, including horticultural and livestock operations, wholesale and retail management, nursery operations, and environmental and agricultural education.

Program Length: 5 semesters

Career Pathway Options: Associate in Applied Science in Sustainable Agriculture Program Sites: Chatham Main Campus - Day Program

Suggested Course Schedule:

#### 1<sup>st</sup> Semester. Fall

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ACA 122	College Transfer Success	0-2-1
AGR 111	Basic Farm Maintenance	1-3-2
AGR 139	Intro to Sustainable Agriculture	3-0-3
AGR 170	Soil Science	2-2-3
ANS 110	Animal Science	3-0-3
CIS 111	Basic PC Literacy	1-2-2
Social/Beha	avioral Science Elective	3-0-3
2 <sup>nd</sup> Semest	er, Spring	
AGR 121	Biological Pest Management	3-0-3

1101(121	Diological Test Management	505
AGR 160	Plant Science	2-2-3
ANS 111	Sustainable Livestock Management	2-2-3
ENG 111	Writing & Inquiry	3-0-3
Humanities/Fine Arts Elective		3-0-3

Elective, select one:

HOR 130	Greenhouse Design	3-0-3
52		

AGR 221 AGR 110	Farm Structures Agriculture Economics	2-2-3 3-0-3
3 <sup>rd</sup> Semester	r. Summer	
WBL 111	Work Based Learning I	0-10-1
4 <sup>th</sup> Semester	; Fall	
AGR 214	Agriculture Marketing	3-0-3
AGR 220	Agriculture Mechanization	2-2-3
AGR 267	Permaculture	2-2-3
HOR 168	Plant Propagation	2-2-3
Communicat	tions, select one:	
ENG 112	Writing/Research in the Disc	3-0-3
ENG 114	Prof Research & Reporting	3-0-3
COM 110	Introduction to Communication	3-0-3
Select one co	ourse from:	
AGR 265	Organic Crop Production: Spring	2-2-3
AGR 266	Organic Crop Production: Fall	2-2-3
5 <sup>th</sup> Semester	, Spring	
AGR 212	Farm Business Management	3-0-3
AGR 268	Adv. Organic Crop Production	2-6-4
Mathematics	s, select one:	
MAT 110	Math Measurement & Literacy	2-2-3
MAT 143	Quantitative Literacy	2-2-3
Business, sel	lect one:	
BUS 110	Introduction to Business	3-0-3
BUS 280	REAL Small Business	4-0-4

Total Semester Hours Credit Required for Graduation: 67

#### Sustainable Agriculture Credential: Certificate in Agricultural Sustainability C1541010

The Sustainable Agriculture curriculum is designed to provide the entrepreneurial and technical skills necessary to manage a profitable, environmentally sound, community based small farm or agricultural business. Coursework includes classroom study and practical application of skills and concepts in the field. An understanding of the fundamental principles and practices of sustainable agriculture are emphasized. This certificate is appropriate for individuals interested in adding knowledge and skills in sustainability for employment in areas such as agriculture education, farmer advocacy work, non-profit organizations with agricultural missions in developing countries.

Program Length: 2 semesters

Career Pathway Options: Associate in Applied Science in Sustainable Agriculture.

Program Site: Chatham Main Campus - Day Program

#### 2023-2024 College Catalog – Central Carolina Community College

#### **Suggested Course Schedule:**

1 <sup>st</sup> Semester	, Fall	
AGR 139	Intro to Sustainable Agriculture	3-0-3
AGR 170	Soil Science	2-2-3
AGR 267	Permaculture	2-2-3
AGR 265/6	Organic Crop Production	2-2-3
2 <sup>nd</sup> Semester	r, Spring	
AGR 121	Biological Pest Management	3-0-3
Select one co	ourse from:	
AGR 265/6	Organic Crop Production	2-2-3
ANS 111	Sustainable Livestock Management	2-2-3

Total Semester Hours Credit Required for Graduation: 18

#### Sustainable Agriculture Credential: Certificate in Sustainable Livestock Systems C1541020

The Sustainable Agriculture curriculum is designed to provide the entrepreneurial and technical skills necessary to manage a profitable, environmentally sound, community based small farm or agricultural business. Coursework includes fundamental sustainable agriculture concepts, study of the soil systems as they relate to pasture fertility and livestock health and marketing practices typical of small-scale, local food systems. Appropriate breed selection, pasture management and direct marketing are emphasized. This certificate is appropriate for individuals interested in integrating sustainable livestock production into their current agricultural system, agriculture educators, and individuals interested in working in the food and fiber industry.

#### Program Length: 2 semesters

Career Pathway Options: Associate in Applied Science in Sustainable Agriculture

#### **Suggested Course Schedule:**

#### 1<sup>st</sup> Semester, Fall

AGR 170	Soil Science	2-2-3
AGR 214	Agriculture Marketing	3-0-3
ANS 110	Animal Science	3-0-3

#### 2<sup>nd</sup> Semester, Spring

AGR 139	Introduction to Sustainable Ag	3-0-3
ANS 111	Sustainable Livestock Management	2-2-3

Total Semester Hours Credit Required for Graduation: 15

#### Sustainable Agriculture

**Credential: Certificate in Sustainable Vegetable Production C1541030**  The Sustainable Agriculture curriculum is designed to provide the entrepreneurial and technical skills necessary to manage a profitable, environmentally sound, community based small farm or agricultural business. Coursework in the sustainable vegetable production certificate program focuses on the foundational principles for sustainable vegetable production from soil preparation to marketing a premium quality product. Graduates are prepared to work in vegetable production systems and related fields, such as farm market manager, produce manager or garden technician in retail settings.

Program Length: 2 semesters

Career Pathway Options: Associate in Applied Science in Sustainable Agriculture. Program Site: Chatham Main Campus – Day Program

#### **Suggested Course Schedule:**

#### 1<sup>st</sup> Semester, Fall

AGR 139	Intro to Sustainable Agriculture	3-0-3
AGR 170	Soil Science	2-2-3
AGR 214	Agriculture marketing	3-0-3
AGR 266	Organic Crop Production: Fall	2-2-3

#### 2<sup>nd</sup> Semester, Spring

AGR 121	Biological Pest Management	3-0-3
AGR 265	Organic Crop Production: Spring	2-2-3

Total Semester Hours Credit Required for Graduation: 18

## Sustainability Technologies

#### **Credential:** Associate in Applied Science Degree in Sustainability Technologies A40370

The Sustainability Technologies curriculum is designed to prepare individuals for employment in environmental, construction, alternative energy, manufacturing, or related industries, where key emphasis is placed on energy production and waste reduction along with sustainable technologies.

Course work may include alternative energy, environmental engineering technology, sustainable manufacturing and green building technology. Additional topics may include sustainability, energy management, waste reduction, renewable energy, site assessment, and environmental responsibility.

Graduates should qualify for positions within the alternative energy, construction, environmental, and/or manufacturing industries. Employment opportunities exist in both the government and private industry sectors where graduates may function as manufacturing technicians, sustainability consultants, environmental technicians, or green building supervisors. Program Length: 5 semesters

Career Pathway Options: Associate in Applied Science in Sustainability Technologies Program sites: Chatham Main Campus

## Suggested Course Schedule:

1 Semeste		
ACA 122	College Transfer Success	0-2-1
ALT 120	Renewable Energy Tech	2-2-3
ELC 111	Intro to Electricity	2-2-3
MAT 121	Algebra/Trigonometry I	2-2-3
SST 110	Intro to Sustainability	3-0-3
SST 120	Energy Use Analysis	2-2-3
2 <sup>nd</sup> Semeste	er, Spring	
ALT 250	Thermal Systems	2-2-3
ARC 111	Intro to Arch Technology	1-6-3
CIS 110	Introduction to Computers	2-2-3
CST 150	Building Science	2-2-3
ELC 220	Photovoltaic Sys Tech	2-3-3
SST 210	Issues to Sustainability	3-0-3
3 <sup>rd</sup> Semeste	er, Summer	
SST 140	Green Building Design & Concepts	3-0-3
Select one:		
SST 250	Sustain Capstone Project	1-6-1
WBL 111	Work Based Learning I	0-10-1
4 <sup>th</sup> Semeste	r, Fall	
BIO 140	Environmental Biology	3-0-3
BIO 140A		0-3-1
CST 111	Construction I	3-3-4
ISC 110	Workplace Safety	1-0-1
ENG 111	Writing & Inquiry	3-0-3
Social/Beha	vioral Science Elective	3-0-3
5 <sup>th</sup> Semeste	r, Spring	
CST 112	Construction II	3-3-4
ENG 114	Professional Research & Reporting	3-0-3
SST 130	Modeling Renewable Energy	2-2-3
Humanities.	/Fine Arts Elective	3-0-3
Technical e	lective, select one:	
ALT 110	Biofuels I	3-0-3
ALT 210	Biofuels II	3-2-4
ALT 211	Biofuels Analytics	2-4-4
ELC 221	Adv PV Sys Designs	2-3-3
MNT 230	Pumps & Piping Systems	1-3-2
BUS 280	REAL Small Business	4-0-4
AGR 139	Intro to Sustainable Ag	3-0-3

Total Semester Hours Credit Required for Graduation: 69

#### Sustainability Technologies Credential: Sustainability Certificate in Sustainability Technologies C40370S

The Sustainability Technologies certificate is designed to prepare individuals for employment in environmental,

construction, alternative energy, and other industries, where key emphasis is placed on energy analysis and waste reduction along with sustainable technologies. Course includes renewable energy, sustainability measures and green building technology. Additional topics may include green certification programs, energy management, green building design, renewable energy options, and environmental responsibility. Graduates should qualify for positions within the construction, renewable energy or sustainability field. Employment opportunities exist in both the government and private industry sectors where graduates may function as sustainability consultants, energy analysts, or entry level green building and renewable energy technicians. Program Length: 3 semesters Career Pathway Options: Associate in Applied Science in Sustainability Technologies Program sites: Chatham Main Campus **Suggested Course Schedule:** 1<sup>st</sup> Semester, Fall ALT 120 Renewable Energy Tech 2 - 2 - 3SST 110 Intro to Sustainability 3-0-3 SST 120 Energy Use Analysis 2 - 2 - 32<sup>nd</sup> Semester, Spring Issues in Sustainability SST 210 3-0-3 3<sup>rd</sup> Semester, Summer SST 140 Green Building Design & Concepts 3-0-3

Total Semester Hours Credit Required for Graduation: 15

#### Sustainability Technologies Credential: Green Building Certificate in Sustainability Technologies C40370GB

The Green Building certificate is designed to prepare individuals for employment in construction where key emphasis is placed on sustainable building and design and green building certification programs.

Coursework will include an introduction to sustainability as well as trade specific classes in green building. Graduates should qualify for positions within the construction and green certification industries. Some courses include testing options for industry recognized certificates.

Employment opportunities exist in both government and private industry sectors where graduates may function as sustainability consultants, green building technicians, or weatherization technicians.

Program Length: 2 semesters Career Pathway Options: Associate in Applied Science in Sustainability Technology Program Sites: Chatham Main Campus

#### Suggested Course Schedule:

1 <sup>st</sup> Semester, Fall			
CST 111	Construction I	3-3-4	
SST 120	Energy Use Analysis	2-2-3	
ISC 110	Workplace Safety	1-0-1	
2 <sup>nd</sup> Semester, Spring			

	- ) - I - 8	
SST 130	Modeling Renewable Energy	2-2-3
CST 112	Construction II	3-3-4
CST 150	Building Science	2-2-3

Total Semester Hours Credit required for Graduation: 18

#### Sustainability Technologies Credential: Biofuels Certificate in Sustainability Technologies C40370B

This program is designed to equip students with the skills needed to attain a technical position in the biofuels industry.

Students learn the fundamentals of biofuels as well as laboratory and mechanical skills needed to conduct quality control testing and diagnose biofuels related problems.

Upon completion of the certificate students will be employable in a variety of biofuels markets, including fuel production, analysis, marketing, and distribution.

Program Length: 2 semesters Career Pathway Options: Associate in Applied Science in Sustainability Technologies Program sites: Chatham Main Campus

#### Suggested Course Schedule:

1 <sup>st</sup> Semester, Fall			
ALT 120	Renewable Energy Tech	2-2-3	
ALT 110	Biofuels I	3-0-3	
MNT 230	Pumps and Piping	1-3-2	
2 <sup>nd</sup> Semester, Spring			

ALT 210	Biofuels II	3-2-4
ALT 211	Biofuels Analytics	2-4-4

Total Semester Hours Credit Required for Graduation: 16

#### Sustainability Technologies Credential: Renewable Energy Certificate in Sustainability Technologies C40370RE

The Renewable Energy certificate is designed to prepare individuals for employment in renewable energy, or related industries, where key emphasis is placed on energy production along with sustainable technologies. Coursework includes an introduction to sustainability as well as trade specific classes in renewable energy. Some courses include testing options for industry recognized certificates.

Graduates should qualify for positions within the renewable energy, construction, or environmental industries. Employment opportunities exist in both the government and private industry sectors where graduates may function as PV, solar thermal, or biofuels technicians.

Program Length: 2 semesters Career Pathway Options: Associate in Applied Science in Sustainability Technologies Program Sites: Chatham Main Campus

#### **Course Requirements for Renewable Energy Certificate**

#### **Suggested Course Schedule:** 1<sup>st</sup> Semester, Fall ALT 120 Renewable Energy Tech 2 - 2 - 32 - 2 - 3ELC 111 Intro to Electricity 2<sup>nd</sup> Semester, Spring 3-0-3 ALT 110 Biofuels ALT 250 Thermal Systems 2-2-3 ELC 220 Photovoltaic Sys Tech 2-3-3

Total Semester Hours Credit required for Graduation: 15

## Welding Technology

#### **Credential: Associate in Applied Science Degree** in Welding Technology A50420

The Associate in Applied Science Degree in Welding Technology provides students with a sound understanding of the science, technology, and applications essential for successful employment in the welding and metalworking industry.

Instruction includes consumable and non-consumable electrode welding and cutting processes. Courses may include math, print reading, metallurgy, welding inspection, and destructive and non-destructive testing providing the student with industry-standard skills developed through classroom training and practical application.

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.

Program Length: 5 semesters Career Pathway Options: Associate in Applied Science in Welding Technology Program Sites: Lee Main Campus - Day Program

	Course Schedule:		appli
1 <sup>st</sup> Semeste			and r
ACA 122	College Transfer Success	0-2-1	_
BPR 111	Print Reading	1-2-2	Instru
ISC 110	Workplace Safety	1-0-1	weld
WLD 110	Cutting Processes	1-3-2	readi
WLD 115	SMAW (Stick) Plate	2-9-5	non-o
CIS 111	Basic PC Literacy	1-2-2	indus and p
	s, select one:		-
MAT 110	Math Measurement & Literacy	2-2-3	Grad
PHY 110	Conceptual Physics	3-0-3	empl
PHY 110A	Conceptual Physics Lab	0-2-1	meta
PHY 121	Applied Physics I	3-2-4	const super
2 <sup>nd</sup> Semeste			Prog
WLD 121		2-6-4	Care
WLD 131	GTAW (TIG) Plate	2-6-4	Prog
WLD 141	Symbols & Specifications	2-2-3	Lee (
English, sel			Sugg
ENG 110	Freshman Composition	3-0-3	1 <sup>st</sup> Se
ENG 111	Writing & Inquiry	3-0-3	BPR
			ISC 1
3 <sup>rd</sup> Semeste			MAT
<b>Humanities</b>		3-0-3	
WLD 116	SMAW (Stick) Plate/Pipe	1-9-4	WLE WLE
4 <sup>th</sup> Semeste			2 <sup>nd</sup> S
WLD 151		2-6-4	
WLD 261	Certification Practices	1-3-2	WLE
WLD 262	Inspections and Testing	2-2-3	WLE
WLD 265	Automated Welding/Cutting	2-6-4	WLE
Communica	tions, select one:		Engli
ENG 112	Writing/Research in the Disc	3-0-3	ENG
ENG 114	Prof Research & Reporting	3-0-3	ENG
ENG 115	Oral Communication	3-0-3	ard o
ENG 116	Technical Report Writing	3-0-3	3rd S
COM 110	Introduction to Communication	3-0-3	WLE
COM 120	Intro to Interpersonal Communication	3-0-3	ath o
COM 231	Public Speaking	3-0-3	4 <sup>th</sup> Se
			WLD
5 <sup>th</sup> Semeste	r, Spring		WLD
MEC 111	Machine Processes	1-4-3	WLE
	vioral Science Elective	3-0-3	Total
WLD 215	SMAW (Stick) Pipe	1-9-4	Total
WLD 132	GTAW (TIG) Plate/Pipe	1-6-3	
WLD 251	Fabrication II	1-6-3	Wel

Total Semester Hours Credit required for graduation: 69

#### Welding Technology Credential: Diploma in Welding Technology D50420

The Diploma in Welding Technology provides students with a sound understanding of the science, technology, and

applications essential for successful employment in the welding and metalworking industry.

Instruction includes consumable and non-consumable electrode welding and cutting processes. Courses may include math, print reading, metallurgy, welding inspection, and destructive and non-destructive testing providing the student with industry-standard skills developed through classroom training and practical application.

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.

Program Length: 4 semesters

Career Pathway Options: Diploma in Welding Technology Program Sites:

Lee Campus - Day Program

#### Suggested Course Schedule:

1 <sup>st</sup> Semester	; Fall		
BPR 111	Print Reading	1-2-2	
ISC 110	Workplace Safety	1-0-1	
MAT 110	Math Measurement & Literacy	2-2-3	
WLD 110	Cutting Processes	1-3-2	
WLD 115	SMAW (Stick) Plate	2-9-5	
and G	<b>a</b> :		
2 <sup>nd</sup> Semeste			
WLD 121		2-9-5	
WLD 131	GTAW (TIG) Plate	2-6-4	
WLD 141	Symbols & Specifications	2-2-3	
English, sele	ect one:		
ENG 110	Freshman Composition	3-0-3	
ENG 111	Writing & Inquiry	3-0-3	
3 <sup>rd</sup> Semester	r. Summer		
	SMAW (stick) Plate/Pipe	1-9-4	
4 <sup>th</sup> Semester, Fall			
WLD 151		2-6-4	
WLD 262		2-2-3	
WLD 265	Automated Welding/Cutting	2-6-4	

Total Semester Hours Credit required for graduation: 42

#### Welding Technology Credential: Certificate in Welding Technology C50420

The Certificate in Welding Technology provides students with a sound understanding of the science, technology, and applications essential for successful employment in the welding and metalworking industry.

Instruction includes consumable and non-consumable electrode welding and cutting processes. Courses may include math, print

reading, metallurgy, welding inspection, and destructive and non-destructive testing providing the student with industry-standard skills developed through classroom training and practical application.

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. Program Length: 2 semesters, Day; 3 semesters, Evening

Career Pathway Options: Diploma in Welding Technology (Higher entrance standards required), Certificate in Welding Technology

Program Sites: Lee Main Campus - Day & Evening Program

#### Suggested Course Schedule – Day: 1<sup>st</sup> Semester, Fall

1 Stilleste	1, 1 all	
BPR 111	Print Reading	1-2-2
ISC 110	Workplace Safety	1-0-1
WLD 110	Cutting Processes	1-3-2
WLD 115	SMAW (Stick) Plate	2-9-5
2 <sup>nd</sup> Semester, Spring		

WLD 121	GMAW (MIG) FCAW/Plate	2-6-4
	GMAW (TIG) Plate	2-6-4

### Suggested Course Schedule – Evening:

2-2 0-1 3-2				
3-2				
-				
2 1				
3-1				
2 <sup>nd</sup> Semester, Spring				
6-4				
6-4				
0-4				
0-4				
0-4				

Total Semester Hours Credit required for graduation: 18

#### Welding Technology Credential: Certificate in Robotic Welding Technology C50420R

The Certificate in Robotic Welding Technology provides students with a sound understanding of the science, technology, and applications essential for successful employment in the welding and metalworking industry. Instruction includes consumable welding and cutting processes. Courses may include safety, print reading, automated welding/cutting processes, metallurgy, welding inspection, and destructive and non-destructive testing providing the student with industry-standard skills developed through classroom training and practical application.

Graduates of the Robotics Certificate 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.

Program Length: 3 semesters

Career Pathway Options: Diploma in Welding Technology (Higher entrance standards required), Certificate in Welding Technology Program Sites: Lee Main Campus - Day Program

Program Sites: Lee Main Campus - Day Progr

#### Suggested Course Schedule:

1 <sup>st</sup> Semester,	Fall	
BPR 111	Print Reading	1-2-2
ISC 110	Workplace Safety	1-0-1
WLD 110	Cutting Processes	1-3-2
2 <sup>nd</sup> Semester WLD 121	; Spring GMAW (MIG) FCAW/Plate	2-6-4
<b>3rd Semeste</b> WLD 265	r, Fall Automated Welding /Cutting	2-6-4

Total Semester Hours Credit required for graduation: 13

## Welding Technology

### Credential: Certificate in Welding Career Technology

### C50420C

#### Suggested Course Schedule:

1 <sup>st</sup> Semester,	Fall	
BPR 111	Print Reading	1-2-2
ISC 110	Workplace Safety	1-0-1
WLD 110	Cutting Processes	1-3-2

#### 2<sup>nd</sup> Semester, Spring

WLD 121	GMAW (MIG) FCAW/Plate	2-6-4
WLD 131	GMAW (TIG) Plate	2-6-4

Total Semester Hours Required for graduation: 13

# Career Communities and Programs





# **Arts Career Community**

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## Associate in Arts (AA)

## Credential: Associate in Arts Degree A10100

The Associate in Arts degree allows students to earn a minimum of 60 semester hours of credit (SHC) of college transfer courses and offers opportunities for the achievement of competence in reading, writing, oral communication, fundamental and mathematical skills. Courses are approved for transfer through the Comprehensive Articulation Agreement (CAA). The CAA enables North Carolina community college graduates of associate in arts programs who are admitted to constituent institutions of The University of North Carolina System (the 16 public universities) to transfer with junior status. Most independent schools in North Carolina also fully accept the transfer of the courses.

Graduates must obtain a grade of "C" or better in each course, an overall GPA of at least 2.0 on a 4.0 scale, and complete the Associate in Arts degree in order to transfer with a junior status. Courses may also transfer through bilateral agreements between institutions. Transfer institutions may have other, specific requirements for admission and acceptance into specific programs.

Transfer students should follow the appropriate Baccalaureate Degree Plan from their intended transfer institution to ensure a seamless transfer. See <u>Advising Tools - NC Community</u> <u>College Transfer Students</u> for more information.

Program Length: 4 semesters Career Pathway Options: Associate in Arts Degree, Baccalaureate Degree at a Senior Institution Program Sites: Lee Campus – Day and Evening; Distance Education

While most general education classes are offered at the Chatham and Harnett Campuses, students may need to take distance education courses to complete the program.

#### Course Requirements for Associate in Arts Degree

I. Universal General Education Transfer Component (UGETC) 31-32 SHC

A. English Composition (6 SHC)		C-L-CR
ENG 111	Writing and Inquiry	3-0-3
ENG 112	Writing and Research in the Disciplines	3-0-3

B. Humanities/Fine Arts/Communication (9 SHC)

Select courses from at least two of the following discipline areas: art, communications, music, literature, and philosophy. At least one course must be a literature course.

The redst one course must be a menutice course.		
ART 111	Art Appreciation	3-0-3
ART 114	Art History Survey I	3-0-3
ART 115	Art History Survey II	3-0-3
COM 120	Interpersonal Communication	3-0-3
COM 231	Public Speaking	3-0-3
DRA 111	Theater Appreciation	3-0-3

ENG 231	American Literature I	3-0-3
ENG 232	American Literature II	3-0-3
ENG 241	British Literature I	3-0-3
ENG 242	British Literature II	3-0-3
MUS 110	Music Appreciation	3-0-3
MUS 112	Introduction to Jazz	3-0-3
PHI 240	Introduction to Ethics	3-0-3

C. Social and Behavioral Sciences (9 SHC)

Select courses from at least two of the following discipline areas: economics, history, political science, psychology, and sociology. At least one course must be a history course.

500101069.1	te touse one course must be a motory course.	
ECO 251	Principles of Microeconomics	3-0-3
ECO 252	Principles of Macroeconomics	3-0-3
HIS 111	World Civilizations I	3-0-3
HIS 112	World Civilizations II	3-0-3
HIS 131	American History I	3-0-3
HIS 132	American History II	3-0-3
POL 120	American Government	3-0-3
PSY 150	General Psychology	3-0-3
SOC 210	Introduction to Sociology	3-0-3

D. Natural Sciences (4 SHC)

Select one course, including accompanying/integrated laboratory work, from among the biological and physical science disciplines.

AST 111	Descriptive Astronomy	3-0-3
AST 111A	Descriptive Astronomy Lab	0-2-1
AST 151	General Astronomy I	3-0-3
AST 151A	General Astronomy I Lab	0-2-1
BIO 110	Principles of Biology	3-3-4
BIO 111	General Biology I	3-3-4
CHM 151	General Chemistry I	3-3-4
GEL 111	Introductory Geology	3-2-4
PHY 110	Conceptual Physics	3-0-3
PHY 110A	Conceptual Physics Lab	0-2-1

E. Mathematics (3-4 SHC)

Select one course in introductory mathematics.

MAT 143	Quantitative Literacy	2-2-3
MAT 152	Statistical Methods I	3-2-4
MAT 171	Precalculus Algebra	3-2-4

II. Additional General Education Hours (13-14 SHC) Select additional courses from UGETC courses listed above or from the courses classified as General Education courses in the NCCCS Combined Course Library. Students are advised to select courses based on intended major and senior institution.

General Anthropology	3-0-3
Cultural Anthropology	3-0-3
Elementary ASL 1	3-0-3
Elementary ASL II	3-0-3
Intermediate ASL I	3-0-3
Intermediate ASL II	3-0-3
General Biology II	3-3-4
Environmental Biology	3-0-3
Environmental Biology Lab	0-3-1
Elementary Chinese I	3-0-3
	Cultural Anthropology Elementary ASL 1 Elementary ASL II Intermediate ASL I Intermediate ASL II General Biology II Environmental Biology Environmental Biology Lab

to or after transfer to the senior institution. Students need to complete two courses in foreign language if two semesters or more of a foreign language was not taken in high school.

Foundations of Education

Intro to Engineering

Engineering Statics

Creative Writing I

Creative Writing II

Children with Exceptionalities

EDU 216

EDU 221

EGR 150

EGR 220

ENG 125 ENG 126

	CHI 211	Intermediate Chinese I	3-0-3		o courses in foreign language if two semest	
	CHI 212	Intermediate Chinese II	3-0-3	more of a for	reign language was not taken in high school	1.
	CHM 131	Introduction to Chemistry	3-0-3			
	CHM 131A	Introduction to Chemistry Lab	0-3-1	ACA 122	College Transfer Success	0-2-1
	CHM 132	Organic and Biochemistry	3-3-4	ACC 120	Principles of Financial Accounting	3-2-4
	CHM 152	General Chemistry II	3-3-4	ACC 121	Principles of Managerial Accounting	3-2-4
	CIS 110	Intro to Computers	2-2-3	ART 121	Design I	0-6-3
	CIS 115	Intro to Prog & Logic	2-3-3	ART 122	Design II	0-6-3
	COM 110	Introduction to Communication	3-0-3	ART 131	Drawing I	0-6-3
	COM 140	Intro to Intercultural Communication	3-0-3	ART 132	Drawing II	0-6-3
	ECO 151	Survey of Economics	3-0-3	ART 214	Portfolio and Resume	0-2-1
	ENG 113	Literature-Based Research	3-0-3	ART 231	Printmaking I	0-6-3
	ENG 114	Prof Research and Reporting	3-0-3	ART 232	Printmaking II	0-6-3
	FRE 111	Elementary French I	3-0-3	ART 240	Painting I	0-6-3
	FRE 112	Elementary French II	3-0-3	ART 241	Painting II	0-6-3
	FRE 211	Intermediate French I	3-0-3	ART 281	Sculpture I	0-6-3
	FRE 212	Intermediate French II	3-0-3	ART 282	Sculpture II	0-6-3
	GEL 230	Environmental Geology	3-2-4	ART 283	Ceramics I	0-6-3
	HUM 110	Technology and Society	3-0-3	ART 284	Ceramics II	0-6-3
	HUM 115	Critical Thinking	3-0-3	ASL 181	ASL Lab I	0-2-1
	HUM 120	Cultural Studies	3-0-3	ASL 182	ASL Lab II	0-2-1
	HUM 122	Southern Culture	3-0-3	BIO 112	General Biology II	3-3-4
	HUM 150	American Women's Studies	3-0-3	BIO 150	Genetics in Human Affairs	3-0-3
	HUM 160	Introduction to Film	2-2-3	BIO 155	Nutrition	3-0-3
	HUM 211	Humanities I	3-0-3	BIO 163	Basic Anatomy and Physiology	4-2-5
	MAT 172	Precalculus Trigonometry	3-0-3	BIO 165	Anatomy and Physiology I	3-3-4
	MAT 263	Brief Calculus	3-0-3	BIO 166	Anatomy and Physiology II	3-3-4
	MAT 271	Calculus I	3-2-4	BIO 168	Anatomy and Physiology I	3-3-4
	MAT 272	Calculus II	3-2-4	BIO 169	Anatomy and Physiology II	3-3-4
	MAT 272	Calculus III	3-2-4	BIO 175	General Microbiology	2-2-3
	MUS 210	History of Rock Music	3-0-3	BIO 180	Biological Chemistry	2-2-3
	PHY 151	College Physics I	3-2-4	BIO 275	Microbiology	3-3-4
	PHY 151	College Physics II	3-2-4	BUS 110	Introduction to Business	3-0-3
	PHY 251	General Physics I	3-3-4	BUS 115	Business Law I	3-0-3
	PHY 252	General Physics II	3-3-4	BUS 137	Principles of Management	3-0-3
	PSY 237	Social Psychology	3-0-3	CHM 130	General, Organic and Biochemistry	3-0-3
	PSY 241	Developmental Psychology	3-0-3			0-2-1
	PSY 281	Abnormal Psychology	3-0-3	CHM 150A CHM 251	Organic Chemistry I	3-3-4
	REL 110	World Religions	3-0-3	CHM 251 CHM 252	Organic Chemistry II	3-3-4
	REL 110 REL 211	Introduction to Old Testament	3-0-3	CJC 111	Introduction to Criminal Justice	3-0-3
	SOC 213	Sociology of the Family	3-0-3	CJC 113	Juvenile Justice	3-0-3
	SOC 213	Social Problems	3-0-3	CJC 115 CJC 121	Law Enforcement Operations	3-0-3
	SOC 220	Social Diversity	3-0-3	CJC 121 CJC 141	Corrections	3-0-3
	SOC 223 SOC 240	Social Psychology	3-0-3	CJC 212	Ethics & Comm Relations	3-0-3
	SOC 240 SPA 111	Elementary Spanish I	3-0-3	COM 130	Nonverbal Communication	3-0-3
		Elementary Spanish II	3-0-3	CSC 134	C++ Programming	2-3-3
	SPA 112					
	SPA 211	Intermediate Spanish I	3-0-3	CSC 139	Visual BASIC Programming	2-3-3
	SPA 212	Intermediate Spanish II	3-0-3	CSC 151	JAVA Programming	2-3-3
			CTS 115	Info Sys Business Concepts	3-0-3	
		equired Hours (15 SHC)	4 5110	EDU 131	Child, Family, and Community	3-0-3
In addition to ACA 122 (College Transfer Success), 14 SHC			EDU 144	Child Development I	3-0-3	
can be selected from the UGETC and General Education		1011	EDU 145	Child Development II	3-0-3	

3-0-3

3-0-3

courses listed above and any courses classified Pre-Major/Elective (listed below) in the Comprehensive

CHI 112

CHI 211

Elementary Chinese II

Intermediate Chinese I

Articulation Agreement. Students are advised to select courses based on intended major and senior institution requirements. Students must meet the receiving university's foreign language, health, and physical education requirements, if applicable, prior 3-0-3

3-0-3

1-2-2

3-0-3

3-0-3

3-0-3

	0 0 ,	0
HEA 110	Personal Health and Wellness	3-0-3
HEA 112	First Aid & CPR	1-2-2
HIS 222	African-American History I	3-0-3
HIS 223	African-American History II	3-0-3
HIS 226	The Civil War	3-0-3
HIS 236	North Carolina History	3-0-3
MAT 285	Differential Equations	2-2-3
MUS 111	Fundamentals of Music	3-0-3
MUS 260	Intro to Music Education	2-0-2
PED 110	Fit and Well for Life	1-2-2
PED 113	Aerobics I	0-3-1
PED 114	Aerobics II	0-3-1
PED 115	Step Aerobics I	0-3-1
PED 117	Weight Training I	0-3-1
PED 118	Weight Training II	0-3-1
PED 119	Circuit Training	0-3-1
PED 121	Walk, Jog, Run	0-3-1
PED 122	Yoga I	0-2-1
PED 125	Self-Defense Beginning	0-2-1
PED 128	Golf-Beginning	0-2-1
PED 130	Tennis-Beginning	0-2-1
PED 139	Bowling-Beginning	0-2-1
PED 143	Volleyball-Beginning	0-2-1
PED 145	Basketball-Beginning	0-2-1
PED 149	Flag Football	0-2-1
PED 157	Pickleball	0-2-1
PED 171	Nature Hiking	0-2-1
PED 172	Outdoor Living	1-2-2
PED 217	Pilates I	0-2-1
PED 219	Disc Golf	0-2-1
PED 254	Coaching Basketball	1-2-2
PHS 110	Survey of Physical Science	3-2-4
PSY 246	Adolescent Psychology	3-0-3
SOC 215	Group Processes	3-0-3
SOC 232	Social Context of Aging	3-0-3
SPA 141	Culture and Civilization	3-0-3

#### Suggested Course Schedule:

#### 1st Semester, Fall

ENG 111	Writing and Inquiry	3-0-3
ACA 122	College Transfer Success	0-2-1
Required Science Course & lab		3-3-4
Required History Course		3-0-3
Required Humanities/Fine Arts/Comm. Course		3-0-3
Required So	oc/Behavioral Science Course	3-0-3

#### 2<sup>nd</sup> Semester, Spring

ENG 112 Writing & Research in the Disciplines	3-0-3
Required Mathematics Course	3/4-2-3/4
Required Humanities/Fine Arts/Comm. Course	3-0-3
Required Soc/Behavioral Science Course	3-0-3
Approved General Education course	3-0-3

#### 3<sup>rd</sup> Semester, Fall

Required Literature Course	3-0-3
Approved General Education course	3-0-3
Approved General Education course	3-0-3
**	3-0-3
Approved General Education course	505
Approved General Education course	3-0-2/3

#### 4<sup>th</sup> Semester, Spring

Approved Other Required Hours course	3-0-3
Approved Other Required Hours course	3-0-3
Approved Other Required Hours course	3-0-3
Approved Other Required Hours course	3-0-3
Approved Other Required Hours course	1-2-2

Total Semester Hours Credit Required for Degree: 60/61 SHC

# Associate in Arts in Teacher Preparation

#### **Credential: Associate in Arts in Teacher Preparation A1010T**

The Associate in Arts Teacher Preparation (AATP) prepares students who plan to transfer to a four-year university, major in Education and move into public teaching either as an elementary or middle school teacher. The AATP is specifically for students interested in teaching in humanities or social science fields, including history and language arts.

Program Length: 4 semesters Career Pathway Options: Associate in Arts Degree, Baccalaureate Degree at a Senior Institution to enter a Teacher Education program Program Sites: Lee Campus – Day and Evening; Chatham Campus – Day and Evening; Harnett Campus – Day program with some evening courses available; Distance Education

## Course Requirements for Associate in Arts in Teacher Preparation:

#### I. **Universal General Education Transfer Component** (UGETC): English ENG 111 Writing & Inquiry 3-0-3 Writing/Research in the Disciplines ENG 112 3-0-3 Select 3 courses from the following from at least 2 different disciplines (9 SHC) Communications: COM 120 Intro to Interpersonal Communications 3-0-3 COM 231 **Public Speaking** 3-0-3 Humanities/Fine Arts: 3-0-3 ART 111 Art Appreciation ART 114 Art History Survey I 3-0-3 ART 115 Art History Survey II 3-0-3 Theatre Appreciation DRA 111 3-0-3 American Literature I 3-0-3 ENG 231 ENG 232 American Literature II 3-0-3 ENG 241 British Literature I 3-0-3 ENG 242 British Literature II 3-0-3 **MUS 110** 3-0-3 Music Appreciation

MUS 112	Introduction to Jazz	3-0-3
PHI 240	Introduction to Ethics	3-0-3

## Select 2 courses from the following from at least 2 different disciplines (6 SHC)

disciplines (		
ECO 251	Principles of Microeconomics	3-0-3
ECO 252	Principles of Macroeconomics	3-0-3
HIS 111	World Civilizations I	3-0-3
HIS 112	World Civilizations II	3-0-3
HIS 131	American History I	3-0-3
HIS 132	American History II	3-0-3
POL 120	American Government	3-0-3
PSY 150	General Psychology	3-0-3
SOC 210	Introduction to Sociology	3-0-3
Mathematics	s, select one course:	
MAT 143	Quantitative Literacy	2-2-3
MAT 152	Statistical Methods I	3-2-4
MAT 171	Pre-calculus Algebra	3-2-4
	nces, take 4 SHC:	
AST 111	Descriptive Astronomy	3-0-3
AST 111A	Descriptive Astronomy Lab	0-2-1
AST 151	General Astronomy	3-0-3
AST 151A	General Astronomy Lab	0-2-1
DUIX 110		2.0.2
PHY 110	Conceptual Physics	3-0-3
PHY 110A	Conceptual Physics Lab	0-2-1
BIO 110	Principles of Biology	3-3-4
BIO 111	General Biology I	3-3-4
CHM 151	General Chemistry I	3-3-4
GEL 111	Introduction to Geology	3-2-4
Dogwired Ca	maral Education	
1	eneral Education:	202
SOC 225	Social Diversity	3-0-3

An additional 14-15 SHC of UGETC courses or General Education classes (see Additional General Education Hours under the Associate in Art degree) must be selected.

#### Other required:

Education (14 SHC)			
EDU 187	Teaching and Learning for All	3-3-4	
EDU 216	Foundations of Education	3-0-3	
EDU 279	Literacy Development & Instruction	3-3-4	
EDU 250	Teacher Licensure Preparation	3-0-3	
ACA 122	College Transfer Success	0-2-1	
ACA 122	Conege Hanster Success	0-2-1	

#### Suggested Course Schedule: 1<sup>st</sup> Semester Fall

1 Semeste			
ENG 111	Writing and Inquiry	3-0-3	
ACA 122	College Transfer Success	0-2-1	
EDU 187	Teaching & Learning for All	3-3-4	
Required N	latural Science Course	3-3-4	
Required Social/Behavioral Science Course		3-0-3	

#### 2<sup>nd</sup> Semester, Spring

2 <sup>nd</sup> Semeste	r, Spring	
ENG 112	Writing & Research in the Disciplines	3-0-3
EDU 279	Literacy Development & Instruction	4-0-4
Required Ma	athematics Course	3/4-2-3/4
Required Hu	umanities/Fine Arts/Comm. Course	3-0-3
Required So	cial/Behavioral Science Course	3-0-3
3 <sup>rd</sup> Semester	r, Fall	
EDU 216	Foundations of Education	3-0-3
Required Hu	umanities/Fine Arts/Comm. Course	3-0-3
Approved G	eneral Education Course	3-0-3
Approved G	eneral Education Course	3-0-3
Approved G	eneral Education Course	3-0-3
4 <sup>th</sup> Semester	r, Spring	
SOC 225	Social Diversity	3-0-3
EDU 250	Teacher Licensure Preparation	3-0-3
	umanities/Fine Arts/Comm. Course	3-0-3
Approved G	eneral Education Course	3-0-3
11	eneral Education Course	3-0-3

Total semester hours credit required for graduation: 60

## Broadcasting Production Technology

#### **Credential: Associate in Applied Science Degree in Broadcasting Production Technology A30120**

Students enrolled in the Broadcasting Production Technology curriculum will develop professional skills in radio, television, audio, video, and related applications.

Training emphasizes speech, script writing, production planning, editing, and post production. Students also study the development of the broadcasting industry, sales, ethics, law, marketing, and management. Hands-on training and teamwork approaches are essential to the instructional process.

Upon successful completion, students are prepared to enter broadcasting, production, and related industries in a variety of occupations.

Program Length: 6 semesters Career Pathway Options: Associate in Applied Science Degree in Broadcasting Production Technology Note: Associate in Applied Science students may begin with the Radio or the TV Production sequence. Program Sites: Lee Campus - Day Program

#### Suggested Course Schedule (Television sequence): 1<sup>st</sup> Semester (Fall)

BPT 110	Introduction to Broadcasting	3-0-3
BPT 111	Broadcast Law & Ethics	3-0-3
BPT 121	Broadcast Speech I	2-3-3
BPT 231	Video/TV Production I	2-6-4
BPT 235A	TV Performance I-A	0-3-1

ENG 111	Writing & Inquiry	3-0-3	
ACA 122	College Transfer Success	0-2-1	
110/1122	Soliege Hullster Success	021	
2 <sup>nd</sup> Semeste	r (Snring)		
BPT 112	Broadcast Writing	3-2-4	
BPT 112 BPT 113	Broadcast Sales	3-0-3	
WEB 214	Social Media	2-3-3	
		2-5-5	
BIT 232 BDT 235B	Video/TV Production TV Performance I – B	0-3-1	
	vioral Sci Elective	3-0-3	
Social/Della	violal Sci Elective	3-0-3	
ard Someste	r (Summar)		
	r (Summer)		
Select one:		0 ( )	
	TV Performance II	0-6-2	
WBL 121	Work-based Learning II	0-10-1	
uth a			
4 <sup>th</sup> Semeste			
BPT 131	Audio/Radio Production I	2-6-4	
BPT 135A	Radio Performance IA	0-3-1	
BPT 210	Broadcast Management	3-0-3	
BPT 215	Broadcast Programming	3-0-3	
CIS 110	Introduction to Computers	2-2-3	
Communica	tions, select one:		
ENG 112	Writing/Research in the Disc	3-0-3	
ENG 114	Prof Research & Reporting	3-0-3	
ENG 115	Oral Communication	3-0-3	
ENG 116	Technical Report Writing	3-0-3	
COM 110	Introduction to Communication	3-0-3	
COM 120	Intro to Interpersonal Communication	3-0-3	
COM 140	Intro to Intercultural Communication	3-0-3	
COM 231	Public Speaking	3-0-3	
00111 201	i done speaning	505	
5 <sup>th</sup> Semeste	r (Snring)		
BPT 132	Audio/Radio Production II	2-6-4	
	Radio Performance IB	0-3-1	
BPT 250	Institutional video	2-3-3	
	Fine Arts Elective	2-3-3 3-0-3	
<u>Humannues/</u>	File Arts Elective	3-0-3	
	ement, select one:	2 2 2	
MAT 110	Math Measurement & Literacy	2-2-3	
MAT 143	Quantitative Literacy	2-2-3	
cth c			
	r (Summer)	0.10.1	
WBL 111	Work-based Learning I	0-10-1	
<b>T</b> 1 7		(0)	
Total Semes	ter Hours Credit Required for Graduation:	69	

## Suggested Course Schedule (Radio sequence): 1<sup>st</sup> Semester (Fall)

1 Semester	(1 41)	
BPT 110	Introduction to Broadcasting	3-0-3
BPT 111	Broadcast Law & Ethics	3-0-3
BPT 121	Broadcast Speech I	2-3-3
BPT 131	Audio/Radio Production	2-6-4
BPT 135A	Radio Performance I-A	0-3-1
ENG 111	Writing & Inquiry	3-0-3
ACA 122	College Transfer Success	0-2-1

2 <sup>nd</sup> Semeste	er (Spring)	
BPT 112	Broadcast Writing	3-2-4
BPT 113	Broadcast Sales	3-0-3
	Social Media	2-3-3
BPT 132	Audio/Radio Production II	2-6-4
BPT 135B	Radio Performance I – B	0-3-1
Social/Beha	vioral Science Elective	3-0-3
3 <sup>rd</sup> Semeste	er (Summer)	
WBL 111	Work-based Learning I	0-10-1
4 <sup>th</sup> Semeste		
BPT 231	Video/TV Production I	2-6-4
BPT 235A	TV Performance I-A	0-3-1
BPT 210	Broadcast Management	3-0-3
BPT 215	Broadcast Programming	3-0-3
CIS 110	Introduction to Computers	2-2-3
Communica	ations, select one:	
ENG 112	Writing/Research in the Disc	3-0-3
ENG 114	Prof Research & Reporting	3-0-3
ENG 115	Oral Communication	3-0-3
ENG 116	Technical Report Writing	3-0-3
COM 110	Introduction to Communication	3-0-3
COM 120	Intro Interpersonal Communication	3-0-3
COM 231	Public Speaking	3-0-3
5 <sup>th</sup> Semeste		
BPT 232		2-6-4
BPT 235B		0-3-1
BPT 250	Institutional Video	2-3-3
Humanities.	/Fine Arts Elective	3-0-3
	rement, select one:	
MAT 110	5	2-2-3
MAT 143	Quantitative Literacy	2-2-3
	r (Summer)	
Select one:		
	Work-based Learning II	0-10-1
BPT 236	TV Performance II	0-6-2
Total Sama	star Hours Cradit Paguirad for Graduatio	n: 60

Total Semester Hours Credit Required for Graduation: 69

#### Broadcasting Production Technology Credential: Radio Broadcasting Production Technology Diploma D3012010

Students enrolled in the Radio Broadcasting Production Technology diploma curriculum will develop professional skills in radio, audio, and related applications. Training will emphasize speech, script writing, radio production planning, editing, and post production. Students will also study the development of the radio broadcasting industry, sales, ethics, law, marketing, and management. Hands-on training and teamwork approaches are essential to the instructional process. Upon successful completion, students are prepared to enter radio broadcasting, production, and related industries in a variety of occupations. Credits earned in this program may be transferred toward an Associate in Applied Science Degree in Broadcasting Production Technology provided the student meets the entrance requirements for the degree program.

#### Program Length: 3 semesters

Career Pathway Options: Associate in Applied Science Degree in Broadcasting Production Technology (Higher entrance standards required); Diploma in Television Broadcasting Production Technology

Program Sites: Lee Campus - Day Program; Harnett Campus – some courses available

#### **Course Requirements for Radio Broadcasting Production**

Total Semester Hours Credit Required for Graduation: 37

#### Suggested Course Schedule (Radio):

1 <sup>st</sup> Semester	r (Fall)		
ACA 122	College Transfer Success	0-2-1	
BPT 110	Introduction to Broadcasting	3-0-3	
BPT 111	Broadcast Law & Ethics	3-0-3	
BPT 121	Broadcast Speech I	2-3-3	
BPT 131	Audio/Radio Production I	2-6-4	
BPT 135A	Radio Performance IA	0-3-1	
Select one o	of the following:		
ENG 110	Freshman Composition	3-0-3	
ENG 111	Writing & Inquiry	3-0-3	
2 <sup>nd</sup> Semeste			
BPT 112	Broadcast Writing	3-2-4	
BPT 113	Broadcast Sales	3-0-3	
WEB 214	Social Media	2-3-3	
BPT 132	Audio/Radio Production II	2-6-4	
BPT 135B	Radio Performance IB	0-3-1	
Social/Beha	vioral Science Elective	3-0-3	
3 <sup>rd</sup> Semester (Summer)			
WBL 111	Work-based Learning I	0-10-1	

WBL 111	Work-based Learning I	0-10-

Total Semester Hours Credit Required for Graduation: 37

#### Broadcasting Production Technology Credential: Television Broadcasting Production Technology Diploma D3012020

Students enrolled in the Television Broadcasting Production Technology diploma curriculum develop professional skills in television and video production, and related applications. Training emphasizes speech, script writing, television production planning, editing, and post production. Students also study the development of the television broadcasting industry, sales, ethics, law, marketing, and management. Hands-on training and teamwork approaches are essential to the instructional process.

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Upon successful completion, students are prepared to enter television and video production and related industries in a variety of occupations. Credits earned in this program may be transferred toward an Associate Degree in Broadcasting Production Technology provided the student meets the entrance requirements for the degree program.

#### Program Length: 3 semesters

Career Pathway Options: Associate in Applied Science Degree in Broadcasting Production Technology (Higher entrance standards required); Diploma in Radio Broadcasting Production Technology.

Program Sites: Lee Main Campus - Day Program

#### **Suggested Course Schedule:**

1 <sup>st</sup> Semester, Fall			
ACA 122	College Transfer Success	0-2-1	
BPT 110	Intro to Broadcasting	3-0-3	
BPT 111	Broadcast Law & Ethics	3-0-3	
BPT 121	Broadcast Speech I	2-3-3	
BPT 231	Video/TV Production I	2-6-4	
BPT 235A	TV Performance 1-A	0-3-1	
Select one o	f the following:		
ENG 110	Freshman Composition	3-0-3	
ENG 111	Writing & Inquiry	3-0-3	
2 <sup>nd</sup> Semeste	r, Spring		
BPT 112	Broadcast Writing	3-2-4	
BPT 113	Broadcast Sales	3-0-3	
WEB 214	Social Media	2-3-3	
BPT 232	Video/TV Production II	2-6-4	
BPT 235B	TV Performance I-B	0-3-1	
Social/Behavioral Science Elective 3-0-		3-0-3	

3<sup>rd</sup> Semester, Summer

Select one:		
BPT 236	TV Performance II	0-6-2
WBL 121	Work-based Learning II	0-10-1

Total Semester Hours Credit Required for Graduation: 37

#### **Broadcast Production Technology Credential: Audio/Radio Production Certificate C3012010**

The Audio/Radio Production Certificate program is designed for individuals interested in development, production, and presentation of audio programming elements for broadcast and/or other electronic media applications. Emphasis is placed on the proper operation of professional audio equipment, related software, and perceptual effects of sound. Upon completion, students should be able to correctly operate audio recording and playback equipment, operate the college radio station, and show improvement and aptitude in proper articulation and pronunciation.

Program Length: 2 semesters

Program Sites: Lee Main Campus - Day Program

Suggested Course Schedule: 1 <sup>st</sup> Semester, Fall			
BPT 121	Broadcast Speech I	2-3-3	
BPT 131	Audio/Radio Production I	2-6-4	
2 <sup>nd</sup> Semester, Spring			
WEB 214	Social Media	2-3-3	
BPT 132	Audio/Radio Production II	2-6-4	

Total Semester Hours Credit Required for graduation 14

#### Broadcast Production Technology Credential: Video/TV Production Certificate C3012020

The Video/TV Production Certificate is designed for individuals interested in film, video, shot composition, lighting production planning, scripting, editing, and operation of video and television production equipment and related software for broadcast and/or other electronic media applications. Emphasis is placed on techniques followed in producing all forms of video and television production. Upon completion students should be able to produce basic video and television productions in a team environment, operate the college television studio and/or cable channels, and show improvement and aptitude in proper articulation and pronunciation.

Program Length: 2 semesters Program Site: Lee Main Campus – Day Program

#### **Suggested Course Schedule:**

1 <sup>st</sup> Semester, Fall		
BPT 121	Broadcast Speech I	2-3-3
BPT 231	Video/TV Production I	2-6-4
BPT 235A	TV Performance 1A	0-3-1

#### 2<sup>nd</sup> Semester, Spring

WEB 214	Social Media	2-3-3	
BPT 232	Video/TV Production II	2-6-4	
BPT 235B	TV Performance IB	0-3-1	
Total Semester Hours Credit Required for Graduation: 16			





## **Business Technologies Career Community**

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## **Accounting & Finance**

The Accounting & Finance 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 coursework in accounting principles, theories, and practice, students will study business law, finance, management, and economics. Related skills are developed through the study of communication, 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.

#### Accounting and Finance Credential: Associate in Applied Science Degree in Accounting & Finance A25800

Program Length: 5 semesters

Career Pathway Options: Associate in Applied Science Degree in Accounting & Finance Program Sites: Lee Main Campus - Day program with some evening courses available; Distance Education

#### **Suggested Course Schedule:**

1 <sup>st</sup> Semester (Fall)			
ACC 120	Principles of Financial Accounting	3-2-4	
ACC 129	Individual Income Taxes	2-2-3	
BUS 110	Introduction to Business	3-0-3	
BUS 125	Personal Finance	3-0-3	
ENG 111	Writing & Inquiry	3-0-3	
ACA 122	College Transfer Success	0-2-1	

#### 2<sup>nd</sup> Semester (Spring)

3 <sup>rd</sup> Semester (Summer)		
ECO 252	Principles of Macroeconomics	3-0-3
ECO 251	Principles of Microeconomics	3-0-3
ECO 151	Survey of Economics	3-0-3
Economics,	select one:	
BUS 115	Business Law I	3-0-3
ACC 149	Intro to ACC Spreadsheets	1-3-2
ACC 122	Principles of Financial Accounting II	3-0-3
ACC 121	Principles of Managerial Accounting	3-2-4

CIS 110	Introduction to Computers	2-2-3
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Mathematics, select one:

MAT 110	Math Measurement & Literacy	2-2-3
MAT 143	Quantitative Literacy	2-2-3
	- ·	
4 <sup>th</sup> Semester	r (Fall)	
ACC 140	Payroll Accounting	1-2-2
ACC 150	Accounting Software Applications	1-2-2
ACC 220	Intermediate Accounting I	3-2-4
BUS 225	Business Finance	2-2-3
Social/Beha	vioral Science Elective	3-0-3
5 <sup>th</sup> Semester	r (Spring)	
ACC 130	Business Income Taxes	2-2-3
ACC 221	Intermediate Accounting II	3-2-4
ACC 227	Practices in Accounting	3-0-3

Professional Research & Reporting

Total Semester Hours Credit required to graduate: 68

#### Accounting and Finance Credential: Diploma in Accounting & Finance D25800

Career Pathway Options: Associate in Applied Science Degree in Accounting & Finance Program Length: 3 semesters Program Sites: Lee Main Campus – Day program with some evening courses available; Distance Education Total Semester Hours Credit Required: 38

#### Suggested Course Schedule:

Humanities/Fine Arts Elective

ENG 114

1 <sup>st</sup> Semester	· (Fall)	
ACC 120	Principles of Financial Accounting	3-2-4
ACC 129	Individual Income Taxes	2-2-3
BUS 110	Introduction to Business	3-0-3
BUS 125	Personal Finance	3-0-3
ENG 111	Writing & Inquiry	3-0-3
ACA 122	College Transfer Success	0-2-1
2 <sup>nd</sup> Semester	r (Spring)	
ACC 121	Principles of Managerial Accounting	3-2-4
ACC 122	Principles of Financial Accounting II	3-0-3
BUS 115	Business Law I	3-0-3
Economics,	select one:	
ECO 151	Survey of Economics	3-0-3
ECO 251	Principles of Microeconomics	3-0-3
ECO 252	Principles of Macroeconomics	3-0-3
Accounting,	select one:	
ACC 140	Payroll Accounting	1-3-2
ACC 150	Accounting Software Appl	1-3-2
3 <sup>rd</sup> Semester	r (Summer)	
CIS 110	Introduction to Computers	2-2-3
Mathematics, select one:		
MAT 110		2-2-3
		~~~

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MAT 143	Quantitative Literacy	2-2-3
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Total Semester Hours Credit required for graduation: 38

#### Accounting and Finance Credential: Income Tax Preparer Certificate C25800T0

This certificate program is designed to prepare students for job opportunities in the accounting field in the specific area of income tax preparation. Credits earned in this program may be transferred toward an Associate in Applied Science Degree in Accounting & Finance provided the student meets the entrance requirements for the Accounting program.

Program Length: 2 semesters

Career Pathway Options: Associate in Applied Science Degree in Accounting & Finance, Diploma in Accounting & Finance (higher entrance standards required), Payroll Accounting Certificate, Small Business Financial Advisor Certificate I and II.

Program Sites: Lee Main Campus – Day program with some evening courses available; Distance Education

#### **Suggested Course Schedule:**

#### 1<sup>st</sup> Semester (Fall)

ACC 120	Principles of Financial Accounting	3-2-4
ACC 129	Individual Income Taxes	2-2-3
BUS 125	Personal Finance	3-0-3
2 <sup>nd</sup> Semeste	r (Spring)	
ACC 122	Prin of Financial Acct II	3-0-3
ACC 130	Business Income Taxes	2-2-3

Total Semester Hours Credit Required for Graduation: 16

#### **Credential: Payroll Accounting Certificate C25800P0**

This certificate program is designed to prepare students for job opportunities in the accounting field in the specific area of payroll accounting. Credits earned in this program may be transferred toward an Associate in Applied Science Degree in Accounting & Finance, provided the student meets the entrance requirements for the Accounting program.

Program Length: 2 semesters

Career Pathway Options: Associate in Applied Science Degree in Accounting & Finance, Diploma in Accounting & Finance (Higher entrance standards required), Income Tax Preparer Certificate, Small Business Financial Advisor Certificate I and II.

Program Sites: Lee Main Campus – Day program with some evening courses available; Distance Education

#### Suggested Semester Schedule:

1<sup>st</sup> Semester (Fall)

ACC 120 Principles of Financial Accounting 3-2-4

BUS 125	Personal Finance	3-0-3
CIS 110	Introduction to Computers	2-2-3
2 <sup>nd</sup> Semest	er (Spring)	
	Individual Income Taxes	2_2_3

ACC 129	Individual Income Taxes	2-2-3
ACC 140	Payroll Accounting	1-2-2
ACC 150	Accounting Software Applications	1-2-2

Total Semester Hours Credit required for graduation: 17

#### Accounting and Finance Credential: Small Business Financial Advisor Certificate C25800

This certificate program is designed to prepare students for job opportunities in the accounting field in the specific area of small business financial management. Credits earned in this program may be transferred toward an Associate in Applied Science Degree in Accounting, provided the student meets the entrance requirements for the Accounting program.

#### Program Length: 2 semesters

Career Pathway Options: Associate in Applied Science Degree in Accounting, Diploma in Accounting (Higher entrance standards required), Income Tax Preparer Certificate, Payroll Accounting Certificate, Small Business Financial Advisor Certificate II.

Program Sites: Lee Main Campus – Day program with some evening courses available; Distance Education

#### Course Requirements for Small Business Financial Advisor Certificate

#### **Suggested Course Schedule:**

1 <sup>st</sup> Semester	(Fall)	
ACC 120	Principles of Financial Accounting	3-2-4
BUS 125	Personal Finance	3-0-3
2 <sup>nd</sup> Semester	r (Spring)	
ACC 121	Principles of Managerial Accounting	3-2-4
ACC 140	Payroll Accounting	1-2-2
ACC 150	Accounting Software Applications	1-2-2

Total Semester Hours Credit required for graduation: 15

## **Business Administration**

#### Credential: - Associate in Applied Science Degree in Business Administration (General Business Administration Track) A25120

The Business Administration curriculum is designed to introduce students to the various aspects of the free enterprise system. Students will be provided with a fundamental knowledge of business functions, processes, and an understanding of business organizations in today's global economy.

Coursework includes business concepts such as accounting, business law, economics, management, and marketing. Skills related to the application of these concepts are developed through the study of computer applications, communication, team building, and decision making.

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.

#### Program Length: 5 semesters

Career Pathway Options: Associate in Applied Science Degree in Business Administration

Program Sites: Lee Main Campus - Day Program with some evening classes available; Harnett Main Campus – Some day courses available; Chatham campus–some day courses available Distance Education

## Suggested Course Schedule, General Track: 1<sup>st</sup> Semester, Fall

1 <sup>st</sup> Semeste	r, Fall	
ACC 120	Principles of Financial Accounting	3-2-4
BUS 110	Introduction to Business	3-0-3
BUS 125	Personal Finance	3-0-3
ENG 111	Writing & Inquiry	3-0-3
ACA 122	College Transfer Success	0-2-1
2 <sup>nd</sup> Semeste	er, Spring	
ACC 121	Principles of Managerial Accounting	3-2-4
BUS 137	Principles of Management	3-0-3
ENG 114	Professional research & Reporting	3-0-3
MKT 120	Principles of Marketing	3-0-3
ECO requir	ement, select one:	
ECO 151		3-0-3
ECO 251	Principles of Microeconomics	3-0-3
ECO 252	Principles of Macroeconomics	3-0-3
3 <sup>rd</sup> Semeste	er, Summer	
CIS 110	Introduction to Computers	2-2-3
MAT requir	rement, select one:	
MAT 143	Quantitative Literacy	2-2-3
MAT 110	Math Measurement & Literacy	2-2-3
4 <sup>th</sup> Semeste	r, Fall	
BUS 115	Business Law I	3-0-3
	Business Finance	3-0-3
BUS 240	Business Ethics	3-0-3
Humanities,	/Fine Arts Elective	3-0-3
Major electi	ive 4 credit hours required	4

 Major elective, 4 credit hours required
 4

 Select from: ACC 122, ACC 129, ACC 130, ACC 140, ACC
 149, ACC 150, BAS 120, BAS 150, BAS 121, BAS 220, BUS

 116, BUS 151, BUS 196S, BUS 228, BUS 255, BUS 270, BUS

 280, CHI 111, CTS 130, ECO 151, ECO 251, ECO 252, INT

110, MKT 123, MKT 220, MKT 232, SPA 111, SPA 112, WEB 214

#### 5<sup>th</sup> Semester, Spring

	,~ <b>r8</b>	
BUS 153	Human Resource Management	3-0-3
BUS 260	Business Communication	3-0-3
MKT 223	Customer Service	3-0-3
WBL 111	Work-based Learning I	0-10-1
Social/Behavioral Science elective		3-0-3

Total Semester Hours Credit Required for Graduation: 65

#### Business Administration Credential: Diploma in Business Administration (General Business Administration Track) D25120M0

The Business Administration Diploma is designed to introduce students to basic management skills required for an entry-level position in business management. Coursework includes basic concepts in such areas as accounting, economics, business law, computer technology, management, and basic computation and communication. Graduates are prepared for entry-level employment opportunities in the area of management including employment in business and government agencies and financial institutions.

Program Length: 5 semesters

Career Pathway Options: Associate in Applied Science Degree in Business Administration

Program Sites: Lee Main Campus – Day and Evening; Harnett Main Campus – Some day courses available; Chatham campus–some day courses available; Distance Education

#### Suggested Course Schedule:

1 <sup>st</sup> Semester	; Fall	
ACC 120	Principles of Financial Accounting	3-2-4
BUS 125	Personal Finance	3-0-3
BUS 137	Principles of Management	3-0-3
ACA 122	College Transfer Success	0-2-1
2 <sup>nd</sup> Semester	r, Spring	
ACC 121	Principles of Managerial Accounting	3-2-4
CIS 110	Intro to Computers	2-2-3
ECO require	ement, select one:	
ECO 151	Survey of Economics	3-0-3
ECO 251	Principles of Microeconomics	3-0-3
ECO 252	Principles of Macroeconomics	3-0-3
3 <sup>rd</sup> Semester	r, Summer	
ENG 111	Writing & Inquiry	3-0-3
4 <sup>th</sup> Semester	; Fall	
BUS 110	Introduction to Business	3-0-3
MKT 120	Principles of Marketing	3-0-3

5 <sup>th</sup> Semeste	r, Spring	
BUS 115	Business Law I	3-0-3
MAT requir MAT 143 MAT 110	rement, select one: Quantitative Literacy Math Measurement & Literacy	2-2-3 2-2-3

Total Semester Hours Credit Required for Graduation: 36

#### Business Administration Credential: Business Intelligence Certificate C25120BI

The Business Intelligence Certificate program is designed to prepare students for applying data driven solutions to business strategies.

Credits earned in this program may be transferred toward an Associate in Applied Science Degree in Business Administration.

Program Length: 2 semesters

Career Pathway Options: Associate in Applied Science Degree in Business Administration (Higher entrance standards required)

Program Site: Distance Education

#### Suggested Course Schedule:

1<sup>st</sup> Semester, Fall

BAS 120	Intro to Analytics	2-3-3
BAS 150	Intro to Analytical Program	3-0-3
CTS 130	Intro to Spreadsheets	3-0-3

#### 2nd semester, Spring:

BAS 121	Data Visualization	2-3-3
BAS 220	Applied Analytical Program	2-3-3
BUS 228	Business Statistics	2-2-3

Total Semester Hours Credit Required for Graduation: 18

#### **Business Administration** Credential: Manager Trainee Certificate C25120M0

The Manager Trainee Certificate program is designed to prepare students in the basic aspects of business management. Emphasized in the certificate program are basic concepts of management, marketing, business law, business principles, and human resources management. Students who complete the certificate requirements will be prepared for entry-level positions in management.

Entrance Requirement: General Admissions Standards in catalog

Academic Standards: See General Academic Standards in catalog. (No Placement testing is required for this certificate program.)

Program Length: 2 semesters Career Pathway Options: Associate in Applied Science Degree in Business Administration Program Sites: Lee Main Campus – Day and Evening; Harnett Main Campus – Day;Chatham campus–some day courses available; Distance Education

#### Suggested Course Schedule:

#### 1<sup>st</sup> Semester, Fall

BUS 110	Introduction to Business	3-0-3		
BUS 137	Principles of Management	3-0-3		
MKT 223	Customer Service	3-0-3		
2 <sup>nd</sup> Semester Spring				

2 Semester, Spring			
BUS 151	People Skills	3-0-3	
BUS 153	Human Resources Management	3-0-3	
CIS 110	Introduction to Computers	2-2-3	

Total Semester Hours Credit Required for Graduation: 18

#### **Business Administration** Credential: Entrepreneur Certificate C25120E0

The Entrepreneur Certificate program is designed to prepare students for self-employment through business ownership. Primary emphasis is placed on business planning and the skills necessary to be a successful entrepreneur. Credits earned in this program may be transferred toward an Associate in Applied Science Degree in Business Administration.

Program Length: 2 semesters

Career Pathway Options: Associate in Applied Science Degree in Business Administration (Higher entrance standards required)

Program Sites: Lee Campus – Day and Evening; Harnett Campus – Some day classes available; Chatham campus–some day courses available; Distance Education

#### Suggested Course Schedule:

#### 1<sup>st</sup> Semester, Fall

ACC 120	Principles of Financial Accounting	3-2-4
BUS 137	Principles of Management	3-0-3
BUS 280	REAL Small Business	4-0-4

#### 2<sup>nd</sup> Semester, Spring

CIS 110	Introduction to Computers	2-2-3
MKT 120	Principles of Marketing	3-0-3

Total Semester Hours Credit Required for Graduation: 17

#### Business Administration Credential: Retail Management Certificate C25120RM

The Retail Management Certificate program is designed to prepare students in the fundamental aspects of management in the retail sector. Emphasized in the certificate program are basic concepts of financial and managerial accounting, management principles, customer service, human resource management, and hands-on application of management principles through work-based learning. Students who complete the certificate requirements will be prepared for entry-level positions in retail management.

Entrance Requirement: General Admissions Standards in catalog

Academic Standards: See General Academic Standards in catalog. (No placement testing is required for this certificate program.)

Program Length: 2 semesters

Career Pathway Options: Diploma in Business Administration; Associate in Applied Science Degree in Business Administration Program Sites: Lee Main Campus – Day and Evening;

Distance Education

## Suggested Course Schedule:

1 <sup>st</sup>	Semester,	F	all	
		_		

ACC 120	Principles of financial Accounting	3-2-4
BUS 137	Principles of Management	3-0-3
MKT 223	Customer Service	3-0-3

## 2<sup>nd</sup> Semester, Spring

ACC 121	Principles of Managerial Accounting	3-2-4
BUS 153	Human Resources Management	3-0-3
WBL 111	Work-based Learning	0-10-1

Total Semester Hours Credit Required for Graduation: 18

## Business Administration Credential: Social Media Marketing Certificate C25120SM

The Social Media Marketing Certificate is designed to teach students to use social media tools to market products and services for businesses. The program introduces students to business, marketing, and social media and prepares them to use social media for advertising and promotion. Upon completion of the program students will be better prepared for marketing opportunities in the digital age.

Entrance Requirement: General Admissions Standards in catalog

Academic Standards: See General Academic Standards in catalog. (No Placement testing is required for this certificate program.) Program Length: 2 semesters Career Pathway Options: Associate in Applied Science Degree in Business Administration

Program Site: Online

## Suggested Course Schedule:

## 1<sup>st</sup> Semester, Fall

i Semester, i an			
MKT 120	Principles of Marketing	3-0-3	
WEB 214	Social Media	2-3-3	

BUS 110	Introduction to Business	3-0-3
MKT 220	Advertising & Sale Promotion	3-0-3
MKT 232	Intermediate Social Media Marketing	3-2-4

Total Semester Hours Credit Required for Graduation: 16

## Business Administration Credential: - Associate in Applied Science (Human Resource Management Track) A25120

The Business Administration curriculum is designed to introduce students to the various aspects of the free enterprise system. Students will be provided with a fundamental knowledge of business functions, processes, and an understanding of business organizations in today's global economy.

Coursework includes business concepts such as accounting, business law, economics, management, and marketing. Skills related to the application of these concepts are developed through the study of computer applications, communication, team building, and decision making.

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.

## Program Length: 5 semesters

Career Pathway Options: Associate in Applied Science Degree in Business Administration Program Sites: Lee Main Campus - Day Program with some

evening classes available; Harnett Main Campus – Some day classes available; Distance Education

#### Suggested Course Schedule, Human Resource Mgmt. Track:

1 <sup>st</sup> Semester,	Fall	
BUS 110	Intro to Business	3-0-3
BUS 115	Business Law I	3-0-3
BUS 153	Human Resource Management	3-0-3
CIS 110	Introduction to Computers	2-2-3
ENG 111	Writing & Inquiry	3-0-3
ACA 122	College Transfer Success	0-2-1
2 <sup>nd</sup> Semester	, Spring	
ACC 120	Principles of Financial Accounting	3-2-4
BUS 217	Employment Law & Regulations	3-0-3
BUS 261	Diversity in Management	3-0-3
Social/Behav	vioral Science elective	3-0-3

MAT requirement, select one:

MAT 143	Quantitative Literacy	2-2-3
MAT 110	Math Measurement & Literacy	2-2-3

3rd Semeste	er, Summer	
BUS 137	Principles of Management	3-0-3
ECO requir	ement, select one:	
ECO 151	Survey of Economics	3-0-3
ECO 251	Principles of Microeconomics	3-0-3
ECO 252	Principles of Macroeconomics	3-0-3
	-	
4 <sup>th</sup> Semeste	er, Fall	
BUS 234	Training and Development	3-0-3
BUS 256	Recruiting, Selection, & Per Planning	3-0-3
BUS 258	Compensation and Benefits	3-0-3
ENG 114	Professional Research & Reporting	3-0-3
Humanities	/Fine Arts elective	3-0-3
5 <sup>th</sup> Semeste	er, Spring	
BUS 252	Labor Relations	3-0-3
BUS 259	HRM Applications	3-0-3
MKT 120	Principles of Marketing	3-0-3

WIK1 120	T find pies of Marketing	3-0-3
WBL 111	Work-based Learning I	0-10-1

Major Elective

Select one: ACC 121, ACC 122, ACC 129, ACC 130, ACC 140, ACC 150, BUS 116, BUS 151, BUS 196, BUS 228, BUS 255, BUS 270, BUS 280, CHI 111, CTS 130, ECO 151, ECO 251, ECO 252, INT 110, MKT 123, MKT 220, MKT 232, **WEB 214** 

Total Semester Hours Credit Required for Graduation: 67

## **Business Administration Credential: Diploma in Business Administration** (Human Resource Management Track) **D25120HR**

Program Length: 4 semesters

Career Pathway Options: Associate in Applied Science Degree in Business Administration

Program Sites: Lee Main Campus - Day and Evening; Harnett Main Campus - Some day classes available; Distance Education

#### **Suggested Course Schedule:** 1<sup>st</sup> Somostor Fall

1 <sup>°°</sup> Semeste	r, fall	
BUS 234	Training and Development	3-0-3
BUS 256	Recruiting, Selection, and Personnel	3-0-3
BUS 258	Comp and Benefits	3-0-3
BUS 110	Intro to Business	3-0-3
ACA 122	College Transfer Success	0-2-1

#### 2<sup>nd</sup> Semester, Spring

Principles of Management	3-0-3
Writing and Inquiry	3-0-3
Employment Law & Regulations	3-0-3
Intro to Computers	2-2-3
	Writing and Inquiry Employment Law & Regulations

#### 3<sup>rd</sup> Semester, Summer

BUS 153	Human Resource Management	3-0-3
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ECO requir	ement, select one:	
ECO 151	Survey of Economics	3-0-3
ECO 251	Principles of Microeconomics	3-0-3
ECO 252	Principles of Macroeconomics	3-0-3
4 <sup>th</sup> Semeste	er, Fall	
BUS 115	Business Law I	3-0-3
MKT 120	Principles of Marketing	3-0-3
ACC 120	Principles of Financial Accounting	3-2-4
MAT requir	rement, select one:	
MAT 143	Quantitative Literacy	2-2-3
MAT 110	Math Measurement & Literacy	2-2-3
	-	

Total Semester Hours Credit Required for Graduation: 44

### **Business Administration Credential Credential: Human Resources Management** Certificate C25120C0

The Human Resources Management Certificate program is designed to provide students with the skills to work in the area of human resources. Students who complete the certificate requirements should be prepared to work in a variety of work environments including business, industry, and educational settings. Specific emphasis will be placed on compensation and benefits, employee training and development, employment law and regulations, employee assessment and evaluation, and employee recruitment and planning. Credits earned in this program may be transferred toward an Associate in Applied Science Degree in Business Administration—Human Resource Management Track

Program Length: 2 semesters

Career Pathway Options: Associate in Applied Science Degree in Business Administration-Human Resource Management Track

Program Site: Distance Education

#### **Suggested Course Schedule:**

1<sup>st</sup> Semester, Fall

4

, 1 all	
Training and Development	3-0-3
Recruiting, Selecting & Per Planning	3-0-3
Compensation and Benefits	3-0-3
r, Spring	
Principles of Marketing	3-0-3
Employment Law & Regulations	3-0-3
ve, select one:	
People Skills	3-0-3
Human Resource Management	3-0-3
Diversity in Management	3-0-3
	Training and Development Recruiting, Selecting & Per Planning Compensation and Benefits <b>r, Spring</b> Principles of Marketing Employment Law & Regulations ve, select one: People Skills Human Resource Management

Total Semester Hours Credit Required for Graduation: 18

## Healthcare Management Technology

# Credential: Associate in Applied Science Degree A25200

The Healthcare Management Technology curriculum is designed to prepare students for employment in healthcare business and financial operations. Students will gain a comprehensive understanding of the application of management principles to the healthcare environment.

The curriculum places emphasis on planning, organizing, directing, and controlling tasks related to healthcare organizational objectives including the legal and ethical environment. Emphasis is placed on the development of effective communication, managerial, and supervisory skills.

Graduates may find employment in healthcare settings including hospitals, medical offices, clinics, long-term care facilities, and insurance companies. Graduates are eligible to sit for various certification exams upon completion of the degree with a combination of a minimum of two years administrative experience. Eligible certifications include, but are not limited to, the Professional Association of Healthcare Office Managers (PAHCOM), the Healthcare Financial Management Association (HFMA), the Certified Patient Account Manager (CPAM) and the Certified Manager of Patient Accounts (CMPA) examinations.

Program Length: 5 semesters

Career Pathway Options: Associate in Applied Science Degree in Healthcare Management Technology Program Sites:Lee and Harnett Main Campus – some day courses available ; Distance Education–some courses available

## Suggested Course Schedule:

## 1<sup>st</sup> Semester, Fall

1 <sup>er</sup> Semester, Fall			
Introduction to Business	3-0-3		
Introduction to Computers	2-2-3		
Writing & Inquiry	3-0-3		
Intro to Healthcare Mgt	3-0-3		
Medical Terminology	3-0-3		
College Transfer Success	0-2-1		
r, Spring			
Principles of Financial Accounting	3-2-4		
Long-term Care Administration	3-0-3		
Medical Terminology II	3-0-3		
vioral Science elective	3-0-3		
ement, select one:			
Math Measurement & Literacy	2-2-3		
Quantitative Literacy	2-2-3		
3 <sup>rd</sup> Semester, Summer			
	Introduction to Business Introduction to Computers Writing & Inquiry Intro to Healthcare Mgt Medical Terminology College Transfer Success <b>r, Spring</b> Principles of Financial Accounting Long-term Care Administration Medical Terminology II vioral Science elective ement, select one: Math Measurement & Literacy Quantitative Literacy		

OST 149	Medical Legal Issues	3-0-3
SPA 111	Elementary Spanish	3-0-3

#### 4th Semester, Fall

4 <sup></sup> Semeste	er, Fall	
ACC 121	Principles of Managerial Accounting	3-2-4
BUS 153	Human Resource Management	3-0-3
BUS 260	Business Communication	3-0-3
OST 148	Medical Insurance & Billing	3-0-3
5 <sup>th</sup> Semeste	er, Spring	
HMT 212	Mgmt. of Healthcare Organizations	3-0-3
HMT 220	Healthcare Financial Mgmt	4-0-4
WBL 111	Work-based Learning I	0-10-1
Humanities	Fine Arts Elective	3-0-3
Communic	ations, select one:	
ENG 112	Writing/Research in the Disc	3-0-3
ENG 114	Prof Research & Reporting	3-0-3
ENG 115	Oral Communication	3-0-3
ENG 116	Technical Report Writing	3-0-3

ENU IIJ		5-0-5
ENG 116	Technical Report Writing	3-0-3
COM 110	Introduction to Communication	3-0-3
COM 120	Intro Interpersonal Com	3-0-3
COM 231	Public Speaking	3-0-3

Total Semester Hours Required for Graduation: 65

## **Medical Office Administration**

## **Credential:** Associate in Applied Science Degree in Medical Office Administration A25310

The Medical Office Administration curriculum prepares individuals for employment in medical and other health-care related offices. Coursework will include medical terminology, information systems, office management, medical coding, billing and insurance, legal and ethical issues, and formatting and word processing. Students will learn administration 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.

Program Length: 5 semesters

Career Pathway Options: Associate in Applied Science Degree in Medical Office Administration

Program Sites: Lee Main Campus – Day Program; Harnett Main Campus – Day Program; Distance Education–some courses available

#### Suggested Course Schedule: 1<sup>st</sup> Semester, Fall

1 Scheste	1, 1'all	
ACA 122	College Student Success	0-2-1
OST 136	Word Processing	2-2-3
ENG 111	Writing & Inquiry	3-0-3
OST 141	Medical Terms I	3-0-3
ACC 120	Prin of Financial Accounting	3-2-4
2 <sup>nd</sup> Semester, Spring		

CTS 130	Spreadsheets	2-2-3

	0 0 ,	0
OST 164	Text Editing	3-2-3
OST 142	Medical Terms II – Medical Office	3-0-3
	tions, select one:	
ENG 112	Writing/Research in the Disc	3-0-3
ENG 114	Prof Research & Reporting	3-0-3
ENG 115	Oral Communication	3-0-3
ENG 116	Technical Report Writing	3-0-3
COM 110	Introduction to Communication	3-0-3
COM 120	Intro Interpersonal Com	3-0-3
COM 231	Public Speaking	3-0-3
Mathematic	14	
Mathematic MAT 110	s, select one:	2 2 2
MAT 110 MAT 143		2-2-3 2-2-3
MAI 145	Quantitative Literacy	2-2-3
3 <sup>rd</sup> Semeste	r, Summer	
	Medical Legal Issues	3-0-3
OST 289	Office Admin Capstone	2-2-3
Ath G	<b>F</b> 11	
4 <sup>th</sup> Semester		
OST 137	Office Software Applications	2-2-3
OST 184		2-2-3
OST 148	0 0	3-0-3
	vioral Science	3-0-3
Humanities/	Fine Arts	3-0-3
5 <sup>th</sup> Semester	r Spring	
BIO 163	Basic Anatomy & Physiology	4-2-5
OST 243	Medical Office Simulation	2-2-3
OST 247	Procedural Coding	2-2-3
OST 248	Diagnostic Coding	2-2-3
WBL 111	Work Based Learning	0-10-1
		, - • <b>•</b>
Total Semes	ter Hours Required for Graduation: 68	

## Medical Office Administration Credential: Associate in Applied Science Diploma in Medical Office Administration D25310

Program Length: 3 semesters

Career Pathway Options: Associate in Applied Science Degree in Medical Office Administration

Program Sites: Lee Main Campus – Day Program; Harnett Main Campus – Day Program; Distance Education–some courses available

## Suggested Course Schedule:

#### 1<sup>st</sup> Semester, Fall ENG 111 Writing & Inquiry 3-0-3 **OST 137** Office Software Applications 2 - 2 - 3**OST 136** Word Processing 2 - 2 - 3**OST 141** Medical Terms I – Medical Office 3-0-3 **OST 148** Medical Coding Billing & Insurance 3-0-3 OST 164 Word Processing 3-0-3

2 <sup>nd</sup> Semester, Spring			
BIO 163	Basic Anatomy & Physiology	4-2-5	
OST 142	Medical Terms II – Medical Office	3-0-3	
OST 184	Records Management	2-2-3	
OST 247	Procedural Coding	2-2-3	
OST 248	Diagnostic Coding	2-2-3	
3rd Semeste	er, Summer		
OST 149	Medical Legal Issues	3-0-3	
OST 243	Medical Office Simulation	2-2-3	
Communica	ations, select one:		
ENG 112	Writing/Research in the Disc	3-0-3	
ENG 114	Prof Research & Reporting	3-0-3	
ENG 115	Oral Communication	3-0-3	
ENG 116	Technical Report Writing	3-0-3	
COM 110	Introduction to Communication	3-0-3	
COM 120	Intro Interpersonal Com	3-0-3	
COM 231	Public Speaking	3-0-3	

Total Semester Hours Required for Graduation: 44

## Medical Office Administration Credential: Medical Office Insurance Coding Certificate (Distance Education) C25310IC

This program is designed to provide students with skills necessary for positions in medical and allied health facilities requiring a comprehensive knowledge of ICD-10 and CPT codes. This concentrated program provides training in medical terminology, coding, billing, and insurance procedures. Employment opportunities include medical offices, research facilities, health insurance companies, billing agencies, and allied health facilities. Upon completion of this training, students will be prepared to perform data entry associated to billing and recordkeeping of medical diagnosis, charges, and insurance documentation. Credits earned in this program may be transferred toward an Associate in Applied Science Degree in Medical Office Administration provided the student meets the entrance requirements for that degree program.

#### Program Length: 2 Semesters

Career Pathway Options: Associate in Applied Science Degree in Medical Office Administration (Higher entrance standards required); Medical Office Insurance Coding Certificate. Program Sites: Lee Main Campus – Day Program; Harnett Main Campus – Day Program; Distance Education

#### Suggested Course Schedule:

#### 1<sup>st</sup> Semester, Fall

OST 141	Med Office Terms I	3-0-3
OST 149	Medical Legal Issues	3-0-3
OST 148	Medical Coding Billing & Insurance	3-0-3

#### 2<sup>nd</sup> Semester, Spring

OST 142	Med Office Terms II	3-0-3
OST 247	Procedural Coding	2-2-3

OST 248 Diagnostic Coding 2-2-3

Total Semester Hours Credit Required for Graduation: 18

## **Office Administration**

#### **Credential: Associate in Applied Science Degree** in Office Administration A25370

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.

#### Program Length: 5 semesters

Career Pathway Options: Associate in Applied Science Degree in Office Administration Program Sites: Lee Main Campus – Day Program; Harnett Main Campus - Day Program; Distance Education–some courses available

## Suggested Course Schedule:

1 <sup>st</sup> Semester	r, Fall	
ACA 122	College Transfer Success	0-2-1
BUS 110	Intro to Business	3-0-3
BUS 115	Business Law	3-0-3
ENG 111	Writing & Inquiry	3-0-3
ACC 120	Prin of Financial Accounting	3-2-4
2 <sup>nd</sup> Semeste	er, Spring	
CTS 130	Spreadsheets	2-2-3
BUS 137	Prin of Management	3-0-3
BUS 260	Business Communications	3-0-3
Communica	tions, select one:	
ENG 112	Writing/Research in the Disc	3-0-3
ENG 114	Prof Research & Reporting	3-0-3
ENG 115	Oral Communication	3-0-3
ENG 116	Technical Report Writing	3-0-3
COM 110	Introduction to Communication	3-0-3
COM 120	Intro Interpersonal Communication	3-0-3
COM 231	Public Speaking	3-0-3
Mathematic	s, select one:	

MAT 110	Math Measurement & Literacy	2-2-3
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MAT 143	Quantitative Literacy	2-2-3
3 <sup>rd</sup> Semest	er, Summer	
Humanities	s/Fine Arts Elective	3-0-3
Social/Behavioral Science		3-0-3
4 <sup>th</sup> Semest	er, Fall	
OST 136	Word Processing	3-2-4
OST 164	Office Editing	3-0-3
OST 137	Office Software Applications	2-2-3

081 137	Office Software Applications	2-2-3
OST 233	Office Publications Design	2-2-3
OST 184	Records Management	2-2-3
	-	
5 <sup>th</sup> Semeste	er, Spring	
ACC 150	Accounting Software Applications	3-0-3
BUS 125	Personal Finance	3-0-3
OST 138	Advanced Software Applications	2-2-3
OST 289	Office Admin Capstone	2-2-3
MKT 120	Prin of Marketing	3-0-3
WBL 111	Work Based Learning I	0-10-1

Total Semester Hours Credit Required for Graduation: 65

## Office Administration Credential: Office Administration Diploma D25370

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 entry-level positions in business, government, and industry. Credits earned in this program may be transferred toward an Associate in Applied Science Degree in Office Systems Technology and Associate in Applied Science Degree in Medical Office Administration provided the student meets the entrance requirements for the degree program.

Program Length: 4 semesters

Career Pathway Options: Associate in Applied Science Degree in Office Administration, Associate in Applied Science Degree in Medical Office Administration, OfficeAdministration Diploma.

Program Sites: Lee Main Campus–Day Program; Harnett Main Campus–Day Program; Distance Education

#### Suggested Course Schedule:

#### 1<sup>st</sup> Semester, Fall

ACA 122	College Transfer Success	0-2-1
BUS 110	Introduction to Business	3-0-3
ENG 111	Writing & Inquiry	3-0-3

ACC 120	Prin of Financial Accounting	2-3-4
2 <sup>nd</sup> Semeste	r, Spring	
BUS 260	Business Communications	3-0-3
OST 136	Word Processing	2-2-3
OST 137	Office Software Applications	2-2-3
OST 164	Text Editing Application	3-0-3
3 <sup>rd</sup> Semeste	r, Fall	
OST 289	Office Admin Capstone	2-2-3
Communica	tions, select one:	
ENG 112	Writing/Research in the Disc	3-0-3
ENG 114	Prof Research & Reporting	3-0-3
ENG 115	Oral Communication	3-0-3
ENG 116	Technical Report Writing	3-0-3
COM 110	Introduction to Communication	3-0-3
COM 120	Intro Interpersonal Communication	3-0-3
COM 231	Public Speaking	3-0-3
4 <sup>th</sup> Semeste	r, Spring	
CTS 130	Spreadsheet	2-2-3
OST 184	Records Management	2-2-3
BUS 125	Personal Finance	3-0-3
Total Semes	ster Hours Credit Required for Graduation	n: 38

## Office Administration Credential: Receptionist Certificate C25370R0

This certificate program provides the graduate with the basic skills necessary to enter the job market as a receptionist. Specific emphasis will be placed on general office skills in spreadsheets, oral communication, information and word processing, and records management. Credits earned in this program may be transferred toward a Diploma and/or an Associate in Applied Science Degree in Office Administration and/or an Associate in Applied Science Degree in Medical Office Administration provided the student meets the entrance requirements for the degree/diploma program.

## Program Length: 2 semesters

Career Pathway Options: Associate in Applied Science Degree in Office Administration (Higher entrance standards required); Associate in Applied Science Degree in Medical Office Administration (Higher entrance standards required); Diploma in Office Administration (Higher entrance standards required);; Receptionist Certificate.

Program Sites: Lee Main Campus – Day Program; Harnett Main Campus – Day Program; Distance Education

#### Suggested Course Schedule: 1<sup>st</sup> Semester, Fall

1 Semester, 1 an		
OST 136	Word Processing	2-2-3
OST 164	Office Editing	3-0-3
BUS 110	Introduction to Business	3-0-3

2 <sup>nd</sup> Semester, Spring		
OST 137	Office Software Applications	2-2-3
OST 184	Records Management	2-2-3
OST 289	Office Capstone	2-2-3

Total Semester Hours Credit Required for Graduation: 15

## Paralegal Technology

## Credential: Associate in Applied Science in Paralegal Technology A25380

The Paralegal Technology curriculum prepares individuals to work under the supervision of attorneys by performing routine legal tasks, and assisting with substantive legal work. A paralegal/legal assistant may not practice law, give legal advice, or represent clients in a court of law.

Coursework includes substantive and procedural legal knowledge in the areas of civil litigation, legal research and writing, real estate, family law, wills, estates, trusts, and commercial law. Required courses also include subjects such as English, mathematics, and computer utilization.

Graduates are trained to assist attorneys in probate work, investigations, public records search, drafting and filing legal documents, research, and office management. Employment opportunities are available in private law firms, governmental agencies, banks, insurance agencies, and other business organizations.

Program Length: 5 semesters

Career Pathway Options: Associate in Applied Science Degree in Paralegal Technology Program Sites: Lee Main Campus - Day Program; Distance Education–some courses available

#### Suggested Course Schedule: 1<sup>st</sup> Semester, Fall

1 <sup>a</sup> Semester	, Fall	
ACA 122	College Transfer Success	0-2-1
ENG 111	Writing & Inquiry	3-0-3
LEX 110	Introduction to Paralegal Study	2-0-2
LEX 150	Commercial Law	2-2-3
LEX 280	Ethics and Professionalism	2-0-2
MAT 110	Mathematical Measurement & Literacy	2-2-3
2 <sup>nd</sup> Semester	r, Spring	
CIS 110	Introduction to Computers	2-2-3
ENG 114	Professional Research & Reporting	3-0-3
LEX 160	Criminal Law & Procedures	2-2-3
LEX 270	Law Office Mgt/Technology	1-2-2
Humanities/I	Fine Arts Elective	3-0-3
Social/Behav	vioral Science Elective	3-0-3

## 3<sup>rd</sup> Semester, Summer

	, ~	
ACC 115	College Accounting	3-2-4
LEX 140	Civil Litigation I	3-0-3

LEX 271 Law Office Writing 1-2-2

4 <sup>th</sup> Semester, Fall			
LEX 120	Legal Research/Writing I	2-2-3	
LEX 120	Civil Inquiries	3-0-3	
LEX 141	Civil Litigation II	2-2-3	
LEX 180	Case Analysis & Reasoning	1-2-2	
LEX 210	Real Property I	3-0-3	
LEX 250	Wills, Estates, and Trusts	2-2-3	
5 <sup>th</sup> Semeste	er, Spring		
LEX 121	Legal Research/Writing II	2-2-3	
LEX 211	Real Property II	1-4-3	
LEX 240	Family Law	3-0-3	
WBL 111	Work Based Learning	0-10-1	

Communications, select one:

ENG 112	Writing/Research in the Disc	3-0-3
ENG 114	Prof Research & Reporting	3-0-3
ENG 115	Oral Communication	3-0-3
ENG 116	Technical Report Writing	3-0-3
COM 110	Introduction to Communication	3-0-3
COM 120	Intro Interpersonal Communication	3-0-3
COM 231	Public Speaking	3-0-3

Total Semester Hours Credit Required for Graduation: 70

## Paralegal Technology Credential: Paralegal Technology Diploma D25380

This diploma program is designed for students who have already earned a Baccalaureate and/or an Associate Degree. Students in this program will learn the specifics of assisting lawyers in the specific areas of research, document preparation, and client interviews. Credits earned in this program may be transferred to the Associate in Applied Science Degree in Paralegal Technology provided the student meets all entrance requirements for the degree program.

Program Specific Entrance Standards: A Baccalaureate and/or an Associate Degree including credit for ENG 111 or equivalent and 3 SHC in general education. Program Length: 3 semesters Career Pathway Options: Associate in Applied Science Degree in Paralegal Technology (Higher entrance standards required); Paralegal Technology Diploma Program Sites: Lee Main Campus - Day Program; Distance Education–some courses available

#### **Suggested Course Schedule:**

#### 1<sup>st</sup> Semester, Fall

LEX 110	Introduction to Paralegal Study	2-0-2
LEX 120	Legal Research/Writing I	2-2-3
LEX 130	Civil Injuries	3-0-3
LEX 150	Commercial Law	2-2-3
LEX 210	Real Property I	3-0-3
LEX 250	Wills, Estate, and Trusts	2-2-3

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LEX 280	Ethics & Professionalism	2-0-2
2 <sup>nd</sup> Semest	er, Spring	
LEX 121	Legal Research/Writing II	2-2-3
LEX 160	Criminal Law	2-2-3
LEX 211	Real Property II	1-4-3
LEX 240	Family Law	3-0-3
LEX 270	Law Office Mgt/Technology	1-2-2
3 <sup>rd</sup> Semest	er, Summer	
ACC 115	College Accounting	3-2-4
LEX 140	Civil Litigation I	3-0-3
LEX 271	Law Office Writing I	1-2-2

Total Semester Hours Credit Required for Graduation: 42

## Paralegal Technology Credential: Paralegal Technology Certificate C25380

Program Length: 2 Semesters

Program Sites: Lee Main Campus - Day; Distance Education

#### Suggested Course Schedule:

1st Semester, Fall

LEX 110	Intro to Paralegal Study	2-0-2
LEX 130	Civil Injuries	3-0-3
LEX 280	Ethics & Professionalism	2-0-2
2nd Semest	er, Spring	
LEX 240	Family Law	3-0-3
LEX 160	Criminal Law & Procedure	2-2-3

Total Semester Hours Credit Required for Graduation: 13





# **Health Sciences Career Community**

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## **Dental Assisting** Credential: Diploma in Dental Assisting D45240

The Dental Assisting Program 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 chair-side and related office and laboratory procedures.

Coursework includes instruction in general studies, biomedical sciences, dental sciences, clinical sciences, and clinical practice. A combination of lecture, laboratory, and clinical experiences provides students with knowledge in infection/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.

#### Limited Enrollment Curriculum:

The Dental Assisting Program is a limited enrollment curriculum. Applicants are accepted based on a selective admissions process. Criteria for admission into the Dental Assisting Program are reviewed annually and are subject to change.

#### A. PROGRAM SPECIFIC ENTRANCE STANDARDS:

#### Admission

A student may apply to the Dental Assisting Program once minimum admissions criteria are met.

Prospective applicants are highly encouraged to complete the Health Sciences information session as well as contact the Office of Admission prior to developing a plan for completing minimum requirements and additional points options. The Education Navigator will review each applicant's progress, provide further guidance, and allow access to the Health Science Program application once all minimum admission requirements are met.

Once an applicant has completed all general admissions criteria and all Dental Assisting Program entrance requirements, they must submit a completed Health Science Application. Applicants who have completed the Health Sciences Application by the deadline will be ranked by tallied points and admitted in order of ranking.

During the initial consideration, applicants will have an opportunity to indicate first and second choice programs when completing the Health Sciences Application. If seats do not fill after the initial consideration and after second choice candidates are considered, applicants will be admitted on a first qualified, first accepted basis up until the date of the required mandatory health science orientation.

Applicants who do not gain entry but want to gain entry in a future year, must reapply each year.

It is the applicant's responsibility to ensure that requirements are met by the established deadline.

More information can be found on the Competitive Admissions Website.

#### **Placement Test Scores**

Students must be eligible to take their gateway Math and English course in order to be eligible to apply. This can be achieved through a High School Unweighted GPA of 2.8 or higher or by presenting acceptable test scores such as SAT, ACT, Accuplacer, RISE Assessment scores, or other acceptable scores (within the past 10 years).

The rating sheet for the Dental Assisting Program indicates the minimum scores required to place into ENG 111 and MAT 110. Students who have an unweighted high school GPA of 2.8 or higher, have met Multiple Measures for Placement or who have earned appropriate transfer credit in English, Math, or developmental courses with a C, P2 for English, or P1 for Math, or higher may be exempt from placement testing.

#### GPA

Students must be in good academic standing upon applying to health science programs. Good academic standing is defined as having a 2.0 GPA in the most recent semester attempted as well as maintaining a 2.0 cumulative GPA. These GPA requirements must be maintained at the time of entering the program from a secondary or post-secondary institution. Additional points are awarded towards an applicant's point total based on cumulative GPA from the past five years.

#### TEAS (Test of Essential Academic Skills)

All required college placement tests or developmental courses must be successfully completed before the applicant may attempt the Test of Essential Academic Skills (TEAS). Students must obtain approval from a Health Science Education Navigator to take the TEAS prior to making payment of the required testing fee.

The TEAS is administered on scheduled testing dates. Each applicant may take the exam three times within a three-year period. The two most recent attempts are used toward the selective admissions process. Students may complete remediation between attempts. Remediation options are as follows: developmental, curriculum-level, and/or continuing education courses or other strategies related to the subject areas. TEAS scores are valid for three years and must be current when submitting a Health Sciences Application. There is no minimum score required, but the total score from the Reading section will be used toward an applicant's point total, which affects the individual's ranking during a consideration.

#### **Prerequisite Biology**

Applicants must have completed a biology course in order to be eligible to submit a Health Sciences Application for the Dental Assisting Program. Official transcripts for completed courses must be submitted by the application deadline. Acceptable courses are listed below:

BIO = high school, developmental, or college level BIO course (example: BIO 106, BIO 163)

Official transcripts for completed courses must be submitted by application deadline.

#### The Test of English as a Foreign Language (TOEFL)

TOEFL scores are required for any naturalized or non-US citizens who speak English as their second language. This test provides evidence of adequate proficiency in the English language. All test scores must be less than five years old. The minimum acceptable TOEFL scores are based on the following formats: paper/pencil – 500, computer based – 213, and internet based – 80. The test is offered at multiple testing sites nationally and is at the student's expense.

#### **Observation Hours**

The completion of forty hours of observation/work/voluntary experience in the dental assisting field is highly recommended. Although not required, applicants who acquire observation hours will be awarded additional points during consideration. The observation form is located on the <u>Competitive</u> <u>Admissions Website</u> or maybe obtained from the Dental Programs Education Navigator.

#### **B. REQUIREMENTS AFTER ACCEPTANCE:**

#### **Criminal Background Check/Drug Screening**

A criminal background check and drug screening are required for all accepted Health Sciences students. Clinical affiliates will review criminal background reports and drug screenings of students and reserve the right to accept or deny any students based on their consideration of these reports. Negative reports and/or failed screenings may prevent a student from attending the clinical portion of their prescribed program. This could result in a student's withdrawal from the program. Students are subject to criminal background checks and drug screenings at any time during a clinical rotation. Clinical agencies reserve the right to require additional background checks and drug screens.

#### **Medical Forms/Immunizations**

Accepted applicants are provided with a student medical health form and are required to submit it to the required document tracking system by an assigned date in their acceptance materials. The student medical form includes proof of a satisfactory health history, a physical examination, and an immunization report. Failure to submit the required information by the assigned date may result in loss of admission status into the Dental Assisting Program, and class space will be assigned to another applicant. \*\*Hepatitis B shots (3 series shot) required through the second series prior to first Fall semester and completed by Spring semester.

#### **BLS Provider CPR**

CPR Certification by the American Heart Association (AHA) in BLS Provider (Basic Life Support including CPR and AED) that includes both performance and testing of criteria is required prior to clinical rotations. Students are responsible for keeping their CPR certification current throughout the duration of the program.

#### **Mandatory Orientation Session**

When notified of acceptance, applicants must attend a mandatory orientation session with the Dental Assisting Department.

#### Liability/Malpractice Insurance

Malpractice insurance is required for health sciences students and is assessed as a student fee.

#### Transportation/Additional Class/Course Materials

Health Sciences students are responsible for their own transportation to off-campus clinical/learning sites. Materials other than textbooks will be required and are purchased at student's expense.

#### **Technical Standards**

The Health Sciences Programs are physically demanding. Students will be expected to perform lifting, pushing, pulling, and carrying tasks to successfully practice in a lab setting, complete clinical affiliations, and safely treat patients. For more details, please refer to each program's physical requirements and technical standards.

#### **Communicable Disease Statement**

As a healthcare provider, students enrolled in the Dental Assisting Program are exposed to communicable diseases. Students will be trained in standard precautions and asepsis techniques to minimize the potential of transmission. Students will act as peer patients during the program and will be expected to share medical information during clinical treatment.

#### Academic Standards

Upon official acceptance, Health Sciences students are required to maintain the necessary GPA requirements for entry. Students cannot enter a Health Sciences program while on academic suspension. Health Sciences students must achieve a grade of "C" or higher in their Health Science courses. Students may withdraw or be withdrawn from a Health Sciences course; however, the student will not be allowed to matriculate through their program of study. Reapplication to the program will be required and readmission will be awarded based on the completion of admissions criteria, the policy for readmission, and space availability. Students requesting readmission must meet with the Education Navigator to review their file.

#### **Program Specific Academic Standards:**

See additional Program Specific Standards in the Dental Assisting Student Policies and Procedures Manual and specific Dental Assisting Program course syllabus.

Dental assisting and progressive related courses must be taken in succession as they appear in the curriculum guide. Dental assisting students must adhere to the other policies set forth in the Dental Assisting Student Policies and Procedures Manual. Dental assisting students must not be on suspension status.

#### <u>C. RE-ADMISSION OR TRANSFER INTO THE</u> <u>DENTAL ASSISTING PROGRAM:</u>

A student must meet the admissions criteria in effect at the time of request for re-admission or transfer. A student may be required to re-enter a dental assisting course earlier in the curriculum sequence if the student is lacking major content. All dental assisting courses completed more than three years prior to re-admission or transfer must be repeated. Withdrawal or academic failure within the Dental Assisting Program will require the student to reapply to the program for re-entry. Advanced placement is dependent upon space availability. Students who reenter will do so one semester earlier from the semester in which they were released. The procedure for Advanced Standing is valid for candidates for one calendar year from the date leaving the program. After one calendar year, a candidate who wishes to be enrolled in the program must reapply and follow the protocol for re-admission.

The Dental Assisting Department Chair will evaluate transferability of all dental assisting courses. Transfer courses must be equivalent to courses required at the receiving college in both theory and clinical experiences. The student must provide copies of course syllabi and outlines to the Dental Assisting Department Chair for those Dental Assisting courses previously taken. Students lacking essential content may be required to audit a portion of a course, challenge the content, demonstrate skills, or repeat the course as deemed necessary. The final decision for transfer credit for dental assisting courses is determined by the Dental Assisting Department Chair.

Applicants must submit a letter explaining the circumstances of any previous exit from any health science program. The letter must be sent from the previous Program Director. CCCC's Dental Assisting Department Chair and Vice President of Student Services must approve students who were dismissed, expelled, or suspended for any reason. Students who withhold previous exit information may be dismissed from the program. A remediation plan may be required.

Program Length: Diploma: 3 semesters Career Pathway Options: Diploma

Program Site: Lee Main Campus - Day

#### Suggested Course Schedule: 1<sup>st</sup> Semester, Fall

1 <sup>st</sup> Semeste	r, Fall	
BIO 106	Intro to Anat/Phys/Micro	2-2-0-3
DEN 100	Basic Orofacial Anatomy	2-0-0-2
DEN 101	Preclinical Procedures	4-6-0-7
DEN 102	Dental Materials	2-4-0-4
DEN 111	Infection/Hazard Control	2-0-0-2
ACA 122	College Transfer Success	0-2-0-1
2 <sup>nd</sup> Semeste	er, Spring	
DEN 103	Dental Sciences	2-0-0-2
DEN 104	Dental Health Education	2-2-0-3
DEN 106	Clinical Practice I	2-0-12-6
DEN 112	Dental Radiography	2-3-0-3
ENG 111	Writing and Inquiry	3-0-0-3
SOC 240	Social Psychology	3-0-0-3
3 <sup>rd</sup> Semeste	er, Summer	
DEN 105	Practice Management	2-0-0-2
DEN 107	Clinical Practice II	1-0-12-5

Total Semester Hours Credit Required for Graduation: 46

## **Dental Hygiene**

## **Credential:** Associate in Applied Science Degree in Dental Hygiene A45260

The Dental Hygiene Program curriculum provides individuals with the knowledge and skills to access, plan, implement, and evaluate dental hygiene care for the individual and the community.

Students will learn to prepare the operatory, take patient histories, note abnormalities, plan care, teach oral hygiene, clean teeth, take x-rays, apply preventive agents, complete necessary chart entries, and perform other procedures related to dental hygiene care.

Graduates of this program may be eligible to take national and state/regional examinations for licensure, which are required to practice dental hygiene. Employment opportunities include dental offices, clinics, schools, public health agencies, industry, and professional education.

#### Limited Enrollment Curriculum:

The Dental Hygiene Program is a limited enrollment curriculum. Applicants are accepted based on a selective admissions process. Criteria for admission into the Dental Hygiene Program are reviewed annually and are subject to change.

#### A. PROGRAM SPECIFIC ENTRANCE STANDARDS:

#### **Admissions Process:**

A student may apply to the Dental Hygiene Program once minimum admissions criteria are met. Prospective applicants are highly encouraged to complete the Health Sciences information session as well as contact the Office of Admission prior to developing a plan for completing minimum requirements and additional points options. The Education Navigator will review each applicant's progress, provide further guidance, and allow access to the Health Science Program application once all minimum admission requirements are met.

Once an applicant has completed all general admissions criteria and all Dental Hygiene Program entrance requirements, they must submit a completed Health Science Application. Applicants by the deadline will be ranked by tallied points and admitted in order of ranking.

During the initial consideration, applicants will have an opportunity to indicate first and second choice programs when completing the Health Sciences Application. If seats do not fill after the initial consideration and after second choice candidates are considered, applicants will be admitted on a first qualified, first accepted basis up until the date of the required mandatory health science orientation.

Applicants who do not gain entry but want to gain entry in a future year, must reapply every year.

It is the applicant's responsibility to ensure that requirements are met by the established deadline.

More information can be found on the Competitive Admissions Website.

#### **Placement Test Scores**

Students must be eligible to take their gateway Math and English course in order to be eligible to apply. This can be achieved through a High School Unweighted GPA of 2.8 or higher or by presenting acceptable test scores such as SAT, ACT, Accuplacer, RISE Assessment scores, or other acceptable scores (within the past 10 years).

The rating sheet for the Dental Hygiene Program indicates the minimum scores required to place into ENG 111 and MAT 110. Students who have an unweighted high school GPA of 2.8 or higher, have met Multiple Measures for Placement or who have earned appropriate transfer credit in English, Math, or developmental courses with a C, P2 for English, or P1 for Math, or higher may be exempt from placement testing.

#### GPA

Students must be in good academic standing upon applying to health science programs. Good academic standing is defined as having a 2.0 GPA in the most recent semester attempted as well as maintaining a 2.0 cumulative GPA. These GPA requirements must be maintained at the time of entering the program from a secondary or post-secondary institution. Additional points are awarded towards an applicant's point total based on cumulative GPA from the past five years.

#### TEAS (Test of Essential Academic Skills)

All required college placement tests or developmental courses must be successfully completed before the applicant may attempt the Test of Essential Academic Skills (TEAS). Students must obtain approval from a Health Science Education Navigator to take the TEAS and pay the required testing fee.

The TEAS is administered on scheduled testing dates. Each applicant may take the exam three times within a three-year period. The two most recent attempts are used toward the selective admissions process. Students may complete remediation between attempts. Remediation options are as follows: developmental, curriculum-level, and/or continuing education courses or other strategies related to the subject areas. TEAS scores are valid for three years and must be current when submitting a Health Sciences Application. There is no minimum score required, but the total score from the Reading section will be used toward an applicant's point total, which affects the individual's ranking during a consideration.

#### Prerequisite Chemistry and Biology

Applicants must have completed a biology course and a chemistry course in order to be eligible to submit a Health Sciences Application for the Dental Hygiene Program. Official transcripts for completed courses must be submitted by the application deadline. Acceptable courses are listed below:

BIO = high school, developmental, or college level CHM course (example: BIO 106, BIO 163) CHM = high school, developmental, or college level CHM course (example: CHM 130/130A, CHM 151)

Official transcripts for completed courses must be submitted by application deadline.

#### The Test of English as a Foreign Language (TOEFL)

TOEFL scores are required for any naturalized or non-US citizens who speak English as their second language. This test provides evidence of adequate proficiency in the English language. All test scores must be less than five years old. The minimum acceptable TOEFL scores are based on the following formats: paper/pencil – 500, computer based – 213, and internet based – 80. The test is offered at multiple testing sites nationally and is at the student's expense.

#### **Observation Hours**

The completion of forty hours of observation/work/voluntary experience in the dental hygiene field is highly recommended. Although not required, applicants who acquire observation hours will be awarded additional points during a consideration. The observation form is located on the <u>Competitive Admissions Website</u> or may be obtained from the Dental Programs Education Navigator.

### **B. REQUIREMENTS AFTER ACCEPTANCE:**

Criminal Background Check/Drug Screening A criminal background check and drug screening are required

for all accepted Health Sciences students. Clinical affiliates will review criminal background reports and drug screenings of students and reserve the right to accept or deny any students based on their consideration of these reports. Negative reports and/or failed screenings may prevent a student from attending the clinical portion of their prescribed program. This could result in a student's withdrawal from the program. Students are subject to criminal background checks and drug screenings at any time during a clinical rotation. Clinical agencies reserve the right to require additional background checks and drug screens.

#### **Medical Forms/Immunizations**

Applicants are required to submit a completed college approved student medical health form to the required document tracking system by the assigned date. The student medical form must include satisfactory health history, physical examination, and immunization report. Failure to submit a completed medical form will result in loss of Dental Hygiene Program admission status and class space will be assigned to another applicant. NO student will be permitted to participate in clinic without having submitted a completed medical form.

\*\*Hepatitis B shots (3 series shot) required through the second series prior to first Fall semester and completed by Spring semester.

#### **BLS Provider CPR**

CPR Certification by the American Heart Association (AHA) in BLS Provider (Basic Life Support including CPR and AED) that includes both performance and testing of criteria is required prior to clinical rotations. Students are responsible for keeping their CPR certification current throughout the duration of the program.

#### **Mandatory Orientation Session**

When notified of acceptance, applicants must attend a mandatory orientation session with the Dental Hygiene Department.

#### Liability/Malpractice Insurance

Malpractice insurance is required for health sciences students and is assessed as a student fee.

#### Transportation/Additional Class/Course Materials

Health Sciences students are responsible for their own transportation to off-campus clinical/learning sites. Materials other than textbooks will be required and are purchased at student's expense.

#### **Technical Standards**

The Health Sciences Programs are physically demanding. Students will be expected to perform lifting, pushing, pulling, and carrying tasks to successfully practice in a lab setting, complete clinical affiliations, and safely treat patients. For more details, please refer to each program of study's physical requirements and technical standards.

#### **Communicable Disease Statement**

As a healthcare provider, students enrolled in the Dental Hygiene Program are exposed to communicable diseases. Students will be trained in standard precautions and asepsis techniques to minimize the potential of transmission. Students will act as peer patients during the program and will be expected to share medical information during clinical treatment.

#### NC State Board of Dental Examiners Standards

The application for licensure at the completion of the program might be denied or restricted by the NC State Board of Dental Examiners. Background checks are required for ALL license applications. Written examinations are offered on-line in two subject areas: infection control/sterilization and North Carolina jurisprudence. The only acceptable clinical exams are the ADEX Dental Hygiene or the CITA Dental Hygiene exam. Both written and clinical exams must be passed before a license will be issued. Passing either the written or clinical exam alone does not fulfill requirements for licensure. No candidate may engage in the practice of dental hygiene until the license is issued and properly displayed as required by 21 NCAC 16I .0109, <u>NC Dental Board</u>.

Specific dental hygiene licensure requirements vary among jurisdictions, but all jurisdictions have three basic requirements: an educational requirement, a written examination requirement, and a clinical examination requirement. All jurisdictions accept graduation from a dental hygiene program accredited by the Commission on Dental Accreditation (CODA) as fulfilling the educational requirement. Most jurisdictions also accept graduation from a Canadian dental hygiene program accredited by the Commission on Dental Accreditation of Canada (CDAC).

The NBDHE is intended to fulfill or partially fulfill the written examination requirement, but acceptance of National Board Examination results is completely at the discretion of the individual state. NC does require a passing Dental Hygiene National Board score before a license will be issued. A state can place any limit on acceptance of NBDHE results that it deems appropriate. For example, some states accept National Board Examination results only if earned within the last five to 10 years.

#### Academic Standards

Upon official acceptance, Health Sciences students are required to maintain the necessary GPA requirements for entry. Students cannot enter a Health Sciences program while on academic suspension. Health Sciences students must achieve a grade of "C" or higher in their Health Science courses. Students may withdraw or be withdrawn from a Health Sciences course; however, the student will not be allowed to matriculate through their program of study. Reapplication to the program will be required and readmission will be awarded based on the completion of admissions criteria, the policy for readmission, and space availability. Students requesting readmission must meet with the Education Navigator to review their file. **Program Specific Academic Standards:** See the Dental Hygiene Student Policies and Procedures Manual and specific Dental Hygiene Program course syllabi.

Dental Hygiene Program and progressive related courses must be taken in succession as they appear in the curriculum guide. Dental Hygiene Program students must meet the standards related to demonstration of emotional and physical health within the framework of dental hygiene practice and must adhere to the other policies set forth in the Dental Hygiene Student Policies and Procedures Manual. Dental hygiene students must not be on suspension status.

#### <u>C. RE-ADMISSION OR TRANSFER INTO THE</u> <u>DENTAL HYGIENE PROGRAM</u>

A student must meet the admissions criteria in effect at the time of request for re-admission or transfer. A student may be required to re-enter a dental hygiene course earlier in the curriculum sequence if the student is lacking major content. All Dental Hygiene Program courses completed more than three years prior to re-admission or transfer must be repeated. Withdrawal or academic failure within the Dental Hygiene Program will require the student to reapply to the program for re-entry. Advanced placement is dependent upon space availability. Students who reenter will do so one semester earlier from the semester in which they were released. The procedure for Advanced Standing is valid for candidates for one calendar year from the date leaving the program. After one calendar year, a candidate who wishes to be enrolled in the program must reapply and follow the protocol for re-admission.

The Dental Hygiene Department Chair will evaluate transferability of all Dental Hygiene Program courses. Transfer courses must be equivalent to courses required at the receiving college in both theory and clinical experiences. The student must provide copies of course syllabi and outlines to the Dental Hygiene Department Chair for those Dental Hygiene Program courses taken. Students lacking essential content may be required to audit a portion of a course, challenge the content, demonstrate skills, or repeat the course as deemed necessary. The final decision for transfer credit for Dental Hygiene Program courses is determined by the Dental Hygiene Department Chair.

Applicants must submit a letter explaining the circumstances of any previous exit from any health science program. The letter must be sent from the Program Director at the former institution. CCCC's Dental Hygiene Department Chair and Vice-President of Student Services must approve students who were dismissed, expelled, or suspended for any reason. Students who withhold previous exit information may be dismissed from the program. A remediation plan may be required.

Program Length: 5 semesters

#### Career Pathway Options: Associate in Applied Science Degree Program Site: Lee Main Campus - Day

#### Suggested Course Schedule: 1<sup>st</sup> Semester, Fall

1 <sup>st</sup> Semester	, Fall	
BIO 163	Human Anatomy & Physiology w/Lab	4-2-0-5
DEN 110	Orofacial Anatomy	2-2-0-3
DEN 111	Infection/Hazard Control	2-0-0-2
DEN 112	Dental Radiology	2-3-0-3
DEN 120	Dental Hygiene Preclinical Lecture	2-0-0-2
DEN 121	Dental Hygiene Preclinical Lab	0-6-0-2
ACA 122	College Transfer Success	0-2-0-1
2 <sup>nd</sup> Semester	r, Spring	
DEN 123	Nutrition/Dental Health	2-0-0-2
DEN 124	Periodontology	2-0-0-2
DEN 130	Dental Hygiene Theory I	2-0-0-2
DEN 131	Dental Hygiene Clinic I	0-0-9-3
DEN 223	Dental Pharmacology	2-0-0-2
DEN 224	Materials & Procedures	1-3-0-2
CHM 130	Gen, Org & Biochemistry	3-0-0-3
CHM 130A	Gen, Org, and Biochem Lab	0-2-0-1
3 <sup>rd</sup> Semester	r, Summer	
DEN 140	Dental Hygiene Theory II	1-2-0-2
DEN 141	Dental Hygiene Clinic II	0-0-6-2
ENG 111	Writing & Inquiry	3-0-0-3
DEN 125	Dental Office Emergencies	0-2-0-1
4 <sup>th</sup> Semester	; Fall	
BIO 175	General Microbiology	2-2-0-3
DEN 220	Dental Hygiene Theory III	2-0-0-2
DEN 221	Dental Hygiene Clinic III	0-0-12-4
DEN 222	General & Oral Pathology	2-0-0-2
DEN 232	Community Dental Health	2-3-0-3
Humanities/	Fine Arts Elective	3-0-0-3
5 <sup>th</sup> Semester		
COM 120	Interpersonal Communication	3-0-0-3
DEN 230	Dental Hygiene Theory IV	1-0-0-1
DEN 231	Dental Hygiene Clinic IV	0-0-12-4
DEN 233	Professional Development	2-0-0-2
SOC 240	Social Psychology	3-0-0-3

Total Semester Hours Credit Required for Graduation: 71

## Health and Fitness Science

## Credential: Associate in Applied Science in Health and Fitness Science A45630

The Health and Fitness Science program is designed to provide students with the knowledge and skills necessary for employment in the fitness and exercise industry.

Students will be trained in exercise science and be able to administer basic fitness tests and health risk appraisals, teach specific exercise and fitness classes and provide instruction in the proper use of exercise equipment and facilities.

Graduates should qualify for employment opportunities in commercial fitness clubs, YMCA's/YWCA's, wellness programs in business and industry, Parks & Recreation Departments and other organizations implementing exercise & fitness programs.

#### **Program Specific Academic Standards:**

See additional Program Specific Standards in the Health and Fitness Science Program Guide and specific Health and Fitness Science course syllabus.

Health and Fitness Science and progressive related courses must be taken in succession as they appear in the curriculum guide. Health and Fitness Science students must adhere to the other policies set forth in the Health and Fitness Science Program Guide.

#### Program Length: 5 semesters

Career Pathway Options: Associate in Applied Science Degree in Health and Fitness Science, Diploma, Certificate Program Site: Lee Main Campus- Day; Chatham Health Science Center - Day

#### Suggested Course Schedule:

#### 1<sup>st</sup> Semester, Fall

ACA 122	College Transfer Success	0-2-1
ENG 111	Writing & Inquiry	3-0-3
HEA 112	First Aid & CPR	1-2-2
HFS 111	Fitness & Exercise Testing I	3-2-4
HFS 110	Exercise Science	4-0-4
Humanities/Fine Arts Elective		3-0-3

#### 2<sup>nd</sup> Semester, Spring

	•,~pg	
HFS 116	Prevention & Care Exer Injuries	2-2-3
HFS 120	Group Exer Instruction	2-2-3
HFS 210	Personal Training	2-2-3
PED 117	Weight Training I	0-3-1
PSY 150	General Psychology	3-0-3
3 <sup>rd</sup> Semeste	er, Summer	
BIO 155	Nutrition	3-0-3
HFS 218	Lifestyle Chng & Wellness	3-2-4
Select one:		
PED 122	Yoga I	0-2-1
PED 113	Aerobics I	0-3-1
4 <sup>th</sup> Semeste	er, Fall	
BIO 168	Anatomy and Physiology I	3-3-4
HFS 118	Fitness Facility Mgmt	4-0-4

пг5 116	Filless Facility Wight	4-0-4
Mathematic	es, select one:	
MAT 152	Statistical Methods I	3-2-4
MAT 171	Precalculus Algebra	3-2-4

#### Communications, select one:

ENG 112	Writing/Research in the Disciplines	3-0-3
ENG 114	Professional Research & Reporting	3-0-3
COM 110	Intro to Communication	3-0-3
COM 120	Intro to Interpersonal Communication	3-0-3
COM 231	Public Speaking	3-0-3

#### 5th Semester, Spring

Anatomy and Physiology II	3-3-4
REAL Small Business	4-0-4
Exercise Programming	2-2-3
Fit and Well for Life	1-2-2
	REAL Small Business Exercise Programming

Total Semester Hours Credit Required for Graduation: 66

## Health & Fitness Science Credential: Diploma in Health and Fitness Science D45630

Program Length: 3 semesters Career Pathway Options: Associate in Applied Science Degree in Health and Fitness Science, Diploma, Certificate Program Site: Lee Main Campus- Day; Chatham Health Science Center - Day

#### Suggested Course Schedule:

### 1<sup>st</sup> Semester, Fall

1 Semes	ier, ran	
ACA 122	College Transfer Success	0-2-1
BIO 168	Anatomy & Physiology I	3-3-4
ENG 111	Writing & Inquiry	3-0-3
HEA 112	First Aid & CPR	1-2-2
HFS 111	Fitness & Exercise Testing I	3-2-4
HFS 110	Exercise Science	4-0-4
2 <sup>nd</sup> Semes	ster, Spring	
BIO 169	Anatomy & Physiology II	3-3-4
HFS 116	Prevention & Care Exercise Related	
	Injuries	2-2-3
HFS 120	Group Exercise Instruction	2-2-3
HFS 210	Personal Training	2-2-3
PED 117	Weight Training I	0-3-1
PSY 150	General Psychology	3-0-3
3 <sup>rd</sup> Semes	ster, Summer	
BIO 155	Nutrition	3-0-3
HFS 218	Lifestyle Changes & Wellness	3-2-4
PED 110	Fit and Well for Life	1-2-2
PED 113	Aerobics I	0-3-1

Total Semester Hours Credit Required for Graduation: 45

## Health & Fitness Science Credential: Certificate in Health and Fitness Science C45630

#### Program Length: 2 Semesters

Career Pathway Options: Associate in Applied Science in Health and Fitness Science; Diploma in Health and Fitness Science; Certificate in Health and Fitness Science Program Location: Lee Main Campus – Day; Chatham Health Science Center - Day

## Suggested Course Schedule:

#### 1<sup>st</sup> Semester, Fall

HEA 112	First Aid & CPR	1-2-2
HFS 111	Fitness & Exercise Testing I	3-2-4
HFS 110	Exercise Science	4-0-4

#### 2<sup>nd</sup> Semester, Spring

HFS 116	Prevention & Care Exer Related Injuries	2-2-3
HFS 210	Personal Training	2-2-3
PED 117	Weight Training I	0-3-1

Total Semester Hours Credit Required for Graduation: 17

## **Health Information Technology**

## **Credential: Associate in Applied Science Degree** in Health Information Technology A45360

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 patient information security.

Graduates of this program will be eligible to write the national certification examination to become a Registered Health Information Technician (RHIT) once the program gains accreditation status from the Commission on Accreditation for Health Informatics and Information Management Education, (CAHIIM). Employment opportunities include hospitals, rehabilitation facilities, nursing homes, health insurance organizations, outpatient clinics, physicians' offices, hospice, and mental health facilities.

#### Limited Enrollment Curriculum:

The Health Information Technology program is a limited enrollment curriculum. Program applicants are accepted in the Fall and Spring semesters once minimum admission criteria are met. Admission criteria for the Health Information Technology program are reviewed annually and are subject to change.

#### A. PROGRAM SPECIFIC ENTRANCE STANDARDS:

#### **Admissions Process**

The student may apply to the Health Information Technology program once minimum admissions criteria are met. This includes the the following:

- Minimum 2.0 GPA
- All transcripts received high school and past colleges
- Eligible to take ENG and MAT without a co-requisite.

#### **Placement Test Scores**

Students must be eligible to take their gateway Math and English course in order to be eligible to apply. This can be achieved through a High School Unweighted GPA of 2.8 or higher or by presenting acceptable test scores such as SAT, ACT, Accuplacer, RISE Assessment scores, or other acceptable scores (within the past 10 years).

Students must be able to be placed into ENG 111 and MAT 152. Students who have an unweighted high school GPA of 2.8 or higher, have met Multiple Measures for Placement or who have earned appropriate transfer credit in English, Math, or developmental courses with a C, P2 for English, or P2 for Math, or higher may be exempt from placement testing.

#### GPA

Students must be in good academic standing upon applying to health science programs. Good academic standing is defined as having a 2.0 GPA in the most recent semester attempted as well as maintaining a 2.0 cumulative GPA. These GPA requirements must be maintained at the time of entering the program from a secondary or post-secondary institution.

#### The Test of English as a Foreign Language (TOEFL)

TOEFL scores are required for any naturalized or non-US citizens where English is their second language to provide evidence of adequate proficiency in the English language. All test scores must be less than five years old. The minimum acceptable TOEFL scores are based upon format: paper/pencil – 500, computer based – 213, and internet based – 80. This test is offered at multiple testing sites nationally and is at the student's expense.

#### **B. REQUIREMENTS AFTER ACCEPTANCE:**

#### **Criminal Background Check/Drug Screening**

A criminal background check and drug screening will be required for all accepted Health Sciences students. Clinical affiliates will review criminal background reports and drug screenings of students and reserve the right to accept or deny any students based on their consideration of these reports. Negative reports and/or failed screenings can preclude a student from attending the clinical portion of their prescribed program and thus, will result in the student's exit from the

program. Students are subject to criminal background check and drug screening at any time during a clinical rotation. Clinical agencies reserve the right to require additional background checks and drug screens.

#### **Medical Forms/Immunizations**

Applicants are required to submit a completed college approved student medical health form to the required document tracking system by the assigned date. The student medical form must include satisfactory health history, physical examination, and immunization report. Failure to submit the required information by the assigned date will result in loss of Health Information Technology admission status and class space will be assigned to another applicant.

#### Liability/Malpractice Insurance

Malpractice insurance is required for health sciences students and is assessed as a student fee.

#### Transportation/Additional Class/Course Materials

Health Sciences students are responsible for their own transportation to off-campus clinical/learning sites. Materials and textbooks will be required and are purchased at student's expense.

#### **Technical Standards**

Please refer to the Health Information Technology program physical requirements and technical standards.

#### **Academic Standards**

Upon official acceptance, Health Sciences students are required to maintain the necessary GPA requirements for entry. Students cannot enter a Health Sciences program while on academic suspension. Health Sciences students must achieve a grade of "C" or higher in their Health Science courses. Students may withdraw or be withdrawn from a Health Sciences course. However, the student will not be allowed to matriculate through their program of study if they do not achieve a grade of "C" or better. Students completing readmission must meet with the Education Navigator to review their file.

#### **Program Specific Academic Standards:**

See additional Program Specific Standards in the Health Information Technology Program Guide and specific Health Information Technology course syllabus.

Health Information Technology students must maintain an overall and semester GPA 2.0 or better, and must earn a grade of "C" or better in all courses required by the Health Information Technology curriculum in order to graduate. Health Information Technology and progressive related courses must be taken in succession as they appear in the eurriculum guide curriculum guide. Health Information Technology students must adhere to the other policies set forth in the Health Information Technology Program Guide.

#### <u>C. RE-ADMISSION OR TRANSFER INTO THE</u> HEALTH INFORMATION TECHNOLOGY PROGRAM:

The student must qualify under the admission criteria in effect at time of readmission or transfer. A student may be required to re-enter a Health Information Technology course earlier in the curriculum sequence if the student is lacking major content as evaluated by the Program Director. All Health Information Technology courses completed more than three years prior to re-admission or transfer must either be challenged by exam, including passing an assessment of all skills and/or competencies covered in that course, or the course must be repeated. Withdrawal or academic failure within the Health Information Technology program will require the student to reapply as a new student. Advanced placement is dependent upon space availability.

The Health Information Technology Program Director will evaluate transferability of all Health Information Technology courses. Transfer courses must be equivalent to courses required at the receiving college in both theory and clinical experiences. The student must provide copies of course syllabi and outlines for those Health Information Technology courses taken to the Program Director. Students lacking essential content may be required to audit a portion of a course, challenge the content, demonstrate skills or repeat the course as deemed necessary. The final decision for transfer credit for Health Information Technology courses is determined by the Health Information Technology Program Director.

Applicants must submit a letter explaining the circumstances of any previous exit from any health sciences program. The letter must be sent from the previous Program Director. CCCC's Health Information Technology Program Director and Vice President of Student Services must approve students who were dismissed, expelled, or suspended for any reason. Students who withhold previous exit information may be dismissed from the program. A remediation plan may be required.

**Program Length:** 5 semesters, full-time; 8 semesters, part-time

**Career Pathway Options:** Associate in Applied Science Degree in Health Information Technology, Diploma, Certificate(s)

**Program Site:** Online <u>+</u>required day hours during Professional Practice Courses

#### Suggested Course Schedule: 1<sup>st</sup> Semester, Fall

1, 1 all	
College Transfer Success	0-2-0-1
Basic Anatomy & Physiology	4-2-0-5
Writing & Inquiry	3-0-0-3
Intro to Healthcare & HIM	3-0-0-3
Medical Terminology I	3-0-0-3
	College Transfer Success Basic Anatomy & Physiology Writing & Inquiry Intro to Healthcare & HIM

2 <sup>nd</sup> Semeste	er, Spring	
HIT 226	Pathophysiology & Pharmacology	2-3-0-3
HIT 114	Health Data Systems/Standards	2-3-0-3
MED 122	Medical Terminology II	3-0-0-3
HIT 211	Diagnosis Coding & Reporting	2-3-0-3
HIT 215	Revenue Cycle Management	1-3-0-2
3 <sup>rd</sup> Semeste	r. Summer	
PSY 150	General Psychology	3-0-0-3
HIT 214	Outpatient Procedure Coding	1-3-0-2
CIS 110	Introduction to Computers	2-2-0-3
ENG 112	Writing/Research in the Disciplines	3-0-0-3
4 <sup>th</sup> Semeste	r Fall	
MAT 152	Statistical Methods	3-2-0-4
HIT 112	Health Law and Ethics	3-0-0-3
HIT 218	Management Principles in HIT	3-0-0-3
HIT 213	Inpatient Procedure Coding	1-3-0-2
HIT 124	Professional Practice Exp II	0-0-3-1
UIT alastin	a calact ana:	
HIT 220	e, select one: Electronic Health Records	1-2-0-2
HIT 220 HIT 221		2-2-0-2
ПП 221	Lifecycle of EHR	2-2-0-3
5 <sup>th</sup> Semeste		
HIT 217	Quality & Data Analysis	2-3-0-3
HIT 225	Healthcare Informatics	2-3-0-3
HIT 280	HIM Capstone	2-0-0-2
HIT 222	Professional Practice Exp III	0-0-7-2
Humanities/	Fine Arts Elective	3-0-0-3

Total Semester Hours Credit Required for Graduation: 68

## Health Information Technology Credential: Diploma in Health Information Technology D45360

Program Length: 3 semesters

Career Pathway Options: Associate in Applied Science Degree in Health Information Technology, Diploma, Certificate(s) Program Site: Online <u>+</u>required day hours during Professional Practice Courses

## Suggested Course Schedule:

1 <sup>st</sup>	Semester,	Fall
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1 Stilleste	1, 1 all	
ACA 122	College Transfer Success	0-2-0-1
CIS 110	Introduction to Computers	2-2-0-3
BIO 163	Basic Anatomy & Physiology	4-2-0-5
ENG 111	Writing & Inquiry	3-0-0-3
HIT 110	Intro to Healthcare & HIM	3-0-0-3
MED 121	Medical Terminology I	3-0-0-3

#### 2<sup>nd</sup> Semester, Spring

HIT 226	Pathophysiology & Pharmacology	2-3-0-3
HIT 114	Health Data Systems/Standards	2-3-0-3
MED 122	Medical Terminology II	3-0-0-3
HIT 211	Diagnosis Coding & Reporting	2-3-0-3

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HIT 213	Inpatient Procedure Coding	1-3-0-2
HIT 124	Professional Practice Exp II	0-0-3-1
HIT 215	Revenue Cycle Management	1-3-0-2

3 <sup>rd</sup> Semester, Summer			
HIT 112	Health Law and Ethics	3-0-0-3	
HIT 214	Outpatient Procedure Coding	1-3-0-2	
HIT 222	Professional Practice Exp III	0-0-7-2	

Total Semester Hours Credit Required for Graduation: 45

## Health Information Technology Credential: Certificate in Health Information Technology, Data Analytics C45360DA

#### Program Length: 2 semesters

Career Pathway Options: Associate in Applied Science Degree in Health Information Technology, Diploma, Certificate(s) Program Site: Online

#### Suggested Course Schedule:

#### 1<sup>st</sup> Semester, Fall

1 Semester	, 1 <sup>-</sup> all	
MAT 152	Statistical Methods	3-2-0-4
HIT 110	Intro to Healthcare & HIM	3-0-0-3
HIT 114	Health Data Systems/Standards	2-3-0-3
2 <sup>nd</sup> Semeste	r, Spring	
HIT 225	Healthcare Informatics	2-3-0-3
HIT 217	Quality & Data Analysis	2-3-0-3

Total Semester Hours Credit Required for Graduation: 16

## Health Information Technology Credential: Certificate in Health Information Technology, Electronic Health Records C45360ER

Program Length: 2 semesters

Career Pathway Options: Associate in Applied Science Degree in Health Information Technology, Diploma, Certificate(s) Program Site: Online

#### Suggested Course Schedule:

1 <sup>st</sup> Semester, Fall			
CIS 110	Introduction to Computers	2-2-0-3	
HIT 110	Intro to Healthcare & HIM	3-0-0-3	
HIT 114	Health Data Sys/Standards	2-3-0-3	
2 <sup>nd</sup> Semest	er, Spring		
HIT 215	Revenue Cycle Management	1-3-0-2	
HIT 220	Electronic Health Records	1-2-0-2	
HIT 221	Lifecycle of EHR	2-2-0-3	

Total Semester Hours Credit Required for Graduation: 16

## Health Information Technology Credential: Certificate in Health Information Technology, Patient Access Specialist C45360PA

Program Length: 2 semesters

Career Pathway Options: Associate in Applied Science Degree in Health Information Technology, Diploma, Certificate(s) Program Site: Harnett Health Sciences (Online)

**Hogram Site.** Harnett Health Sciences (On

#### **Suggested Course Schedule:**

#### 1<sup>st</sup> Semester, Fall

MED 121	Medical Terminology I	3-0-0-3
HIT 110	Intro to Healthcare & HIM	3-0-0-3
HIT 215	Revenue Cycle Management	1-3-0-2

#### 2<sup>nd</sup> Semester, Spring

MED 122	Medical Terminology II	3-0-0-3
HIT 112	Health Law and Ethics	3-0-0-3
HIT 221	Lifecycle of EHR	2-2-0-3

Total Semester Hours Credit Required for Graduation: 17

## Health Information Technology Credential: Diploma in Advanced Medical Coding–D45530

The Advanced Medical Coding curriculum provides the didactic and clinical experience necessary to become competent credentialed coders.

Coursework includes reimbursement, advanced International Classification of Diseases-10thRevision-Clinical Modification/Procedure Coding System (ICD-10-CM/PCS), Current Procedural Terminology (CPT), and Healthcare Common Procedure Coding System (HCPCS).

Graduates may be eligible to take either of the Certified Coding Specialist exams: The Certified Coding Specialist and/or the Certified Coding Specialist-Physician Based (CCS/CCS-P).

#### A. PROGRAM SPECIFIC ENTRANCE STANDARDS:

#### **Admissions Process**

A student may apply to the Advanced Medical Coding Program once minimum admissions criteria are met.

Prospective applicants are highly encouraged to complete the Health Sciences information session as well as contact the Admissions Office prior to developing a plan for completing the minimum requirements. The Education Navigator will review each applicant's progress, and provide further guidance.

Once an applicant has completed all general admissions criteria and all Advanced Medical Coding Program entrance 92

requirements, they should meet with an Educational Navigator to review their standing. If all criteria have been met a change of program form will be completed and the student will be enrolled.

#### **Placement Test Scores**

Students must be eligible to take their gateway English course in order to be eligible to apply. This can be achieved through a High School Unweighted GPA of 2.8 or higher or by presenting acceptable test scores such as SAT, ACT, Accuplacer, RISE Assessment scores, or other acceptable scores (within the past 10 years).

#### GPA

Students must be in good academic standing upon applying to health science programs. Good academic standing is defined as having a 2.0 GPA in the most recent semester attempted as well as maintaining a 2.0 cumulative GPA. These GPA requirements must be maintained at the time of entering the program from a secondary or post-secondary institution.

#### The Test of English as a Foreign Language (TOEFL)

TOEFL scores are required for any naturalized or non-US citizens where English is their second language to provide evidence of adequate proficiency in the English language. All test scores must be less than five years old. The minimum acceptable TOEFL scores are based upon format: paper/pencil -500, computer based -213, and internet based -80. This test is offered at multiple testing sites nationally and is at the student's expense.

#### **B. REQUIREMENTS AFTER ACCEPTANCE:**

#### **Criminal Background Check/Drug Screening**

A criminal background check and drug screening will be required for all accepted Health Sciences students. Clinical affiliates will review criminal background reports and drug screenings of students and reserve the right to accept or deny any students based on their consideration of these reports. Negative reports and/or failed screenings can preclude a student from attending the clinical portion of their prescribed program and thus, will result in the student's exit from the program. Students are subject to criminal background check and drug screening at any time during a clinical rotation. Clinical agencies reserve the right to require additional background checks and drug screens.

**Medical Forms/Immunizations** Applicants are required to submit a completed college approved student medical health form to the required document tracking system by the assigned date. The student medical form must include satisfactory health history, physical examination, and immunization report. Failure to submit the required information by the assigned date will result in loss of Advanced Medical Coding admission status.

#### Liability/Malpractice Insurance

Malpractice insurance is required for health sciences students and is assessed as a student fee.

#### Transportation/Additional Class/Course Materials

Health Sciences students are responsible for their own transportation to off-campus clinical/learning sites. Materials other than textbooks will be required and are purchased at student's expense.

**Technical Standards** Please refer to the Health Information Technology program physical requirements and technical standards.

Academic Standards Upon official acceptance, Health Sciences students are required to maintain the necessary GPA requirements for entry. Students cannot enter a Health Sciences program while on academic suspension. Health Sciences students must achieve a grade of "C" or higher in their Health Science courses. Students may withdraw or be withdrawn from a Health Sciences course. However, the student will not be allowed to matriculate through their program of study. Students completing readmission must meet with the Education Navigator to review their file.

**Program Specific Academic Standards:** See additional Program Specific Standards in the Advanced Medical Coding Program Guide and specific Advanced Medical Coding course syllabus.

Advanced Medical Coding students must maintain an overall and semester GPA 2.0 or better, and must earn a grade of "C" or better in all courses required by the Advanced Medical Coding curriculum in order to graduate. Advanced Medical Coding and progressive related courses must be taken in succession as they appear in the curriculum guide curriculum guide. Advanced Medical Coding students must adhere to the other policies set forth in the Advanced Medical Coding Program Guide.

## C. RE-ADMISSION OR TRANSFER INTO THE ADVANCED MEDICAL CODING PROGRAM:

The student must qualify under the admission criteria in effect at time of readmission or transfer. A student may be required to re-enter an Advanced Medical Coding course earlier in the curriculum sequence if the student is lacking major content as evaluated by the Program Director. All Advanced Medical Coding courses completed more than three years prior to re-admission or transfer must either be challenged by exam, including passing an assessment of all skills and/or competencies covered in that course, or the course must be repeated. Withdrawal or academic failure within the Advanced Medical Coding program will require the student to reapply as a new student. Advanced placement is dependent upon space availability.

The Health Information Technology/Advanced Medical Coding Program Director will evaluate transferability of all Advanced Medical Coding courses. Transfer courses must be equivalent to courses required at the receiving college in both theory and clinical experiences. The student must provide copies of course syllabi and outlines for those Advanced Medical Coding courses taken to the Program Director. Students lacking essential content may be required to audit a portion of a course, challenge the content, demonstrate skills or repeat the course as deemed necessary. The final decision for transfer credit for Advanced Medical Coding courses is determined by the Health Information Technology/Advanced Medical Coding Program Director.

Applicants must submit a letter explaining the circumstances of any previous exit from any health sciences program. The letter must be sent from the previous Program Director. CCCC's Health Information Technology/Advanced Medical Coding Program Director and Vice President of Student Services must approve students who were dismissed, expelled, or suspended for any reason. Students who withhold previous exit information may be dismissed from the program. A remediation plan may be required.

Program Length: 5 semesters, part-time Career Pathway Options: Associate in Applied Science Degree in Health Information Technology Program Site: Online, +required day hours during Professional Practice Course

#### Suggested Course Schedule: 1<sup>st</sup> Semester, Fall

BIO 163	Human Anatomy & Physiology	4-2-0-5
MED 121	Medical Terminology I	3-0-0-3
ENG 111	Writing & Inquiry	3-0-0-3

#### 2<sup>nd</sup> Semester, Spring

HIT 226	Pathophysiology & Pharmacology	2-3-0-3
AMC 200	Health Information for Coders	2-0-0-2
MED 122	Medical Terminology II	3-0-0-3

#### 3<sup>rd</sup> Semester, Summer

5 Semeste	, Summer	
AMC 201	Legal and Compliance	2-0-0-2
AMC 202 0	Coding for Reimbursement	2-0-0-2
Humanities,	/Fine Arts Elective	3-0-0-3
4 <sup>th</sup> Semeste	er, Fall	
AMC 203 1	Intermediate ICD Diagnoses	2-3-0-3
AMC 204	Intermediate ICD Procedures	2-3-0-3
AMC 205 1	Intermediate CPT Coding	2-3-0-3
5 <sup>th</sup> Semester, Spring		
AMC 206 0	Clinical Documentation	2-3-0-3
AMC 207	Advanced Medical Coding Lab I	0-6-0-2
	Professional Practice Exp	0-0-6-2

Total Semester Hours Credit required for graduation: 42

## **Medical Assisting**

## **Credential: Associate in Applied Science Degree** in Medical Assisting A45400

The Medical Assisting curriculum prepares multi-skilled health care professionals qualified to perform administrative, clinical, and laboratory procedures. Coursework includes instruction in scheduling appointments, coding and processing insurance accounts, billing, collections, computer operations; assisting with examinations/treatments, performing routine laboratory procedures, electrocardiography, supervised medication administration; and ethical/legal issues associated with patient care.

The Central Carolina Community College Medical Assisting Diploma Program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Medical Assisting Education Review Board (MAERB). Commission on Accreditation of Allied Health Education Programs 9355 -113th St. N, #7709, Seminole, FL 33775 (727) 210-2350 (<u>CAAHEP</u>). Graduates of CAAHEP accredited medical assisting programs may be eligible to sit for the American Association of Medical Assistants' Certification Examination to become Certified Medical Assistants. Employment opportunities include physicians' offices, health maintenance organizations, health departments, and hospitals.

#### A. PROGRAM SPECIFIC ENTRANCE STANDARDS:

#### **Admissions Process**

The student may apply to the Medical Assisting program once minimum admissions criteria are met. This includes the the following:

- Minimum 2.0 GPA
- All transcripts received high school and past colleges
- Eligible to take ENG and MAT without a co-requisite.

#### **Placement Test Scores**

Students must be eligible to take their gateway Math and English course in order to be eligible to apply. This can be achieved through a High School Unweighted GPA of 2.8 or higher or by presenting acceptable test scores such as SAT, ACT, Accuplacer, RISE Assessment scores, or other acceptable scores (within the past 10 years).

The Medical Assisting program indicates the minimum scores required to place into ENG 111 and MAT 110. Students who have an unweighted high school GPA of 2.8 or higher, have met Multiple Measures for Placement or who have earned appropriate transfer credit in English, Math, or developmental courses with a C, P2 for English, or P1 for Math, or higher may be exempt from placement testing.

#### GPA

Students must be in good academic standing upon applying to health science programs. Good academic standing is defined as having a 2.0 GPA in the most recent semester attempted as well as maintaining a 2.0 cumulative GPA.

#### The Test of English as a Foreign Language (TOEFL)

TOEFL scores are required for any naturalized or non-US citizens where English is their second language to provide evidence of adequate proficiency in the English language. All test scores must be less than five years old. The minimum acceptable TOEFL scores are based upon format: paper/pencil – 500, computer based – 213, and internet based – 80. This test is offered at multiple testing sites nationally and is at the student's expense.

#### **B. REQUIREMENTS AFTER ACCEPTANCE:**

#### **Criminal Background Check/Drug Screening**

A criminal background check and drug screening will be required for all accepted Health Sciences Clinical affiliates will review criminal background reports and drug screenings of students and reserve the right to accept or deny any students based on their consideration of these reports. Negative reports and/or failed screenings can preclude a student from attending the clinical portion of their prescribed program and thus, will result in the student's exit from the program. Students are subject to criminal background check and drug screening at any time during a clinical rotation. Clinical agencies reserve the right to require additional background checks and drug screens.

#### **Medical Forms/Immunizations**

Applicants are required to submit a completed college approved student medical health form to the required document tracking system by the assigned date. The student medical form must include satisfactory health history, physical examination, and immunization report. Failure to submit the required information by the assigned date will result in loss of Medical Assisting admission status and class space will be assigned to another applicant.

#### **BLS Provider CPR**

CPR Certification by the American Heart Association (AHA) in BLS Provider (Basic Life Support including CPR and AED) that includes both performance and testing of criteria is required prior to clinical rotations. Students are responsible for keeping their CPR certification current throughout the duration of the program.

#### **Mandatory Orientation Session**

Accepted students must attend a mandatory orientation session with the Medical Assisting Program.

#### Liability/Malpractice Insurance

Malpractice insurance is required for health sciences students and is assessed as a student fee.

#### Transportation/Additional Class/Course Materials

Health Sciences students are responsible for their own transportation to off-campus clinical/learning sites. Materials other than textbooks will be required and are purchased at student's expense.

#### **Technical Standards**

The Health Sciences programs are physically demanding. Students will be expected to perform lifting, pushing, pulling, and carrying tasks to successfully practice in a lab setting, complete clinical affiliations, and safely treat patients. For more details, please refer to each program of study's physical requirements and technical standards.

#### **Academic Standards**

Upon official acceptance, Health Sciences students are required to maintain the necessary GPA requirements for entry. Students cannot enter a Health Sciences program while on academic suspension. Health Sciences students must achieve a grade of "C" or higher in their Health Science courses. Students may withdraw or be withdrawn from a Health Sciences course. However, the student will not be allowed to matriculate through their program of study. Reapplication to the program will be required and readmission will be awarded based on admissions criteria completion, policy on readmission, and space availability. Students completing readmission must meet with the Education Navigator counselor to review their file.

#### **Program Specific Academic Standards:**

See additional Program Specific Standards in the Medical Assisting Student Handbook and specific Medical Assisting course syllabus.

Medical Assisting and progressive related courses must be taken in succession as they appear in the curriculum guide. Medical Assisting students must adhere to the other policies set forth in the Medical Assisting Student Handbook.

#### C. RE-ADMISSION OR TRANSFER INTO THE **MEDICAL ASSISTING PROGRAM:**

The student must qualify under the admission criteria in effect at time of readmission or transfer. A student may be required to re-enter a Medical Assisting course earlier in the curriculum sequence if the student is lacking major content as evaluated by the Program Director. All Medical Assisting courses completed more than three years prior to re-admission or transfer must either be challenged by exam, including passing an assessment of all skills and/or competencies covered in that course, or the course must be repeated. Withdrawal or academic failure within the Medical Assisting program will require the student to reapply as a new student. Advanced placement is dependent upon space availability.

The Medical Assisting Program Director will evaluate transferability of all Medical Assisting courses. Transfer courses must be equivalent to courses required at the receiving college in both theory and clinical experiences. The student

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must provide copies of course syllabi and outlines for those Medical Assisting courses taken to the Program Director. Students lacking essential content may be required to audit a portion of a course, challenge the content, demonstrate skills or repeat the course as deemed necessary. The final decision for transfer credit for Medical Assisting courses is determined by the Medical Assisting Program Director.

Applicants must submit a letter explaining the circumstances of any previous exit from any health sciences program. The letter must be sent from the previous Program Director. CCCC's Medical Assisting Program Director and Vice President of Student Services must approve students who were dismissed, expelled, or suspended for any reason. Students who withhold previous exit information may be dismissed from the program. A remediation plan may be required.

#### Program Length: 5 semesters

Career Pathway Options: Associate in Applied Science in Medical Assisting; Diploma in Medical Assisting Program Sites: Chatham Campus - Day Program, 1st year Harnett Campus - Day Program, 1st year Lee Campus - Online/Evening, 2nd year

## **Suggested Course Schedule:**

#### 1<sup>st</sup> Semester, Fall ACA 122 College Transfer Success 0 - 2 - 1BIO 163 4-2-5 Basic Anatomy and Physiology **MED 110** Orientation to Medical Assisting 1 - 0 - 1**MED 121** Medical Terminology I 3-0-3 **MED 130** Administrative Office Procedures I 1-2-2 MED 140 Exam Room Procedures I 3-4-5 2<sup>nd</sup> Semester, Spring ENG 111 Writing & Inquiry 3-0-3 **MED 118** Medical Law & Ethics 2-0-2 3-0-3 MED 122 Medical Terminology II **MED 150** Laboratory Procedures I 3-4-5 **MED 240** Exam Room Procedures II 3-4-5 3<sup>rd</sup> Semester, Summer **PSY 150** General Psychology 3-0-3 **MED 260** Clinical Externship 0-15-5 MED 264 Medical Assisting Overview 2 - 0 - 24th Semester, Fall MAT 110 Mathematical Measurements 2 - 2 - 31-2-2 **MED 131** Administrative Office Procedures II **MED 270** Symptomatology 2-2-3 MED 276 Patient Education 1-2-2 Communications, select one: 3-0-3 ENG 112 Writing/Research in the Disc ENG 114 Prof Research & Reporting 202

ENU 114	rioi Research & Reporting	3-0-3
ENG 115	Oral Communication	3-0-3
ENG 116	Technical Report Writing	3-0-3
COM 110	Introduction to Communication	3-0-3
COM 120	Intro Interpersonal Com	3-0-3

COM 231	Public Speaking	3-0-3
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#### 5<sup>th</sup> Semester, Spring

Humanities/Fine Arts Elective		3-0-3
MED 230	Administrative Office Procedures II	1-2-2
MED 232	Medical Insurance Coding	1-3-2
MED 272	Drug Therapy	3-0-3
MED 274	Diet Therapy/Nutrition	3-0-3

Total Semester Hours Credit Required for Graduation: 71

## Medical Assisting Credential: Diploma in Medical Assisting D45400

The Medical Assisting curriculum prepares multi-skilled health care professionals qualified to perform administrative, clinical, and laboratory procedures. Coursework includes instruction in scheduling appointments, coding and processing insurance accounts, billing, collections, computer operations; assisting with examinations/treatments, performing routine laboratory procedures, electrocardiography, supervised medication administration; and ethical/legal issues associated with patient care.

The Central Carolina Community College Medical Assisting Diploma Programs are accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Medical Assisting Education Review Board (MAERB). Commission on Accreditation of Allied Health Education Programs 9355 -113th St. N, #7709, Seminole, FL 33775 (727) 210-2350 (CAAHEP).. Graduates of CAAHEP accredited medical assisting programs may be eligible to sit for the American Association of Medical Assistants' Certification Examination to become Certified Medical Assistants. Employment opportunities include physicians' offices, health maintenance organizations, health departments, and hospitals.

#### A. PROGRAM SPECIFIC ENTRANCE STANDARDS:

#### **Admissions Process**

The student may apply to the Medical Assisting program once minimum admissions criteria are met. This includes the the following:

- Minimum 2.0 GPA
- All transcripts received high school and past colleges
- Eligible to take ENG and MAT without a co-requisite.

#### **Placement Test Scores**

Students must be eligible to take their gateway Math and English course in order to be eligible to apply. This can be achieved through a High School Unweighted GPA of 2.8 or higher or by presenting acceptable test scores such as SAT, ACT, Accuplacer, RISE Assessment scores, or other acceptable scores (within the past 10 years). The Medical Assisting program indicates the minimum scores required to place into ENG 111 and MAT 110. Students who have an unweighted high school GPA of 2.8 or higher, have met Multiple Measures for Placement or who have earned appropriate transfer credit in English, Math, or developmental courses with a C, P2 for English, or P1 for Math, or higher may be exempt from placement testing.

#### GPA

Students must be in good academic standing upon applying to health science programs. Good academic standing is defined as having a 2.0 GPA in the most recent semester attempted as well as maintaining a 2.0 cumulative GPA.

#### The Test of English as a Foreign Language (TOEFL)

TOEFL scores are required for any naturalized or non-US citizens where English is their second language to provide evidence of adequate proficiency in the English language. All test scores must be less than five years old. The minimum acceptable TOEFL scores are based upon format: paper/pencil – 500, computer based – 213, and internet based – 80. This test is offered at multiple testing sites nationally and is at the student's expense.

#### **B. REQUIREMENTS AFTER ACCEPTANCE:**

## Criminal Background Check/Drug Screening

A criminal background check and drug screening will be required for all accepted Health Sciences students Clinical affiliates will review criminal background reports and drug screenings of students and reserve the right to accept or deny any students based on their consideration of these reports. Negative reports and/or failed screenings can preclude a student from attending the clinical portion of their prescribed program and thus, will result in the student's exit from the program. Students are subject to criminal background check and drug screening at any time during a clinical rotation. Clinical agencies reserve the right to require additional background checks and drug screens.

#### **Medical Forms/Immunizations**

Applicants are required to submit a completed college approved student medical health form to the required document tracking system by the assigned date. The student medical form must include satisfactory health history, physical examination, and immunization report. Failure to submit the required information by the assigned date will result in loss of Medical Assisting admission status and class space will be assigned to another applicant.

#### **BLS Provider CPR**

CPR Certification by the American Heart Association (AHA) in BLS Provider (Basic Life Support including CPR and AED) that includes both performance and testing of criteria is required prior to clinical rotations. Students are responsible for keeping their CPR certification current throughout the duration of the program.

#### **Mandatory Orientation Session**

Accepted students must attend a mandatory orientation session with the Medical Assisting Program.

#### Liability/Malpractice Insurance

Malpractice insurance is required for health sciences students and is assessed as a student fee.

#### Transportation/Additional Class/Course Materials

Health Sciences students are responsible for their own transportation to off-campus clinical/learning sites. Materials other than textbooks will be required and are purchased at student's expense.

#### **Technical Standards**

The Health Sciences programs are physically demanding. Students will be expected to perform lifting, pushing, pulling, and carrying tasks to successfully practice in a lab setting, complete clinical affiliations, and safely treat patients. For more details, please refer to each program of study's physical requirements and technical standards.

#### Academic Standards

Upon official acceptance, Health Sciences students are required to maintain the necessary GPA requirements for entry. Students cannot enter a Health Sciences program while on academic suspension. Health Sciences students must achieve a grade of "C" or higher in their Health Science courses. Students may withdraw or be withdrawn from a Health Sciences course. However, the student will not be allowed to matriculate through their program of study. Reapplication to the program will be required and readmission will be awarded based on admissions criteria completion, policy on readmission, and space availability. Students completing readmission must meet with the Education Navigator to review their file.

#### **Program Specific Academic Standards:**

See additional Program Specific Standards in the Medical Assisting Student Handbook and specific Medical Assisting course syllabus.

Medical Assisting and progressive related courses must be taken in succession as they appear in the curriculum guide. Medical Assisting students must adhere to the other policies set forth in the Medical Assisting Student Handbook.

#### <u>C. RE-ADMISSION OR TRANSFER INTO THE</u> <u>MEDICAL ASSISTING PROGRAM:</u>

The student must qualify under the admission criteria in effect at time of readmission or transfer. A student may be required to re-enter a Medical Assisting course earlier in the curriculum sequence if the student is lacking major content as evaluated by the Program Director. All Medical Assisting courses completed more than three years prior to re-admission or transfer must either be challenged by exam, including passing an assessment of all skills and/or competencies covered in that course, or the course must be repeated. Withdrawal or academic failure within the Medical Assisting program will require the student to reapply as a new student. Advanced placement is dependent upon space availability.

The Medical Assisting Program Director will evaluate transferability of all Medical Assisting courses. Transfer courses must be equivalent to courses required at the receiving college in both theory and clinical experiences. The student must provide copies of course syllabi and outlines for those Medical Assisting courses taken to the Program Director. Students lacking essential content may be required to audit a portion of a course, challenge the content, demonstrate skills or repeat the course as deemed necessary. The final decision for transfer credit for Medical Assisting courses is determined by the Medical Assisting Program Director. Applicants must submit a letter explaining the circumstances of any previous exit from any health science program. The letter must be sent from the previous Program Director. CCCC's Medical Assisting Program Director and Vice President of Student Services must approve students who were dismissed, expelled, or suspended for any reason. Students who withhold previous exit information may be dismissed from the program. A remediation plan may be required.

#### Program Length: 3 semesters

Career Pathway Options: Diploma in Medical Assisting; Associate in Applied Science in Medical Assisting Program Sites: Chatham Campus - Day Program Harnett Campus - Day Program

## Suggested Course Schedule:

## 1<sup>st</sup> Semester, Fall

1 Semeste	1, 1'all	
ACA 122	College Transfer Success	0-2-1
BIO 163	Basic Anatomy and Physiology	4-2-5
MED 110	Orientation to Medical Assisting	1-0-1
MED 121	Medical Terminology I	3-0-3
MED 130	Administrative Office Procedures I	1-2-2
MED 140	Exam Room Procedures I	3-4-5
2 <sup>nd</sup> Semeste	er, Spring	
ENG 111	Writing & Inquiry	3-0-3
MED 118	Medical Law & Ethics	2-0-2
MED 122	Medical Terminology II	3-0-3
MED 150	Laboratory Procedures I	3-4-5
MED 240	Exam Room Procedures II	3-4-5
3 <sup>rd</sup> Semeste	er, Summer	
PSY 150	General Psychology	3-0-3
MED 260	Clinical Externship	0-15-5
MED 264	Medical Assisting Overview	2-0-2

Total Semester Hours Credit Required for Graduation: 44/45

## **Medical Sonography**

## **Credential: Associate in Applied Science in Medical Sonography A45440**

The Medical Sonography curriculum provides knowledge and clinical skills in the application of high frequency sound waves to image internal body structures.

Course work includes physics, cross-sectional anatomy, abdominal, introductory vascular, and obstetrical/ gynecological sonography. Competencies are attained in identification of normal anatomy and pathological processes, use of equipment, fetal growth and development, integration of related imaging, and patient interaction skills.

Graduates of accredited programs may be eligible to take examinations in ultrasound physics and instrumentation and specialty examinations administered by the American Registry of Diagnostic Medical Sonographers and find employment in clinics, physicians' offices, mobile services, hospitals, and educational institutions.

#### Limited Enrollment Curriculum:

The Medical Sonography program is a limited enrollment curriculum and program applicants are accepted based upon a selective admissions process. Admission criteria for the Medical Sonography program are reviewed annually and are subject to change.

## A. PROGRAM SPECIFIC ENTRANCE STANDARDS:

#### Admission

The student may apply to the Medical Sonography program once minimum admissions criteria are met.

Prospective applicants are highly encouraged to complete the Health Sciences information session, which provides extra points towards acceptance. Applicants must contact the Office of Admission to develop a plan for completing minimum requirements and additional points options. The Education Navigator will review each applicant's progress, provide further guidance, and allow access to the Health Science Program application once all minimum admission requirements are met.

Once an applicant has completed all general admissions criteria and all Medical Sonography entrance requirements, they must submit a completed Health Sciences Application. Applicants who have completed the Health Sciences Application by the deadline will be ranked by tallied points and admitted in order of ranking.

During the initial consideration, applicants will have an opportunity to indicate first and second choice programs when completing the Health Sciences Application. If seats do not fill after the initial consideration and after second choice candidates are considered, applicants will be admitted on a first qualified, first accepted basis.

Applicants who do not gain entry but want to gain entry in a future year, must reapply each year.

It is the applicants' responsibility to ensure that requirements are met by the established deadline.

More information can be found on the Competitive Admissions Website.

#### **Placement Test Scores**

Students must be eligible to take their gateway Math and English course in order to be eligible to apply. This can be achieved through a High School Unweighted GPA of 2.8 or higher or by presenting acceptable test scores such as SAT, ACT, Accuplacer, RISE Assessment scores, or other acceptable scores (within the past 10 years).

The rating sheet for the Medical Sonography program indicates the minimum scores required to place into ENG 111 and MAT 110. Students who have an unweighted high school GPA of 2.8 or higher, have met Multiple Measures for Placement or who have earned appropriate transfer credit in English, Math, or developmental courses with a C, P2 for English, or P1 for Math, or higher may be exempt from placement testing.

### GPA

Students must be in good academic standing upon applying to health science programs. Good academic standing is defined as having a 2.0 GPA in the most recent semester attempted as well as maintaining a 2.0 cumulative GPA. These GPA requirements must be maintained at the time of entering the program from a secondary or post-secondary institution. Additional points are awarded towards an applicant's point total based on cumulative GPA from the past five years.

#### TEAS (Test of Essential Academic Skills)

All required college placement tests or developmental courses must be successfully completed before the applicant may attempt the Test of Essential Academic Skills (TEAS). Students must obtain approval from a Health Science Education Navigator to take the TEAS and pay the required testing fee.

The TEAS will be administered on scheduled testing dates. Each applicant may take the exam three times within three years. Only the two most recent attempts will be used towards the selective admissions process. Students can complete remediation between attempts. Remediation options are as follows: developmental courses, college credit courses, and/or continuing education courses or other strategies related to the subject areas. TEAS scores are valid for three years and must be current when submitting a Sonography Program application. There is no minimum score required, but the total score from the Reading section will be used toward an applicant's point total, which affects the individual's ranking during a consideration.

The Test of English as a Foreign Language (TOEFL) TOEFL scores are required for any naturalized or non-US citizens where English is their second language to provide evidence of adequate proficiency in the English language. All test scores must be less than five years old. The minimum acceptable TOEFL scores are based upon format: paper/pencil -500, computer based -213, and internet based -80. This test is offered at multiple testing sites nationally and is at the student's expense.

Program Entrance - Additional Optional Points Students are strongly encouraged to consider the following options to better prepare for the sonography program and gain points towards the competitive admissions process:

- Complete SON 3100 Intro to Medical Sonography course through CCCC's continuing education department (offered spring and fall) OR
- Complete a c45840 I program and be listed as a CNA I on the NC Registry, *OR*
- Have a minimum of one year working full-time in a radiology related field,
   OR
- Have a diploma or degree in an allied health/nursing profession

#### **B. REQUIREMENTS AFTER ACCEPTANCE:**

#### **Criminal Background Check/Drug Screening**

A criminal background check and drug screening will be required for all accepted Health Sciences students. Clinical affiliates will review criminal background reports and drug screenings of students and reserve the right to accept or deny any students based on their consideration of these reports. Negative reports and/or failed screenings can preclude a student from attending the clinical portion of their prescribed program and thus, will result in the student's exit from the program. Students are subject to criminal background check and drug screening at any time during a course with a clinical rotation. Clinical agencies reserve the right to require additional background checks and drug screens. Associated fees are the student's responsibility.

#### **Medical Forms/Immunizations**

Applicants are required to submit a completed college approved student medical health form to the required document tracking system by the assigned date. The student medical form must include satisfactory health history, physical examination, and immunization report. Failure to submit the required information by the assigned date will result in loss of Medical Sonography admission status and class space will be assigned to another applicant.

#### **BLS Provider CPR**

CPR Certification by the American Heart Association (AHA) in BLS Provider (Basic Life Support including CPR and AED) that includes both performance and testing of criteria is required prior to clinical rotations. Students are responsible for keeping their CPR certification current throughout the duration of the program.

#### **Mandatory Orientation Session**

When notified of acceptance, applicants must attend a mandatory orientation session with the sonography department.

#### Liability/Malpractice Insurance

Malpractice insurance is required for health sciences students and is assessed as a student fee.

#### Transportation/Additional Class/Course Materials

Health Sciences students are responsible for their own transportation to off-campus clinical/learning sites. Materials other than textbooks will be required and are purchased at student's expense. Students may be required to attend classes on alternate dates depending on availability of resources to meet the objectives of the course. Students will be notified in advance at the earliest possible time.

#### **Technical Standards**

The Health Sciences programs are physically demanding. Students will be expected to perform lifting, pushing, pulling, and carrying tasks to successfully practice in a lab and clinical setting. For more details, please refer to each program of study's physical requirements and technical standards.

#### Academic Standards

Upon official acceptance, Health Sciences students are required to maintain the necessary GPA requirements for entry. Students cannot enter a Health Sciences program while on academic suspension. Health Sciences students must achieve a grade of "C" or higher in all Health Science courses.

Students may withdraw or be withdrawn from a Health Sciences course. However, the student will not be allowed to matriculate through their program of study. Reapplication to the program will be required and readmission will be awarded based on admissions criteria completion, policy on readmission, and space availability. Students completing readmission must meet with the Education Navigator to review their file.

#### **Program Specific Academic Standards**

See additional program specific standards in the Medical Sonography Program Manual and specific Medical Sonography course syllabus.

Medical Sonography and progressive related courses must be taken in succession as they appear in the curriculum guide. Medical Sonography students must adhere to the other policies set forth in the Medical Sonography Program Manual.

#### C. RE-ADMISSION, TRANSFER, OR ADVANCED STANDING INTO THE MEDICAL SONOGRAPHY PROGRAM

The student must qualify under the admission criteria in effect at time of readmission or transfer. A student may be required to re-enter a Medical Sonography course earlier in the curriculum sequence if the student is lacking major content. All Medical Sonography courses completed more than three years prior to re-admission or transfer must either be challenged by exam, including passing an assessment of all skills and/or competencies covered in that course, or the course must be repeated. Withdrawal or academic failure within the Medical Sonography Program will require the student to reapply. Advanced placement is dependent upon space availability. The Sonography Program Director will evaluate transferability of all Medical Sonography courses. Transfer courses must be equivalent to courses required at the receiving college in both class, lab, and clinical experiences. The student must provide copies of course syllabi and outlines for those Medical Sonography courses to the program director. Students lacking essential content may be required to audit a portion of a course, challenge the content, demonstrate skills, or repeat the course as deemed necessary. The final decision for transfer credit for Medical Sonography courses is determined by the Sonography Program Director.

Applicants must submit a letter explaining the circumstances of any previous exit from any health science program. The letter must be sent from the previous Program Director. CCCC's Sonography Program Director and Vice President of Student Services must approve students who were dismissed, expelled, or suspended for any reason. Students who withhold previous exit information may be dismissed from the program. A remediation plan may be required.

#### Program Length: 5 semesters

Career Pathway Options: Associate in Applied Science Degree Program Site: Lee Main Campus–Day

#### Suggested Course Schedule:

1 <sup>st</sup> Semester, Fall			
ACA 122	College Transfer Success	0-2-0-1	
Social/Beha	avioral Science Elective	3-0-0-3	
SON 110	Introduction to Sonography	1-3-3-3	
SON 111	Sonogram Physics	3-3-0-4	
SON 130	Abdominal Sonography I	2-3-0-3	
2 <sup>nd</sup> Semeste	er, Spring		
BIO 163	Basic Anatomy & Physiology	4-2-0-5	
SON 120	SON Clinical Education I	0-0-15-5	
SON 131	Abdominal Sonography II	1-3-0-2	
SON 140	Gynecologic Sonography	2-0-0-2	
SON 241	Obstetrical Sonography I	2-0-0-2	
3 <sup>rd</sup> Semester, Summer			
SON 121	SON Clinical Education II	0-0-15-5	
PHY 110	Conceptual Physics	3-0-0-3	
100			

PHY 110A	Conceptual Physics Laboratory	0-2-0-1
4 <sup>th</sup> Semester	r, Fall	
Communica	tions Elective	3-0-0-3
ENG 111	Writing & Inquiry	3-0-3
SON 220	SON Clinical Education III	0-0-24-8
SON 242	Obstetrical Sonography II	2-0-0-2
SON 250	Vascular Sonography	1-3-0-2
5 <sup>th</sup> Semester	r, Spring	
Mathematic	s Elective	2/3-2-0-3/4
PHI 240	Introduction to Ethics	3-0-3
SON 221	SON Clinical Education IV	0-0-24-8
SON 225	Case Studies	0-3-0-1
SON 289	Sonographic Topics	2-0-0-2
Social/Beha	vioral Science, select one:	
PSY 150	General Psychology	3-0-0-3
SOC 210	Introduction to Sociology	3-0-0-3
Communica	tions, select one:	
ENG 112	Writing/Research in the Disc	3-0-3
ENG 114	Prof Research & Reporting	3-0-3
ENG 115	Oral Communication	3-0-3
ENG 116	Technical Report Writing	3-0-3
COM 110	Introduction to Communication	3-0-3
COM 120	Intro Interpersonal Communication	3-0-3
COM 231	Public Speaking	3-0-3
Mathematic	s, select one	
MAT 143	Quantitative Literacy	2-2-0-3
MAT 152	Statistical Methods I	3-2-0-4
MAT 171	Precalculus Algebra	3-2-0-4

Total Semester Hours Credit Required for Graduation: 74

## **Associate Degree Nursing**

## Credential: Associate in Applied Science in Associate Degree Nursing A45110

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.

#### Limited Enrollment Curriculum:

The Associate Degree Nursing program is a limited enrollment curriculum and program applicants are accepted based upon a competitive admissions process. Admission criteria for the Associate Degree Nursing program are reviewed annually and are subject to change. Enrollment is limited to the number of approved spaces allocated by the North Carolina Board of Nursing.

## A. PROGRAM SPECIFIC ENTRANCE STANDARDS:

#### Admission

A student can apply to the Associate Degree Nursing program once minimum admissions criteria have been met.

Prospective applicants are required to complete the Health Sciences information session as well as contact the Office of Student Onboarding & Success prior to developing a plan for completing minimum requirements and additional points options. The Education Navigator will review each applicant's progress, provide further guidance, and allow access to the Health Science Program application once all minimum admission requirements are met.

Once an applicant has completed all general admissions criteria and all Associate Degree Nursing entrance requirements, they must submit a completed Health Sciences Application. Applicants who have completed the Health Sciences Application by the deadline will be ranked by tallied points and admitted in order of ranking.

During the initial consideration, applicants will have an opportunity to indicate first and second choice programs when completing the Health Sciences Application. If seats do not fill after the initial consideration and after second choice candidates are considered, applicants will be admitted on a first qualified, first accepted basis.

Applicants who do not gain entry but want to gain entry in a future year must reapply each year.

Applicants must submit a letter or the "Statement of Good Standing Form" explaining the circumstances of any previous exit from any health science program. The letter must be sent from the Program Director in place at the time of the students' previous enrollment. CCCC's Nursing Department Chair and Vice President of Student Services must approve students who were dismissed, expelled, or suspended for any reason. Students who withhold previous exit information may be dismissed from the program.

It is the applicants' responsibility to ensure that requirements are met by the established deadline.

More information can be found on the Competitive Admissions Website.

#### Placement Test Scores

Students must be eligible to take their gateway math and English course in order to be eligible to apply. This can be achieved through a High School Unweighted GPA of 2.8 or higher or by presenting acceptable test scores such as SAT, ACT, Accuplacer, RISE Assessment scores, or other acceptable scores (within the past 10 years).

The rating sheet for the Associate Degree Nursing program indicates the minimum scores required to place into ENG 111 and MAT 110. Students who have an unweighted high school GPA of 2.8 or higher, have met Multiple Measures for Placement or who have earned appropriate transfer credit in English, math, or developmental courses with a C, P2 for English, or P1 for math, or higher may be exempt from placement testing.

## GPA

Students must be in good academic standing upon applying to health science programs. Good academic standing is defined as having a 2.0 GPA in the most recent semester attempted as well as maintaining a 2.0 cumulative GPA. These GPA requirements must be maintained at the time of entering the program from a secondary or post-secondary institution. Additional points are awarded towards an applicant's point total based on cumulative GPA from the past five years.

#### TEAS (Test of Essential Academic Skills)

All required college placement tests or developmental courses must be successfully completed before the applicant may attempt the Test of Essential Academic Skills (TEAS). Students must obtain approval from a Health Science Education Navigator to take the TEAS and pay the required testing fee.

The TEAS will be administered on scheduled testing dates. Each applicant may take the exam three times within three years. Only the two most recent attempts will be used towards the selective admissions process. Students are encouraged to complete remediation between attempts. Remediation options are as follows: developmental courses, college credit courses, and/or continuing education courses or other strategies related to the subject areas. TEAS scores are valid for three years and must be current when submitting a Nursing Program application. Students must earn an overall composite score of 65 or better, and a reading score of 70 or better to apply for the Associate Degree Nursing program.

#### The Test of English as a Foreign Language (TOEFL)

TOEFL scores are required for any naturalized or non-US citizens where English is their second language to provide evidence of adequate proficiency in the English language. All test scores must be less than five years old. The minimum acceptable TOEFL scores are based upon format: paper/pencil – 500, computer based – 213, and internet based – 80. This test is offered at multiple testing sites nationally and is at the student's expense.

#### Nurse Aide I Registry Requirement

Prior Health Care Program completion with appropriate listing/licensure is required for consideration at the designated entry points in the nursing programs:

- Provide proof of current active listing on the North Carolina Department of Health and Human Services (NC DHHS) Nurse Aide I Registry with no substantiated finding of abuse, neglect, or misappropriation of resident property in a nursing home or other health care facility. This active, non-restricted listing must be maintained as of the start of the Associate degree Nursing Program. Candidates will need to renew their certification if it is scheduled to expire before the start of the nursing program.
- Provide proof of completion of NC state approved Nurse Aide I course (see approved schools at <u>NCDHHS</u>). The Department Chair of Nursing will review NAI programs completed outside of NC. NC DHHS-approved NAI courses are preferred, however the CCCC Nursing Department Chair will determine, on a case-by-case basis, if a course administered by another state or agency meets the requirement. *OR*

High School Medical Careers I & II courses with a grade of "C" or better within the last 5 years. *OR* 

Nurse Aide I work experience of at least 250 hours with the last 6 months in skilled nursing care or in an acute care hospital. (Required to have documentation of hours worked, service rendered and supervisor's name on company letterhead.)

#### **B. REQUIREMENTS AFTER ACCEPTANCE:**

#### Criminal Background Check/Drug Screening

A criminal background check and drug screening will be required for all accepted Health Sciences students. Clinical affiliates will review criminal background reports and drug screenings of students and reserve the right to accept or deny any students based on their consideration of these reports. Negative reports and/or failed screenings can preclude a student from attending the clinical portion of their prescribed program and thus, will result in the student's exit from the program. Students are subject to criminal background check and drug screening at any time during a course with a clinical rotation. Clinical agencies reserve the right to require additional background checks and drug screens. Associated fees are the student's responsibility.

#### **Medical Forms/Immunizations**

Applicants are required to submit a completed college approved student medical health form to the required document tracking system by the assigned date. The student medical form must include satisfactory health history, physical examination, and immunization report. Failure to submit the required information by the assigned date will result in loss of Associate Degree Nursing admission status and class space will be assigned to another applicant.

#### **BLS Provider CPR**

CPR Certification by the American Heart Association (AHA) in BLS Provider (Basic Life Support including CPR and AED) that includes both performance and testing of criteria is required prior to clinical rotations. Students are responsible for keeping their CPR certification current throughout the duration of the program.

#### **Mandatory Orientation Session**

When notified of acceptance, applicants must attend a mandatory orientation session with the Nursing department.

#### Liability/Malpractice Insurance

Malpractice insurance is required for health sciences students and is assessed as a student fee.

#### Transportation/Additional Class/Course Materials

Health Sciences students are responsible for their own transportation to off-campus clinical/learning sites. Materials other than textbooks will be required and are purchased at student's expense. Students may be required to attend classes on alternate dates depending on availability of resources to meet the objectives of the course. Students will be notified in advance at the earliest possible time.

#### **Technical Standards**

The Health Sciences programs are physically demanding. Students will be expected to perform lifting, pushing, pulling, and carrying tasks to successfully practice in a lab setting, complete clinical affiliations, and safely treat patients. For more details, please refer to each program of study's physical requirements and technical standards.

#### **Board of Nursing Standards**

Students who enroll in the nursing program should be aware that the application for licensure at the completion of the program might be denied or restricted by the North Carolina Board of Nursing. As the regulatory agency, the Board of Nursing does not become involved in reviewing the applicant's conviction record until such time as application is made to take the national licensure examination. <u>NC Board of</u> <u>Nursing</u>

#### Academic Standards

Upon official acceptance, Health Sciences students are required to maintain the necessary GPA requirements for entry. Students cannot enter a Health Sciences program while on academic suspension. The nursing program requires a grade scale that is different from the general college requirement. Students must achieve a final grade of "78" or higher in every NUR course in order to remain in the Associate Degree Nursing program, and they must maintain an overall and semester grade point average of 2.0 or better. Refer to individual course syllabus for specific grading policy. Students are encouraged to earn higher grades to help ensure that they are prepared to pass the National Council Licensure Examination (NCLEX), which is required to practice as a nurse. Students may withdraw or be withdrawn from a Health Sciences course. However, the student will not be allowed to matriculate through their program of study. Reapplication to the program will be required and readmission will be awarded based on admissions criteria completion, policy on readmission, and space availability. Students completing readmission must meet with the Education Navigator to review their file.

#### **Program Specific Academic Standards**

See additional Program Specific Standards in the Nursing Student Policies Handbook and specific Associate Degree Nursing course syllabus.

Associate Degree Nursing and progressive related courses must be taken in succession as they appear in the curriculum guide. Associate Degree Nursing students must adhere to the other policies set forth in the Nursing Student Policies Handbook.

#### C. RE-ADMISSION, TRANSFER, OR ADVANCED STANDING INTO THE ASSOCIATE DEGREE NURSING PROGRAM

Students applying for readmission are those who have been separated from the nursing program one year or less. The student must qualify under the admission criteria in effect at time of readmission or transfer. A student may be required to re-enter an Associate Degree Nursing course earlier in the curriculum sequence if the student lacks sufficient content mastery. All Associate Degree Nursing courses completed more than three years prior to readmission or transfer must be challenged by exam, including passing an assessment of all skills and/or competencies covered in that course, or the course must be repeated. Withdrawal or academic failure within the Associate Degree Nursing Program will require the student to reapply. Advanced placement is not guaranteed and dependent upon space availability. The Nursing Department Chair will evaluate transferability of all Associate Degree Nursing courses. Transfer courses must be equivalent to courses required at the receiving college in theory, lab, and clinical experiences. The student must provide copies of course syllabi and outlines for those Associate Degree Nursing courses to the department chairperson/program director. Students lacking essential content may be required to audit a portion of a course, challenge the content, demonstrate skills, or repeat the course as deemed necessary. The final decision for transfer credit for Associate Degree Nursing courses is determined by the Nursing Department Chair.

Applicants must submit a letter explaining the circumstances of any previous exit from any health science program. The letter must be sent from the previous Program Director. CCCC's Nursing Department Chair and Vice President of Student Services must approve students who were dismissed, expelled, or suspended for any reason. Students who withhold previous exit information may be dismissed from the program. Students who have been unsuccessful in two attempts in the nursing program are able to reapply for entry in the first NUR program course.

All admission requirements must be completed a minimum of 8 weeks prior to course start.

Additional Admission Requirements for Advanced Standing LPN to-ADN Bridge Program

- 1. Admission is based upon all required and optional selective admission criteria previously addressed.
- 2. Admission is dependent on space availability at the specific point of entry determined for admission.
- 3. Applicants must show evidence of graduation from a state-approved school of practical nursing.
- 4. Provide a copy of current LPN License.
- 5. Provide a letter from DON or other appropriate supervisor of work experience, specifically documenting direct patient care. This must be on company letterhead or through official work email.
- 6. All applicants must complete the advanced standing placement assessment with a 90% or greater. The assessments can only be used for the current consideration period. The student will incur any testing expense and may take the test only three times in a three-year period. The applicant will be referred for remediation based upon a low assessment score and/or sub scores.
- 7. Applicants must present letters on official letterhead from an administrative supervisor of the health care agency where the applicant is/has been most recently employed and/or the nursing chairperson of the practical nursing program attended.
- 8. The applicant:

a) Must have been employed as an LPN with documentation of at least one-year full-time clinical experience with direct patient care in a health care agency within the last two years, or

b) Must provide documentation of direct patient care in a practical nursing program for at least six months of the twelve months immediately prior to admission, or

c) Must provide documentation of at least one year combined full-time clinical experience with direct patient care employed in a health care agency and a practical nursing program within the last two years, and

d) Must provide documentation that the applicant's employment/clinical practice has met minimal competence levels for that of a licensed practical nurse or nursing student.

e) The Nursing Department Chair will determine where applicants who do not meet the above work experience criteria are placed.

9. Applicants must have successfully completed all general education courses required in the first year of the Associate Degree Nursing Program with a grade of "C" or better.

- 10. Students may request a course exemption of ACA 122 College Transfer Success (1 semester hour) unless identified as required pre-entry remediation.
- 11. 11. If an advanced placement LPN does not meet the above admission criteria and/or validation testing, they may apply for regular admission as a first-year new entry student in the Associate Degree Nursing Program.

**Program Length:** Associate in Applied Science – 5 semesters **Career Pathway Options:** Associate in Applied Science Degree in Associate Degree Nursing, RN to BSN Articulation **Program Sites:** Lee Main Campus -Day

\*LPN to ADN Bridge Program requires NUR 114 as a summer semester course. Upon successful completion of NUR 114 the student will merge into the existing cohort in the fall.

## Suggested Course Schedule:

	1 <sup>st</sup> Semester, Fall			
ACA 122	College Transfer Success	0-2-0-1		
BIO 168	Anatomy & Physiology I	3-3-0-4		
ENG 111	Writing & Inquiry	3-0-0-3		
NUR 111	Intro to Health Concepts	4-6-6-8		
PSY 150	General Psychology	3-0-0-3		
2 <sup>nd</sup> Semeste	er, Spring			
BIO 169	Anatomy & Physiology II	3-3-0-4		
NUR 112	Health Illness Concepts	3-0-6-5		
NUR 113	Family Health Concepts	3-0-6-5		
PSY 241	Developmental Psychology	3-0-0-3		
3 <sup>rd</sup> Semeste	r, Summer			
	Holistic Health Concepts	3-0-6-5		
4 <sup>th</sup> Semeste	r, Fall			
NUR 211	Health Care Concepts	3-0-6-5		
NUR 212	Health System Concepts	3-0-6-5		
SOC 210	Introduction to Sociology	3-0-0-3		
English, sel	ect one:			
ENG 112	Writing/Research in the Disciplines	3-0-0-3		
ENG 114	Professional Research & Reporting	3-0-0-3		
5 <sup>th</sup> Semester, Spring				
NUR 213	Complex Health Concepts	4-3-15-10		
Humanities/Fine Arts Elective 3-0-0-3 Select one:				
ART 111, ART 114, ART 115, HUM 115, MUS 110, MUS 112, PHI 240				

Total Semester Hours Credit Required for Graduation: 70

## **Practical Nursing**

# **Credential: Diploma in Practical Nursing D45660**

The Practical Nursing curriculum provides knowledge and skills to integrate safety and quality into nursing care to meet the needs of the holistic individual which impact health, quality of life, and achievement of potential. Course work includes and builds upon the domains of the individual, nursing, and healthcare. Content emphasizes safe, individualized nursing care and participation in the interdisciplinary team while employing evidence-based practice, quality improvement, and informatics.

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/home health facilities, clinics, and physicians' offices.

#### Limited Enrollment Curriculum:

The Practical Nursing program is a limited enrollment curriculum and program applicants are accepted based upon a competitive admissions process. Admission criteria for the Practical Nursing program are reviewed annually and are subject to change. Enrollment is limited to the number of approved spaces allocated by the North Carolina Board of Nursing.

#### A. PROGRAM SPECIFIC ENTRANCE STANDARDS:

#### Admission

The student may apply to the Practical Nursing program once minimum admissions criteria are met.

Prospective applicants are highly encouraged to complete the Health Sciences information session as well as contact the Office of Admission prior to developing a plan for completing minimum requirements and additional points options. The Education Navigator will review each applicant's progress, provide further guidance, and allow access to the Health Science Program application once all minimum admission requirements are met.

Once an applicant has completed all general admissions criteria and all Practical Nursing entrance requirements, they must submit a completed Health Sciences Application. Applicants who have completed the Health Sciences Application by the deadline will be ranked by tallied points and admitted in order of ranking.

During the initial consideration, applicants will have an opportunity to indicate first and second choice programs when completing the Health Sciences Application. If seats do not fill after the initial consideration and after second choice candidates are considered, applicants will be admitted on a first qualified, first accepted basis. Applicants who do not gain entry but want to gain entry in a future year, must reapply each year.

It is the applicants' responsibility to ensure that requirements are met by the established deadline.

More information can be found on the Competitive Admissions Website.

#### **Placement Test Scores**

Students must be eligible to take their gateway Math and English course in order to be eligible to apply. This can be achieved through a High School Unweighted GPA of 2.8 or higher or by presenting acceptable test scores such as SAT, ACT, Accuplacer, RISE Assessment scores, or other acceptable scores (within the past 10 years).

The rating sheet for the Practical Nursing program indicates the minimum scores required to place into ENG 111 and MAT 110. Students who have an unweighted high school GPA of 2.8 or higher, have met Multiple Measures for Placement or who have earned appropriate transfer credit in English, Math, or developmental courses with a C, P2 for English, or P1 for Math, or higher may be exempt from placement testing.

## GPA

Students must be in good academic standing upon applying to health science programs. Good academic standing is defined as having a 2.0 GPA in the most recent semester attempted as well as maintaining a 2.0 cumulative GPA. These GPA requirements must be maintained at the time of entering the program from a secondary or post-secondary institution. Additional points are awarded towards an applicant's point total based on cumulative GPA from the past five years.

#### TEAS (Test of Essential Academic Skills)

All required college placement tests or developmental courses must be successfully completed before the applicant may attempt the Test of Essential Academic Skills (TEAS). Students must obtain approval from a Health Science Education Navigator to take the TEAS prior to making payment of the required testing fee.

The TEAS is administered on scheduled testing dates. Each applicant may take the exam three times within a three-year period. The two most recent attempts are used toward the selective admissions process. Students are encouraged to complete remediation between attempts. Remediation options are as follows: developmental, curriculum-level, and/or continuing education courses or other strategies related to the subject areas. TEAS scores are valid for three years and must be current when submitting a Health Sciences Application. There is no minimum score required, but the total score from the Reading section will be used toward an applicant's point total, which affects the individual's ranking during a consideration.

## The Test of English as a Foreign Language (TOEFL)

TOEFL scores are required for any naturalized or non-US citizens where English is their second language to provide evidence of adequate proficiency in the English language. All test scores must be less than five years old. The minimum acceptable TOEFL scores are based upon format: paper/pencil – 500, computer based – 213, and internet based – 80. This test is offered at multiple testing sites nationally and is at the student's expense.

## Nurse Aide I Registry Requirement

Prior Health Care Program completion with appropriate listing/licensure is required for consideration at the designated entry points in the nursing programs:

- Provide proof of current active listing on the North Carolina Department of Health and Human Services (NC DHHS) Nurse Aide I Registry with no substantiated finding of abuse, neglect, or misappropriation of resident property in a nursing home or other health care facility. This active, non-restricted listing must be maintained as of the start of the Practical Nursing Program. Candidates will need to renew their certification if it is scheduled to expire before the start of the nursing program.
- Provide proof of completion of NC state approved Nurse Aide I course (see approved schools at <u>NCDHHS</u>). The Department Chair of Nursing will review NAI programs completed outside of NC. NC DHHS-approved NAI courses are preferred, however the CCCC Nursing Department Chair will determine, on a case-by-case basis, if a course administered by another state or agency meets the requirement.

#### OR

High School Medical Careers I & II courses with a grade of "C" or better within the last 5 years.

#### OR

Nurse Aide I work experience of at least 250 hours with the last 6 months in skilled nursing care or in an acute care hospital. (Required to have documentation of hours worked, service rendered and supervisor's name on company letterhead.)

#### **B. REQUIREMENTS AFTER ACCEPTANCE:**

#### **Criminal Background Check/Drug Screening**

A criminal background check and drug screening will be required for all accepted Health Sciences students. Clinical affiliates will review criminal background reports and drug screenings of students and reserve the right to accept or deny any students based on their consideration of these reports. Negative reports and/or failed screenings can preclude a student from attending the clinical portion of their prescribed program and thus, will result in the student's exit from the program. Students are subject to criminal background check and drug screening at any time during a course with a clinical rotation. Clinical agencies reserve the right to require additional background checks and drug screens. Associated fees are the student's responsibility.

#### **Medical Forms/Immunizations**

Applicants are required to submit a completed college approved student medical health form to the required document tracking system by the assigned date. The student medical form must include satisfactory health history, physical examination, and immunization report. Failure to submit the required information by the assigned date will result in loss of Practical Nursing admission status and class space will be assigned to another applicant.

#### **BLS Provider CPR**

CPR Certification by the American Heart Association (AHA) in BLS Provider (Basic Life Support including CPR and AED) that includes both performance and testing of criteria is required prior to clinical rotations. Students are responsible for keeping their CPR certification current throughout the duration of the program.

#### **Mandatory Orientation Session**

When notified of acceptance, applicants must attend a mandatory orientation session with the Practical Nursing department.

#### Liability/Malpractice Insurance

Malpractice insurance is required for health sciences students and is assessed as a student fee.

Transportation/Additional Class/Course Materials

Health Sciences students are responsible for their own transportation to off-campus clinical/learning sites. Materials other than textbooks will be required and are purchased at student's expense. Students may be required to attend classes on alternate dates depending on availability of resources to meet the objectives of the course. Students will be notified in advance at the earliest possible time.

#### **Technical Standards**

The Health Sciences programs are physically demanding. Students will be expected to perform lifting, pushing, pulling, and carrying tasks to successfully practice in a lab setting, complete clinical affiliations, and safely treat patients. For more details, please refer to each program of study's physical requirements and technical standards.

#### **Board of Nursing Standards**

Students who enroll in the nursing program should be aware that the application for licensure at the completion of the program might be denied or restricted by the North Carolina Board of Nursing. As the regulatory agency, the Board of Nursing does not become involved in reviewing the applicant's conviction record until such time as application is made to take the national licensure examination. <u>NC Board of</u> <u>Nursing</u>

#### Academic Standards

Upon official acceptance, Health Sciences students are required to maintain the necessary GPA requirements for entry. Students cannot enter a Health Sciences program while on academic suspension. The nursing program requires a grading scale that is different from the general college requirement. Students must achieve a final grade of "78" or higher in their NUR Nursing courses.

Students may withdraw or be withdrawn from a Health Sciences course. However, the student will not be allowed to matriculate through their program of study. Reapplication to the program will be required and readmission will be awarded based on admissions criteria completion, policy on readmission, and space availability. Students completing readmission must meet with the Education Navigator to review their file.

#### **Program Specific Academic Standards**

See additional Program Specific Standards in the Nursing Student Policies Handbook and specific Practical Nursing course syllabus.

Practical Nursing and progressive related courses must be taken in succession as they appear in the curriculum guide. guide. Practical Nursing students must adhere to the other policies set forth in the Nursing Student Policies Handbook.

Nursing curriculum students once enrolled must maintain an overall and semester grade point average of 2.0 or better, and must have a grade of "C" or better in all nursing courses and co-requisites required in order to graduate. Students are encouraged to earn higher grades to help ensure that they are prepared to pass the National Council Licensure Examination (NCLEX), which is required to practice as a nurse. See individual course syllabus for additional grading information.

#### <u>C. RE-ADMISSION OR TRANSFER INTO THE</u> <u>PRACTICAL NURSING PROGRAM</u>

The student must qualify under the admission criteria in effect at time of readmission or transfer. A student may be required to re-enter a Practical Nursing course earlier in the curriculum sequence if the student is lacking major content. All Practical Nursing courses completed more than three years prior to re-admission or transfer must either be challenged by exam, including passing an assessment of all skills and/or competencies covered in that course, or the course must be repeated. Withdrawal or academic failure within the Practical Nursing Program will require the student to reapply. Advanced placement is dependent upon space availability. The Nursing Department Chair will evaluate transferability of all Practical Nursing courses. Transfer courses must be equivalent to courses required at the receiving college in theory and clinical experiences. The student must provide copies of course syllabi and outlines for those Practical Nursing courses to the department chairperson. Students lacking essential content may be required to audit a portion of a course, challenge the content, demonstrate skills, or repeat the course as deemed necessary. The final decision for transfer credit for Practical Nursing courses is determined by the Nursing Department Chair

Applicants must submit a letter explaining the circumstances of any previous exit from any health sciences program. The

#### Program Length: 3 semesters

**Career Pathway Options:** Diploma in Practical Nursing **Program Site:** Harnett Health Sciences Center; Lillington, NC-Day

#### **Suggested Course Schedule:**

#### 1<sup>st</sup> Semester, Fall

ACA 122	College Transfer Success	0-2-0-1
BIO 168	Anatomy and Physiology I	3-3-0-4
NUR 101	Practical Nursing I	7-6-6-11
2 <sup>nd</sup> Semester, Spring		
BIO 169	Anatomy and Physiology II	3-3-0-4
ENG 111	Expository Writing	3-0-0-3
NUR 102	Practical Nursing	7-0-9-10
3 <sup>rd</sup> Semester, Summer		
NUR 103	Practical Nursing III	6-0-9-9
	-	

Total Semester Hours Credit Required for Graduation: 45

## **Veterinary Medical Technology**

### **Credential:** Associate in Applied Science Degree in Veterinary Medical Technology A45780

The Veterinary Medical Technology curriculum prepares individuals to assist veterinarians in preparing animals, equipment, and medications for examination and surgery; collecting specimens; performing laboratory, radiographic, anesthetic, and dental procedures; assisting in surgery; and providing proper husbandry of animals and their environment.

Course work includes instruction in veterinary anatomy, nutrition, parasitology, pathology, physiology, radiology, terminology, zoology, office practices, laboratory techniques, dentistry, and small and large animal clinical practices. Students also take courses in English, humanities, psychology, mathematics and chemistry.

Graduates who meet eligibility requirements will be eligible to take the Veterinary Technician National Exam (VTNE) administered by American Association of Veterinary State Boards (AAVSB). Upon passing the VTNE and meeting eligibility requirements, graduates may then be eligible to take the North Carolina Veterinary Technician Exam administered by the North Carolina Veterinary Medical Board. Graduates may be employed in veterinary clinics; diagnostic, research, or pharmaceutical laboratories; zoos; academic institutions; or other areas associated with animal care.

#### Limited Enrollment Curriculum:

The Veterinary Medical Technology program is a limited enrollment curriculum and program applicants are accepted based upon a selective admission process. Admission criteria for the Veterinary Medical Technology program are reviewed annually and are subject to change.

#### A. PROGRAM SPECIFIC ENTRANCE STANDARDS:

#### **Admissions Process:**

The student may apply to the Veterinary Medical Technology program once minimum admissions criteria are met.

Prospective applicants are highly encouraged to complete the Health Sciences information session as well as contact the Office of Admission prior to developing a plan for completing minimum requirements and additional points options. The Education Navigator will review each applicant's progress, provide further guidance, and allow access to the Health Science Program application once all minimum admission requirements are met.

Once an applicant has completed all general admissions criteria and all Veterinary Medical Technology entrance requirements, they must submit a completed Health Sciences Application. Applicants who have completed the Health Sciences Application by the deadline will be ranked by tallied points and admitted in order of ranking.

During the initial consideration, applicants will have an opportunity to indicate first and second choice programs when completing the Health Sciences Application. If seats do not fill after the initial consideration and after second choice candidates are considered, applicants will be admitted on a first qualified, first accepted basis.

Applicants who do not gain entry but want to gain entry in a future year, must reapply each year.

It is the applicants' responsibility to ensure that requirements are met by the established deadline.

## More information can be found on the Competitive Admissions Website.

#### **Placement Test Scores**

Students must be eligible to take their gateway math and English course in order to be eligible to apply. This can be achieved through a High School Unweighted GPA of 2.8 or higher or by presenting acceptable test scores such as SAT, ACT, Accuplacer, RISE Assessment scores, or other acceptable scores (within the past 10 years).

The rating sheet for the Veterinary Medical Technology program indicates the minimum scores required to place into ENG 111 and MAT 110. Students who have an unweighted

high school GPA of 2.8 or higher, have met Multiple Measures for Placement or who have earned appropriate transfer credit in English, math, or developmental courses with a C, P2 for English, or P1 for math, or higher may be exempt from placement testing.

## GPA

Students must be in good academic standing upon applying to health science programs. Good academic standing is defined as having a 2.0 GPA in the most recent semester attempted as well as maintaining a 2.0 cumulative GPA. These GPA requirements must be maintained at the time of entering the program from a secondary or post-secondary institution. Additional points are awarded towards an applicant's point total based on cumulative GPA from the past five years.

#### TEAS (Test of Essential Academic Skills)

All required college placement tests or developmental courses must be successfully completed before the applicant may attempt the Test of Essential Academic Skills (TEAS). Students must obtain approval from a Health Science Education Navigator to take the TEAS prior to making payment of the required testing fee.

The TEAS is administered on scheduled testing dates. Each applicant may take the exam three times within a three-year period. The two most recent attempts are used toward the selective admissions process. Students may complete remediation between attempts. Remediation options are as follows: developmental, curriculum-level, and/or continuing education courses or other strategies related to the subject areas. TEAS scores are valid for three years and must be current when submitting a Health Sciences Application. There is no minimum score required, but the total score from the Reading section will be used toward an applicant's point total, which affects the individual's ranking during a consideration.

The Test of English as a Foreign Language (TOEFL) TOEFL scores are required for any naturalized or non-US citizens where English is their second language to provide evidence of adequate proficiency in the English language. All test scores must be less than five years old. The minimum acceptable TOEFL scores are based upon format: paper/pencil -500, computer based -213, and internet based -80. This test is offered at multiple testing sites nationally and is at the student's expense.

#### **Observation Hours**

The completion of forty hours of observation/work/voluntary experience in the Veterinary Medical Technology field is highly recommended. Although not required, applicants who acquire observation hours will be awarded additional points during a consideration. The observation form is located on the <u>Competitive Admissions Website</u> or may be obtained from the Veterinary Medical Technology Programs Education Navigator.

## **B. REQUIREMENTS AFTER ACCEPTANCE:**

## Criminal Background Check/Drug Screening

A criminal background check and drug screening will be required for all accepted Health Sciences students. Clinical affiliates will review criminal background reports and drug screenings of students and reserve the right to accept or deny any students based on their consideration of these reports. Negative reports and/or failed screenings can preclude a student from attending the clinical portion of their prescribed program and thus, will result in the student's exit from the program. Students are subject to drug screening at any time during a clinical rotation. Clinical agencies reserve the right to require additional background checks and drug screens.

#### **Medical Forms/Immunizations**

Applicants are required to submit a completed college approved student medical health form to the required document tracking system by the assigned date. The student medical form must include satisfactory health history, physical examination, and immunization report. Failure to submit the required information by the assigned date will result in loss of Veterinary Medical Technology admission status and class space will be assigned to another applicant.

\*\*Rabies series recommended prior to the first Fall semester.

#### **Mandatory Orientation Session**

When notified of acceptance, applicants must attend a mandatory orientation session with the Veterinary Medical Technology department.

#### Liability/Malpractice Insurance

Malpractice insurance is required for health sciences students and is assessed as a student fee.

#### Transportation/Additional Class/Course Materials

Health Sciences students are responsible for their own transportation to off-campus clinical/learning sites. Materials other than textbooks will be required and are purchased at student's expense.

#### **Technical Standards**

The Health Sciences programs are physically demanding. Students will be expected to perform lifting, pushing, pulling, and carrying tasks to successfully practice in a lab setting, complete clinical affiliations, and safely treat patients. For more details, please refer to each program of study's physical requirements and technical standards.

#### Academic Standards

Upon official acceptance, Health Sciences students are required to maintain the necessary GPA requirements for entry. Students cannot enter a Health Sciences program while on academic suspension. Health Sciences students must achieve a grade of "C" or higher in their Health Science courses. Students may withdraw or be withdrawn from a Health Sciences course. However, the student will not be allowed to matriculate through their program of study. Reapplication to the program will be required and readmission will be awarded based on admissions criteria completion, policy on readmission, and space availability. Students completing readmission must meet with the Education Navigator to review their file.

Program Specific Academic Standards: See the Veterinary Medical Technology Student Handbook and specific Veterinary Medical Technology course syllabi.

Veterinary Medical Technology students must maintain an overall and semester GPA 2.0 or better, and must have a grade of "C" or better in all courses required by the Veterinary Medical Technology curriculum. Veterinary Medical Technology and progressive related courses must be taken in succession as they appear in the curriculum guide. Veterinary Medical Technology students must meet the standards related to demonstration of emotional and physical health within the framework of Veterinary Medical Technology practice and must adhere to the other policies set forth in the Veterinary Medical Technology Student Policies and Procedures Manual. Veterinary Medical Technology students must not be on probation or suspension status.

## <u>C. RE-ADMISSION OR TRANSFER INTO THE</u> VETERINARY MEDICAL TECHNOLOGY PROGRAM

The student must qualify under the admission criteria in effect at time of readmission or transfer. A student may be required to re-enter a Veterinary Medical Technology course earlier in the curriculum sequence if the student is lacking major content. All Veterinary Medical Technology courses completed more than three years prior to re-admission or transfer must either be challenged by exam, including passing an assessment of all skills and/or competencies covered in that course, or the course must be repeated. Withdrawal or academic failure within the Veterinary Medical Technology program will require the student to reapply. Advanced placement is dependent upon space availability.

The Veterinary Medical Technology Program Director will evaluate transferability of all Veterinary Medical Technology courses. Transfer courses must be equivalent to courses required at the receiving college in both theory and clinical experiences. The student must provide copies of course syllabi and outlines for those Veterinary Medical Technology courses taken to the Veterinary Medical Technology Program Director. Students lacking essential content may be required to audit a portion of a course, challenge the content, demonstrate skills, or repeat the course as deemed necessary. The final decision for transfer credit for Veterinary Medical Technology courses is determined by the Veterinary Medical Technology Program Director.

Applicants must submit a letter explaining the circumstances of any previous exit from any health science program. The letter must be sent from the Program Director at the former institution. CCCC's Veterinary Medical Technology Program Director and Vice-President of Student Services must approve students who were dismissed, expelled, or suspended for any reason. Students who withhold previous exit information may be dismissed from the program. A remediation plan may be required.

## Program Length: 5-6 semesters

Career Pathway Options: Associate in Applied Science in Veterinary Medical Technology Program Sites: Lee Campus - Day Program

## Suggested Course Schedule:

1 Semeste	r, ran	
ACA 122	College Transfer Success	0-2-1
MAT 110	Math Measurement & Literacy	2-2-3
VET 110	Animal Breeds & Husbandry	2-2-3
VET 114	Intro to Veterinary Med Tech	1-0-1
VET 120	Veterinary Anatomy & Physiology	3-3-4
VET 121	Veterinary Medical Terminology	3-0-3

## 2<sup>nd</sup> Semester, Spring

CHM 130	General, Organic & Biochemistry	3-0-3
CHM 130A	Gen, Organic & Biochemistry Lab	0-2-1
ENG 111	Writing & Inquiry	3-0-3
VET 123	Veterinary Parasitology	2-3-3
VET 125	Veterinary Diseases I	2-0-2
VET 137	Veterinary Office Practices	1-2-2
Humanities/	Fine Arts Elective (see HSAP)	3-0-3

## 3<sup>rd</sup> Semester, Summer

VET 131	Veterinary Lab Techniques I	2-3-3
VET 133	Veterinary Clinical Practices I	2-3-3
Social/Beha	avioral Science Elective (see HSAP)	3-0-3

## 4<sup>th</sup> Semester, Fall

VET 126	Veterinary Diseases II	1-3-2	
VET 211	Veterinary Lab Techniques II	2-3-3	
VET 213	Veterinary Clinical Practices II	1-9-4	
VET 215	Veterinary Pharmacology	3-0-3	
*WBL 1124	ABWork-based Learning I	0-10-1	
	-		
Communica	ations, select one:		
ENG 112	Writing/Research in the Disc	3-0-3	
ENG 114	Prof Research & Reporting	3-0-3	
COM 110	Introduction to Communication	3-0-3	
COM 120	Intro Interpersonal Communication	3-0-3	
COM 231	Public Speaking	3-0-3	
	· -		

## 5th Semester, Spring

VET 212	Veterinary Lab Techniques III	2-3-3
VET 214	Veterinary Clinical Practices III	1-9-4
VET 217	Large Animal Clinical Practices	2-3-3
<b>VET 237</b>	Animal Nutrition	3-0-3
*WBL 112	BB Work-based Learning II	0-10-1

\*The full WBL requirement may be completed during a sixth semester versus splitting it over the fourth and fifth semesters.

Total Semester Hours Credit Required for Graduation: 71

## General Occupational Technology (Pre-Health Sciences)

# Credential: Associate in Applied Science A55280

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

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

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

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

Program Length: 5 semesters

Career Pathway Options: Associate in Applied Science Degree Program Sites: Lee Main Campus; Harnett Main Campus; Chatham Main Campus; Distance Education **Course Requirements for General Occupational Technology Degree (Pre-Health Sciences)** 

## 1. General Education Requirements (minimum 15 SHC)

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

## 2. Major Requirements (minimum 49 SHC)

AAS programs must include courses which offer specific job knowledge and skills. Work experience, including cooperative education, practicums, and internships, may be included in associate of applied science degrees up to a maximum of 8 semester hours of credit.

## 3. Other Requirements (0-7 SHC)

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

Total Semester Hours Credit Required for Graduation: 64-76

# Career Communities and Programs



**Professional Services** 



# **Professional Services Career Community**

Barbering	113
Cosmetology	114
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Culinary Arts	115
Education	116
Esthetics	120
Esthetics Instructor	121
Human Services Technology	121
Manicuring/Nail Technology	123

## Barbering

## **Credential:** Associate in Applied Science in Barbering A55110

## The Barbering credential is designed to provide

competency-based knowledge, scientific/artistic principles and hands-on fundamentals associated with the barbering industry. The curriculum also provides a simulated environment that enables students to develop manipulative skills. Coursework includes instruction in all phases of professional barbering, hair design, chemical processes, skin care, nail care, multi--cultural practices, business/computer principles, product knowledge and other selected topics. Graduates should qualify to sit for the State Board of Examiners. Upon successfully passing the State Board exam, graduates will be issued a license. Employment is available in barbershops and related businesses.

## **Program Specific Entrance Standards:**

1. Must process student permit at least 10 days prior to being registered for classes.

Program Length: 5 semesters

Career Pathway Options: Associate in Applied Science in Barbering

Program Sites: Dunn Campus-Day Program

General Education courses may be taken on a main campus or through distance education

## Suggested Course Schedule:

1 <sup>st</sup> Semester	; Fall	
BAR 111	Barbering Concepts I	4-0-4
BAR 112	Barbering Clinical I	0-24-8
ACA 122	College Transfer Success	0-2-1
2 <sup>nd</sup> Semeste		
BAR 113	Barbering Concepts	4-0-4
BAR 114	Barbering Clinic II	0-24-8
BAR 121	Contemporary Hair Coloring	1-3-2
Social/Beha	vioral Science Elective	3-0-3
3 <sup>rd</sup> Semester		
BAR 115		4-0-4
BAR 116	Barbering Clinic III	0-12-4
4 <sup>th</sup> Semester	r, Fall	
BAR 117	Barbering Concepts IV	2-0-2
BAR 118	Barbering Clinic IV	0-21-7
BAR 119	Trichology & Chemistry	1-3-2
English requ	irement, select one:	
ENG 110	Freshman Composition	3-0-3
ENG 111	Writing & Inquiry	3-0-3
5 <sup>th</sup> Semester	r, Spring	
WBL 110		1-0-1
CIS 110	Introduction to Computers	2-2-3

COM 231

MAT 110	Math Measurement & Literacy	2-2-3
MAT 143	Quantitative Literacy	2-2-3
Humanities/	Fine Arts Elective	3-0-3
Communica	tion elective, select one:	
ENG 112	Writing/Research in the Disciplines	3-0-3
ENG 114	Professional Research and Reporting	3-0-3
COM 110	Introduction to Communication	3-0-3
COM 120	Intro to Interpersonal Communication	3-0-3

Total Semester Hours Credit required for graduation: 65

## Barbering Credential: Diploma in Barbering D55110

Public Speaking

Program Length: 4 semesters Career Pathway Options: Diploma in Barbering Program Sites: Dunn Campus–Day Program

## Suggested Course Schedule:

1 <sup>st</sup> Semester, Fall			
BAR 111	Barbering Concepts I	4-0-4	
BAR 112	Barbering Clinic I	0-24-8	
2 <sup>nd</sup> Semeste	r. Spring		
BAR 113	Barbering Concepts II	4-0-4	
BAR 114	Barbering Clinic II	0-24-8	
<b>2</b> 10 4			
3rd Semest	er, Summer		
BAR 115	Barbering Concepts III	4-0-4	
BAR 116	Barbering Clinic III	0-12-4	
4 <sup>th</sup> Semester	r Fall		
	·	2.0.2	
BAR 117	Barbering Concepts IV	2-0-2	
BAR 118	Barbering Clinic IV	0-21-7	
ENG 102	Applied Communication II	3-0-3	
MAT 110	Math Measurement & Literacy	2-2-3	

Total Semester Hours Credit required for graduation: 47

## **Barbering**

## **Credential: Certificate in Barbering C55110**

Program Length: 4 semesters Career Pathway Options: Certificate in Barbering Program Sites: Dunn Campus–Day Program

## **Suggested Course Schedule:**

### 1<sup>st</sup> Semester, Fall

BAR 111	Barbering Concepts I	4-0-4
BAR 112	Barbering Clinic I	0-24-8

3-0-3

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2 <sup>nd</sup> Semeste	er, Spring	
BAR 113	Barbering Concepts II	4-0-4
BAR 114	Barbering Clinic II	0-24-8
,		
3 <sup>ra</sup> Semeste	er, Summer	
BAR 115	Barbering Concepts III	4-0-4
BAR 116	Barbering Clinic III	0-12-4
4 <sup>th</sup> Semeste	er, Fall	
BAR 117	Barbering Concepts IV	2-0-2
BAR 118	Barbering Clinic IV	0-21-7

Total Semester Hours Credit required for graduation: 41

## Cosmetology

## Credential: Associate in Applied Science in Cosmetology A55140

The Cosmetology Curriculum is designed to provide competency-based knowledge, scientific/artistic principles and hands-on fundamentals associated with the cosmetology industry. The curriculum provides a simulated salon environment that enables students to develop manipulative skills. Coursework includes instruction in all phases of professional imaging, hair design, chemical processes, skin care, nail care, multi-cultural practices, business/computer principles, product knowledge and other selected topics.

Graduates should qualify to sit for the State Board of Cosmetic Arts examination. Upon successfully passing the State Board exam, graduates will be issued a license. Employment is available in beauty salons and related businesses.

Program Length: 5 semesters

Career Pathway Options: Associates in Applied Science in Cosmetology

Program Sites: Lee Main Campus-Day; Harnett Main Campus-Day

## Suggested Course Schedule:

1 <sup>st</sup> Semester, Fall			
COS 111	Cosmetology Concepts I	4-0-4	
COS 112	Salon I	0-24-8	
ACA 122	College Transfer Success	0-2-1	
Communica	tions elective, select one:		
COM 110	Introduction to Communication	3-0-3	
COM 120	Intro to Interpersonal Communication	3-0-3	
COM 231	Public Speaking	3-0-3	
ENG 112	Writing/Research in the Disciplines	3-0-3	
ENG 114	Prof Research & Reporting	3-0-3	
ENG-115	Oral Communications	3-0-3	
ENG 116	Technical Report Writing	3-0-3	
2 <sup>nd</sup> Semester, Spring			

	, <b>1</b> 0	
COS 113	Cosmetology Concepts II	4-0-4

COS 114 COS 223 Social/Beha		0-24-8 1-3-2 3-0-3		
3 <sup>rd</sup> Semeste	er. Summer			
COS 115		4-0-4		
COS 116		0-12-4		
4 <sup>th</sup> Semeste	4 <sup>th</sup> Semester, Fall			
COS 117	Cosmetology Concepts IV	2-0-2		
COS 118	Salon IV	0-21-7		
COS 224	Trichology & Chemistry	1-3-2		
MAT 110	Math Measurement & Literacy	2-2-3		
5 <sup>th</sup> Semester, Spring				
WBL 110	World of Work	1-0-1		
CIS 110	Introduction to Computers	2-2-3		
ENG 111	Writing and Inquiry	3-0-3		
Humanities/Fine Arts Elective		3-0-3		

Total Semester Hours Credit required for graduation: 65

## Cosmetology Credential: Diploma in Cosmetology D55140

Program Length: 4 semesters

Career Pathway Options: Diploma in Cosmetology

Program Sites: Lee Main Campus - Day; Harnett Main Campus - Day

### Suggested Course Schedule: 1<sup>st</sup> Semester Fall

1 <sup>st</sup> Semeste	r, Fall	
COS 111	Cosmetology Concepts I	4-0-4
COS 112	Salon I	0-24-8
2 <sup>nd</sup> Semeste	er, Spring	
COS 113	Cosmetology Concepts II	4-0-4
COS 114	Salon II	0-24-8
3 <sup>rd</sup> Semeste	er, Summer	
COS 115	Cosmetology Concepts III	4-0-4
COS 116	Salon III	0-12-4
4 <sup>th</sup> Semeste	r, Fall	
COS 117	Cosmetology Concepts IV	2-0-2
COS 118	Salon IV	0-21-7
Social/Beha	wioral Science Elective	3-0-3
Communica	ations, select one:	
COM 110	Introduction to Communication	3-0-3
COM 120	Intro to Interpersonal Communication	3-0-3
COM 231	Public Speaking	3-0-3
ENG-115	Oral Communications	3-0-3

Total Semester Hours Credit required for graduation: 47

## Cosmetology **Credential:** Certificate in Cosmetology C55140

Program Length: 3 semesters Career Pathway Options: Certificate in Cosmetology Program Sites: Lee Main Campus - Day; Harnett Main Campus - Day

Suggested Course Schedule: 1 <sup>st</sup> Semester, Fall			
COS 111	Cosmetology Concepts I	4-0-4	
COS 112	Salon I	0-24-8	
2 <sup>nd</sup> Semester, Spring			
COS 113	Cosmetology Concepts II	4-0-4	
COS 114	Salon II	0-24-8	
3 <sup>rd</sup> Semester, Summer			

#### COS 115 Cosmetology Concepts III 4-0-4 COS 116 Salon III 0-12-4

Total Semester Hours Credit required for graduation: 34

## **Cosmetology Instructor**

## **Credential: Certificate in Cosmetology Instructor** C55160

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. Coursework includes requirements for becoming an instructor, introduction to teaching theory, methods and aids, practice teaching, and development of evaluation instruments. Graduates of the program may be employed as cosmetology instructors in public or private education and business.

## **Program Specific Entrance Standards:**

- 1. Students are accepted into this program based on date of application.
- 2. Students must have a current North Carolina license in Cosmetology.

Program Length: 2 semesters

Career Pathway Options: Certificate in Cosmetology Instructor Program Sites: Lee Main Campus - Day; Harnett Main Campus - Day

## **Suggested Course Schedule:**

## 1<sup>st</sup> Semester, Fall

COS 271	Instructor Concepts I	5-0-5
COS 272	Instructor Practicum I	0-21-7

## 2<sup>nd</sup> Semester, Spring

COS 273	Instructor Concepts II	5-0-5
COS 274	Instructor Practicum II	0-21-7

Total Semester Hours Credit required for graduation: 24

## **Culinary Arts**

## **Credential:** Associate in Applied Science Degree **Culinary Arts** A55150

The Culinary Arts curriculum provides specific training required to prepare students to assume positions as trained culinary professionals in a variety of foodservice settings including full service restaurants, hotels, resorts, clubs, catering operations, contract foodservice and health care facilities.

Students will be provided theoretical knowledge/practical applications that provide critical competencies to meet industry demands, including environmental stewardship, operational efficiencies and professionalism. Courses include sanitation/safety, baking, garde manger, culinary fundamentals/production skills, nutrition, customer service, purchasing/cost control, and human resource management.

Graduates should qualify for entry-level opportunities including prep cook, line cook, and station chef. American Culinary Federation certification may be available to graduates. With experience, graduates may advance to positions including sous chef, pastry chef, executive chef, or foodservice manager.

Program Length: 4 semesters or a 2 semester Fast Track

Career Pathway Options: Associate in Applied Science Degree in Culinary Arts

Program Sites: Lee Main Campus; Chatham Main Campus; Dunn Center

### **Suggested Course Schedule:** 1<sup>st</sup> Semester, Fall

	.,	
ACA 122	College Transfer Success	0-2-1
CUL 110	Sanitation and Safety	2-0-2
CUL 140	Culinary Skill I	2-6-5
CUL 240	Culinary Skills II	1-8-5
NUT 110	Nutrition	3-0-3
2 <sup>nd</sup> Semester, Spring		
CUL 112	Nutrition for Food Service	3-0-3
CUL 112A	Nutrition for Fdsv Lab	0-3-1
CUL 120	Purchasing	2-0-2
CUL 170	Garde Manger I	1-4-3
ENG 111	Writing and Inquiry	3-0-3
Humanities/	Fine Arts Elective	3-0-3

## 3<sup>rd</sup> Semester, Fall

CIS 110	Intro to Computers	2-2-3
CUL 135	Food & Beverage Service	2-0-2

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CUL 160	Baking I	1-4-3		
ENG 114	Prof Research & Reporting	3-0-3		
MAT 110	Math Measurement & Literacy	2-2-3		
WBL 111	Work-based Learning I	0-10-1		
Social/Beha	vioral Science Elective	3-0-3		
4 <sup>th</sup> Semeste	4 <sup>th</sup> Semester, Spring			
CUL 165	Therapeutic Cuisine	1-4-3		
HRM 245	Human Resource Mgmt – Hosp	3-0-3		
WBL 121	Work-based Learning II	0-10-1		
	_			
Select one:				
CUL 275	Catering Cuisine	1-8-5		
CUL 283	Farm to Table	2-6-5		

 Major Electives, take 4 credits
 4

 Select from: ACC-115, BUS 110, BUS 137, BUS 280, CULT
 140A, CUL 240A, CUL 260, CUL 270, CUL 275, CUL 283

Total Semester Hours Credit Required for Graduation: 65

## Culinary Arts Credential: Culinary Fundamentals Certificate C55150CF

This Culinary Arts Curriculum Certificate provides direct hands-on training necessary to obtain an entry level culinary position. This certificate offers the necessary foundation in safe food handling and preparation. Students will operate a commercial kitchen that simulates a quick service restaurant as well as an introduction to catering and quantity foods. Upon completion graduates will have the skills necessary for an entry level management position in a commercial kitchen.

Program Length: 1 semester

Career Pathway Options: Associate in Applied Science Degree in Culinary Arts

Program Sites: Lee Main Campus; Chatham Main Campus; Dunn Center (2 semesters to complete)

### Suggested Course Schedule: 1st Semester, Fall

	- ,	
CUL 110	Sanitation and Safety	2-0-2
CUL 140	Culinary Skill 1	2-6-5
CUL 160	Baking I	1-4-3
CUL 240	Culinary Skills II	1-8-5
CUL 140A	Culinary Skills I Lab	0-3-1
CUL 240A	Culinary Skills II Lab	0-3-1

Total Semester Hours Credit Required for Graduation: 17

## Culinary Arts Credential: Farm to Table Entrepreneurship Certificate C55150FT

This Culinary Arts curriculum certificate provides specific

training required to prepare students to assume positions as trained culinary professionals in a farm to table restaurant, market, or venue.

Students will be provided theoretical knowledge/practical applications that provide critical competencies to meet industry demands, including environmental stewardship, operational efficiencies and professionalism.

Graduates should qualify for entry-level opportunities including prep cook, line cook, and station chef. Program Length: 2 semesters Career Pathway Options: Associate in Applied Science Degree in Culinary Arts Program Sites: Lee Main Campus; Chatham Main Campus; Dunn Center

## Suggested Course Schedule:

1<sup>st</sup> Semester, Fall

CUL 110	Sanitation and Safety	2-0-2	
CUL 140	Culinary Skill I	2-6-5	
2nd Semester, Spring			
BUS 280	REAL Small Business	4-0-4	
CUL 283	Farm to Table	2-6-5	
WBL 111	Work Based Learning I	0-10-1	

Total Semester Hours Credit Required for Graduation: 17

## Education

## **Credential:** Associate in Applied Science Degree in Early Childhood Education/Career Track A55220C

The Early Childhood Education curriculum prepares individuals to work with children from birth through eight in diverse learning environments. Students will combine learned theories with practice in actual settings with young children under the supervision of qualified teachers.

Course work includes child growth and development; physical/nutritional needs of children; care and guidance of children; and communication skills with families and children. Students will foster the cognitive/language, physical/motor, social/emotional, and creative development of young children.

Graduates are prepared to plan and implement developmentally appropriate programs in early childhood settings. Employment opportunities include child development and child care programs, preschools, public and private schools, recreational centers, Head Start Programs, and school-age programs.

Students who wish to teach K-12 as their career goal are advised to consult with their advisor and consider the <u>Associate</u> in <u>Arts-Teacher Preparation</u> program or the <u>Associate in</u> <u>Science-Teacher Preparation</u> program. Program Length: 5 semesters Career Pathway Options: Associate in Applied Science Degree in Early Childhood Education Program Sites: Lee Main Campus – Day with some evening classes available; Distance Education–some courses available

### **Suggested Course Schedule:**

	Course Schedule:	
1 <sup>st</sup> Semeste		
ACA 122	College Transfer Success	0-2-1
EDU 119	Intro to Early Child Education	4-0-4
EDU 131	Child, Family, and Community	3-0-3
EDU 144	Child Development I	3-0-3
ENG 111	Writing & Inquiry	3-0-3
2 <sup>nd</sup> Semeste	er. Spring	
EDU 145	Child Development II	3-0-3
EDU 146	Child Guidance	3-0-3
EDU 140	Creative Activities	3-0-3
EDU 151 EDU 153	Health, Safety & Nutrition	3-0-3
EDU 155	Health, Safety & Nutrition	3-0-3
	ations, select one:	
ENG 112	Writing/Research in the Disc	3-0-3
ENG 114	Prof Research & Reporting	3-0-3
ENG 115	Oral Communication	3-0-3
ENG 116	Technical Report Writing	3-0-3
COM 110	Introduction to Communication	3-0-3
COM 120	Intro to Interpersonal Communication	3-0-3
COM 231	Public Speaking	3-0-3
3 <sup>rd</sup> Semeste	r Summor	
	Children with Exceptionalities	3-0-3
	/Fine Arts Elective	3-0-3
<u>numannues</u> /	<u>r ne Arts Elective</u>	3-0-3
4 <sup>th</sup> Semeste		
	Infants, Toddlers, and Twos	3-0-3
EDU 252		3-0-3
EDU 271	Educational Technology	2-2-3
Social/Beha	wioral Science Elective	3-0-3
Mathematic	s, select one:	
MAT 110	Math Measurement & Literacy	2-2-3
MAT 143	Quantitative Literacy	2-2-3
PHY 121	Applied Physics I	3-2-4
1111 121	Applied Thysics I	5-2-4
5 <sup>th</sup> Semeste		
	Curriculum Planning	3-0-3
EDU 280	Literacy Experiences	3-0-3
EDU 284	Early Child Capstone Prac	1-9-4
Electives-ta	ike two:	
	EDU 163, EDU 175, EDU 177, EDU 179,	EDU 216.
	EDU 261, EDU 262, EDU 263, EDU 281	,
	, - ,,	

Total Semester Hours Credit Required for graduation: 65

## Education Credential: Associate in Applied Science Degree in Early Childhood Education/Non-Licensure Degree A55220NL

The Early Childhood Education curriculum prepares individuals to work with children from birth through eight in diverse learning environments. Students will combine learned theories with practice in actual settings with young children under the supervision of qualified teachers.

Course work includes child growth and development; physical/nutritional needs of children; care and guidance of children; and communication skills with families and children. Students will foster the cognitive/language, physical/motor, social/emotional, and creative development of young children.

Graduates of this program who are admitted to constituent institutions of The University of North Carolina System (the 16 public universities) will transfer with junior status to the college's Child Development program. This degree prepares students for a degree path without licensure.

Program Length: 5 semesters

Career Pathway Options: Associate in Applied Science Degree in Early Childhood Education Program Sites: Lee Main Campus – Day with some evening

courses available; Distance Education-some courses available

### Suggested Course Schedule: 1<sup>st</sup> Semester, Fall

1 <sup>a</sup> Semeste	er, Fall	
ACA 122	College Transfer Success	0-2-1
EDU 119	Intro to Early Child Edu	4-0-4
EDU 131	Child, Family, & Community	3-0-3
EDU 144	Child Development I	3-0-3
ENG 111	Writing & Inquiry	3-0-3
2 <sup>nd</sup> Semest	er. Spring	
COM 231	Public Speaking	3-0-3
EDU 145	Child Development II	3-0-3
EDU 146	Child Guidance	3-0-3
EDU 151	Creative Activities	3-0-3
EDU 153	Health, Safety and Nutrition	3-0-3
EDU 280	Literacy Experiences	3-0-3
3 <sup>rd</sup> Semest	er, Summer	
EDU 221	Children with Exceptionalities	3-0-3
Humanities	S/Fine Arts Elective	3-0-3
4 <sup>th</sup> Semeste	an Fall	
EDU 234	Infant, Toddlers, and Twos	3-0-3
PSY 150	General Psychology	3-0-3
MAT 143	Quantitative Literacy	2-2-3
WII 145	Quantitative Elicitacy	225
Natural sci	ence, select one:	
CHM 151	General Chemistry I	3-3-4
GEL 111	Geology	3-2-4
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PHY 110/110A Conceptual Physics/Lab		3-2-4
English, sel	ect one:	
ENG 112	Writing/Research in the Disc	3-0-3
ENG 114	Professional Research & Reporting	3-0-3
5 <sup>th</sup> Semeste	r, Spring	
EDU 284	Early Child Capstone Prac	1-9-4
EDU 261	Early Childhood Admin I	3-0-3
EDU 262	Early Childhood Admin II	3-0-3
Social Scier	nce	3-0-3
Select from: ECO 251, ECO 252, HIS 111, HIS 112, HIS 131,		
HIS 132, PC	DL 120, SOC 210	
Natural scie	ence, select one:	
BIO 110	Principles of Biology	3-3-4
BIO 111	General Biology I	3-3-4

Total Semester Hours Credit Required for Graduation: 71

## Education

## **Credential:** Associate in Applied Science Degree in Early Childhood Education-Licensure Degree A55220L

The Early Childhood Education curriculum prepares individuals to work with children from birth through eight in diverse learning environments. Students will combine learned theories with practice in actual settings with young children under the supervision of qualified teachers.

Course work includes child growth and development; physical/nutritional needs of children; care and guidance of children; and communication skills with families and children. Students will foster the cognitive/language, physical/motor, social/emotional, and creative development of young children. Graduates of this program who are admitted to constituent institutions of The University of North Carolina System (the 16 public universities) will transfer with junior status to the college's Early Childhood Education program. This degree prepares students for a degree path towards obtaining a Birth-Kindergarten teaching license.

Program Length: 5 semesters

Career Pathway Options: Associate in Applied Science Degree in Early Childhood Education Program Sites: Lee Main Campus – Day with some evening

courses available; Distance Education-some courses available

## Suggested Course Schedule:

## 1<sup>st</sup> Semester, Fall

ACA 122	College Transfer Success	0-2-1
EDU 119	Intro to Early Child Euc	4-0-4
EDU 131	Child, Family, and Community	3-0-3
EDU 144	Child Development I	3-0-3
ENG 111	Writing & Inquiry	3-0-3

2 <sup>nd</sup> Semest	er, Spring	
COM 231	Public Speaking	3-0-3
EDU 145	Child Development II	3-0-3
EDU 146	Child Guidance	3-0-3
EDU 151	Creative Activities	3-0-3
EDU 153	Health, Safety & Nutrition	3-0-3
EDU 280	Literacy Experiences	3-0-3
	er, Summer	
EDU 221	Children with Exceptionalities	3-0-3
Humanities	/Fine Arts Elective	3-0-3
4 <sup>th</sup> Semeste	er, Fall	
EDU 234	Infants, Toddlers, and Twos	3-0-3
PSY 150	General Psychology	3-0-3
MAT 143	Quantitative Literacy	2-2-3
Natural scie	ence, select one:	
CHM 151	General Chemistry I	3-3-4
GEL 111		3-2-4
PHY 110/1	10A Conceptual Physics/Lab	3-2-4
English, sel	ect one:	
ENG 112	Writing/Research in the Disc	3-0-3
ENG 114	Prof Research and Reporting	3-0-3
5 <sup>th</sup> Semeste		
EDU 284		1-9-4
EDU 216	Foundations of Education	3-0-3
EDU 250	Teacher Licensure Preparation	3-0-3
Social Scie	nce	3-0-3
	: ECO 251, ECO 252, HIS 111, HIS 112, HI	S 131,
HIS 132, P	OL 120, SOC 210	

Natural Scie	ence, select one:	
BIO 110	Principles of Biology	3-3-4
BIO 111	General Biology	3-3-4

Total Semester Hours Credit Required for Graduation: 71

## Education Credential: Early Childhood Diploma D55220

The Early Childhood Diploma prepares individuals to work as assistants in childcare centers, after-school programs and a variety of other learning environments. Students will combine learned theories with practice in actual settings with young children under the supervision of qualified teachers. Coursework includes childhood growth and development, care and guidance of children, communication skills with parents and children, and creative development activities for children. Credits earned may be transferred toward an Associate in Applied Science Degree in Early Childhood Associate provided the student meets the entrance requirements for the degree program. Program Length: 4 semesters Career Pathway Options: Associate in Applied Science Degree in Early Childhood Associate (Higher entrance standards required); Early Childhood Diploma Program Sites: Lee Main Campus – Day with some evening courses available; Distance Education-some courses available

## **Suggested Course Schedule:**

## 1<sup>st</sup> Semester, Fall

EDU 119	Intro to Early Child Educ	4-0-4
EDU 131	Child, Family, and Community	3-0-3
EDU 144	Child Development I	3-0-3
Social/Beha	avioral Science Elective	3-0-3

1 - 9 - 4

#### 2<sup>nd</sup> Semester, Spring ACA 122

2 Semest	ci, spring	
ACA 122	College Transfer Success	0-2-1
EDU 145	Child Development II	3-0-3
EDU 146	Child Guidance	3-0-3
EDU 151	Creative Activities	3-0-3
EDU 153	Health, Safety, and Nutrition	3-0-3
ENG 111	Writing and Inquiry	3-0-3
<b>3<sup>rd</sup> Semeste</b> EDU 221	e <b>r, Summer</b> Children with Exceptionalities	3-0-3
	Children with Exceptionalities	3-0-3
EDU 221	Children with Exceptionalities	3-0-3 3-0-3
EDU 221 4 <sup>th</sup> Semeste	Children with Exceptionalities	
EDU 221 4 <sup>th</sup> Semeste EDU 252	Children with Exceptionalities er, Fall Math & Sci Activities	3-0-3

Total Semester Hours Credit required for graduation: 45

Early Child Capstone Prac

## Education **Credential: Family Home & Early Childcare**

## Certificate C55220FH

EDU 284

This curriculum prepares individuals entering the field of early childhood education as well as those already employed in the

field who desire to improve their job knowledge and skills. Specific emphasis include an introduction to child development, creative and learning activities, safety, and family and community support. Credits earned in this program may be transferred toward an Associate in Applied Science Degree in Early Childhood Associate and/or an Early Childhood Diploma provided the student meets the entrance requirements for that degree or diploma program.

Program Length: 2 semesters

Career Pathway Options: Associate in Applied Science Degree in Early Childhood Education (Higher entrance standards required); Early Childhood Education Diploma (Higher entrance standards required); Family Home & Childcare Certificate

Program Sites: Lee Main Campus - Day with some evening courses available; Distance Education-some courses available

1 <sup>st</sup> Semester	; Fall	
EDU 144	Child Development I	3-0-3
Elective*		3-0-3
Elective		3-0-3
2 <sup>nd</sup> Semeste	r, Spring	
EDU 146	Child Guidance	3-0-3
EDU 153	Health, Safety and Nutrition	3-0-3
Elective*		3-0-3
*Electives, s	select from:	
EDU 119	Intro to Early Child Education	4-0-4
EDU 131	Child, Family, & Community	3-0-3
EDU 145	Child Development II	3-0-3
		3-0-3
EDU 151	Creative Activities	3-0-3
EDU 151 EDU 234	1	

Total Semester Hours Credit Required: 18

Literacy Experiences

EDU 280

Suggested Course Schedule:

## Education **Credential: Infant/Toddler Care Certificate** C55290

This 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 development: 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 and implementation of appropriate curriculum; and other related topics.

Graduates should be prepared to plan and implement developmentally appropriate infant/toddler programs in early childhood settings. Employment opportunities include child development and child care programs, preschools, public and private schools, recreational centers, Early Head Start Programs, and other infant/toddler programs.

Program Length: 2 semesters

Career Pathway Options: Associate in Applied Science Degree in Early Childhood Education (Higher entrance standards required); Early Childhood Education Diploma (Higher entrance standards required); Infant/Toddler Care Certificate Program Sites: Lee Main Campus - Day with some evening courses available; Distance Education-some courses available

## **Suggested Course Schedule:**

### 1<sup>st</sup> Semester, Fall

EDU 119 Intro to Early Child Education 4 - 0 - 4

3-0-3

EDU 131	Child, Family & Community	3-0-3
EDU 144	Child Development I	3-0-3
<b>2<sup>nd</sup> Semeste</b> EDU 153	r, Spring Health, Safety and Nutrition	3-0-3

3-0-3

Total Semester Hours Credit Required: 16

## Education

EDU 234

## Credential: Early Childhood Administration Certificate C55850

Infants, Toddlers, and Twos

This curriculum prepares individuals pursuing administrating roles in diverse child care settings to effectively work with children, families and teachers. The certificate is composed of learning opportunities in developmental theories, competency and evidence-based professional knowledge, administrative skills and leadership qualities.

Course work includes foundations in early childhood education, physical/nutritional needs of young children, safety issues in the care of young children; communication and leadership skills with teachers, families and children; programming and staffing, budgeting/financial management and marketing, and rules and regulations of early childhood programs.

Employment opportunities include entrepreneurship and/or management of child development and child care programs, preschools, public and private schools, recreational centers, Early Head Start and Head Start programs, and other programs.

Program Length: 2 semesters

Career Pathway Options: Associate in Applied Science Degree in Early Childhood Associate (Higher entrance standards required); Early Childhood Diploma (Higher entrance standards required); Early Childhood Administration Certificate Program Sites: Lee Main Campus – Day with some evening courses available; Distance Education–some courses available

## Suggested Course Schedule:

## 1<sup>st</sup> Semester, Fall

EDU 119	Intro to Early Child Education	4-0-4
EDU 131	Child, Family & Community	3-0-3
EDU 153	Health, Safety, and Nutrition	3-0-3

## 2<sup>nd</sup> Semester, Spring

EDU 261	Administration I	3-0-3
EDU 262	Administration II	3-0-3

Total Semester Hours Credit Required for Graduation: 16

## Education Credential: Early Childhood Preschool Certificate C55860

This curriculum prepares individuals to work with preschool aged children (3-5) in diverse learning environments. Students will combine learned theories, competency-based knowledge, and practice in actual settings with preschool children.

Course work includes child growth and development, physical/nutritional needs of preschool children, safety issues in the care of preschool children; care and guidance; communication skills with families and children; design and implementation of appropriate curriculum; and other related topics.

Graduates should be prepared to plan and implement developmentally appropriate preschool programs in early childhood settings. Employment opportunities include child development and child care programs, preschools, public and private schools, recreational centers, Head Start Programs, and other preschool programs.

### Program Length: 2 semesters

Career Pathway Options: Associate in Applied Science Degree in Early Childhood Education (Higher entrance standards required); Early Childhood Education Diploma (Higher entrance standards required); Preschool Certificate Program Sites: Lee Main Campus – Day with some evening courses available; Distance Education–some courses available

## Suggested Course Schedule:

1 <sup>at</sup> Semeste	er, Fall	
EDU 119	Intro to Early Child Education	4-0-4
EDU 131	Child, Family & Community	3-0-3
EDU 145	Child Development II	3-0-3
2 <sup>nd</sup> Semest	er, Spring	
EDU 153	Health, Safety and Nutrition	3-0-3
EDU 146	Child Guidance	3-0-3

Total Semester Hours Credit Required: 16

## **Esthetics**

## Credential: Certificate in Esthetics C55230

The Esthetics curriculum provides competency-based knowledge, scientific/artistic principles and hands-on fundamentals associated with the art of skin care. The curriculum provides a simulated salon environment that enables students to develop manipulative skills. Coursework includes instruction in all phases of professional esthetics technology, business/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/skin care salons, as a platform artist and related businesses.

## **Program Specific Entrance Standards:**

A student can apply to the Certificate of Esthetics program once eligibility requirements have been met. Prospective applicants are required to complete the information session as well as contract the Education Navigator prior to developing a plan for completing these requirements. Students also have the ability to gain additional points through the competitive process.

The Education Navigator will review each applicant's progress, provide further guidance, and allow access to the Certificate of Esthetics Program application once all minimum admission requirements are met. Once an applicant has completed all general admissions criteria and all entrance requirements, they must submit a completed Certificate in Esthetics Application. Applicants who have completed the Application by the deadline will be ranked by tallied points and submitted in order of ranking.

During the initial consideration, applicants will have an opportunity to indicate first and second format option on the Certificate in Esthetics Application. If seats do not fill after the initial consideration for a specific format and after second choice candidates are considered, applicants will be admitted on a first qualified, first accepted basis.

Applicants who do not gain entry but want to gain entry in a future year, must reapply each year.

It is the applicants' responsibility to ensure that requirements are met by the established deadline.

## More information can be found on the Competitive Admissions Website.

Program Length: 1 or 2 semesters Career Pathway Options: Certificate in Esthetics Program Sites: Lee Main Campus – Day and Evening

## Suggested Course Schedule:

1 <sup>st</sup> Semeste	er, Fall	
COS 119	Esthetics Concepts I	2-0-2
COS 120	Esthetics Salon I	0-18-6
2 <sup>nd</sup> Semest	er, Spring	
COS 125	Esthetics Concepts II	2-0-2
COS 126	Esthetics Salon II	0-18-6

Total Semester Hours Credit required for graduation: 16

## **Esthetics Instructor**

## **Credential: Certificate in Esthetics Instructor C55270**

The Esthetics Instructor curriculum provides a course of study for learning the skills needed to teach the theory and practice of esthetics as required by the North Carolina Board of Cosmetic Arts. Coursework 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.

## **Program Specific Entrance Standards:**

- 1. Students are accepted into this program based on date of application.
- 2. Students must have a current North Carolina license in Esthetics.

Program Length: 2 semesters

Career Pathway Options: Certificate in Esthetics Instructor Program Sites: Lee Main Campus - Day

## **Course Requirements for Esthetics Instructor Certificate**

## **Suggested Course Schedule:**

1 <sup>st</sup> Semester, Fall			
COS 253	Esthetics Instructor Concepts I	6-15-11	
2 <sup>nd</sup> Semeste COS 254	-	6-15-11	

Total Semester Hours Credit required for graduation: 22

## Human Services Technology

## Credential: Associate in Applied Science Degree in Human Services Technology A45380

The Human Services Technology curriculum prepares students for entry-level positions in institutions and agencies which provide social, community, and educational services. Along with core courses, students take courses which prepare them for specialization in specific human service areas.

Students take courses from a variety of disciplines. Emphasis in core courses is placed on development of relevant knowledge, skills, and attitudes in human services. Fieldwork experience provides opportunities for application of knowledge and skills learned in the classroom.

Graduates are qualified for positions in mental health, childcare, family services, social services, rehabilitation, correction, and educational agencies.

Program Length: 4 semesters

Career Pathway Options: Associate in Applied Science Degree in Human Services Technology; Program Sites:Lee Campus - Day Distance Education – Some courses may be available

## Suggested Course Schedule:

### 1<sup>st</sup> Semester, Fall

ACA 122	College Transfer Success	0-2-1
ENG 111	Writing & Inquiry	3-0-3
HSE 110	Introduction to Human Services	2-2-3
SAB 110	Substance Abuse Overview	3-0-3
PSY 150	General Psychology	3-0-3
SOC 210	Introduction to Sociology	3-0-3

### 2<sup>nd</sup> Semester, Spring

CIS 110	Introduction to Computers	2-2-3
HSE 123	Interviewing Techniques	2-2-3
PSY 241	Developmental Psychology	3-0-3
SOC 220	Social Problems	3-0-3
Humanities/Fine Arts Elective*		3-0-3
Natural Sci/Math Elective**		3-0-3

\* Humanities/Fine Arts Elective Options: PHI 240, HUM 115, HUM 120, HUM 150, ENG 231, ENG 232, ENG 241, ENG 242 (Previously completed Humanities/Fine Arts course may be substituted.)

\*\* Natural Sciences/Mathematics Elective Options: BIO 110, BIO 111, BIO 168, BIO 169, CHM 151, CHM 152, GEL 111, MAT 143, MAT 152, MAT 171, (Previously completed Natural Sciences/Mathematics course may be substituted.)

## 3<sup>rd</sup> Semester, Fall

HSE 225	Crisis Intervention	3-0-3
HSE 245	Stress Management	2-2-3
SOC 213	Sociology of the Family	3-0-3
Elective*		3-0-3
Elective*		3-0-3

\*Elective Options: POL 120 PSY 237, PSY 246, PSY 281, SOC 225

## 4th Semester, Spring

ENG 112	Writing/Research in the Disciplines	3-0-3
HSE 112	Group Process I	1-2-2
HSE 125	Counseling	2-2-3
HSE 210	Human Services Issues	2-0-2
SOC 232	Social Context of Aging	3-0-3
WBL 111	Work-based Learning I	0-10-1
WBL 115	Work Experience Seminar	1-0-1
Elective*		3-0-3

\*Elective Options: POL 120, PSY 237, PSY 246, PSY 281, SOC 225

Total Semester Hours Credit Required for Graduation: 67

## Human Services Technology Credential: Associate in Applied Science Degree in Human Services Technology, Addictions and Recovery Studies A4538E

The Human Services Technology/Addictions and Recovery Studies concentration prepares students to assist in drug and alcohol counseling, prevention-oriented educational activities, rehabilitation with recovering clients, managing community-based programs, counseling in residential facilities, and pursuit of four-year degrees.

Course work includes classroom and experiential activities oriented toward an overview of chemical dependency, psychological/sociological process, the twelve Core Functions, intervention techniques with individuals in groups, and follow-up activities with recovering clients.

Graduates should qualify for positions as addictions and recovery counselors, DUI counselors, halfway house workers, residential facility employees, and addictions and recovery education specialists. With educational and clinical experiences, graduates can obtain certification by the North Carolina Addictions and Recovery Board.

### Program Length: 5 semesters

Career Pathway Options: Associate in Applied Science Degree in Human Services Technology, Addictions and Recovery Studies Concentration Program Sites: Lee Campus - Day Distance Education – Some courses may be available

## **Suggested Course Schedule:**

1 <sup>st</sup> Semester	, Fall	
ACA 122	College Transfer Success	0-2-1
ENG 111	Writing and Inquiry	3-0-3
HSE 110	Introduction to Human Services	2-2-3
PSY 150	General Psychology	3-0-3
SAB 110	Addictions and Recovery Overview	3-0-3
SAB 135	Addictive Process	3-0-3
2 <sup>nd</sup> Semester	r, Spring	
HSE 123	Interviewing Techniques	2-2-3
HSE 112	Group Process I	1-2-2
HSE 125	Counseling	2-2-3
PSY 241	Developmental Psychology	3-0-3
SAB 120	Intake and Assessment	3-0-3
3 <sup>rd</sup> Semester	r, Summer	
PSY 281	Abnormal Psychology	3-0-3
SOC 210	Introduction to Sociology	3-0-3
4 <sup>th</sup> Semester	; Fall	
HSE 225	Crisis Intervention	3-0-3
SAB 210	Addiction and Recovery Counseling	2-2-3
SAB 125	SA Case Management	2-2-3
SAB 140	Pharmacology	3-0-3

SOC 213	Sociology of the Family	3-0-3
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5th	Semester,	Spring
	~	

ENG 112	Writing/Research in the Disciplines	3-0-3
HSE 210	Human Services Issues	2-0-2
SAB 240	SAB Issues in Client Services	3-0-3
WBL 111	Work-based Learning I	0-10-1
WBL 115	Work Experience Seminar	1-0-1
*Humanitie	es/Fine Arts Elective	3-0-3
**Natural S	Sci/Mathematics Elective	

\* Humanities/Fine Arts Elective Options: PHI 240, HUM 115, HUM 120, HUM 150, ENG 231, ENG 232, ENG 241, ENG 242 (Previously completed Humanities/Fine Arts course may be substituted.)

\*\* Natural Sciences/Mathematics Elective Options: BIO 110, BIO 111, BIO 168, BIO 169, CHM 151, CHM 152, GEL 111, MAT 143, MAT 152, MAT 171, (Previously completed Natural Sciences/Mathematics course may be substituted.)

Total Semester Hours Credit Required for Graduation: 67

## Human Services Technology Credential: Addiction and Recovery Studies Certificate C4538E

The Human Services Technology/Addiction and Recovery certificate prepares students to assist in drug and alcohol counseling, prevention-oriented educational activities, rehabilitation with recovering clients, managing community-based programs, and counseling in residential facilities. Coursework includes classroom and experiential activities oriented toward an overview of chemical dependency, psychological/sociological process, the twelve Core Functions, intervention techniques with individuals in groups, and follow-up activities with recovering clients. Certificate earners will earn the academic hours needed to further pursue their NC Addictions Board CADC.

The practice of a Certified Alcohol and Drug Counselor (CADC) consists of Twelve Core Functions, including screening, intake, orientation, assessment, treatment planning, counseling, case management, crisis intervention, client education, report, and record-keeping, consultation with other professionals in regard to client treatment and services, and referral to treat an addictive disorder or disease and help prevent relapse.

Who May Apply? The Certificate program is designed for those individuals already working in the Social Services field. Interested persons must contact the Director of the Human Services Technology department to request acceptance into this program and verify their work history. Career Pathway Options: Associate in Applied Science Degree in Human Services Technology, Addictions and Recovery Concentration, Certificate in Addiction and Recovery Studies Program Sites: Lee Main Campus; Distance Education

### **Suggested Course Schedule:**

er, Fall	
SA Case Management	2-2-3
Addictive Process	3-0-3
Pharmacology	3-0-3
Addiction & Recovery Counsel	2-2-3
ter, Spring	
Intake and Assessment	3-0-3
Sab Issues in Client Serv	3-0-3
	SA Case Management Addictive Process Pharmacology Addiction & Recovery Counsel <b>ter, Spring</b> Intake and Assessment

Total Semester Hours Credit Required to Graduate: 18

Students should contact the North Carolina Addictions Specialists Practice Board for a complete list of certification requirements. Visit <u>https://www.ncsappb.org/</u> to learn more.

## Manicuring/Nail Technology

## **Credential:** Certificate in Manicure/Nail Technology C55400

The Manicuring/Nail Technology curriculum provides competency-based knowledge, scientific/artistic principles and hands-on fundamentals associated with the nail technology industry. The curriculum provides a simulated salon environment which enables students to develop manipulative skills. Course work includes 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 quality for employment in beauty and nail salons, as a platform artist and in related businesses

Program Length: 2 semesters

Career Pathway Options: Associate in Applied Science Degree in Cosmetology; Diploma in Cosmetology; Certificate in Cosmetology. Program Site: Hartnett Main Campus–Day

## Suggested Course Schedule:

1st Semest	ter, Fall	
COS 121	Manicure/Nail Technology I	4-6-6
2nd Semes	ster. Spring	

2nd Semest	vi, spring	
COS 222	Manicure/Nail Technology II	4-6-6

Total Semester Hours Credit Required for Graduation: 12

Program Length: 2 semesters





**Public Safety** 



# **Public Safety Career Community**

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## **Criminal Justice Technology**

## **Credential: Associate in Applied Science Degree** in Criminal Justice Technology A55180

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 role within society will be explored. Emphasis is on criminal justice system, criminology, juvenile justice, criminal and constitutional law, investigative principles, ethics, and community relation.

Additional study may include issues and concepts of government, counseling, communication, computers and technology.

Employment opportunities exist in a variety of local, state, and federal law enforcement, corrections, and security fields. Examples of employment include police officer, deputy sheriff, county detention officer, state trooper, youth counselor technician, youth counselor associate, correctional officer, and loss prevention specialist.

## Program Specific Entrance Standards:

All prospective students are advised that the North Carolina Criminal Justice Education and Training Standards Commission does set minimum standards for employment for law enforcement officers, corrections officers, youth services officers, and probation and parole officers. Some of the minimum standards currently used by criminal justice system agencies are age, citizenship, health and physical fitness, education, drug testing, background screening, and freedom from felony and/or serious misdemeanor convictions.

Applicants seeking admission should review their backgrounds to determine if they are likely to qualify for employment in the criminal justice field. Students who have concerns are encouraged to contact the Criminal Justice Department or Student Services.

Program Length: 5 semesters Career Pathway Options: Associate in Applied Science in Criminal Justice Technology Program Sites: Lee Campus - Day Harnett Campus – Day Distance Education-some courses available

## **Course Requirements for Criminal Justice Technology** Degree

## **Suggested Course Schedule:**

1 <sup>st</sup> Semester	r, Fall	
ACA 122	College Transfer Success	0-2-1
CJC 111	Intro to the Criminal Justice	3-0-3
CJC 231	Constitutional Law	3-0-3
Social/Beha	vioral Science Elective	3-0-3
Major Elect	ive*	3-0-3

2 Semeste	r, Spring	
CJC 131	Criminal Law	3-0-3
CJC 221	Investigative Principles	3-2-4
ENG 111	Writing and Inquiry	3-0-3
Major Elect		3-0-3
Major Elect		3-0-3
Major Elect	ive*	3-0-3
3 <sup>rd</sup> Semeste	r, Summer	
CJC 112	Criminology	3-0-3
CJC 113	Juvenile Justice	3-0-3
4 <sup>th</sup> Semester	r, Fall	
CIS 110	Intro to Computers	2-2-3
Communica	tions Elective*	3-0-3
Humanities/	Fine Arts Elective	3-0-3
Major Elect	ive*	3-0-3
Major Elect	ive*	3-0-3
5 <sup>th</sup> Semester		
5 <sup>th</sup> Semester CJC 212	<b>r, Spring</b> Ethics & Comm Relations	3-0-3
CJC 212 Math Electiv	Ethics & Comm Relations ve*	2-2-3
CJC 212 Math Electiv Major Elect	Ethics & Comm Relations ve* ive*	2-2-3 3-0-3
CJC 212 Math Electiv Major Elect Major Elect	Ethics & Comm Relations ve* ive* ive*	2-2-3 3-0-3 2-0-2
CJC 212 Math Electiv Major Elect	Ethics & Comm Relations ve* ive* ive*	2-2-3 3-0-3
CJC 212 Math Electiv Major Elect Major Elect Major Elect Communica	Ethics & Comm Relations ve* ive* ive* ive* ive* tions, select one:	2-2-3 3-0-3 2-0-2
CJC 212 Math Electiv Major Elect Major Elect Major Elect Communica ENG 112	Ethics & Comm Relations ve* ive* ive* ive* ive* tions, select one: Writing/Research in the Disciplines	2-2-3 3-0-3 2-0-2 2-0-2 3-0-3
CJC 212 Math Electiv Major Elect Major Elect Major Elect Communica ENG 112 ENG 114	Ethics & Comm Relations ve* ive* ive* ive* ive* tions, select one: Writing/Research in the Disciplines Prof Research & Reporting	2-2-3 3-0-3 2-0-2 2-0-2 3-0-3 3-0-3
CJC 212 Math Electiv Major Elect Major Elect Major Elect Communica ENG 112 ENG 114 ENG 115	Ethics & Comm Relations ve* ive* ive* ive* tions, select one: Writing/Research in the Disciplines Prof Research & Reporting Oral Communication	2-2-3 3-0-3 2-0-2 2-0-2 3-0-3 3-0-3 3-0-3
CJC 212 Math Electiv Major Elect Major Elect Major Elect Communica ENG 112 ENG 114 ENG 115 ENG 116	Ethics & Comm Relations ve* ive* ive* ive* tions, select one: Writing/Research in the Disciplines Prof Research & Reporting Oral Communication Technical Report Writing	2-2-3 3-0-3 2-0-2 2-0-2 3-0-3 3-0-3 3-0-3 3-0-3
CJC 212 Math Electiv Major Elect Major Elect Major Elect Communica ENG 112 ENG 114 ENG 115 ENG 116 COM 110	Ethics & Comm Relations ve* ive* ive* ive* tions, select one: Writing/Research in the Disciplines Prof Research & Reporting Oral Communication Technical Report Writing Introduction to Communication	2-2-3 3-0-3 2-0-2 2-0-2 3-0-3 3-0-3 3-0-3 3-0-3 3-0-3
CJC 212 Math Electiv Major Elect Major Elect Major Elect Communica ENG 112 ENG 114 ENG 115 ENG 116 COM 110 COM 120	Ethics & Comm Relations ve* ive* ive* ive* tions, select one: Writing/Research in the Disciplines Prof Research & Reporting Oral Communication Technical Report Writing Introduction to Communication Intro to Interpersonal Communication	2-2-3 3-0-3 2-0-2 2-0-2 3-0-3 3-0-3 3-0-3 3-0-3 3-0-3 3-0-3
CJC 212 Math Electiv Major Elect Major Elect Major Elect Communica ENG 112 ENG 114 ENG 115 ENG 116 COM 110	Ethics & Comm Relations ve* ive* ive* ive* tions, select one: Writing/Research in the Disciplines Prof Research & Reporting Oral Communication Technical Report Writing Introduction to Communication	2-2-3 3-0-3 2-0-2 2-0-2 3-0-3 3-0-3 3-0-3 3-0-3 3-0-3
CJC 212 Math Electiv Major Elect Major Elect Major Elect Communica ENG 112 ENG 114 ENG 115 ENG 116 COM 110 COM 120 COM 231 Math, select	Ethics & Comm Relations ve* ive* ive* ive* tions, select one: Writing/Research in the Disciplines Prof Research & Reporting Oral Communication Technical Report Writing Introduction to Communication Intro to Interpersonal Communication Public Speaking one:	2-2-3 3-0-3 2-0-2 2-0-2 3-0-3 3-0-3 3-0-3 3-0-3 3-0-3 3-0-3 3-0-3
CJC 212 Math Electiv Major Elect Major Elect Major Elect Communica ENG 112 ENG 114 ENG 115 ENG 116 COM 110 COM 120 COM 231 Math, select MAT 110 M	Ethics & Comm Relations ve* ive* ive* ive* tions, select one: Writing/Research in the Disciplines Prof Research & Reporting Oral Communication Technical Report Writing Introduction to Communication Intro to Interpersonal Communication Public Speaking	2-2-3 3-0-3 2-0-2 2-0-2 3-0-3 3-0-3 3-0-3 3-0-3 3-0-3 3-0-3

Total Semester Hours Credit required for graduation: 67

### \*Major Elective Course List for Criminal Justice Select from these:

Select nom	these.	
BUS 137	Principles of Management	3-0-3
BUS 153	Human Resource Management	3-0-3
CJC 120	Interviews/Interrogations	1-2-2
CJC 121	Law Enforcement Operations	3-0-3
CJC 122	Community Policing	3-0-3
CJC 132	Court Procedure and Evidence	3-0-3
CJC 141	Corrections	3-0-3
CJC 151	Intro to Loss Prevention	3-0-3
CJC 160	Terrorism: Underlying Issues	3-0-3
CJC 213	Substance Abuse	3-0-3
CJC 214	Victimology	3-0-3
CJC 215	Organization and Administration	3-0-3
CJC 225	Crisis Intervention	3-0-3
CJC 232	Civil Liability	3-0-3
HSE 110	Introduction to Human Services	2-2-3

POL 130	State & Local Government	3-0-3
PSY 281	Abnormal Psychology	3-0-3
PSY 237	Social Psychology	3-0-3
PSY 246	Adolescent Psychology	3-0-3
SOC 220	Social Problems	3-0-3
SOC 225	Social Diversity	3-0-3

## Criminal Justice Technology Credential: Criminal Justice Diploma D55180

The Criminal Justice Diploma is designed to provide an introduction to the criminal justice system. Study focuses on criminology, juvenile justice, criminal and constitutional law. Additional study includes court procedures, correction and victimology. Diploma graduates may apply all course credits toward the Criminal Justice Technology Associate in Applied Science Degree.

Program Length: 3 semesters Career Pathway Options: Associate in Applied Science in Criminal Justice Technology Program Sites: Lee Main Campus - Day Harnett Main Campus – Day Distance Education–some courses available

## Suggested Course Schedule:

1 <sup>st</sup> Semester	r, Fall	
CJC 111	Introduction to Criminal Justice	3-0-3
CJC 112	Criminology	3-0-3
CJC 132	Court Procedure and Evidence	3-0-3
CJC 231	Constitutional Law	3-0-3
ACA 122	College Transfer Success	1-0-1
2 <sup>nd</sup> Semeste	r, Spring	
CJC 131	Criminal Law	3-0-3
CJC 212	Ethics/Community Relations	3-0-3
CJC 221	Investigative Principles	3-2-4
ENG 111	Writing and Inquiry	3-0-3
3 <sup>rd</sup> Semeste	r, Fall	
CJC 113	Juvenile Justice	3-0-3
CJC 141	Corrections	3-0-3
CJC 214	Victimology	3-0-3
PSY 150	General Psychology	3-0-3

Total Semester Hours Credit required for graduation: 38

## Criminal Justice Technology Credential: Certificate in Criminal Justice Technology C55180T

The Criminal Justice Certificate is designed to provide an introduction to the criminal justice system. Study focuses on criminology, juvenile justice, and criminal law. Additional study includes court procedures, and victimology. Certificate graduates may apply all course credits toward the Criminal Justice Technology Associate in Applied Science Degree.

Program Length: 2 semesters Career Pathway Options: Associate in Applied Science in Criminal Justice Technology Program Sites: Lee Main Campus - Day Harnett Main Campus – Day Distance Education–some courses available

## Suggested Course Schedule:

1 <sup>st</sup> Semeste	er, Fall	
CJC 111	Introduction to Criminal Justice	3-0-3
CJC 112	Criminology	3-0-3
CJC 132	Court Procedure and Evidence	3-0-3
2nd Semes	ter, Spring	
CJC 113	Juvenile Justice	3-0-3
CJC 212	Ethics/Community Relations	3-0-3
CJC 214	Victimology	3-0-3
	e.	

Total Semester Hours Credit required for graduation: 18

## Criminal Justice Technology Certificate in Criminal Justice Administration C55180AD

The Criminal Justice Administration Certificate is designed to give students a basic understanding of management and leadership in the criminal justice environment. Study focuses on criminal justice administration, state and local government and human resource management. Certificate graduates may apply all course credits toward the Criminal Justice Technology Associate in Applied Science Degree.

Program Length: 2 semesters Career Pathway Options: Associate in Applied Science in Criminal Justice Technology Program Sites: Lee Main Campus - Day Harnett Main Campus – Day Distance Education–some courses available

## Suggested Course Schedule:

1st Semester, FallBUS 137Principles of ManagementBUS 153Human Resource ManagementCJC 215Organization & Administration2nd Semester, SpringCJC 212Ethics & Comm Relations3-0-3

# POL 120American Government3-0-3SOC 220Social Problems3-0-3

Total Semester Hours Credit required for graduation: 18

## **Criminal Justice Technology Credential: Associate in Applied Science Degree** in Criminal Justice Technology – Forensic Science A5518C

The Forensic Science curriculum is designed to provide knowledge of latent evidence systems and operations. Study will focus on local, state, and federal law enforcement, evidence processing and procedures.

Students will learn both theory and hands-on analysis of latent evidence. They will learn fingerprint classifications, identification, and various chemical developments of latent prints. Students will also record, cast, and recognize footwear and tire-tracks: and process various types of crime scenes. Issues and concepts of communications and the use of computers and computer assisted design programs in crime scene technology will be discussed.

Graduates should qualify for employment in a variety of criminal justice organizations, especially in local, state, and federal law enforcement, along with correctional agencies.

## Program Specific Entrance Standards:

All prospective students are advised that the North Carolina Criminal Justice Education and Training Standards Commission sets minimum standards for employment for law enforcement officers, corrections officers, youth services officers, and probation and parole officers. Some of the minimum standards currently used by criminal justice system agencies are age, citizenship, health and physical fitness, education, drug testing, background screening, and freedom from felony and/or serious misdemeanor convictions.

Applicants seeking admission should review their backgrounds to determine if they are likely to qualify for employment in the criminal justice field. Students who have concerns are encouraged to contact the Criminal Justice Department or Student Services.

Program Length: 5 semesters Career Pathway Options: Associate in Applied Science in Criminal Justice Technology - Forensic Science Program Sites: Harnett Main Campus - Day Lee Main Campus - Day

### Suggested Course Schedule: 1<sup>st</sup> Semester, Fall

1 Semeste	1, 1 all	
ACA 122	College Transfer Success	0-2-1
CJC 111	Intro to Criminal Justice	3-0-3
CJC 115	Crime Scene Photography	2-3-3
CJC 231	Constitutional Law	3-0-3
CJC 245	Friction Ridge Analysis	2-3-3
MAT 143 Quantitative Literacy		2-2-3

## 2<sup>nd</sup> Semester, Spring

CJC 120	Interviews/Interrogations	1-2-2
120		

CJC 146 CJC 221 CJC 246 ENG 111	Trace Evidence Investigative Principles Adv. Friction Ridge Analysis Writing & Inquiry	2-3-3 3-2-4 2-3-3 3-0-3
3 <sup>rd</sup> Semester	r, Summer	
CJC 112	Criminology	3-0-3
CJC 113	Juvenile Justice	3-0-3
4 <sup>th</sup> Semester	r, Fall	
CIS 110	Intro to Computers	2-2-3
CJC 131	Criminal Law	3-0-3
CJC 144	Crime Scene Processing	2-3-3
CJC 222	Criminalistics	3-0-3
Humanities/	Fine Arts Elective	3-0-3
5 <sup>th</sup> Semester	r, Spring	
CJC 121	Law Enforcement Operations	3-0-3
CJC 212	Ethics/Community Relations	3-0-3
CJC232	Civil Liability	3-0-3
Communications Electrive		3-0-3
Social/Beha	vioral Science Elective	3-0-3
Total Semester Hours Credit required for graduation: 65		

## **Criminal Justice Technology Credential: Forensic Science Certificate** C5518C

The certificate in Criminal Justice Forensic Science is designed to give a basic understanding of latent evidence systems and operations. Study focuses on investigative principles, crime scene processing, the recovery of trace evidence, and fingerprint identification.

Program Length: 2 semesters Career Pathway Options: Associate in Applied Science in Criminal Justice Technology Program Sites: Lee Main Campus - Day Harnett Main Campus - Day

## **Suggested Course Schedule:**

1 <sup>st</sup> Semester, Fall			
CJC 144	Crime Scene Processing	2-3-3	
CJC 245	Friction Ridge analysis	2-3-3	
2 <sup>nd</sup> Semester, Spring			
CJC 146	Trace Evidence	2-3-3	
CJC 221	Investigative Principles	3-2-4	
CJC 246	Advanced Friction Ridge Analysis	2-3-3	

Total Semester Hours Credit required for graduation: 16

128

## **Basic Law Enforcement Training**

## Credential: Certificate in Basic Law Enforcement Training C55120

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. Units of instruction include legal, patrol duties, law enforcement communication , investigation, practical application, and Sheriff specific units. After successful completion of 640 training hours\*, graduates receive a curriculum certificate and will be able to demonstrate competence in the topics and areas required for the state comprehensive certification examination.

\*Note: Training hours will increase to 860 starting with the Spring 2024 semester.

Program Specific Entrance Standards:

- 1. Must be 20 years of age prior to full admission (persons less than 20 years of age must receive permission from the N.C. Criminal Justice Education and Training Standards Commission).
- 2. Must have a physical examination (on state forms provided by CCCC) within one year of entrance date. The college does not schedule or pay for the exam.
- 3. Must be able to participate in a required program of physical activity and pass a state mandated skills test prior to course completion.
- 4. Must have no felony convictions previously or class B misdemeanors within the past 5 years.
- 5. Must have a 10th grade reading level as determined by the reading test ).

Program Length: 16 weeks (day) or 7 <sup>1</sup>/<sub>2</sub> months (evening) Career Pathway Options: Certificate in Basic Law Enforcement Training

Program Sites: Emergency Services Training Center- Day and Evening; Harnett Main Campus - Evening; Chatham Main Campus - Evening

## Course Requirements for Basic Law Enforcement Training

1. Major Requirements (20 SHC)		C-L-SHC
CJC 110	Basic Law Enforcement Training	10-30-20

Total Semester Hours Credit required for graduation: 20

## **Emergency Medical Science**

## Credential: Associate in Applied Science Degree in Emergency Medical Science, Bridge Option A45340B

The Emergency Medical Science curriculum provides

individuals with the knowledge, skills, and attributes to provide advanced medical emergency medical care as a paramedic for critical and emergent patients who access the emergency medical system and prepares graduates to enter the workforce.

Students will gain complex knowledge, competency, and experience while employing evidence-based practice under medical oversight, and serve as a link from the scene into the healthcare system.

Graduates of this program may be eligible to take state and/or national examinations. Employment opportunities include providers of emergency medical services, fire departments, rescue agencies, hospital specialty areas, industry, educational and government agencies.

The Bridge Option will allow currently credentialed Paramedics to receive 45 semester hours of credit towards the A.A.S. degree. The remaining course work to complete the A.A.S. in Emergency Medical Science requires a minimum of 24 additional semester hours of work. Students must take 25% from the required hours of the degree at Central Carolina Community College to meet the residency requirements. \*Only the bridge option is being offered at this time. Students must complete their paramedic program through an accredited continuing education program before applying for the bridge program.

## Program Length: 2 semesters

**Career Pathway Options:** Associate in Applied Science Degree in Emergency Medical Science **Program Sites:** General Education classes may be taken in person or online at any campus.

## Suggested Course Schedule:

1st Semester, Fall		
ACA 122	College Transfer Success	0-2-1
ENG 111	Writing and Inquiry	3-0-3
Natural Sciences/Mathematics Elective		3-3-4
Social/Behavioral Science Elective		3-0-3

## 2nd Semester, Spring

ENG 112 Writing/Research in the Disciplines	3-0-3
Biology Elective	3-2-4
Humanities/Fine Arts Elective	3-0-3
Natural Sciences/Mathematics Elective	2-2-3

Continuing Education Credits: 45 Bridge Credits: 24-26 Total Semester Hours Credit for Graduation: 69-72

Biology: BIO 163 or BIO 169 (if the student has taken BIO 168)

Natural Sciences/Mathematics Elective Options: Students must take a combination of BIO 168 and BIO 169 or a combination of BIO 163 and MAT 110 or MAT 143.

Fine Arts Elective Options:	
Critical Thinking	3-0-3
Introduction to Ethics	3-0-3
	3-0-3
Introduction to Sociology	3-0-3
	Fine Arts Elective Options: Critical Thinking Introduction to Ethics vioral Science Options: General Psychology Introduction to Sociology

## **Public Safety Administration**

## **Credential: Associate in Applied Science Degree** in Public Safety Administration A55480

The Public Safety Administration curriculum is designed to provide students, as well as practitioners, with knowledge and skills in the technical, managerial, and administrative areas necessary for entrance or advancement within various public safety and government organizations.

Course work in diverse subject areas includes public safety administration and education, interagency operations, crisis leadership, government and agency financial management, professional standards, incident management, administrative law, and supervision, while providing a streamlined pathway that recognizes the value of previously earned skill sets and credentials within the public safety sector.

Employment opportunities exist with fire or police departments, emergency management organizations, governmental agencies, industrial firms, correctional facilities, private industries, insurance organizations, educational organizations, security and protective organizations, and through self-employment opportunities.

Program Length: 5 semesters Full time; 8 semesters Part time Career Pathway Options: Associate in Applied Science Degree Public Safety Administration Program site/s: Online

Total Semester Hours required for graduation: 66

## Suggested Course Schedule:

	- ,	
PAD 151	Intro to Public Administration	3-0-0-3
POL 120	American Government	3-0-0-3
ENG 111	Writing and Inquiry	3-0-0-3
Major Elective		3
Major Elective		3
ACA 122	College Transfer Success	0-2-0-1

## 2<sup>nd</sup> Semester, Spring

PAD 152	Ethics in Government	3-0-0-3
PAD 254	Grant Writing	3-0-0-3
MAT 143	Quantitative Literacy	3-0-0-3
Humanities/	Fine Arts Elective	3-0-0-3
Major Elective		3

## 3<sup>rd</sup> Semester, Summer

PAD 251	Public Finance and Budgeting	3-0-0-3
Communica	tions, select one:	
ENG 112	Writing/Research in the Disc	3-0-3
ENG 114	Prof Research & Reporting	3-0-3
COM 120	Intro Interpersonal Communication	3-0-3
COM 231	Public Speaking	3-0-3
4 <sup>th</sup> Semester, Fall		
PAD 252	Public Policy Analysis	3-0-0-3

PAD 252 Public Policy Analysis	3-0-0-3
Major Elective	3
Major Elective	3
Elective	
Elective	

## 5<sup>th</sup> Semester, Spring

e semester	., ~	
CJC 170	Critical Incident Mgmt Public Safety	3-0-0-3
CJC 240	Law Enforcement Mgt & Supervis	3-0-0-3
WBL 111	Work Based Learning	0-10-1
Elective		
Elective		

## Major Elective subject areas:

**Correction Services – take 1 group:** 

	ě i	
Group 1 PST 120	NCDPS Correctional Officer Train	6-4-0-8
Group 2		
CJC 141	Corrections	3-0-0-3
CJC 225	Crisis Intervention	3-0-0-3
CJC 232	Civil Liability	3-0-0-3
	or	
CJC 233	Correctional Law	3-0-0-3

## Law Enforcement Service, take 12 credits from:

CJC 111	Intro to Criminal Justice	3-0-0-3
CJC 113	Juvenile Justice	3-0-0-3
CJC 120	Interviews/Interrogations	1-2-0-2
CJC 121	Law Enforcement Operations	3-0-0-3
CJC 131	Criminal Law	3-0-0-3
CJC 132	Court Procedures and Evidence	3-0-0-3
CJC 141	Corrections	3-0-0-3
CJC 221	Investigative Principles	3-2-0-4
CJC 225	Crisis Intervention	3-0-0-3
CJC 231	Constitutional Law	3-0-0-3

## Emergency and Fire Management, take 12 credits from:

EMS 110	EMT	6-6-3-9
EMS 122	EMS Clinical Practicum I	0-0-3-1
EMS 130	Pharmacology	3-3-0-4
EMS 131	Advanced Airway Management	1-2-0-2
EMS 160	Cardiology I	2-3-0-3
EMS 220	Cardiology II	2-3-0-3
EMS 221	EMS Clinical Practicum II	0-0-6-2
EMS 231	EMS Clinical Pract III	0-0-9-3
EMS 240	Patients w/Special Challenges	1-2-0-2
EMS 241	EMS Clinical Practicum IV	0-0-12-4
EMS 250	Medical Emergencies	3-3-0-4

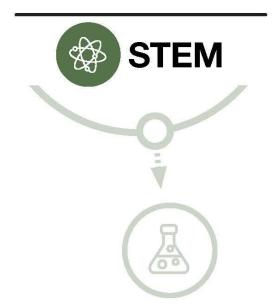
EMS 260	Trauma Emergencies	1-3-0-2
EMS 270	Life Span Emergencies	3-3-0-4
EMS 285	EMS Capstone	1-3-0-2

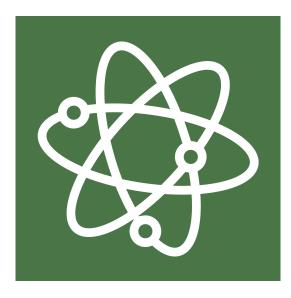
## Elective List (take 16-21 credits):

BUS 151	People Skills	3-0-0-3
BUS 153	Human Resource Management	3-0-0-3
BUS 270	Professional Development	3-0-0-3
CJC 111	Intro to Criminal Justice	3-0-0-3
CJC 121	Law Enforcement Operations	3-0-0-3
CJC 141	Corrections	3-0-0-3
CJC 113	Juvenile Justice	3-0-0-3
CJC 225	Crisis Intervention	3-0-0-3
WBL 111	Work Based Learning	1-10-0-1
HSE 110	Intro to Human Services	2-2-0-3
HEA 110	Personal Health/Wellness	3-0-0-3
HEA 112	First Aid/CPR	1-2-0-2
SOC 210	Intro to Sociology	3-0-0-3
SOC 220	Social Problems	3-0-0-3
SPA 111	Elementary Spanish I	3-0-0-3
CIS 110	Intro to Computers	2-2-0-3
CTS 130	Spreadsheets	2-2-0-3
CTI 110	Web Programming & Db Foundations	2-2-0-3
CTI 120	Network & Security Foundations	2-2-0-3



# Career Communities and Programs





# **STEM Career Community**

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Laser and Photonics Technology	146
Library and Information Technology	147
Mechanical Engineering Technology	150

## Associate in Engineering

# Credential: Associate in Engineering Degree A10500

The Associate in Engineering degree allows students who wish to transfer to a state funded university with a Bachelor of Engineering program to earn a minimum of 60 semester hours of credit (SHC) for college transfer courses and offers opportunities for the achievement of competence in reading, writing, oral communication, and fundamental mathematical skills. Courses are approved for transfer through the Comprehensive Articulation Agreement (CAA).

Students who follow the degree progression plan will meet the entrance requirements at all of the North Carolina public Bachelor of Science Engineering programs and Campbell University's School of Engineering. Associate in Engineering graduates may then apply to any of these programs without taking additional and sometimes duplicative courses.

Admission to Engineering programs is highly competitive and admission is not guaranteed. To be eligible for the transfer of credits under the AE to the Bachelor of Science in Engineering Articulation Agreement, community college graduates must obtain a grade of "C" or better in each course and an overall GPA of at least 2.5 on a 4.0 scale. Courses may also transfer through bilateral agreements between institutions.

## Program Length: 4 semesters

Career Pathway Options: Associate in Engineering Degree, Baccalaureate in Engineering Degree at a Senior Institution

## Program Sites:

Lee Campus – Day with some evening classes available Chatham Campus – Some day and evening classes available Harnett Campus – Some day and evening classes available Distance Education

## **Course Requirements for Associate in Engineering Degree**

I. Universal General Education Transfer Component (UGETC) 42 SHC

A. Composi	tion (6 SHC)	C-L-CR
ENG 111	Writing and Inquiry	3-0-3
ENG 112	Writing and Research in the Disciplines	3-0-3
B. Humaniti	es (3 SHC). Choose one:	
ENG 231	American Literature I	3-0-3
ENG 232	American Literature II	3-0-3
ENG 241	British Literature I	3-0-3
ENG 242	British Literature II	3-0-3
PHI 240	Introduction to Ethics	3-0-3
REL 110	World Religions	3-0-3

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

## C. Communication (3 SHC). Choose one:

Select a course from the following discipline areas: art, communications, music.

ART 111	Art Appreciation	3-0-3
ART 114	Art History Survey I	3-0-3
ART 115	Art History Survey II	3-0-3
COM 231	Public Speaking	3-0-3
MUS 110	Music Appreciation	3-0-3
MUS 112	Introduction to Jazz	3-0-3

D. Social and Behavioral Sciences (6 SHC) One required course, choose one additional course.

Required:		
ECO 251	Principles of Microeconomics	3-0-3
One additio	nal course:	
HIS 111	World Civilizations I	3-0-3
HIS 112	World Civilizations II	3-0-3
HIS 131	American History I	3-0-3
HIS 132	American History II	3-0-3
POL 120	American Government	3-0-3
PSY 150	General Psychology	3-0-3
SOC 210	Introduction to Sociology	3-0-3
E. Natural S	Sciences (12 SHC)	
CHM 151	General Chemistry I	3-3-4
PHY 251	General Physics I	3-3-4
PHY 252	General Physics II	3-3-4
F. Mathema	tics (12 SHC)	
MAT 271	Calculus I	3-2-4
MAT 272	Calculus II	3-2-4
MAT 273	Calculus III	3-2-4

Calculus I is the lowest math course that will be accepted by engineering programs for transfer as a math credit. Students who are not calculus-ready will need to take additional math courses. Students are recommended to include both the Associate in Science and the Associate in Engineering as their declared programs of study.

II. Additional General Education Hours (18 SHC) Three required courses, choose additional courses. At least two credit hours must be from PED.

ACA 122	College Transfer Success	1-0-1
EGR 150	Introduction to Engineering	1-2-2
MAT 285	Differential Equations	2-2-3

Select additional courses from UGETC courses listed above or from the courses classified as General Education courses in the NCCCS Combined Course Library. (12 SHC) Take 3 credits from:

BIO 111	General Biology I	3-3-4
COM 110	Introduction to Communication	3-0-3
COM 231	Public Speaking	3-0-3
CHM 152	General Chemistry II	3-3-4
ECO 252	Principles of Macroeconomics	3-0-3

GEL 111	Introductory Geology	3-2-4
HUM 110	Technology and Society	3-0-3
PHI 240	Introduction to Ethics	3-0-3
Take 9 credi	ts from:	
BIO 111	General Biology I	3-3-4
CHM 152	General Chemistry II	3-3-4
CHM 251	Organic Chemistry I	3-3-4
CHM 252	Organic Chemistry II	3-3-4
COM 110	Introduction to Communication	3-0-3
COM 231	Public Speaking	3-0-3
CSC 134	C++ Programming	2-3-3
CSC 151	JAVA Programming	2-3-3
DFT 170	Engineering Graphics	2-2-3
ECO 252	Principles of Macroeconomics	3-0-3
EGR 210	Intro to Electr./Computer Eng. Lab	1-3-2
EGR 212	Logic System Design I	3-0-3
EGR 214	Num Methods for Engineers	3-0-3
EGR 215	Network Theory I	3-0-3
EGR 216	Logic and Network Lab	0-3-1
EGR 220	Engineering Statics	3-0-3
EGR 225	Engineering Dynamics	3-0-3
EGR 228	Introduction to Solid Mechanics	3-0-3
GEL 111	Introductory Geology	3-2-4
HUM 110	Technology and Society	3-0-3
MAT 280	Linear Algebra	2-2-3
PED 110	Fit and Well for Life	1-2-2

### **Suggested Course Schedule:**

### 1<sup>st</sup> Semester, Fall

ENG 111	Writing and Inquiry	3-0-3
ACA 122	College Transfer Success	0-2-1
CHM 151	General Chemistry I	3-3-4
ECO 251	Principles of Microeconomics	3-0-3
EGR 150	Introduction to Engineering	1-2-2
MAT 271 p	rerequisite or Humanities Course	3-0-3

### 2<sup>nd</sup> Semester, Spring

ENG 112	Writing & Research in the Disciplines	3-0-3
MAT 271	Calculus I	3-2-4
Fine Arts/Communications		3-0-3
Required Soc/Behavioral Science Course		3-0-3
Pre-major Elective		3-3-4

## 3<sup>rd</sup> Semester, Fall

MAT 272	Calculus II	3-2-4
PHY 251	General Physics	3-3-4
Pre-major Elective		3-0-3
Pre-major Elective		3-0-3

### 4th Semester, Spring

MAT 273	Calculus III	3-2-4
PHY 252	General Physics II	3-3-4
MAT 285	Differential Equations	2-2-3
Pre-major Elective		3-0-3

Total Semester Hours Credit Required for graduation: 60/61 SHC

## Associate in Science (AS) Credential: Associate in Science Degree A10400

The Associate in Science degree allows students to earn a minimum of 60 semester hours of credit (SHC) of college transfer courses and offers opportunities for the achievement of competence in reading, writing, oral communication, and fundamental mathematical skills. Courses are approved for transfer through the Comprehensive Articulation Agreement (CAA). The CAA enables North Carolina community college graduates of two-year Associate in Science programs who are admitted to constituent institutions of The University of North Carolina System (the 16 public universities) to transfer with junior status. Most independent schools in North Carolina also fully accept the transfer of the courses here.

Graduates must obtain a grade of "C" or better in each course, an overall GPA of at least 2.0 on a 4.0 scale, and complete the Associate in Science degree in order to transfer with a junior status. Courses may also transfer through bilateral agreements between institutions. Transfer institutions may have other, specific requirements for admission and acceptance into specific programs.

Program Length: 4 semesters

Career Pathway Options: Associate in Science Degree, Baccalaureate Degree at a Senior Institution Program Sites: Lee Campus – Day and evening; Chatham Main Campus -Day; Harnett Main Campus - Day; Distance Education

While most general education classes are offered at the Chatham and Harnett Campuses, students may need to take distance education courses to complete the program.

### **Course Requirements for Associate in Science Degree**

I. Universal General Education Transfer Component (UGETC) 34 SHC

A. Composition (6 SHC)		C-L-CR
ENG 111	Writing and Inquiry	3-0-3
ENG 112	Writing and Research in the Disciplines	3-0-3

B. Humanities/Fine Arts/Communication (6 SHC) Select courses from two of the following discipline areas: art, communications, music, literature, and philosophy.

ART 111	Art Appreciation	3-0-3
ART 114	Art History Survey I	3-0-3
ART 115	Art History Survey II	3-0-3
COM 120	Interpersonal Communication	3-0-3
COM 231	Public Speaking	3-0-3
DRA 111	Theater Appreciation	3-0-3
ENG 231	American Literature I	3-0-3
ENG 232	American Literature II	3-0-3
ENG 241	British Literature I	3-0-3
ENG 242	British Literature II	3-0-3
MUS 110	Music Appreciation	3-0-3
		135

MUS 112	Introduction to Jazz	3-0-3
PHI 240	Introduction to Ethics	3-0-3

C. Social and Behavioral Sciences (6 SHC)

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

ECO 251	Principles of Microeconomics	3-0-3
ECO 252	Principles of Macroeconomics	3-0-3
HIS 111	World Civilizations I	3-0-3
HIS 112	World Civilizations II	3-0-3
HIS 131	American History I	3-0-3
HIS 132	American History II	3-0-3
POL 120	American Government	3-0-3
PSY 150	General Psychology	3-0-3
SOC 210	Introduction to Sociology	3-0-3

D. Natural Sciences (8 SHC)

Select a two-semester course sequence (strongly recommended) in general biology, general chemistry or general physics (a-d) or a pair of the one-semester course combinations listed below (e-j). All courses must have a lab component.

a. BIO 111	General Biology I	3-3-4
BIO 112	General Biology II	3-3-4
b. CHM 151	General Chemistry I	3-3-4
CHM 152	General Chemistry II	3-3-4
c. PHY 151	College Physics I	3-2-4
PHY 152	College Physics II	3-2-4
d. PHY 251	General Physics I	3-3-4
PHY 252	General Physics II	3-3-4
e. AST 151	General Astronomy I	3-0-3
AST 151A	General Astronomy I Lab	0-2-1
BIO 110	Principles of Biology	3-3-4
f. AST 151	General Astronomy I	3-0-3
AST 151A	General Astronomy I Lab	0-2-1
GEL 111	Introductory Geology	3-2-4
g. AST 151	General Astronomy I	3-0-3
AST 151A	General Astronomy I Lab	0-2-1
PHY 110	Conceptual Physics	3-0-3
PHY 110A	Conceptual Physics Lab	0-2-1
h. BIO 110	Principles of Biology	3-3-4
GEL 111	Introductory Geology	3-2-4
i. BIO 110	Principles of Biology	3-3-4
PHY 110	Conceptual Physics	3-0-3
PHY 110A	Conceptual Physics Lab	0-2-1
j. GEL 111	Introductory Geology	3-2-4
PHY 110	Conceptual Physics	3-0-3
PHY 110A	Conceptual Physics Lab	0-2-1
E. Mathemat	ics (8 SHC)	
	ourses in mathematics.	
MAT 171	Precalculus Algebra	3-2-4
MAT 172	Precalculus Trigonometry	3-2-4
MAT 263	Brief Calculus	3-2-4
MAT 271	Calculus I	3-2-4
MAT 272	Calculus II	3-2-4

Select additional courses from UGETC courses listed above or from the courses classified as General Education courses in the NCCCS Combined Course Library. Students are advised to select courses based on intended major and senior institution.

		• • •
ANT 210	General Anthropology	3-0-3
ASL 111	Elementary ASL 1	3-0-3
ASL 112	Elementary ASL II	3-0-3
ASL 211	Intermediate ASL I	3-0-3
ASL 212	Intermediate ASL II	3-0-3
BIO 140	Environmental Biology	3-0-3
BIO 140A	Environmental Biology Lab	0-3-1
CHI 111	Elementary Chinese I	3-0-3
CHI 112	Elementary Chinese II	3-0-3
CHI 211	Intermediate Chinese I	3-0-3
CHI 212	Intermediate Chinese II	3-0-3
CHM 131	Introduction to Chemistry	3-0-3
CHM 131A	Introduction to Chemistry Lab	0-3-1
CHM 132	Organic and Biochemistry	3-3-4
CIS 110	Introduction to Computers	2-2-3
CIS 115	Introduction to Programming and Logic	2-3-3
COM 110	Introduction to Communication	3-0-3
COM 140	Intro to Intercultural Communication	3-0-3
ECO 151	Survey of Economics	3-0-3
ENG 113	Literature-Based Research	3-0-3
ENG 115 ENG 114	Prof Research and Reporting	3-0-3
GEL 113	Historical Geology	3-2-4
GEL 115 FRE 111	Elementary French I	3-0-3
FRE 112	•	3-0-3
	Elementary French II Intermediate French I	
FRE 211		3-0-3
FRE 212	Intermediate French II	3-0-3
GEL 230	Environmental Geology	3-2-4
HUM 110	Technology and Society	3-0-3
HUM 115	Critical Thinking	3-0-3
HUM 120	Cultural Studies	3-0-3
HUM 122	Southern Culture	3-0-3
HUM 150	American Women's Studies	3-0-3
MAT 143	Quantitative Literacy	2-2-3
MAT 152	Statistical Methods I	3-2-4
MAT 272	Calculus II	3-2-4
MAT 273	Calculus III	3-2-4
MUS 210	History of Rock Music	3-0-3
PSY 237	Social Psychology	3-0-3
PSY 241	Developmental Psychology	3-0-3
PSY 281	Abnormal Psychology	3-0-3
REL 110	World Religions	3-0-3
REL 211	Introduction to Old Testament	3-0-3
SOC 225	Social Diversity	3-0-3
SOC 240	Social Psychology	3-0-3
SPA 111	Elementary Spanish I	3-0-3
SPA 112	Elementary Spanish II	3-0-3
SPA 211	Intermediate Spanish I	3-0-3
SPA 212	Intermediate Spanish II	3-0-3
SIII 212	internet opunion n	505

III. Other Required Hours (15 SHC)

In addition to ACA 122 (College Transfer Success) 14 SHC can be selected from the UGETC and General Education courses listed above and any courses classified Pre-Major/Elective (listed below) in the Comprehensive Articulation Agreement. Students are advised to select courses based on intended major and senior institution requirements. Students must meet the receiving university's foreign language, health and physical education requirements, if applicable, prior to or after transfer to the senior institution. Students need to complete two courses in foreign language in two semesters or more if a foreign language was not taken in high school.

4 6 6 1 6 6		
ACC 120	Principles of Financial Accounting	3-2-4
ACC 121	Principles of Managerial Accounting	3-2-4
ART 121	Design I	0-6-3
ART 122	Design II	0-6-3
ART 131	Drawing I	0-6-3
ART 132	Drawing II	0-6-3
ART 214	Portfolio and Resume	0-2-1
ART 231	Printmaking I	0-6-3
ART 232	Printmaking II	0-6-3
ART 240	Painting I	0-6-3
ART 241	Painting II	0-6-3
ART 281	Sculpture I	0-6-3
ART 282	Sculpture II	0-6-3
ART 283	Ceramics I	0-6-3
ART 284	Ceramics II	0-6-3
BIO 150	Genetics in Human Affairs	3-0-3
BIO 155	Nutrition	3-0-3
BIO 163	Basic Anatomy and Physiology	4-2-5
BIO 165	Anatomy and Physiology I	3-3-4
BIO 166	Anatomy and Physiology II	3-3-4
BIO 168	Anatomy and Physiology I	3-3-4
BIO 160 BIO 169	Anatomy and Physiology I	3-3-4
BIO 105 BIO 175	General Microbiology	2-2-3
BIO 175 BIO 180	Biological Chemistry	2-2-3
BIO 130 BIO 275	Microbiology	3-3-4
BUS 110	Introduction to Business	3-0-3
BUS 110 BUS 115	Business Law I	3-0-3
BUS 137	Principles of Management	3-0-3
CHM 130	General, Organic and Biochemistry	3-0-3
CHM 130A	General, Organic, and Biochemistry Lab	0-2-1
CHM 251	Organic Chemistry I	3-3-4
CHM 252	Organic Chemistry II	3-3-4
CJC 111	Introduction to Criminal Justice	3-0-3
CJC 113	Juvenile Justice	3-0-3
CJC 121	Law Enforcement Operations	3-0-3
CJC 141	Corrections	3-0-3
CJC 212	Ethics & Comm Relations	3-0-3
COM 130	Nonverbal Communication	3-0-3
CSC 134	C++ Programming	2-3-3
CSC 139	Visual BASIC Programming	2-3-3
CSC 151	JAVA Programming	2-3-3
CTS 115	Info Sys Business Concepts	3-0-3
EGR 150	Intro to Engineering	1-2-2
EGR 220	Engineering Statics	3-0-3
ENG 125	Creative Writing I	3-0-3
ENG 126	Creative Writing II	3-0-3
HEA 110	Personal Health and Wellness	3-0-3
HIS 222	African-American History I	3-0-3
HIS 223	African-American History II	3-0-3
HIS 226	The Civil War	3-0-3

HIS 236	North Carolina History	3-0-3
MAT 280	Linear Algebra	2-2-3
MAT 285	Differential Equations	2-2-3
MSI 110	Military Science I	1-0-1
MSI 120	Military Science II	2-0-2
MSI 210	Military Science III	2-0-2
MSI 220	Military Science IV	2-0-2
MUS 111	Fundamentals of Music	3-0-3
PED 110	Fit and Well for Life	1-2-2
PED 113	Aerobics I	0-3-1
PED 114	Aerobics II	0-3-1
PED 115	Step Aerobics I	0-3-1
PED 117	Weight Training I	0-3-1
PED 118	Weight Training II	0-3-1
PED 119	Circuit Training	0-3-1
PED 121	Walk, Jog, Run	0-3-1
PED 122	Yoga I	0-2-1
PED 125	Self-Defense Beginning	0-2-1
PED 128	Golf-Beginning	0-2-1
PED 130	Tennis-Beginning	0-2-1
PED 137	Badminton	0-2-1
PED 139	Bowling-Beginning	0-2-1
PED 143	Volleyball-Beginning	0-2-1
PED 145	Basketball-Beginning	0-2-1
PED 149	Flag Football	0-2-1
PED 157	Pickleball	0-2-1
PED 171	Nature Hiking	0-2-1
PED 172	Outdoor Living	1-2-2
PED 217	Pilates I	0-2-1
PED 219	Disc Golf	0-2-1
PSY 246	Adolescent Psychology	3-0-3
SOC 232	Social Context of Aging	3-0-3
SPA 141	Culture and Civilization	3-0-3
Suggested	Course Schedule:	
1 <sup>st</sup> Semeste		
	Writing and Inquiry	3-0-3
	College Transfer Success	0-2-1
	cience Course & lab	3-3-4
	Iathematics Course	3-2-4
	umanities/Fine Arts/Comm. Course	3-0-3
requireu 11		5-0-5
2 <sup>nd</sup> Semeste	er, Spring	
ENG 112	Writing & Research in the Disciplines	3-0-3
Required M	Iathematics Course	3-2-4

ENG 111	Writing and Inquiry	3-0-3
ACA 122	College Transfer Success	0-2-1
Required S	cience Course & lab	3-3-4
Required N	fathematics Course	3-2-4
Required H	umanities/Fine Arts/Comm. Course	3-0-3
-		

ENG 112 Writing & Research in the Disciplines	3-0-3
Required Mathematics Course	3-2-4
Required Humanities/Fine Arts/Comm. Course	3-0-3
Required History Course	3-0-3
Required Science Course & Lab	3-3-4
3 <sup>rd</sup> Semester, Fall	

#### 3-0-3 Approved General Education course Approved General Education course 3-0-3 Approved General Education course 3-0-3 Approved General Education course 3-0-2/3 3-0-3 Required Soc/Behavioral Science Course 4<sup>th</sup> Semester, Spring Approved Other Required Hours course 3-0-3 Approved Other Required Hours course 3-0-3

Approved Other Required Hours course	3-0-3
Approved Other Required Hours course	3-0-3
Approved Other Required Hours course	0/1-2/6-2

Total Semester Hours Credit Required for Degree: 60/61

# Associate in Science in Teacher Preparation

## **Credential: Associate in Science in Teacher Preparation A1040T**

The Associate in Science Teacher Preparation (ASTP) prepares students who plan to transfer to a four-year university, major in Education and move into public teaching either as an elementary or middle school teacher. The ASTP is specifically for students interested in teaching science and mathematics.

Program	Length:	4	semesters
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Career Pathway Options: Associate in Science Degree, Baccalaureate Degree at a Senior Institution to enter a Teacher Education program Program Sites:

Lee Campus – Day and Evening

Chatham Campus – Day and Evening; Harnett Campus – Day with some evening courses available; Distance Education

## Course Requirements for Associate in Science in Teacher Preparation:

## I. General Education Requirements:

English		
ENG 111	Writing & Inquiry	3-0-3
ENG 112	Writing/Research in the Disciplines	3-0-3
	ommunications rses from the following from at least 2 diff 9 SHC)	erent
Communicat	tions:	
COM 120	Intro to Interpersonal Communications	3-0-3
COM 231	Public Speaking	3-0-3
Humanities/	Fine Arts:	

Humannes	Fine Arts.	
ART 111	Art Appreciation	3-0-3
ART 114	Art History Survey I	3-0-3
ART 115	Art History Survey II	3-0-3
DRA 111	Theatre Appreciation	3-0-3
ENG 231	American Literature I	3-0-3
ENG 232	American Literature II	3-0-3
ENG 241	British Literature I	3-0-3
ENG 242	British Literature II	3-0-3
MUS 110	Music Appreciation	3-0-3
MUS 112	Introduction to Jazz	3-0-3
PHI 240	Introduction to Ethics	3-0-3

	vioral Science rse from the following (3 SHC)	
ECO 251	Principles of Microeconomics	3-0-3
ECO 252	Principles of Macroeconomics	3-0-3
HIS 111	World Civilizations I	3-0-3
HIS 112	World Civilizations I	3-0-3
HIS 112 HIS 131	American History I	3-0-3
HIS 131 HIS 132	American History II	3-0-3
POL 120	American Government	3-0-3
PSY 150	General Psychology	3-0-3
SOC 210	Introduction to Sociology	3-0-3
SOC 210	introduction to sociology	3-0-3
Mathematics	s, take 2 courses (8 SHC)	
MAT 171	Precalculus Algebra	3-2-4
MAT 172	Precalculus Trigonometry	3-2-4
MAT 263	Brief Calculus	3-2-4
MAT 271	Calculus I	3-2-4
MAT 272	Calculus II	3-2-4
	nces (8 SHC)	• • •
AST 151	General Astronomy I	3-0-3
AST 151A	General Astronomy Lab	0-2-1
BIO 110	Principles of Biology	3-3-4
BIO 111	General Biology I	3-3-4
BIO 112	General Biology II	3-3-4
OID ( 151		
CHM 151	General Chemistry I	3-3-4
CHM 152	General Chemistry II	3-3-4
GEL 111	Introductory Geology	3-2-4
PHY 110	Conceptual Physics	3-0-3
PHY 110A	Conceptual Physics Lab	0-2-1
1111 110/1	Conceptual 1 hysics Eab	021
PHY 151	College Physics	3-2-4
PHY 152	College Physics II	3-2-4
PHY 251	General Physics I	3-3-4
PHY 252	General Physics II	3-3-4
1111 202		55.
Required Ge	neral Education:	
SOC 225	Social Diversity	3-0-3
An additional 11-12 SHC of UGETC courses or General Education classes (see Additional General Education Hours under the Associate in Science degree) must be selected.		

Other requi	red (14 SHC):	
EDU 187	Teaching and Learning for All	3-3-4
EDU 216	Foundations of Education	3-0-3
EDU 279	Literacy Development & Instruction	3-3-4
EDU 250	Teacher Licensure Preparation	3-0-3
Other requi	red (1 SHC)	
ACA 122	College Transfer Success	0-2-1

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Suggested	Course Schedule:	
1 <sup>st</sup> Semeste	r, Fall	
ENG 111	Writing and Inquiry	3-0-3
ACA 122	College Transfer Success	0-2-1
	Teaching & Learning for All	3-3-4
Required N	atural Science Course	3-3-4
Required So	ocial/Behavioral Science Course	3-0-3
2 <sup>nd</sup> Semeste	er, Spring	
	Writing & Research in the Disciplines	3-0-3
	Literacy Development & Instruction	4-0-4
	Iathematics Course	3-2-4
Required H	umanities/Fine Arts/Comm. Course	3-0-3
3 <sup>rd</sup> Semeste	er, Fall	
EDU 216	Foundations of Education	3-0-3
Required H	umanities/Fine Arts/Comm. Course	3-0-3
Required M	Iathematics Course	3-2-4
Approved C	General Education Course	3-0-3
	General Education Course	3-0-3
4 <sup>th</sup> Semeste	er, Spring	
SOC 225	Social Diversity	3-0-3

500 225	Social Diversity	5-0-5
EDU 250	Teacher Licensure Preparation	3-0-3
Required N	latural Science Course	3-3-4
Approved (	General Education Course	3-0-3
Approved General Education Course		3-0-3

Total semester hours credit required for graduation: 60

## **Computer Engineering** Technology

## **Credential:** Associate in Applied Science Degree in Computer Engineering Technology A40160

The Computer Engineering Technology curriculum provides the skills required to install, service, and maintain computers, peripherals, networks, and microprocessor and computer-controlled equipment. It includes training in both hardware and software, emphasizing operating systems concepts to provide a unified view of computer systems.

Coursework includes mathematics, physics, electronics, digital circuits, and programming with emphasis on the operation, use, and interfacing of memory and devices to the CPU. Additional topics may include networks, operating systems, programming languages, Internet configuration and design, and industrial applications.

Graduates will qualify for employment opportunities in electronics technology, computer service, computer networks, server maintenance, programming, and other areas requiring a knowledge of electronic and computer systems. Graduates will also qualify for a certificate in electronics, and certification in computers or networks. Program Length: 5 semesters

Career Pathway Options: Associate of Applied Science Degree in Computer Engineering Technology Program Site: Lee Main Campus - Day Program

Suggested C 1 <sup>st</sup> Semester	Course Schedule: ; Fall	
ACA 122	College Transfer Success	0-2-1
EGR 131	Intro to Electronics Tech	1-2-2
ELC 131	Circuit Analysis I	3-3-4
ELC 131A	Circuit Analysis I Lab	0-3-1
ENG 111	Writing and Inquiry	3-0-3
ENUTI	writing and inquiry	3-0-3
Mathematics		
MAT 121	Algebra/Trigonometry I	2-2-3
MAT 171	Precalculus Algebra	3-2-4
2 <sup>nd</sup> Semester		
ELN 131	Analog Electronics I	3-3-4
ELN 133	Digital Electronics	3-3-4
NOS 130	Windows Single User	2-2-3
Mathematics		
MAT 122	Algebra/Trigonometry II	2-2-3
MAT 172	Precalculus Trigonometry	3-2-4
Physics, sele	ect one:	
PHY 131	Physics-Mechanics	3-2-4
PHY 151	College Physics I	3-2-4
1111 151	Conege I hysics I	3-2-4
3rd Semester	r, Summer	
ELN 132	Analog Electronics II	3-3-4
Communication	tions colort on a	
	tions, select one:	
ENG 112	Writing/Research in the Disciplines	3-0-3
ENG 114	Professional Research and Reporting	3-0-3
COM 231	Public Speaking	3-0-3
4 <sup>th</sup> Semester	: Fall	
CET 225	Digital Signal Processing	2-2-3
CTS 120	Hardware/Software Support	2-3-3
ELN 232	Intro to Microprocessors	3-3-4
PCI 170	-	3-3-4
	DAQ and Control g Elective, select one:	3-3-4
riogrammin		
CSC 134	C++ Programming	2-3-3
CSC 139	Visual BASIC Programming	2-3-3
CSC 151	JAVA Programming	2-3-3
5th Somosto	Spring	
5 <sup>th</sup> Semester CTI 120	Network & Sec Foundation	2 2 2
		2-2-3
CTS 220	Adv Hard/Software Support	2-3-3
ELN 275	Troubleshooting	1-3-2
Humanities/	Fine Arts Elective	3-0-3
	vioral Science Elective	3-0-3
T l ' 1 TI	entire entertant	
	ective, select one:	
CIS 110	Introduction to Computers	2-2-3
CSC 134	C++ Programming	2-3-3
		139

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CSC 139	Visual BASIC Programming	2-3-3
CSC 151	JAVA Programming	2-3-3
ELN 247	Electronics Application Project	1-3-2
NET 125	Networking Basics	1-4-3
NET 126	Routing Basics	1-4-3
NOS 120	Linux/UNIX Single User	2-2-3

Total Semester Hours Credit Required for Graduation: 72

## Electronics Engineering Technology

## **Credential: Associate in Applied Science Degree in Electronics Engineering Technology A40200**

The Electronics Engineering Technology curriculum prepares individuals to become technicians who design, build, install, test, troubleshoot, repair, and modify developmental and production electronic components, equipment, and systems such as industrial/computer controls, manufacturing systems, telecommunication 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 master the competencies necessary to perform entry-level tasks. Emphasis is placed on developing the student's ability to think, analyze, and troubleshoot.

Graduates will qualify for employment as engineering assistants or electronic technicians with job titles including electronic engineering associate, electronic engineering technician, field service technician, maintenance technician, electronic tester, electronic systems integrator, bench technician, and production control technician.

Program Length: 5 semesters

Career Pathway Options: Associate in Applied Science Degree in Electronics Engineering Technology Program Sites: Lee Main Campus - Day Program

## Suggested Course Schedule: 1<sup>st</sup> Semester, Fall

1 Semester	, 1'all	
ACA 122	College Transfer Success	0-2-1
CIS 110	Intro to Computers	2-2-3
EGR 131	Intro to Electronics Tech	1-2-2
ELC 131	Circuit Analysis I	3-3-4
ELC 131A	Circuit Analysis I Lab	0-3-1
ENG 111	Writing & Inquiry	3-0-3
Math, select	one course:	
MAT 171	Precalculus Algebra	3-2-4
MAT 121	Algebra/Trigonometry I	2-2-3
2 <sup>nd</sup> Semester	r, Spring	
ELN 131	Analog Electronics I	3-3-4
ELN 133	Digital Electronics	3-3-4
Select one:		

MAT 172 MAT 122	Precalculus Trigonometry Algebra/Trigonometry II	3-2-4 2-2-3
Select one: PHY 151 PHY 131	College Physics I Physics-Mechanics	3-2-4 3-2-4
<b>3<sup>rd</sup> Semeste</b> ELN 132	r, Summer Analog Electronics II	3-3-4
		554
Select one: PHY 152 PHY 133	College Physics II Physics – Sound & Light	3-2-4 3-2-4
4 <sup>th</sup> Semester		
CET 225	Digital Signal Processing	2-2-3
ELN 232	Intro to Microprocessors	3-3-4
PCI 170 Social/Beha	DAQ and Control vioral Science Elective	3-3-4 3-0-3
Social Della	violal Science Elective	5-0-5
	tions, select one:	
*ENG 112	Writing/Research in the Disciplines	3-0-3
ENG 114		3-0-3
COM 231	Public Speaking Recommended	3-0-3
* ENG 112 I	Recommenaea	
5 <sup>th</sup> Semester	r, Spring	
ELN 247	Electronic Applications Project	1-3-2
ELN 275	Troubleshooting	1-3-2
ISC 221	Statistical Qual Control	3-0-3
ELC 128	Introduction to PLCs	2-3-3
Humanities	and Fine Arts Elective	3-0-3
Technical El	lective, select one:	
CSC 134	C++ Programming	2-3-3
CSC 151	JAVA Programming	2-3-3
CTI 120	Network and SEC Foundations	2-2-3
CTS 120 DFT 151	Hardware/Software Support CAD I	2-3-3 2-3-3
LEO 111	Lasers and Applications	1-3-2
ELC 213	Instrumentation	3-2-4
ELN 236		3-2-4
NOS 130	Fiber Optics and Lasers	5-2-4
105 150	Fiber Optics and Lasers Windows Single User	2-2-3
	-	2-2-3
Total Semes	Windows Single User ter Hours Credit Required for Graduation: 7	2-2-3
Total Semes	Windows Single User ter Hours Credit Required for Graduation: 7 <b>cs Engineering Technology</b>	2-2-3
Total Semes Electronic Credentia	Windows Single User ter Hours Credit Required for Graduation: 7 cs Engineering Technology al: Certificate in Electronics	2-2-3
Total Semes	Windows Single User ter Hours Credit Required for Graduation: 7 cs Engineering Technology al: Certificate in Electronics	2-2-3

This curriculum prepares individuals to work as skilled assemblers, inspectors, or testers in consumer or industrial electronics environments. Work tasks include mounting, soldering, and wiring of electronics components, assembling sub-units, and final assembly and inspection of complete systems. Coursework includes basic electricity, mathematics, solid-state electronics, and basic assembly skills. Graduates

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should qualify for employment as an electronics assembler, electronics tester, or electronics inspector.

## Program Length: 3 semesters

Career Pathway Options: Associate in Applied Science Degree in Electronics Engineering Technology, Certificate in Electronics Technology Program Sites: Lee Main Campus - Day Program; Harnett Main Campus – Day Program

## Suggested Course Schedule:

1 <sup>st</sup> Semester,	Fall	
EGR 131	Introduction to Electronics Technology	1-2-2
ELC 131	Circuit Analysis I	3-3-4
ELC 131A	Circuit Analysis I Lab	0-3-1
Math, select	one:	
MAT 171	Precalculus Algebra	3-2-4
MAT 121	Algebra/Trigonometry I	2-2-3
2 <sup>nd</sup> Semester	r, Spring	
ELN 131	Analog Electronics I	3-3-4
	-	
3rd Semester	r, Summer	
ELN 132	Analog Electronics II	3-3-4

Total Semester Hours Credit Required for Graduation: 18

## **Information Technology**

## Credential: Associate in Applied Science Degree in Information Technology-Business Systems and Operations Support A25590BS

The Information Technology (IT) curriculum prepares graduates for employment in the technology sector as designers, testers, support technicians, system administrators, developers, or programmers who use computer software and/or hardware to design, process, implement and manage information systems in specialties such as database services, security, business intelligence, healthcare informatics and others depending on the technical path selected within this curriculum.

Course work includes development of a student's ability to create, store, communicate, exchange and use information to solve technical issues related to information support and services, interactive media, network systems, programming and software development, information security 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 industry-recognized certification exams. Program Length: 6 semesters Program Sites: Lee Main Campus – Day Program with some evening courses available

## Suggested Course Schedule:

	ourse Schedule:	
1 <sup>st</sup> Semester,		
ACA 122	College Transfer Success	0-2-1
CTI 110	Web, Pgm, & Db Foundation	2-2-3
CTI 120	Network & SEC Foundation	2-2-3
CTS 115	Info Sys Business Concepts	3-0-3
CTS 120	Hardware/Software Support	2-3-3
NOS 130	Windows Single User	2-2-3
2 <sup>nd</sup> Semester	; Spring	
CIS 115	Intro to Prog & Logic	2-3-3
CTS 220	Adv Hard/Software Support	2-3-3
DBA 110	Database Concepts	2-3-3
WEB 115	Web Markup and Scripting	2-2-3
3 <sup>rd</sup> Semester	, Summer	
ENG 111	Writing & Inquiry	3-0-3
	requirement, select one:	
MAT 143	Quantitative Literacy	2-2-3
MAT 171	Precalculus Algebra	3-2-4
	-	521
4 <sup>th</sup> Semester		
NOS 230	Windows Administration I	2-2-3
SEC 110	Security Concepts	2-2-3
Programming	g elective, select one:	
CSC 134	C++ Programming	2-3-3
CSC 139	Visual BASIC Programming	2-3-3
CSC 151	JAVA Programming	2-3-3
Technical El	ective, select one:	
CIS 110	Intro to Computers	2-2-3
CSC 134	C++ Programming	2-3-3
CSC 139	Visual BASIC Programming	2-3-3
CSC 151	JAVA Programming	2-3-3
CTI 140	Virtualization Concepts	1-4-3
	-	
5 <sup>th</sup> Semester		
CTI 289	CTI Capstone Project	1-6-3
DBA 120	Database Programming I	2-2-3
NOS 120	Linux/UNIX Single User	2-2-3
WEB 151	Mobile Application Dev I	2-2-3
Social/Behav	vioral Science Elective	3-0-3
6th Semeste	r, Summer	
	Fine Arts Elective	3-0-3
	ions Elective, select one:	200
COM 231	Public Speaking	3-0-3
ENG 112	Writing/Research in the Disciplines	3-0-3
ENG 114	Professional Research & Reporting	3-0-3

Total Semester Hours Credit Required to Graduate: 67

## Information Technology Credential: Diploma in Information Technology D25590

The 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 the community information system's needs.

Coursework will develop a student's ability to communicate complex technical issues related to computer hardware, software, and networks in a manner that computer users can understand. Classes cover computer operations and terminology, operating systems, database, networking, security, and technical support. Graduates should qualify for employment in entry-level positions with businesses, educational systems, and governmental agencies which rely on computer systems to manage information. Graduates should be prepared to sit for industry-recognized certification exams.

## Program Length: 3 semesters

Career Pathway Options: Associate in Applied Science Degree in Information Technology (Higher entrance standards required), Diploma in Information Technology. Program Sites: Lee Main Campus - Day Program

### Suggested Course Schedule: 1<sup>st</sup> Semester, Fall

1 <sup>st</sup> Semester	r, Fall	
ACA 122	College Transfer Success	0-2-1
CTI 110	Web, Pgm, & Db Foundation	2-2-3
CTS 115	Info Sys Business Concepts	3-0-3
CTS 120	Hardware/Software Support	2-3-3
CTI 120	Network & Sec Foundation	2-2-3
ENG 111	Writing & Inquiry	3-0-3
NOS 130	Windows Single User	2-2-3
2 <sup>nd</sup> Semeste	er, Spring	
CIS 115	Intro to Prog & Logic	2-3-3
CTS 220	Adv Hard/Software Support	2-3-3
DBA 110	Database Concepts	2-3-3
WEB 115	Web Markup & Scripting	2-2-3
Mathematic	s requirement, select one:	
MAT 143	Quantitative Literacy	2-2-3
MAT 171	Precalculus Algebra	3-2-4
3 <sup>rd</sup> Semeste	r, Fall	
NOS 230	Windows Administration I	2-2-3
SEC 110	Security Concepts	2-2-3
Programmir	ng elective, select one:	
CSC 134	C++ Programming	2-3-3
CSC 121	Python Programming	2-3-3
CSC 139	Visual BASIC Programming	2-3-3
CSC 151	JAVA Programming	2-3-3

Total Semester Hours Credit: 43

## Information Technology Credential: Swift Programming Certificate C25590AP

Students in the Swift Programming Certificate program 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 mobile app programming and related computer areas that provide the ability to adapt as information systems evolve.

Graduates should qualify for employment in business, industry, and government organizations as entry-level programmers, programmer trainees, software developers, database developers, software specialists, or information managers.

## Program Length: 2-4 semesters

Career Pathway options: Associate in Applied Science Degree in Computer Information Technology (Higher entrance standards required), Diploma in Computer Information Technology (Higher entrance standards required); Certificate in Information Technology-Swift Programming

Program sites: Lee County High School

## **Course requirements for Swift Programming Certificate**

## Suggested Course Schedule:

1. Requirements:

1st Semest	er, Fall	
CSC 118	Swift Programming I	2-3-3
CTI 110	Web, Programming, & Database Found.	2-2-3

## 2nd Semester, Spring

	,~ <b>r8</b>	
CSC 218	Swift Programming II	2-3-3
WEB 151	Mobile Application Dev. I	2-2-3

Semester Hours Credit required for graduation: 12

## Information Technology Credential: Database Programming Certificate C25590DP

Students in the Database Programming Certificate program 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, database design, database application, and related computer areas that provide the ability to adapt as information systems evolve.

Graduates should qualify for employment in business, industry, and government organizations as entry-level programmers, programmer trainees, software developers, database developers, software specialists, or information managers.

## Program Length: 3 semesters

Career Pathway Options: Associate in Applied Science Degree in Computer Information Technology (Higher entrance standards required), Diploma in Computer Information Technology (Higher entrance standards required), Certificate in Computer Information Technology. Program Sites: Lee Main Campus - Day Program

## **Suggested Course Schedule:**

## 1<sup>st</sup> Semester, Fall

CTI 110	Web, Pgm, & Db Foundation	2-2-3
DBA 110	Database Concepts	2-3-3
2 <sup>nd</sup> Semeste CIS 115 DBA 120	er, Spring Intro to Prog & Logic Database Programming I	2-3-3 2-2-3

## 3 Semester, Fall

Programming Elective, select one:

CSC 134	C++ Programming	2-3-3
CSC 139	Visual BASIC Programming	2-3-3
CSC 151	JAVA Programming	2-3-3

Total Semester Hours Credit Required for Graduation: 15

## Information Technology Credential: Internet and Computing Core IC3 Certificate C25590IC

Students in the Internet and Computing Core IC3 Certificate program will solve general computer problems through computer literacy techniques using appropriate learning methods and procedures. The primary emphasis of the curriculum is hands-on training in word processing applications, spreadsheet applications, presentation applications, database applications, basic computer concepts, networking concepts, Internet concepts and other related computer areas that provide the ability to adapt as information systems evolve. Once course requirements are met, students will be prepared to take the globally recognized IC3 Certification Exam offered by Certiport.

Graduates should qualify for employment in business, industry, and government organizations as entry-level computer users.

## Program Length: 2 semesters

Career Pathway Options: Associate in Applied Science Degree in Computer Associate in Applied Science Degree in Computer Information Technology (Higher entrance standards required), Diploma in Computer Information Technology (Higher entrance standards required), Certificate in Computer Information

Sites: Lee Main Campus - Day and Evening

### Suggested Course Schedule:

1 <sup>st</sup> Semester, Fall			
CTS 120	Hardware/Software Support	2-3-3	
NOS 130	Windows Single User	2-2-3	
2 <sup>nd</sup> Semeste CIS 110 CTI 120	<b>r, Spring</b> Introduction Computers Network & Sec Foundation	2-2-3 2-2-3	

Total Semester Hours Credit required for graduation: 12

## Information Technology Credential: Hardware/Troubleshooting Certificate C25590HT

This certificate is designed for individuals interested in acquiring advanced technical skills and knowledge to maintain and repair personal computers. Students gain skills in selecting parts, upgrading, building, and configuring personal computers, and installing and configuring operating systems. Major topics include component identification, system configuration, memory, peripheral installation and configuration, device drivers, printers and communication devices, and troubleshooting and diagnostic techniques. 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. This certificate is designed to prepare students for the A+ Certification Examinations offered by CompTIA (Certified Hardware Technician).

Graduates should qualify for employment in business, industry, and government organizations as entry-level PC technicians, helpdesk technicians, or any generalist computer technician.

Program Length: 2 semesters

Career Pathway Options: Associate in Computer Information Technology or Networking Technology Program Sites: Lee Main Campus – Day and Evening

## Suggested Course Schedule:

1st Semester, Fall

CTS 120 NOS 130	Hardware/Software Support Windows Single User	2-3-3 2-2-3
2 <sup>nd</sup> Semest	er, Spring	
CTI 120	Network & Sec Foundation	2-2-3
CTS 220	Adv Hard/Software Support	2-3-3

Total Semester Hours Credit required for graduation: 12

## Information Technology Credential: Programming Certificate C25590P

Students in the Programming Certificate program 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 information systems evolve.

Graduates should qualify for employment in business, industry, and government organizations as entry-level programmers, programmer trainees, software developers, database developers, software specialists, or information managers.

## Program Length: 2 semesters

Career Pathway options: Information Technology Associate in Applied Science

Program sites: Lee Main Campus–Day with some evening courses available

## **Suggested Course Schedule:**

1 <sup>st</sup> Semeste	er, Fall	
CSC 134	C++ Programming	2-3-3
CTI 110	Web, Pgm, & Db Foundation	2-2-3
	-	
2 <sup>nd</sup> Semest	er, Spring	
CIS 115	Intro to Prog & Logic	2-3-3
CSC 151	JAVA Programming	2-3-3

Semester Hours Credit required for graduation: 12

## Information Technology-Network and Cybersecurity Management Credential: Associate in Applied Science Degree in Information Technology-Network and Cybersecurity Management A25590NS

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 communication in business, industry, and education.

Coursework 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 should find employment in entry-level jobs as local area network managers, network operators, network analysts, and network technicians. Graduates may also be qualified to 144 take certification examinations for various network industry certifications, depending on their local program.

Graduates should qualify for positions such as: LAN/PC administrator, microcomputer support specialist, network control operator, Communication technician/analyst, network/computer consultant, and information systems specialist.

Program Length: 6 semesters

Career Pathway Options: Specialized Networking Certificate Programs

Program Sites: Lee Main Campus-with some evening courses available

### Suggested Course Schedule: 1<sup>st</sup> Semester, Fall

1 Semeste	,	
ACA 122	College Transfer Success	0-2-1
CTI 110	Web, Pgm & Db Foundation	2-2-3
CTI 120	Network & Sec Foundation	2-2-3
CTS 115	Info Systems Business Concept	3-0-3
NOS 130	Windows Single User	2-2-3
SEC 110	Security Concepts	2-2-3
2 <sup>nd</sup> Semeste		
NET 125	Intro to Networks	1-4-3
NOS 120	Linux/UNIX Single User	2-2-3
NOS 230	Windows Administration I	2-2-3
SEC 150	Secure Communications	2-2-3
Math requir	rement, select one:	
MAT 143	Quantitative Literacy	2-2-3
MAT 171	Precalculus Algebra	3-2-4
3 <sup>rd</sup> Semeste	er, Summer	
NET 126	Switching and Routing	1-4-3
ENG 111	Writing and Inquiry	3-0-3
4 <sup>th</sup> Semeste	r, Fall	
CIS 115	Intro to Programming & Logic	2-3-3
NOS 220	Linux/UNIX Administration I	2-2-3
SEC 160	Security Administration I	2-2-3
Technical E	lective, select one:	
CIS 110	Introduction to Computers	2-2-3
DBA 110	Database Concepts	2-3-3
NET 225	Enterprise Networking	1-4-3
5 <sup>th</sup> Semeste	r, Spring	
CTI 289	CTI Capstone Project	1-6-3
SEC 175	Perimeter Defense	1-4-3
SEC 210	Intrusion Detection	2-2-3
Communica	ations, select one:	
COM 231	Public Speaking	3-0-3
ENG 112	Writing/Research in the Disciplines	3-0-3
ENG 114	Professional Research & Reporting	3-0-3

6 <sup>th</sup> Semester, Summer	
Humanities/Fine Arts Elective	3-0-3
Social/Behavioral Science Elective	3-0-3

Total Semester Hours Credit Required for Graduation: 64

# Information Technology-Network and Cybersecurity Management Credential: Diploma in Information Systems (Network Management) D25590N

Program Length: 4 Semesters

Career Pathway Options: Associate in Applied Science Degree in Network Technology, Diploma in Network Technology. Program Sites: Lee Main Campus–Day with some evening courses available

# Suggested Course Schedule:

### 1<sup>st</sup> Semester, Fall

ACA 122	College Transfer Success	0-2-1
CTI 110	Web, Pgm, & Db Foundation	2-2-3
CTI 120	Network & Sec Foundation	2-2-3
CTS 120	Hardware/Software Support	2-3-3
CTS 115	Information Sys Business Concept	3-0-3
NOS 130	Windows Single User	2-2-3
2 <sup>nd</sup> Semeste	or Spring	
NET 125	Intro to Networks	1-4-3
NOS 120	Linux/UNIX Single User	2-2-3
NOS 120 NOS 230	Windows Administration I	2-2-3
NOS 250	windows Administration 1	2-2-3
Math requir	ement, select one:	
MAT 143	Quantitative Literacy	2-2-3
MAT 171	Precalculus Algebra	3-2-4
3 <sup>rd</sup> Semeste	r. Summer	
NET 126	Switching and Routing	1-4-3
ENG 111	Writing and Inquiry	3-0-3
4 <sup>th</sup> Semeste	r Fall	
		2 2 2
NOS 220	Linux/UNIX Administration	2-2-3
NET 225	Enterprise Networking	1-4-3
SEC 160	Security Administration I	2-2-3

Total Semester Hours Credit Required for Graduation: 46

# Information Technology-Network and Cybersecurity Management Credential: Certificate in Network Infrastructure C25590NI

The Network Infrastructure Certificate is a certificate under the curriculum title of Network Technology. This curriculum prepares students to understand and install various models of Cisco routers and switches. This curriculum also develops operating skills needed to successfully manage and support these devices.

Coursework includes extensive hands-on experience with different network electronics and support tools. Classes cover installation and support of various network electronics, management software, troubleshooting, and administrative responsibilities.

Graduates should qualify for positions such as: LAN/PC Administrator, Network Control Operator, Network Analyst, and Information Systems Specialist. Graduates may also be prepared to sit for certification exams that can result in industry-recognized credentials. Credits earned in this certificate program will transfer into the Associate in Applied Science Degree in Network Technology. Students must meet the higher entrance requirements.

Program Length: 2 Semesters (Evening), 4 Semesters (Day) Career Pathway Options: Associate in Applied Science Degree in Network Technology (Higher entrance standards required), Diploma in Network Technology (Higher entrance standards required), Certificate in Network Infrastructure. Program Sites: Lee Main Campus–Day with some evening courses available

### Suggested Course Schedule: 1<sup>st</sup> Semester, Fall

CTI 120	Network & SEC Foundation	2-2-3
NET 125	Intro to Networks	1-4-3
2 <sup>nd</sup> Semeste	er, Spring	1 4 2

NET 126	Routing Basics	1-4-3
NET 225	Enterprise Networking	1-4-3

Total Semester Hours Credit Required for Graduation: 12

# Information Technology-Network and Cybersecurity Management Credential: Certificate in Network Operating Systems C25590NO

The Network Operating System is a certificate under the curriculum title of Networking Technology. This curriculum prepares students to understand various network operating systems and models. This curriculum also develops operating skills needed to successfully manage and support these devices.

Coursework includes extensive hands-on experience with different network operating systems and tools. Classes cover installation and support of various network operating systems, security electronics, security and intrusion detection software, troubleshooting, administrative responsibilities, and other tools. Graduates should qualify for positions such as: LAN/PC network operating systems administrator, technician, and personal computer technician.

Graduates may also be prepared to sit for certification exams that can result in industry-recognized credentials. Credits earned in this certificate program will transfer into the Associate in Applied Science Degree in Networking Technology. Students must meet the higher entrance requirements.

### Program Length: 2 semesters

Career Pathway Options: Associate in Applied Science Degree in Network Technology (Higher entrance standards required), Diploma in Network Technology (Higher entrance standards required), Certificate in Network Operating System.

Program Sites: Lee Main Campus–Day with some evening courses available

### **Suggested Course Schedule:**

1 <sup>st</sup> Semeste	r, Spring	
NOS 120	Linux/UNIX Single User	2-2-3
NOS 230	Windows Admin I	2-2-3

### 2<sup>nd</sup> Semester, Fall

	- )	
NOS 130	Windows Single User	2-2-3
NOS 220	Linux/UNIX Administration I	2-2-3

Total Semester Hours Credit Required for Graduation: 12

# Information Technology- Network and Cybersecurity Management Credential: Certificate in Network Security C25590SE

The Network Security Certificate is a certificate under the curriculum title of Network Technology. This curriculum prepares students to understand and install various types of security tools and models. This curriculum also develops operating skills needed to successfully manage and support these devices.

Coursework includes extensive hands-on experience with different network electronics, operating systems, and security tools. Classes cover installation and support of various security electronics, security and intrusion detection software, troubleshooting, administrative responsibilities, and other security tools.

Graduates should qualify for positions such as: LAN/PC security technician, security control operator, and network security technician. Graduates may also be prepared to sit for certification exams that can result in industry-recognized credentials. Credits earned in this certificate program will transfer into the Associate in Applied Science Degree in Network Technology. Students must meet the higher entrance requirements.

Program Length: 2 semesters (Evening), 4 semesters (Day) 146

Career Pathway Options: Associate in Applied Science Degree in Network Technology (Higher entrance standards required), Diploma in Network Technology (Higher entrance standards required), Certificate in Network Security.

Program Sites: Lee Main Campus–Day with some evening courses available

# Suggested Course Schedule:

1 <sup>st</sup> Semeste	er, Fall	
CTI 120	Network and SEC Foundation	2-2-3
NET 125	Intro to Networks	1-4-3
SEC-110	Security Concepts	2-2-3
2 <sup>nd</sup> Semest	er, Spring	
NET 126	Switching and Routing	1-4-3
NET 225	Enterprise Networking	1-4-3
3rd Semest	er, Fall	
SEC-160	Security Administration I	2-2-3

Total Semester Hours Credit Required for Graduation: 18

# Laser and Photonics Technology

### **Credential:** Associate in Applied Science Degree in Laser and Photonics Technology A40280

The Laser and Photonics Technology curriculum is designed to develop the practical knowledge and skills required to be a successful laser technician. Coursework includes mathematics, science, communication, electronics and laser/optics courses. An in-depth sequence of laboratory learning experiences develops the hands-on skills needed for specifying, operating and maintaining laser and photonics-based systems. Students may also qualify for Electronic Engineering Technology Certificate.

Current and emerging job opportunities exist in the areas of laser manufacturing, laser field engineering, laser research and development, fiber optic communications and a variety of related areas. Program graduates often begin work as technicians in product testing, field service, product development or sales. Several laser graduates continue their education, paid by industry, obtaining bachelor, masters and PhD degrees.

Program Length: 5 semesters Career Pathway Options: Associate in Applied Science in Laser and Photonics Technology Program Sites: Harnett Main Campus - Day Program

# Suggested Course Schedule:

### 1<sup>st</sup> Semester, Fall

ACA 122	College Transfer Success	0-2-1
CIS 110	Introduction to Computers	2-2-3
EGR 131	Intro to Electronics Tech	1-2-2
ELC 131	Circuit analysis I	3-3-4

ELC 131A	Circuit Analysis I Lab	0-3-1
ENG 111	Writing & Inquiry	3-0-3
Mathematics		
MAT 121	Algebra/Trigonometry	2-2-3
MAT 171	Precalculus Algebra	3-2-4
2 <sup>nd</sup> Semester	; Spring	
ELC 127	Software for Technicians	1-3-2
ELN 131	Analog Electronics I	3-3-4
ELN 133	Digital Electronics	3-3-4
LEO 111	Lasers and Applications	1-3-2
Mathematics	select one:	
MAT 121	Algebra/Trigonometry I	2-2-3
MAT 171	Precalculus Algebra	3-2-4
	Treatentus Argeora	J-2- <del>4</del>
3 <sup>rd</sup> Semester	; Summer	
	Analog Electronics II	3-3-4
	C	
Physics, sele	ct one:	
PHY 131	Physics – Mechanics	3-2-4
PHY 151	College Physics I	3-2-4
44h ~		
4 <sup>th</sup> Semester		1 2 2
ELN 275		1-3-2
LEO 211	Photonics Technology	5-6-7
	Photonics Applications	3-3-4
Humanities/I	Fine Arts Elective	3-0-3
Communicat	ions, select one:	
ENG 112	Writing/Research in the Disc	3-0-3
ENG 114	Prof Research & Reporting	3-0-3
COM 231	Public Speaking	3-0-3
5 <sup>th</sup> Semester		
ELN 232	Intro to Microprocessors	3-0-3
ISC 221	Statistical Qual Control	3-0-3
LEO 213	Advanced Photonic Applications	3-3-4
Social/Behav	vioral Science	3-0-3
Technical ele	ectives, select <u>two</u> :	
LEO 222	Photonics Apps Project	1-3-2
WBL 111	Work-based Learning I	0-10-1
WBL 121	Work-based Learning II	0-10-1
WBL 121	Work-based Learning II	0-20-1
	······································	1
Total Semest	er Hours Credit Required for Graduation	on: 75

# Library and Information Technology

## **Credential: Associate in Applied Science Degree** in Library and Information Technology A55310

The Library and Information Technology curriculum is designed to prepare graduates for employment with organizations that use technology to process, manage, and communicate information. The objective is the development of generalists and specialists in the management of library resources.

Students will complete courses designed to develop proficiency in the use of electronic resources for information retrieval, inventory control, information cataloging and classification, program development and promotion, circulation systems, audiovisual operations, hardware/software use and maintenance, problem solving, and telecommunications.

Graduates should qualify for employment in a variety of positions in library, media, learning resources, information, or instructional materials centers or in any other organization engaged in library-related activities.

Program Length: 4 semesters

Career Pathway Options: Associate in Applied Science Degree in Library and Information Technology Program Sites: Major Core Courses only offered through Distance Education. General Education and Electives are offered through a combination of traditional classroom instruction and Distance Education. A work-based learning experience is also required. This can be done in a library of your choice.

Suggested Course Schedule: 1<sup>st</sup> Semester, Fall

1 <sup></sup> Semeste	r, ran	
CIS 110	Introduction to Computers	2-2-3
ENG 111	Writing & Inquiry	3-0-3
LIB 110	Introduction to Libraries	3-0-3
LIB 111	Lib Info Resources & Services	2-2-3
LIB 113	Library Cataloging & Classifications	2-2-3
ACA 122	College Transfer Success	0-2-1
2 <sup>nd</sup> Semeste	er, Spring	
CTS 135	Integrated Software Intro	2-4-4
LIB 112	Library Collection Dev/Acq	2-2-3
LIB 114	Library Public Service Op	2-2-3
WEB 110	Internet/Web Fundamentals	2-2-3
Major elect	ive, select from:	
ACC 120	Prin of Financial Accounting	3-2-4
BUS 137	Principles of Management	3-0-3
BUS 151	People Skills	3-0-3
BUS 153	Human Resource Management	3-0-3

COM 110 EDU 131 LIB 212 LIB 213 LIB 214 LIB 215 MKT 120 MKT 223	Introduction to Communication Child, Family, and Community Library Services/Spec Needs Cataloging Nonprint Materials Library Services/Children Library Management Principles of Marketing Customer Service	3-0-3 3-0-3 3-0-3 2-2-3 3-0-3 3-0-3 3-0-3 3-0-3
3 <sup>rd</sup> Semeste	r Fall	
CTS 130	Spreadsheet	2-2-3
DBA 110	Database Concepts	2-2-3
LIB 211	Library Program Development	3-0-3
LIB 211 LIB 214	Library Services for Children	3-0-3
WEB 214	Social Media	2-3-3
WED 214	Social Media	255
Maior electi	ve, select from:	
ACC 120	Prin of Financial Accounting	3-2-4
BUS 137	Principles of Management	3-0-3
BUS 151	People Skills	3-0-3
BUS 153	Human Resource Management	3-0-3
COM 110	Introduction to Communication	3-0-3
EDU 131	Child, Family, and Community	3-0-3
LIB 212	Library Services/Spec Needs	3-0-3
LIB 213	Cataloging Nonprint Materials	2-2-3
LIB 214	Library Services/Children	3-0-3
LIB 215	Library Management	3-0-3
MKT 120	Principles of Marketing	3-0-3
MKT 223	Customer Service	3-0-3
ath G		
4 <sup>th</sup> Semester		2.0.2
ENG 114		3-0-3
LIB 210	Electronic Lib Database	2-2-3
WBL 111	Work-based Learning I	0-10-1 3-0-3
	<u>Fine Arts Elective</u> vioral Science Elective	3-0-3
Social/Della	vioral Science Elective	3-0-3
Mathematic	s, select one course	
MAT 110	Math Measurement & Literacy	2-2-3
MAT 143	Quantitative Literacy	2-2-3
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Total Semester Hours Credit Required for Graduation: 66

# Library and Information Technology Credential: Diploma in Library and Information Technology D55310

The Diploma in Library and Information Technology curriculum is designed to prepare graduates for employment with organizations that use technology to process, manage, and communicate information. Students will complete courses designed to develop proficiency in the use of electronic resources for records management, information resources and services, acquisition and collection management, cataloging and classifying, and public service.

All credits earned in this diploma program will transfer into the Associate in Applied Science Degree in Library and Information Technology provided the student meets the higher entrance standards. Program Length: 2 semesters Career Pathway Options: Associate in Applied Science Degree in Library and Information Technology Program Sites: Major Core Courses only offered through Distance Education. General Education and Electives are offered through a combination of traditional classroom instruction and Distance Education. **Suggested Course Schedule:** 1<sup>st</sup> Semester, Fall ACA 122 College Transfer Success 0-2-1 CIS 110 Introduction to Computers 2 - 2 - 3Introduction to Libraries LIB 110 3-0-3 LIB 111 Lib Info Resources & Services 2 - 2 - 3LIB 113 Library Cataloging & Classification 2 - 2 - 3Social Media WEB 214 2 - 2 - 3Elective, select one: LIB 212 Library Services/Spec Needs 3-0-3 LIB 214 Library Services/Children 3-0-3 2<sup>nd</sup> Semester, Spring **Database Concepts** DBA 110 2 - 3 - 3ENG 111 Writing & Inquiry 3-0-3 LIB 112 Library Collection Dev/Aca 2 - 2 - 3LIB 114 Library Public Service Op 2 - 2 - 3Social/Behavioral Science Elective 3-0-3 WEB 110 Internet/Web Fundamentals 2 - 2 - 3WBL 111 Work-based Learning I 0-10-1

Total Semester Hours Credit Required for Graduation: 38

# Library and Information Technology Credential: Certificate in Library Cataloging C55310C0

This certificate program is designed for individuals interested in developing technology skills in the location and provision of information. Upon completion, students should be able to select and create MARC records, search OCLC, apply Anglo-American cataloging rules, and maintain authority files. Credits in this certificate program may be transferred toward an Associate in Applied Science Degree in Library and Information Technology and/or Diploma in Library and Information Technology and/or other Library and Information Technology certificates.

(No placement testing is required for this certificate program.) Program Length: Variable based on student course load. Career Pathway Options: Associate in Applied Science Degree in Library and Information Technology (Higher entrance standards required.) Program Sites: Distance Education

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### **Suggested Course Schedule:**

1st	Semester,	Fall
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15t Semest	ier, i un	
LIB 112	Library Collection Dev/Acquisition	2-2-3
LIB 113	Library Cataloging & Classification	2-2-3
2 1 6		

### 2nd Semester, Spring

WEB 110	Internet/Web Fundamentals	2-2-3
LIB 213	Cataloging Non-print Materials	2-2-3

Total Semester Hours Credit Required for Graduation: 12

# Library and Information Technology Credential: Certificate in Library Programs C55310L0

The certificate is designed for individuals interested in developing skills in the planning, presentation, and evaluation of programs in libraries. The objective is to develop specialists in providing inclusive programs of global interest that meet community needs and interests. Students gain skills in assessing community needs and interests; locating, evaluating, and acquiring program resources; presenting inclusive programs that incorporate AV equipment; engaging community participation; and program evaluation. Credits in this certificate program may be transferred toward an Associate in Applied Science Degree in Library and Information Technology and/or Diploma in Library and Information Technology and/or other Library and Information Technology certificates.

(No placement testing is required for this certificate program.) Program Length: Variable

Career Pathway Options: Associate in Applied Science Degree in Library and Information Technology (Higher entrance standards required.) Program Sites: Distance Education

Total Semester Hours Credit Required for Graduation: 12

### **Suggested Course Schedule:**

1st Semester, FallLIB 211Library Program Development3-0-3LIB 212Library Services for Special Needs3-0-32nd Semester, SpringWEB 110Internet/Web Fundamentals2-2-33rd Semester, FallLIB 214Library Services for Children3-0-3

## Library and Information Technology Credential: Certificate in Library Public Services C55310P0

This certificate is designed for individuals interested in entering the library field, as well as those already employed in the field who desire to improve their job knowledge and skills through a selection of library survey courses. Specific emphases include a survey of libraries, information resources, using communication skills, and understanding circulation systems and basic acquisitions activities. Credits earned in this program may be transferred toward an Associate in Applied Science in Library and Information Science and/or a Diploma in Library and Information Science and/or other Library and Information Technology certificates.

(No placement testing is required for this certificate program.) Program Length: Variable Career Pathway Options: Associate in Applied Science Degree in Library and Information Technology (Higher entrance standards required.) Program Sites: Distance Education

### Suggested Course Schedule:

1st Semeste	r, Spring	
WEB 110	Internet/Web Fundamentals	2-2-3
LIB 114	Library Public Services Operation	2-2-3
2nd Semest	er, Fall	
LIB 111	Library Info Resources & Services	2-2-3
3rd Semeste	er, Spring	
LIB 114	Library Public Services Operation	2-2-3
LIB 210	Electronic Library Databases	2-2-3

Total Semester Hours Credit Required for Graduation: 12

# Library and Information Technology Credential: Certificate in Library Technical Services C55310T0

This certificate is designed for individuals interested in developing technical services skills for employment with organizations that use technology to process, manage, and communicate information. The objective is to develop specialists in managing electronic library resources. Students gain skills in acquiring and managing library collections and cataloging and classifying materials. Credits earned in this program may be transferred toward an Associate in Applied Science Degree in Library and Information Science and/or a diploma in Library and Information Technology and/or other Library and Information Technology certificates.

(No placement testing is required for this certificate program.) Program Length: Variable Career Pathway Options: Associate in Applied Science Degree

in Library and Information Technology (Higher entrance standards required.) Program Sites: Distance Education

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### Suggested Course Schedule: 1st Semester, Fall

ist Semestery i un		
LIB 111	Library Info Resources & Services	2-2-3
LIB 112	Library Collection Dev/Acquisition	2-2-3

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2nd Semester, Spring		
WEB 110	Internet/Web Fundamentals	2-2-3
2.10	E-11	
3rd Semeste	er, Fall	
LIB 113	Library Cataloging & Classification	2-2-3
4th Semeste	er, Spring	
LIB 210	Electronic Library Databases	2-2-3
LIB 213	Cataloging Non-print Materials	2-2-3

Total Semester Hours Credit Required for Graduation: 18

# Library and Information Technology Credential: Certificate in Library Basics C55310G0

This certificate is designed for individuals interested in entering the library field, as well as those already employed in the field who desire to improve their job knowledge and skills through a selection of library survey courses. Specific emphases include a survey of libraries, information resources, using communication skills, and understanding circulation systems and basic acquisitions activities. Credits earned in this program may be transferred toward an Associate in Applied Science Degree in Library and Information Technology and/or a diploma in Library and Information Technology and/or other Library and Information Technology certificates if desired.

(No placement testing is required for this certificate program) Program Length: 2 semesters

Career Pathway Options: Associate in Applied Science Degree in Library and Information Technology (Higher entrance standards required.) Program Site: Distance Education

# Suggested Course Schedule:

1st Semester, Fall		
LIB 110	Introduction to Libraries	3-0-3
LIB 111	Library Info Resources & Services	2-2-3
2nd Semes LIB 112 LIB 114	ster, Spring Library Collection Dev/Acquisition Library Public Services Operations	2-2-3 2-2-3

Total Semester Hours Credit Required for Graduation: 12

# Library and Information Technology Credential: Certificate in Library Management C55310M0

This certificate is designed for individuals interested in entering the library field, as well as those already employed in the field who desire to improve their job knowledge and skills through a selection of survey courses. Specific emphasis includes a survey of libraries, library public and technical services, library management, customer service, and human resource management. Credits earned in this program may be transferred toward an Associate in Applied Science in Library and Information Science and/or a Diploma in Library and Information Science.

(No placement testing is required for this certificate program.) Program Length: Variable based on student course load. Career Pathway Options: Associate in Applied Science Degree in Library and Information Technology (Higher entrance standards required.)

Program Sites: Distance Education

### Suggested Course Schedule: 1st Semester, Fall

LIB 110	Introduction to Libraries	3-0-3
BUS 153	Human Resource Management	3-0-3
MKT 223	Customer Service	3-0-3
	ter, Spring	

LIB 112	Library Collection Dev/Acquisition	2-2-3
LIB 114	Library Public Services Operations	2-2-3
LIB 215	Library Management	3-0-3

Total Semester Hours Credit Required for Graduation: 18

# Mechanical Engineering Technology

# Credential: Associate in Applied Science in Mechanical Engineering Technology A40320

The Mechanical Engineering Technology curriculum prepares students to use basic engineering principles and technical skills to design, develop, test, and troubleshoot projects involving mechanical systems. Includes instruction in principles of mechanics, applications to specific engineering systems, design testing procedures, prototype and operational testing and inspection procedures, manufacturing system-testing procedures, test equipment operation and maintenance, computer applications, critical thinking, planning and problem solving, and oral and written communications. Graduates of the curriculum will find employment opportunities in the manufacturing or service sectors of engineering technology. Engineering technicians may obtain professional certification by application to organizations such as ASQC, SME, and NICET.

Program Length: 5 semesters Program Location: Lee Main Campus–Day

# Suggested Course Schedule:

1<sup>st</sup> Semester, Fall

ACA 122	College Transfer Success	0-2-1
DFT 154	Intro to Solid Modeling	2-3-3
MEC 180	Engineering Materials	2-3-3
CIS 110	Introduction to Computers	2-2-3

	s, select one: Algebra/Trigonometry I Precalculus Algebra	2-2-3 3-2-4
<b>2<sup>nd</sup> Semeste</b> DFT 151 DDF 211 DFT 254	e <b>r, Spring</b> CAD I Design Process I Intermed Solid Model/Render	2-3-3 1-6-4 2-3-3
Mathematic MAT 122 MAT 172	s, select one: Algebra/Trigonometry II Precalculus Trigonometry	2-2-3 3-2-4
Physics, sele PHY 131 PHY 151	ect one: Physics – Mechanics College Physics I	3-2-4 3-2-4
HYD 110	Writing and Inquiry	3-0-3 2-3-3 3-0-3
<b>4<sup>th</sup> Semeste</b> DDF 212 DFT 152 EGR 250 MEC 111	Design Process II CAD II	1-6-4 2-3-3 4-3-5 1-4-3
Communica ENG 112 ENG 114 ENG 115 ENG 116 COM 110 COM 120 COM 231	tions, select one: Writing/Research in the Disc Prof Research & Reporting Oral Communication Technical Report Writing Introduction to Communication Intro Interpersonal Com Public Speaking	3-0-3 3-0-3 3-0-3 3-0-3 3-0-3 3-0-3 3-0-3
Humanities/	CAD III Design Project	2-3-3 0-4-2 2-2-3 2-2-3 3-0-3

Total Semester Hours Credit required for graduation: 71

# Mechanical Engineering Technology Credential: Certificate in Mechanical Engineering Technology C40320

Program Length: 3 semesters Program Location: Lee Main Campus–Day

Suggested Course Schedule:

1 <sup>st</sup> Semester	; Fall	
DFT 154	Intro to Solid Modeling	2-3-3

2 <sup>nd</sup> Semest	er, Spring	
DFT 151	CAD I	2-3-3
DDF 211	Design Process I	1-6-4
<b>3<sup>rd</sup> Semest</b> DFT 152 MEC 111	er, Fall CAD II Machine Processes I	2-3-3 1-4-3

Total Semester Hours Credit required for graduation: 16

# Mechanical Engineering Technology Credential: Certificate in Mechanical Engineering Technology, Engineering Graphics C40320EG

Program Length: 3 semesters	
Program Location: Lee Main Campus–Day	
Suggested Course Schedules	

Suggested Course Schedule:		
1 <sup>st</sup> Semeste	er, Fall	
DFT 154	Intro to Solid Modeling	2-3-3
2 <sup>nd</sup> Semest	er, Spring	
DDF 211	Design Process I	1-6-4
DFT 254	Intermed Solid Model/Render	2-3-3
3rd Semest	er, Spring	
DFT 153	CAD III	2-3-3

Total Semester Hours Credit required for graduation: 13

# **Programs at Harnett Correctional Institution (HCI)**

# Carpentry

# Credential: Certificate in Carpentry and Construction Skills; Certificate in Advanced Carpentry Skills C35180P1; C35180P2

The Carpentry curriculum is designed to prepare individuals to apply technical knowledge and skills to the fields of construction, construction management, and other associated professions.

Course work includes instruction in sustainable building and design, print reading, building codes, estimating, construction materials and methods, and other topics related to design and construction occupations.

Graduates of this program should qualify for entry-level jobs in construction and trades professions as well as positions in industry and government.

### Program Length: 1 semester

Career Pathway Options: Diploma in Carpentry (Higher entrance standards required); Certificate in Carpentry Program Sites: Harnett Correctional Institution-Day Program **Course Requirements for Carpentry and Construction Skills Certificate** 

1. Major Requirements (18 SHC)		C-L-SHC
BPR 130	Print Reading	3-0-3
CAR 111	Carpentry I	3-15-8
CAR 114	Residential Building Codes	3-0-3
CAR 115	Residential Planning/Estimating	3-0-3
ISC 110	Workplace Safety	1-0-1

Total Semester Hours Credit required for graduation: 18

### Course Requirements for Advanced Carpentry Skills Certificate 2. Major Requirements (14 SHC) CAR 112 Carpentry II 3-15-8 CAR 113 Carpentry III 3-9-6

Total Semester Hours Credit required for graduation: 14

# Electrical Systems Technology Credential: Certificate in Fundamentals of Electrical Technology; Certificate in Advanced Electrical Skills for Commercial, Residential, and Solar Applications C35130P1; C35130P2

This curriculum is designed to provide training for persons interested in the installation and maintenance of electrical

systems found in residential, commercial, and industrial facilities.

Coursework, most of which is hands-on, will include such topics as AC/DC theory, basic wiring practices, programmable logic controllers, industrial motor controls, applications of the National Electric Code, and other subjects as local needs require.

Graduates should qualify for a variety of jobs in the electrical field as an on-the-job trainee or apprentice assisting in the layout, installation, and maintenance of electrical systems.

### Program Length: 1 semester

Career Pathway Options: Diploma in Electrical Systems Technology (Higher entrance standards required); Certificate in Electrical Systems Technology Program Sites: Harnett Correctional Institution-Day Program **Course requirements for Fundamentals of Electrical** 

### **Technology Certificate**

1 Major Requirements (13 SHC)		C-L-SHC
ELC 112	DC/AC Electricity	3-6-5
ELC 113	Residential Wiring	2-6-4
ELC 125	Diagrams and Schematics	1-2-2
ELC 118	National Electrical Code	1-2-2

Total Semester Hours Credit required for graduation: 13

# Course requirements for Advanced Electrical Skills for Commercial, Residential, and Solar Applications

1. Majur	Keyun ements (15 SIIC)	
ELC 114	Commercial Wiring	2-6-4
ELC 117	Motors and Controls	2-6-4
ELC 122	Advanced Residential Wiring	2-4-4
ELC 220	Photovoltaic System Technology	2-3-3

Total Semester Hours Credit required for graduation: 15

### Masonry

# Credential: Certificate in Masonry Fundamentals; Certificate in Advanced Masonry Skills

### C35280P1; C35280P2

The Masonry curriculum prepares individuals to apply technical knowledge and skills in the laying and/or setting of exterior brick, concrete block, and related materials, using trowels, levels, hammers, chisels, and other hand tools.

Coursework, most of which is hands-on, includes instruction in print reading, structural masonry, decorative masonry, foundations, reinforcement, mortar preparation, cutting and finishing, and applicable codes and standards.

Graduates of this program should qualify for entry-level jobs in construction and trades professions as well as positions in industry and government. Program Length: 1 semester

Career Pathway Options: Certificate in Masonry

Program Sites: Harnett Correctional Institution-Day Program Course Requirements for Masonry Fundamentals Certificate

Certificate		
1. Major Requirements (14 SHC)		C-L-SHC
MAS 110	Masonry I	5-15-10
BPR 130	Print Reading –Construction	3-0-3
ISC 110	Workplace Safety	1-0-1

Total Semester Hours Credit required for graduation: 14

### Course Requirements for Advanced Masonry Skills Certificate

1. Major	Requirements	(18 SHC)
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MAS 120	Masonry II	5-15-10
MAS 130	Masonry III	6-6-8

Total Semester Hours Credit required for graduation: 18

# Welding Technology Credential: Certificate in Welding Fundamentals; Certificate in MIG, TIG, and Fabrication C50420P1; C50420P2

The Welding Technology curriculum provides students with a sound understanding of the science, technology, and applications essential for successful employment in the welding and metalworking industry.

Instruction includes consumable and non-consumable electrode welding and cutting processes. Courses may include math, print reading, metallurgy, welding inspection, and destructive and non-destructive testing providing the student with industry-standard skills developed through classroom training and practical application.

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.

Program Length: 1 semester

Career Pathway Options: Certificate in Welding Technology Program Site: Harnett Correctional Institution-Day Program

# Course Requirements for Welding Fundamentals Certificate

1. Major Requirements (15 SHC)		C-L-SHC
WLD 110	Cutting Processes	1-3-2
WLD 115	SMAW (Stick) Plate	2-9-5
WLD 116	SMAW (Stick) Plate/Pipe	1-9-4
WLD 141	Symbols and Specifications	2-2-3
ISC 110	Workplace Safety	1-0-1

Total Semester Hours Credit required for graduation: 15

### Course Requirements for MIG, TIG, and Fabrication

### 1. Major Requirements (15 SHC)

GMAW (MIG) FCAW/Plate	2-6-4
GMAW (TIG)	2-6-4
Fabrication I	2-6-4
Inspection and Testing	2-2-3
	GMAW (MIG) FCAW/Plate GMAW (TIG) Fabrication I

Total Semester Hours Credit required for graduation: 15

# Barbering Credential: Certificate in Barbering C55110P0

The Barbering Curriculum is designed to provide competencybased knowledge, scientific/artistic principles, and hands-on fundamentals associated with the barber industry. The curriculum also provides a simulated environment that enables students to develop manipulative skills.

Coursework includes instruction in all phases of professional barbering, hair design, chemical processes, skin care, nail care, multi-cultural practices, business/computer principles, product knowledge, and other selected topics.

Graduates should qualify to sit for the State Board of Barber Examiners. Upon successfully passing the State Board exam, graduates will be issued a license. Employment is available in barbershops and related businesses.

### PROGRAM SPECIFIC ENTRANCE STANDARDS:

1. Must process student permits at least 10 days prior to the first day of class.

Program Length: 3 semesters

Career Pathway Option: Certificate in Barbering Program Site: Harnett Correctional Institution - Day Program

### **Course Requirements for Barbering Certificate**

1. Major Requirements (41 SHC)		C-L-SHC
BAR 111	Barbering Concepts I	4-0-4
BAR 112	Barbering Clinic I	0-24-8
BAR 113	Barbering Concepts II	4-0-4
BAR 114	Barbering Clinic II	0-24-8
BAR 115	Barbering Concepts III	4-0-4
BAR 116	Barbering Clinic III	0-12-4
BAR 117	Barbering Concepts IV	2-0-2
BAR 118	Barbering Clinic IV	0-21-7

Total Semester Hours Credit required for graduation: 41

# Food Service Technology Credential: Certificate in Foodservice Technology C55250P1

This curriculum is designed to introduce students to the foodservice industry and prepare them for entry level positions in industrial, institutional or commercial production foodservice operations.

Courses include sanitation, basic and intermediate food service production skills, baking, menus, purchasing and basic cost control.

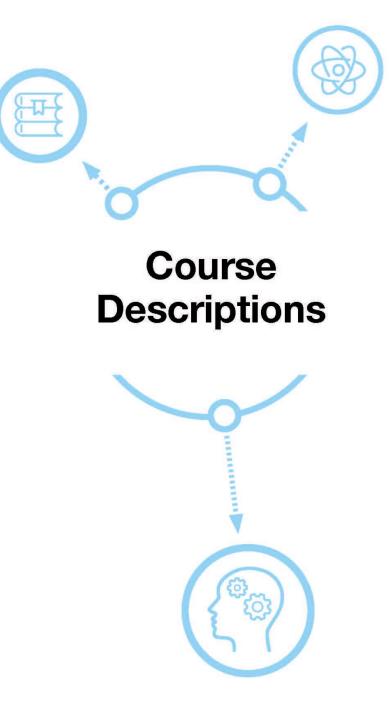
Graduates should qualify for employment as line cooks, prep cooks, or bakers in production foodservice settings or entry-level kitchen management in an institutional foodservice setting.

Program Length: 1 semester Career Pathway Options: Certificate in Foodservice TechnologyProgram Site: Harnett Correctional Institution-Day Program

### **Course Requirements for Certificate in Foodservice Technology**

1. Major Requirements (17 SHC)		C-L-SHC
FST 100	Introduction to Foodservice	3-0-3
FST 101	Quantity Baking I	1-4-3
FST 102	Foodservice Skills I	4-8-8
FST 103	Foodservice Sanitation	2-0-2
FST 103A	Foodservice Sanitation Lab	0-2-1

Total Semester Hours Credit required for graduation: 17



# **Course Descriptions**

C – The number of class hours per week L – The number of laboratory hours per week Cl – The number of clinical hours per week

SHC – Semester Hour Credit received for the course

# ACADEMIC RELATED

### ACA 085 Improving Study Skills

C-L-SHC 0-2-1

1-0-1

C-L-SHC

3-2-4

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

ACA 111 College Student Success

This course introduces the college's physical, academic, and social environment and promotes the personal development essential for success. Topics include campus facilities and resources; policies, procedures, and programs; study skills; and life management issues such as health, self-esteem, motivation, goal-setting, diversity, and communication. Upon completion, students should be able to function effectively within the college environment to meet their educational objectives.

### ACA 122 College Transfer Success 0-2-1

This course provides information and strategies necessary to develop clear academic and professional goals beyond the community college experience. Topics include the CAA, college policies and culture, career exploration, gathering information on senior institutions, strategic planning, critical thinking, and communications skills for a successful academic transition. Upon completion, students should be able to develop an academic plan to transition successfully to senior institutions. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

# ACCOUNTING

### ACC 115 College Accounting

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

ACC 120 Principles of Financial Accounting 3-2-4 This course introduces business decision-making using accounting information systems. Emphasis is placed on analyzing, summarizing, reporting, and interpreting financial 156 information. Upon completion, students should be able to prepare financial statements, understand the role of financial information in decision-making, and address ethical considerations. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

### ACC 121 Principles of Managerial Accounting 3-2-4 Prerequisite: ACC 120

This course includes a greater emphasis on managerial and cost accounting skills. Emphasis is placed on managerial accounting concepts for external and internal analysis, reporting, and decision-making. Upon completion, students should be able to analyze and interpret transactions relating to managerial concepts including product-costing systems. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

### ACC 122 Principles of Financial Accounting II 3-0-3 Prerequisite: ACC 120

This course provides additional instruction in the financial accounting concepts and procedures introduced in ACC 120. Emphasis is placed on the analysis of specific balance sheet accounts, with in-depth instruction of the accounting principles applied to these accounts. Upon completion, students should be able to analyze data, prepare journal entries, and prepare reports in compliance with generally accepted accounting principles.

# ACC 129 Individual Income Taxes 2-2-3

This course introduces the relevant laws governing individual income taxation. Topics include tax law, electronic research and methodologies, and the use of technology for preparation of individual tax returns. Upon completion, students should be able to analyze basic tax scenarios, research applicable tax law, and complete various individual tax forms.

# ACC 130 Business Income Taxes 2-2-3

This course introduces the relevant laws governing business and fiduciary income taxes. Topics include tax law relating to business organizations, electronic research and methodologies, and the use of technology for the preparation of business tax returns. Upon completion, students should be able to analyze basic tax scenarios, research applicable tax law, and complete various business tax forms.

# ACC 140 Payroll Accounting 1-3-2

*Prerequisite: Take One: ACC 115 or ACC 120* 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.

#### ACC 149 **Intro to ACC Spreadsheets** 1-3-2

Prerequisite: ACC 115 or ACC 120

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.

#### ACC 150 **Acct Software Applications**

Prerequisite: Take One: ACC 115 or ACC 120 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.

#### ACC 220 **Intermediate Accounting I** 3-2-4

Prerequisites: ACC 120 Local Prerequisite: ACC 122

This course is a continuation of the study of accounting principles with in-depth coverage of theoretical concepts and financial statements. Topics include generally accepted accounting principles and an extensive 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.

#### ACC 221 **Intermediate Accounting II** 3-2-4 Prerequisite: ACC 220

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.

#### ACC 227 **Practices in Accounting** 3-0-3 Prerequisite: ACC 220

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.

# AGRICULTURE

1-3-2

#### AGR 110 **Agriculture Economics**

C-L-SHC 3-0-3

This course provides an introduction to basic economic principles in agriculture. Topics include supply and demand. the role of agriculture in the economy, economic systems, and micro- and macroeconomics. Upon completion, students should be able to explain economic systems, interpret supply and demand curves, and complete cost and revenue production schedules.

#### AGR 111 **Basic Farm Maintenance** 1-3-2

This course covers fundamentals of maintenance and repair of farm facilities and equipment. Topics include safe use of hand tools and farm machinery, carpentry, concrete, painting, wiring, welding, plumbing, and calculating costs and materials needed. Upon completion, students should be able to answer theoretical questions on topics covered and assist with maintenance and repair of farm facilities and equipment.

#### AGR 121 **Biological Pest Mgmt** 3-0-3

This course will emphasize the building and maintaining of healthy soil, plant, and insect biological cycles as the key to pest and disease management. Course content includes study of major pests and diseases, including structure, life cycle, and favored hosts; and biological and least toxic methods of chemical control. Upon completion, students should be able to identify and recommend methods of prevention and control of selected insects and diseases.

#### Intro to Sustainable Agriculture 3-0-3 AGR 139

This course will provide students with a clear perspective on the principles, history, and practices of sustainable agriculture in our local and global communities. Students will be introduced to the economic, environmental, and social impacts of agriculture. Upon completion, students should be able to identify the principles of sustainable agriculture as they relate to basic production practices.

#### AGR 160 **Plant Science**

2-2-3 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 170 Soil Science 2 - 2 - 3

This course covers the basic principles of soil management and fertilization. Topics include liming, fertilization, soil management, biological properties of soil (including beneficial microorganisms), sustainable land care practices and the impact on soils, and plant nutrients. Upon completion, students should be able to analyze, evaluate, and properly amend soils/media according to sustainable practices.

#### **Farm Business Management** 3-0-3 AGR 212

This course introduces budgeting, farm analysis, production costs, business organizations, and general management

principles. Topics include enterprise budgets, partial budgets, whole farm budgets, income analysis, and business organizations. Upon completion, students should be able to prepare and analyze a farm budget.

### AGR 214 Agricultural Marketing

This course covers basic marketing principles for agricultural products. Topics include buying, selling, processing, standardizing, grading, storing, and marketing of agricultural commodities. Upon completion, students should be able to construct a marketing plan for an agricultural product.

# AGR 220Agricultural Mechanization2-2-3

This course is a study of farm machinery and agricultural equipment. Topics include selection and operation of tractors, materials handling equipment, tillage and harvesting equipment, and irrigation systems. Upon completion, students should be able to identify equipment parts and explain the basic principles of machinery operation and management.

### AGR 221 Farm Structures

This course covers basic agricultural buildings and structures. Topics include building materials, cost estimating, basic blueprint reading, and job planning. Upon completion, students should be able to complete a cost estimate for constructing an agricultural structure.

AGR 265Organic Crop Production: Spring2-2-3This course includes a study of spring organic crop production<br/>practices, including vegetables, cut flowers, and culinary and<br/>medicinal herbs. Topics include variety selection, production<br/>methods, and record keeping procedures for certification.<br/>Upon completion, students should be able to demonstrate a<br/>knowledge of organic crop production appropriate for the<br/>spring season.

AGR 266Organic Crop Production: Fall2-2-3The course includes a study of fall organic crop production<br/>practices, including vegetables, cut flowers, and culinary and<br/>medicinal herbs. Topics include variety selection, production<br/>methods, and record keeping procedures for certification.<br/>Upon completion, students should be able to demonstrate a<br/>knowledge of organic crop production appropriate for the fall<br/>season.

### AGR 267 Permaculture

2-2-3

3-0-3

2-2-3

This course introduces the design of sustainable human habitats as part of a sustainable system, with emphasis placed on living systems of the temperate region. Topics include fundamentals of permaculture system design for farms, including gardens, fields, water, animals, buildings, economics, and society. Upon completion, students should be able to design a functional holistic farm system.

AGR 268Advanced Organic Crop Production2-6-4Prerequisites: Take One: AGR 265 or AGR 266This course provides students with structured practicalexperience in managing the complexities of organic crop158

production. Emphasis is placed on crop management skills and decision making associated with production-related operations such as cover crop management, irrigation, and post-harvest physiology. Upon completion, students should be able to create and implement a crop management plan and demonstrate competency in the selection and efficient use of equipment.

# AIR CONDITIONING, HEATING, AND REFRIGERATION

# AHR 110 Intro to Refrigeration 2-6-5

This course introduces the basic refrigeration process used in mechanical refrigeration and air conditioning systems. Topics include terminology, safety, and identification and function of components; refrigeration cycle; and tools and instrumentation used in mechanical refrigeration systems. Upon completion, students should be able to identify refrigeration systems and components, explain the refrigeration process, and use the tools and instrumentation of the trade.

# AHR 111 HVACR Electricity 2-2-3

This course introduces electricity as it applies to HVACR equipment. Emphasis is placed on power sources, interaction of electrical components, wiring of simple circuits, and the use of electrical test equipment. Upon completion, students should be able to demonstrate good wiring practices and the ability to read simple wiring diagrams.

### AHR 112 Heating Technology

2-4-4

C-L-SHC

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

2-4-4

2 - 4 - 4

This course covers the installation procedures, system operations, and maintenance of residential and light commercial comfort cooling systems. Topics include terminology, component operation, and testing and repair of equipment used to control and produce assured comfort levels. Upon completion, students should be able to use psychrometrics, manufacturer specifications, and test instruments to determine proper system operation.

### AHR 114 Heat Pump Technology

Prerequisite: AHR 110 or AHR 113

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.

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### AHR 115 Refrigeration Systems

Prerequisite: AHR 110

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.

### AHR 120 HVACR Maintenance 1-3-2

This course introduces the basic principles of industrial air conditioning and heating systems. Emphasis is placed on preventive maintenance procedures for heating and cooling equipment and related components. Upon completion, students should be able to perform routine preventive maintenance tasks, maintain records, and assist in routine equipment repairs.

### AHR 125 HVACR Electronics

2-2-0-3

2-6-0-4

1-3-0-2

*Prerequisite: Take one: AHR 111, ELC 111, or ELC 112* This course introduces the common electronic control components in HVACR systems. Emphasis is placed on identifying electronic components and their functions in HVACR systems and motor-driven control circuits. Upon completion, students should be able to identify components, describe control circuitry and functions, and use test instruments to measure electronic circuit values and identify malfunctions.

# AHR 133 HVAC Servicing

Corequisites: AHR 112 or AHR 113

The course covers the maintenance and servicing of HVAC equipment. Topics include testing, adjusting, maintaining, and troubleshooting HVAC equipment and record keeping. Upon completion, students should be able to adjust, maintain, and service HVAC equipment.

AHR 151HVAC Duct Systems I1-3-0-2This course introduces the techniques used to lay out and<br/>fabricate ductwork commonly found in HVAC systems.Emphasis is placed on the skills required to fabricate<br/>ductwork. Upon completion, students should be able to lay out

and fabricate simple duct work.

# AHR 160 Refrigerant Certification 1-0-0-1

This course covers the requirements for the EPA certification examinations. Topics include small appliances, high pressure systems, and low pressure systems. Upon completion, students should be able to demonstrate knowledge of refrigerants and be prepared for the EPA certification examinations.

AHR 180HVACR Customer Relations1-0-0-1This course introduces common business and customer<br/>relation practices that may be encountered in HVACR. Topics<br/>include business practices, appearance of self and vehicle,<br/>ways of handling customer complaints, invoices, telephone<br/>communications, and warranties. Upon completion, students<br/>should be able to present themselves to customers in a

professional manner, understand how the business operates, complete invoices, and handle complaints.

# AHR 211Residential System Design2-2-3

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 212Advanced Comfort Systems2-6-4Prerequisite: AHR 114

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.

# AHR 213HVACR Building Code1-2-2

This course covers the North Carolina codes that are applicable to the design and installation of HVACR systems. Topics include current North Carolina codes as applied to HVACR design, service, and installation. Upon completion, students should be able to demonstrate the correct usage of North Carolina codes that apply to specific areas of the HVACR trade.

# AHR 215Commercial HVAC Controls1-3-0-2

*Prerequisites: Take one: AHR 111, ELC 111, or ELC 112* 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.

# AHR 225Commercial System Design2-3-0-3

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, air-flow 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.

# ADVANCED MEDICAL CODING

# C-L-C-SHC

AMC 200Health Information for Coders2-0-0-2This course provides a detailed look at the role of a coderwithin the healthcare system. Topics include health record

content and documentation for all record types, roles and responsibilities of various providers and disciplines, data source reliability and accuracy, policies and procedures to ensure compliance with regulations and standards, and legal and regulatory requirements. Upon completion, students should be able to demonstrate an understanding of the role of coding in the healthcare organization and apply various policies and procedures as they relate to documentation and compliance and comply with regulatory standards.

### AMC 201 Legal and Compliance 2-0-0-2

This course covers legal and regulatory processes, privacy and security rules as applied to the coding environment. Topics include legal terminology, health record laws and regulations, internal and external standards and regulations, data security, storage and retrieval, and access and disclosure. Upon completion, students should be able to apply healthcare legal terminology, maintain a legally defensible health record, comply with state and federal privacy and security laws, and adhere to security policies and procedures.

### AMC 202 Coding for Reimbursement 2-0-0-2

This course covers the revenue cycle and reimbursement for acute and ambulatory care. Topics include payment methodologies and systems, utilization review, case management, billing processes and procedures, and fraud and abuse. Upon completion, students should be able to apply policies and procedures for the use of data required in healthcare reimbursement, evaluate the revenue cycle, and identify potential fraud and abuse.

AMC 203Intermediate ICD Diagnoses2-3-0-3This course covers the proper application of ICD diagnosis<br/>coding conventions and guidelines and application of codes.Emphasis is placed on reviewing clinical documentation to<br/>determine appropriate code selection. Upon completion,<br/>students should be able to accurately assign and sequence<br/>diagnosis codes according to the current coding and reporting<br/>requirements for acute care and outpatient services.

AMC 204 Intermediate ICD Procedures 2-3-0-3 This course covers ICD procedure coding conventions and guidelines, Procedure Coding System (PCS) Table navigation, and application of codes. Emphasis is placed on the interrelationship between anatomy and physiology and the application of procedure codes by reviewing clinical documentation to determine procedure intent and extent. Upon completion, students should be able to navigate the PCS tables to accurately assign and sequence diagnosis codes according to the current coding and reporting requirements for acute care and outpatient services.

AMC 205Intermediate CPT Coding2-3-0-3This course covers the application of Current ProceduralTerminology (CPT) and Healthcare Common ProcedureCoding System (HCPCS) codes as applied to current codingand reporting requirements. Emphasis is placed on theinterrelationship between anatomy and physiology and theapplication of procedure codes by reviewing clinical160

documentation. Upon completion, students should be able to apply the official CPT and HCPCS Level II coding guidelines, and apply the appropriate reporting measures such as modifiers.

# AMC 206 Clinical Documentation 2-3-0-3

This course covers the importance of clinical documentation and its role in accurate coding. Topics include communication with providers, documentation in the health record, how to formulate ethical queries to clarify conflicting diagnoses, and implications of accurate coding. Upon completion, students should be able to identify discrepancies between supporting documentation and coded data and develop appropriate physician queries.

AMC 207 Advanced Medical Coding Lab I 0-6-0-2 This course covers the practical application of current ICD diagnosis and CPT guidelines by using encoders to code patient charts. Emphasis is on analyzing and applying current regulations and established guidelines in clinical classification systems by using standard data set definitions and resources. Upon completion, students should be able to accurately code a variety of chart types and recommend coding resources.

# AMC 208Advanced Medical Coding Lab II0-6-0-2Prerequisite: AMC 207

This course covers the practical application and evaluation of current ICD diagnosis, procedure, and CPT guidelines by using encoders to code patient charts. Emphasis is on analyzing and applying current regulations and established guidelines in clinical classification systems by using standard data set definitions and resources. Upon completion, students should be able to interpret conventions, formats, instructional notations, and definitions of each classification system to select diagnoses and procedures/services that require coding.

### AMC 209 Professional Practice Exp. 0-0-6-2 This course provides supervised clinical coding experience in healthcare settings. Emphasis is placed on the practical application of coding concepts through demonstration of critical thinking and integration of didactic and clinical components. Upon completion, students should be able to demonstrate the comprehensive knowledge required of an advanced level coder.

# ALTERNATIVE ENERGY TECHNOLOGY

C-L-SHC

### ALT 110 Biofuels I

3-0-3

This course is designed to provide an introduction to the fundamentals of bio-based fuels. Emphasis is placed on proper handling and use guidelines, basic chemistry of biofuels, production methods, and the social, environmental, and economic impacts of biofuels. Upon completion, students should be able to demonstrate a general understanding of biofuels. ALT 120 Renewable Energy Technologies 2-2-3 This course provides an introduction to multiple technologies that allow for the production and conservation of energy from renewable sources. Topics include hydro-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.

### ALT 210 Biofuels II

Prerequisite: ALT 110

This course provides an in-depth study of commercial biofuels production and various methods for manufacturing biofuels at a large scale. Topics include advanced production technologies, feed stock selection and pretreatment, quality control, energy balance, and biofuels business models. Upon completion, students should be able to demonstrate a practical knowledge of commercial biofuels production and facility operation.

# ALT 211 Biofuels Analytics 2-4-4

Prerequisite: ALT 110

This course is designed to address quality control management during all phases of the biofuels production process. Topics include feedstock analysis, in-process quality monitoring, and standards compliance with national and international biofuels specifications. Upon completion, students should be able to demonstrate safe and accurate laboratory practices as well as an understanding of various quality control techniques.

### ALT 250 Thermal Systems

2-2-3

3-2-4

This course introduces concepts, tools, techniques, and materials used to convert thermal energy into a viable, renewable energy resource. Topics include forced convection, heat flow and exchange, radiation, the various elements of thermal system design, regulations, and system installation and maintenance. Upon completion, students should be able to demonstrate an understanding of geothermal and solar thermal systems and corresponding regulations.

# ANIMAL SCIENCE

### ANS 110 Animal Science

C-L-SHC 3-0-3

This course introduces the livestock industry. Topics include nutrition, reproduction, production practices, diseases, meat processing, sustainable livestock production, and marketing. Upon completion, students should be able to demonstrate a basic understanding of livestock production practices and the economic impact of livestock locally, regionally, state-wide, and internationally.

ANS 111 Sustainable Livestock Management 2-2-3 This course covers the integration of livestock as part of a sustainable farming system with emphasis on small-scale production for niche markets and pasture. The course will cover appropriate breed selection, nutrition and living requirements for livestock such as goats, hogs, sheep, poultry, and bees. Upon completion, students should recognize appropriate breeds for their farm needs and demonstrate knowledge of small-scale livestock production.

# ANTHROPOLOGY

### ANT 210 General Anthropology

C-L-SHC 3-0-3

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 for transfer under the CAA and ICAA as a general education course in Social/Behavioral Sciences.

## ANT 220 Cultural Anthropology 3-0-3

This course introduces the nature of human culture. Emphasis is placed on cultural theory, methods of fieldwork, and cross-cultural comparisons in the areas of ethnology, language, and the cultural past. Upon completion, students should be able to demonstrate an understanding of basic cultural processes and how cultural data are collected and analyzed. This course has been approved for transfer under the CAA and ICAA as a general education course in Social/Behavioral Sciences.

# ARCHITECTURAL TECHNOLOGY

C-L-SHC

ARC 111 Introduction to Arch Technology 1-6-3 This course introduces basic architectural drafting techniques, lettering, use of architectural and engineer scales, and sketching. Topics include orthographic, axonometric, and oblique drawing techniques using architectural plans, elevations, sections, and details; reprographic techniques; and other related topics. Upon completion, students should be able to prepare and print scaled drawings within minimum architectural standards.

# **AUTOMOTIVE RESTORATION**

### ARS 112 Auto Restoration Research

C-L-SHC 3-0-3

This course covers identification and collection of information needed to restore classic automobiles. Emphasis is placed on using books, numbers, emblems, titles, bills of sale, and other documents as resources. Upon completion, students should be able to use reference materials in the area of auto restoration to restore classic vehicles.

### ARS 113 Automobile Upholstery

This course covers automobile upholstery work used in restoration of classic automobiles. Emphasis is placed on removing, repairing, or reconstructing worn/damaged upholstery material in classic automobiles. Upon completion, students should be able to disassemble, repair/reconstruct, or

2 - 4 - 4

replace the seats, headliners, door panels, and other components in the interior of vehicles.

#### **Restoration Skills I ARS 114**

Corequisite: Take All: ARS-113, ARS-117, TRN-120 This course covers mechanical, electrical, and upholstery restoration. Emphasis is placed on engines, transmissions, brakes, starters, generators, distributors, and replacement or fabrication of upholstery. Upon completion, students should be able to restore, rebuild, or replace specific components in a wide range of classic vehicles.

#### **ARS 117 Automotive Engines** 1-3-2

This course covers the repair, rebuilding, and troubleshooting of internal combustion engines. Emphasis is placed on use of tools and equipment to measure reconditioning tolerances of the internal combustion engine. Upon completion, students should be able to disassemble, repair and/or replace, and reassemble an internal combustion engine.

#### **ARS 118** Wood and Metal Restoration 2 - 2 - 3

This course introduces various wood materials used in early automobile construction including a general overview of woodworking techniques. Emphasis is placed on wood material, metal behavior, and trim construction. Upon completion, students should be able to perform simple woodworking techniques, attach and remove trim, and be familiar with basic hardware techniques.

#### 2-3-3 **ARS 131 Chassis and Drive Trains**

This course introduces principles of operation of automotive drive trains, perimeter/ladder/full-framed vehicles, and related restoration processes. Emphasis is placed on the technology related to restoration of manual and automatic transmissions. transaxles, and final drive components used on vehicles. Upon completion, students should be able to describe, diagnose, and determine needed service and repairs in the vehicle restoration industry.

### ART

#### **ART 111** Art Appreciation

This course introduces the origins and historical development of art. Emphasis is placed on the relationship of design principles to various art forms including but not limited to sculpture, painting, and architecture. Upon completion, students should be able to identify and analyze a variety of artistic styles, periods, and media. This course has been approved for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in Humanities/Fine Arts.

#### **ART 114** Art History Survey I

This course covers the development of art forms from ancient times to the Renaissance. Emphasis is placed on content, terminology, design, and style. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of human social development. This course has been approved for transfer under the CAA and 162

ICAA as a universal general education transfer component (UGETC) course in Humanities/Fine Arts.

#### ART 115 Art History Survey II 3-0-3

This course covers the development of art forms from the Renaissance to the present. Emphasis is placed on content, terminology, design, and style. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of human social development. This course has been approved for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in Humanities/Fine Arts.

#### ART 117 **Non-Western Art History** 3-0-3

This course introduces non-Western cultural perspectives. Emphasis is placed on, but not limited to, African, Oriental, and Oceanic art forms throughout history. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of non-Western social and cultural development. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

#### 0-6-3 **ART 121 Two-Dimensional Design**

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 CAA and ICAA as a premajor and/or elective course requirement.

#### 0-6-3 **ART 122 Three-Dimensional Design** Prerequisites: ART 121

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 CAA and ICAA as a premajor and/or elective course requirement.

#### ART 131 **Drawing I**

This course introduces the language of drawing and the use of various drawing materials. Emphasis is placed on drawing techniques, media, and graphic principles. Upon completion, students should be able to demonstrate competence in the use of graphic form and various drawing processes. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

#### **ART 132 Drawing II**

Prerequisites: ART 131 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

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0-6-3

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C-L-SHC

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to demonstrate increased competence in the expressive use of graphic form and techniques. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

### ART 214 Portfolio and Resume

0-2-1

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 CAA and ICAA as a premajor and/or elective course requirement.

### ART 231 Printmaking I

0-6-3

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This course introduces printmaking: its history, development techniques, and processes. Emphasis is placed on basic applications with investigation into image source and development. Upon completion, students should be able to produce printed images utilizing a variety of methods. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

### ART 232 Printmaking II

Prerequisites: ART 231

This course includes additional methods and printmaking processes. Emphasis is placed on the printed image as related to method, source, and concept. Upon completion, students should be able to produce expressive images utilizing both traditional and innovative methods. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

### ART 240 Painting I

This course introduces the language of painting and the use of various painting materials. Emphasis is placed on the understanding and use of various painting techniques, media, and color principles. Upon completion, students should be able to demonstrate competence in the use of creative processes directed toward the development of expressive form. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

### **ART 241 Painting II**

Prerequisites: ART 240

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 for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

ART 281 Sculpture I

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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 CAA and ICAA as a premajor and/or elective course requirement.

# ART 282 Sculpture II

Prerequisites: ART 281

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 CAA and ICAA as a premajor and/or elective course requirement.

### ART 283 Ceramics I

0-6-3

0-6-3

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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 CAA and ICAA as a premajor and/or elective course requirement.

## ART 284 Ceramics II

Prerequisites: ART 283 This course covers advan

This course covers advanced hand building and wheel techniques. Emphasis is placed on creative expression, surface design, sculptural quality, and glaze effect. Upon completion, students should be able to demonstrate a high level of technical competence in forming and glazing with a development of three-dimensional awareness. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

# AMERICAN SIGN LANGUAGE

### ASL 111 Elementary ASL I

### 3-0-3

This course introduces the fundamental elements of American Sign Language within a cultural context. Emphasis is placed on the development of basic expressive and receptive skills. Upon completion, students will be able to comprehend and respond with grammatical accuracy to expressive American Sign Language and demonstrate cultural awareness. This course has been approved for transfer under the CAA as a general education course in Humanities/Fine Arts. This course has been approved for transfer under the ICAA as a general education course in Humanities/Fine Arts.

### ASL 112 Elementary ASL II Prerequisite: Take ASL-111

This course is a continuation of ASL 111 focusing on the

3-0-3

fundamental elements of American Sign Language in a cultural context. Emphasis is placed on the progressive development of expressive and receptive skills. Upon completion, the students should be able to comprehend and respond with increasing accuracy to expressive American Sign Language and demonstrate cultural awareness. This course has been approved for transfer under the CAA as a general education course in Humanities/Fine Arts. This course has been approved for transfer under the ICAA as

a general education course in Humanities/Fine Arts.

#### **ASL 211 Intermediate ASL I** 3-0-3

Prerequisite: Take ASL-112

This course provides a review and expansion of the essential skills of American Sign Language. Emphasis is placed on the progressive development of expressive and receptive skills, study of authentic and representative literacy and cultural texts. Upon completion, students should be able to communicate effectively, accurately, and creatively using American Sign Language about the past, present, and future. This course has been approved for transfer under the CAA as a general education course in Humanities/Fine Arts. This course has been approved for transfer under the ICAA as a general education course in Humanities/Fine Arts.

#### ASL 212 **Intermediate ASL II**

3-0-3

Prerequisite: Take ASL-211

This course provides a continuation of ASL 211. Emphasis is placed on the continuing development of expressive and receptive skills, with 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 CAA as a general education course in Humanities/Fine Arts. This course has been approved for transfer under the ICAA as a general education course in Humanities/Fine Arts.

# **AUTOMOTIVE BODY REPAIR**

#### AUB 111 Painting and Refinishing I

This course introduces the proper procedures for using automotive refinishing equipment and materials in surface preparation and application. Topics include federal, state, and local regulations, personal safety, refinishing equipment and materials, surface preparation, masking, application techniques, and other related topics. Upon completion, students should be able to identify and use proper equipment and materials in refinishing by following accepted industry standards.

#### AUB 112 Painting and Refinishing II 2-6-4Prerequisite: AUB 111

This course covers advanced painting techniques and technologies with an emphasis on identifying problems encountered by the refinishing technician. Topics include materials application, color matching, correction of refinishing

problems, and other related topics. Upon completion, students should be able to perform spot, panel, and overall refinishing repairs and identify and correct refinish problems.

#### **AUB 114 Special Finishes** 1-2-2

Prerequisite: AUB 111 This course introduces multistage finishes, custom painting, and protective coatings. Topics include base coats, advanced intermediate coats, clear coats, and other related topics. Upon completion, students should be able to identify and apply specialized finishes based on accepted industry standards.

#### AUB 121 Non-Structural Damage I 1-4-3

This course introduces safety, tools, and the basic fundamentals of body repair. Topics include shop safety, damage analysis, tools and equipment, repair techniques, materials selection, materials usage, and other related topics. Upon completion, students should be able to identify and repair minor direct and indirect damage including removal/repairing/replacing of body panels to accepted standards.

#### AUB 131 **Structural Damage I** 2 - 4 - 4

This course introduces safety, equipment, structural damage analysis, and damage repairs. Topics include shop safety, design and construction, structural analysis and measurement, equipment, structural glass, repair techniques, and other related topics. Upon completion, students should be able to analyze and perform repairs to a vehicle which has received light/moderate structural damage.

#### AUB 162 **Autobody Estimating**

1-2-2

This course provides a comprehensive study of autobody estimating. Topics include collision damage analysis, industry regulations, flat-rate and estimated time, and collision estimating manuals. Upon completion, students should be able to prepare and interpret a damage report.

# **AUTOMOTIVE**

C-L-SHC 1-2-2

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AUT 114 Safety and Emissions This course covers the laws, procedures, and specifications needed to perform a North Carolina State Safety and Emissions inspection. Topics include brake, steering and suspension, lighting, horn, windshield wiper, tire, mirrors, and emission control devices inspection. Upon completion, students should be able to perform complete and thorough North Carolina State Safety and Emissions inspections.

# AUT 114A Safety and Emissions Lab

Corequisite: AUT 114 This course is an optional lab that allows students to enhance their understanding of North Carolina State Emissions Inspection failures. Topics include evaporative, positive crankcase ventilation, exhaust gas recirculation and exhaust emissions systems operation, including catalytic converter failure diagnosis. Upon completion, students should be able to employ diagnostic strategies to repair vehicle emissions

2-6-4

C-L-SHC

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failures resulting from North Carolina State Emissions inspection.

### AUT 116 Engine Repair

This course covers the theory, construction, inspection, diagnosis, and repair of internal combustion engines and related systems. Topics include fundamental operating principles of engines and diagnosis, inspection, adjustment, and repair of automotive engines using appropriate service information. Upon completion, students should be able to perform basic diagnosis, measurement and repair of automotive engines using appropriate tools, equipment, procedures, and service information.

# AUT 116A Engine Repair Lab

Corequisite: AUT 116

This course is an optional lab to be used as an alternative to co-op placement in meeting the NATEF standards for total hours. Topics include diagnosis, inspection, adjustment, and repair of automotive engines using appropriate service information. Upon completion, students should be able to perform basic diagnosis, measurement and repair of automotive engines using appropriate tools, equipment, procedures, and service information.

AUT 141Suspension & Steering Systems2-3-3This course covers principles of operation, types, and<br/>diagnosis/repair of suspension and steering systems to include<br/>steering geometry. Topics include manual and power steering<br/>systems and standard and electronically controlled suspension<br/>and steering systems. Upon completion, students should be<br/>able to service and repair steering and suspension components,<br/>check and adjust alignment angles, repair tires, and balance<br/>wheels.

# AUT 141ASuspension & Steering Lab0-3-1Corequisite: AUT 1410

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.

# AUT 151 Brake Systems

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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.

### AUT 151A Brake Systems Lab Corequisite: AUT 151

This course is an optional lab to be used as an alternative to co-op placement in meeting the NATEF standards for total hours. Topics include drum and disc brakes involving hydraulic, vacuum-boost, hydra-boost, electrically powered boost, and anti-lock, parking brake systems, and emerging brake systems technologies. Upon completion, students should be able to diagnose, service, and repair various automotive braking systems.

# AUT 163Advanced Automotive Electricity2-3-3Prerequisite: TRN 120

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.

### AUT 163A Advanced Automotive Electricity Lab 0-3-1 Corequisite: AUT 163

This course is an optional lab to be used as an alternative to co-op placement in meeting the NATEF standards for total hours. Topics include networking and module communication, circuit construction, wiring diagrams, circuit testing, troubleshooting, and emerging electrical/electronic systems technologies. Upon completion, students should be able to properly use wiring diagrams, diagnose, test, and repair wiring, lighting, gauges, accessories, modules, and electronic concerns.

# AUT 181 Engine Performance 1

This course covers the introduction, theory of operation, and basic diagnostic procedures required to restore engine performance to vehicles equipped with complex engine control systems. Topics include an overview of engine operation, ignition components and systems, fuel delivery, injection components and systems, and emission control devices. Upon completion, students should be able to describe operation and diagnose/repair basic ignition, fuel, and emission-related drivability problems using appropriate test equipment/service information.

# AUT 181A Engine Performance 1 Lab

Corequisite: AUT 181

0-3-1

2-3-3

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 drive ability problems using appropriate test equipment/service information.

### AUT 183 Engine Performance 2 Prerequisite: AUT 181

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

2-6-4

operation. Topics will include currently used fuels and fuel systems, exhaust gas analysis, emission control components and systems, OBD II (on-board diagnostics), and inter-related electrical/electronic systems. Upon completion, students should be able to diagnose and repair complex engine performance concerns using appropriate test equipment and service information.

**AUT 221 Automatic Transmissions/Transaxles 2-3-3** This course covers operation, diagnosis, service, and repair of automatic transmissions/transaxles. Topics include hydraulic, pneumatic, mechanical, and electrical/electronic operation of automatic drive trains and the use of appropriate service tools and equipment. Upon completion, students should be able to explain operational theory and diagnose and repair automatic drive trains.

### AUT 221A Automatic Transmissions/Transaxles Lab 0-3-1 Corequisite: AUT 221

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.

AUT 231 Manual Transmissions/Transaxles/Drive 2-3-3

This course covers the operation, diagnosis, and repair of manual transmissions/transaxles, clutches, drive shafts, axles, and final drives. Topics include theory of torque, power flow, and manual drive train servicing and repair using appropriate service information, tools, and equipment. Upon completion, students should be able to explain operational theory and diagnose and repair manual drive trains.

# AUT 231AManual Trans/Transaxles/Drive Lab0-3-1Corequisite: AUT 231

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.

### AUT 281 Advanced Engine Performance 2-2-3

This course utilizes service information and specialized test equipment to diagnose/repair power train control systems. Topics include computerized ignition, fuel and emission systems, related diagnostic tools and equipment, data communication networks, and service information. Upon completion, students should be able to perform advanced engine performance diagnosis and repair.

# BARBERING

		C-L-SHC
BAR 111	<b>Barbering Concepts I</b>	4-0-4
Corequisite:	BAR 112	

This course introduces basic barbering concepts and includes careers in barber styling and various hair treatments. Emphasis is placed on sanitizing equipment, professional ethics, skin, scalp, and hair disorders and treatment, and safe work practices. Upon completion, students should be able to safely and competently apply barbering concepts in the shop setting.

### BAR 112 Barbering Clinic I

Corequisite: BAR 111

This course introduces basic clinic services. Topics include a study of sanitizing procedures for implements and equipment, determination of hair texture, hair cutting, and hair processing. Upon completion, students should be able to safely and competently demonstrate shop services.

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## BAR 113 Barbering Concepts II 4-0-4

Corequisite: BAR 114

This course covers more comprehensive barbering concepts. Topics include safety and sanitation, product knowledge, as well as both wet and thermal hairstyling. Upon completion, students should be able to safely and competently apply these barbering concepts in the shop setting.

# BAR 114 Barbering Clinic II 0-24-8

Corequisite: BAR 113

This course provides experience in a simulated shop setting. Topics include draping, shampooing, hair cutting, and hair drying as well as chemical processing. Upon completion, students should be able to safely and competently apply these barbering concepts in the shop setting.

### BAR 115 Barbering Concepts III

Corequisite: BAR 116

This course covers more comprehensive barbering concepts. Topics include hair processing as well as finger waving, wet and thermal hairstyling, skin care, including electricity/light therapy, and manicuring. Upon completion, students should be able to safely and competently apply these barbering concepts in the shop setting.

# BAR 116Barbering Clinic III0-12-4Corequisite: BAR 115

This course covers more comprehensive barbering concepts. Emphasis is placed on intermediate-level of skin care manicuring, scalp treatments, hair design, chemical

restructuring, and other related topics. Upon completion, students should be able to safely and competently apply these barbering concepts in the shop setting.

# BAR 117 Barbering Concepts IV

Corequisite: BAR 118

This course covers advanced barbering concepts. Topics include hair color, advanced hair cutting techniques, hair styling, shaving, skin care, retailing, and preparing for a job interview. Upon completion, students should be able to demonstrate an understanding of these barbering concepts and meet program completion requirements.

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#### **BAR 118 Barbering Clinic IV** 0-21-7

Corequisite: BAR 117

This course provides advanced experience in a simulated shop setting. Emphasis is placed on efficient and competent delivery of all shop services in preparation for the licensing examination and employment. Upon completion, students should be able to demonstrate competence in the areas covered on the Barbering Licensing Examination and meet entry-level employment requirements.

#### **BAR 119 Trichology & Chemistry** 1-3-2

This course introduces basic principles associated with the study of the hair and scalp and the interaction of applied chemicals. Emphasis is placed on pH actions, the reactions and effects of chemical ingredients, and the impact of healthcare and wellness as it relates to hair loss. Upon completion, students should be able to demonstrate an understanding of chemical terminology, pH testing, and chemical reactions on hair.

#### **Contemporary Hair Coloring BAR 121** 1-3-2 Prerequisite: BAR 111 and BAR 112

This course covers basic color concepts, hair coloring problems, and application techniques. Topics include color theory, terminology, contemporary techniques, product knowledge, and other related topics. Upon completion, students should be able to identify a client's color needs and safely and competently perform color applications and correct problems.

# **BUSINESS ANALYTICS**

#### **BAS 120 Intro to Analytics**

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This course introduces basic concepts and applications of analytics. Topics include an overview of the analytical process and the role of the analyst, applied descriptive statistics, and exploratory data analysis. Upon completion, students should be able to demonstrate a basic understanding of analytics for decision-making in business.

#### **BAS 121 Data Visualization**

Prerequisite: Take BAS 120

This course introduces key concepts in data visualization and reporting. Topics include concepts and methods used in graphical representation of data, exploration and reporting of data, and basic linear regression methods. Upon completion, students should be able to effectively use graphical tools to communicate insights about data.

#### **BAS 150** Intro to Analytical Program. 2-3-3

This course introduces statistical software for analytics. Topics include utilization of analytical and statistical software packages for data management, data visualization, and exploratory data analysis. Upon completion, students should be able to use statistical programming tools to conduct descriptive analytics.

#### **BAS 220 Appl. Analytical Program** 2-3-3

Prerequisite: Take BAS 150

This course covers applications of statistical software for data management and reporting. Topics include data management, data preprocessing, and modeling including linear and logistic regression analysis using programming tools. Upon completion, students should be able to process data and generate reports that support business decision-making.

# BIOLOGY

#### **BIO 094 Concepts of Human Biology**

Prerequisite: ENG 002 P1 grade or Corequisite ENG011 or ENG 111 or equivalent.

C-L-SHC

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Requisite: Take ENG-002 or BSP-4002

This course focuses on fundamental concepts of human biology. Topics include terminology, biochemistry, cell biology, tissues, body systems, and other related topics. Upon completion, students should be able to demonstrate preparedness for college-level anatomy and physiology courses.

### BIO 106 Introduction to Anatomy/Physiology/ Microbiology

This course covers the fundamental and principle concepts of human anatomy, 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.

#### **Principles of Biology BIO 110** 3-3-4

Prerequisite: ENG 002 P2 grade or Corequisite ENG011 or ENG 111 or equivalent.

This course provides a survey of fundamental biological principles for non-science majors. Emphasis is placed on basic chemistry, cell biology, metabolism, genetics, evolution, ecology, diversity, and other related topics. Upon completion, students should be able to demonstrate increased knowledge and better understanding of biology as it applies to everyday life. This course has been approved for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in Natural Sciences.

#### **BIO 111 General Biology I**

3-3-4 Prerequisite: ENG 002 P2 grade or Corequisite ENG011 or ENG 111 or equivalent

This course introduces the principles and concepts of biology. Emphasis is placed on basic biological chemistry, molecular and cellular biology, metabolism and energy transformation, genetics, evolution, 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 for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in Natural Sciences.

### BIO 112 General Biology II

Prerequisite: BIO 111

This course is a continuation of BIO 111. Emphasis is placed on organisms, evolution, 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 for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in Natural Sciences.

### BIO 140 Environmental Biology 3-0-3 Corequisite: BIO 140A

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 for transfer under the CAA and ICAA as a general education course in Natural Sciences.

### **BIO 140A** Environmental Biology Laboratory 0-3-1 Corequisite: BIO 140

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 for transfer under the CAA and ICAA as a general education course in Natural Sciences.

### BIO 150 Genetics in Human Affairs 3-0-3

Prerequisites: Take one: BIO 110 or BIO 111

This course describes the importance of genetics in everyday life. Topics include the role of genetics in human development, birth defects, cancer and chemical exposure, and current issues including genetic engineering and fertilization methods. Upon completion, students should be able to understand the relationship of genetics to society today and its possible influence on our future. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

### BIO 155 Nutrition

3-0-3

3-3-4

This course covers the biochemistry of foods and nutrients with consideration of the physiological effects of specialized diets for specific biological needs. Topics include cultural, religious, and economic factors that influence a person's acceptance of food, as well as nutrient requirements of the various life stages. Upon completion, students should be able to identify the functions and sources of nutrients, the mechanisms of digestion, and the nutritional requirements of all age groups. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

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### BIO 163 Basic Anatomy and Physiology

Local Prerequisite: ENG 002

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 for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

## BIO 168 Anatomy and Physiology I 3-3-4

Prerequisite: ENG 002 P2 grade or Corequisite ENG011 or ENG 111 or equivalent.

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 for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

# BIO 169Anatomy and Physiology II3-3-4Prerequisite: BIO 168

This course provides a continuation of the comprehensive study of the anatomy and physiology of the human body. Topics include the endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems as well as metabolism, nutrition, acid-base balance, and fluid and electrolyte balance. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

### BIO 175 General Microbiology 2-2-3 Prerequisite: Take one: BIO 110, BIO 111, BIO 163, BIO 165, or

BIO 168 This course covers principles of microbiology with emphasis

This course covers principles of microbiology with emphasis on microorganisms and human disease. Topics include an overview of microbiology and aspects of medical microbiology, identification and control of pathogens, disease transmission, host resistance, and immunity. Upon completion, students should be able to demonstrate knowledge of microorganisms and the disease process as well as aseptic and sterile techniques. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

### BIO 180 Biological Chemistry

Local Prerequisite: Completion of a high school chemistry course and a CCCC-administered proficiency exam; completion of a college chemistry course; or by permission of instructor.

This course provides an introduction to basic biochemical processes in living systems. Topics include properties of carbohydrates, lipids, proteins, nucleic acids, vitamins, and

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buffers, with emphasis on biosynthesis, degradation, function, and equilibrium. Upon completion, students should be able to demonstrate an understanding of fundamental biochemical concepts. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

#### **BIO 275** Microbiology

Prerequisite: Take one: BIO 110, BIO 111, BIO 163, BIO 165, or BIO 168

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 CAA and ICAA as a premajor and/or elective course requirement.

# **BIOPROCESS MANUFACTURING**

**BPM 110 Bioprocess Practices** 

This course provides a study of plant operations including various plant utility systems and detailed study of the varied plant environments in a bioprocessing facility. Emphasis is placed on quality mindset and principles of validation through applications of monitoring procedures. Upon completion, students should be able to demonstrate the rigors of industry regulation and its necessity.

#### **BPM 111 Bioprocess Measurements** 3-3-4

Prerequisite: Take BIO 110 and BPM 110 This course covers a variety of physical measurements. Emphasis is placed on pH, temperature, pressure and flow rates, as well as spectrophotometry, and biochemical and chemical analysis methods. Upon completion, students should be able to demonstrate and perform many aspects of process monitoring.

#### **BPM 112 Upstream Processing** Prerequisite: BPM 111

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This course introduces techniques involved in cell growth and fractionation. Topics include fermentation theory and application, as well as cell harvesting, cell disruption and fractionation methods. Upon completion, students should be able to grow cells, as well as isolate and collect various fractions.

**BPM 113 Downstream Bioprocessing** 3-3-4 Prerequisite: Take BPM 111, CHM 131, and CHM 131A

This course introduces a variety of techniques involved in separation procedures. Topics include extraction and precipitation, concentration and molecular filtration methods, as well as different types of chromatography. Upon completion, students should be able to perform separation

procedures with an understanding of industrial scale procedures.

# **BLUEPRINT READING**

#### **BPR 111 Print Reading**

C-L-SHC 1-2-2

This course introduces the basic principles of print reading. Topics include line types, orthographic projections, dimensioning methods, and notes. Upon completion, students should be able to interpret basic prints and visualize the features of a part or system.

#### **BPR 121 Blueprint Reading: Mechanical** 1-2-2

Prerequisite: BPR 111 or MAC 131

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.

**BPR 130 Print Reading-Construction** 3-0-3

This course covers the interpretation of prints and specifications that are associated with design and construction projects. Topics include interpretation of documents for foundations, floor plans, elevations, and related topics. Upon completion, students should be able to read and interpret construction prints and documents.

# **BROADCAST PRODUCTION**

#### **BPT 110 Intro to Broadcasting**

C-L-SHC 3-0-3

3-0-3

This course introduces the field of broadcasting and other electronic media. Emphasis is placed on the history, development, and current status of radio, television, and related industries. Upon completion, students should be able to demonstrate knowledge of regulations, organizational structure, revenue sources, historical development, and ongoing operation of broadcasting and related industries.

#### **BPT 111 Broadcast Law & Ethics**

This course covers judicial, legislative, and administrative policies pertinent to the ethical and legal operation of broadcast and other electronic media organizations. Emphasis is placed on legal and ethical issues including First Amendment protection, FCC regulations, copyright, and libel laws. Upon completion, students should be able to demonstrate an understanding of the historical significance and modern-day application of important broadcast laws and policies.

#### **BPT 112 Broadcast Writing**

3-2-4 This course introduces proper copy and script writing techniques and formats for radio, television, and other electronic media. Emphasis is placed on creating effective scripts for programs and promotional materials, including commercial and public radio service announcements for a specific target audience. Upon completion, students should be

able to understand and write copy and scripts according to standard industry formats.

# BPT 113 Broadcast Sales 3-0-3

This course covers sales principles applicable to radio, television, cable, and other electronic media. Emphasis is placed on prospecting and servicing accounts, developing clients, and preparing sales presentations. Upon completion, students should be able to create a sales presentation based upon standard ratings reports, prospect for new customers, and understand account management.

### BPT 121 Broadcast Speech I 2-3-3

This course covers basic preparation and performance of on-air talents' speaking quality. Emphasis is placed on developing a pleasant and efficient voice with techniques applied to taped news, features, commercial copy, and announcing. Upon completion, students should be able to show improvement and aptitude in proper articulation, pronunciation, rate of delivery, pitch, breathing techniques, inflection, projection, and phrasing.

### BPT 122 Broadcast Speech II Prerequisite: BPT 121

This course covers basic and advanced preparation and performance of on-air speech. Emphasis is placed on enhancing a pleasant, effective voice with techniques applied to impromptu speaking, radio plays, and taped presentations. Upon completion, students should be able to employ proper articulation, pronunciation, rate of delivery, phrasing, and other voice techniques in a professional manner.

# BPT 131 Audio/Radio Production I 2-6-4

This course covers the creation, development, production, and presentation of audio programming elements for broadcast and/or other electronic media applications. Emphasis is placed on the proper operation of professional audio equipment and the study of basic physical behavior and perceptual effects of sound. Upon completion, students should be able to correctly operate audio recording and playback equipment and demonstrate an understanding of the basic components of sound.

# BPT 132 Audio/Radio Production II

Prerequisite: BPT 131

This course covers the use of advanced audio production techniques in broadcast and/or other electronic media applications. Topics include basic audio signal processing equipment and analog and digital professional audio recording and playback equipment. Upon completion, students should be able to optimize the use of professional audio equipment in the production of effective audio programming.

BPT 135 Radio Performance I

This course provides an opportunity to operate the college radio station as an announcer/board operator. Emphasis is placed on operating control-room equipment, logging transmitter readings, EBS tests, reading news, and broadcasting free of interruptions. Upon completion, students should be able to prepare music, public service announcements, and promos for timely broadcast; introduce songs/programs smoothly; and follow FCC rules.

## BPT 210 Broadcast Management 3-0-3

This course covers management duties within the fields of broadcasting and other electronic media. Emphasis is placed on the management of broadcast stations and cable systems, including financial, personnel, news, sales, and promotion management. Upon completion, students should be able to demonstrate knowledge of successful station operation, including key management concepts and strategies.

# BPT 215 Broadcast Programming 3-0-3

This course covers programming methods, research, and resources needed to provide programs for radio, television, cable, and satellite target audiences. Topics include market research and analysis; local, network, and public station programming and program sources; and scheduling procedures for electronic media. Upon completion, students should be able to develop a programming format or schedule.

# BPT 231Video/TV Production I2-6-4

This course covers the language of film/video, shot composition, set design, lighting, production planning, scripting, editing, and operation of video and television production equipment. Emphasis is placed on mastering the body of knowledge and techniques followed in producing all forms of video and television production. Upon completion, students should be able to produce basic video and television productions in a team environment.

# BPT 232 Video/TV Production II

Prerequisite: BPT 231

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2-6-4

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This course covers advanced video and television production. Emphasis is placed on field production, post-production, digital video effects, graphics, and multi-camera productions. Upon completion, students should be able to create productions that optimize the use of studio, field, and post-production equipment.

2-6-4

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0-6-2

# BPT 235 TV Performance I

This course provides hands-on experience in the operation of television studios and/or stations. Emphasis is placed on the application of skills through direct participation in the production or distribution of television programs. Upon completion, students should be able to demonstrate competence in performing key station and/or studio duties.

### **BPT 236 TV Performance II** *Prerequisite: BPT 235*

This course provides hands-on experience in the operation of television studios and/or stations. Emphasis is placed on the application of skills through direct participation in the production or distribution of television programs. Upon completion, students should be able to demonstrate competence in performing key station and/or studio duties.

BPT 250Institutional Video2-3-3

This course covers development and production of

non-broadcast video productions for clients. Emphasis is placed on satisfying client objectives, including interviewing, research, site surveying, script review, photography, and post-production. Upon completion, students should be able to plan, write, shoot, and edit an institutional video designed to meet a client's objectives.

### BUSINESS

### BUS 110 Introduction to Business

C-L-SHC 3-0-3

This course provides a survey of the business world. Topics include the basic principles and practices of contemporary business. Upon completion, students should be able to demonstrate an understanding of business concepts as a foundation for studying other business subjects. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

### BUS 115 Business Law I

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This course introduces the student to the legal and the ethical framework of business. Contracts, negotiable instruments, the law of sales, torts, crimes, constitutional law, the Uniform Commercial Code, and the court systems are examined. Upon completion the student should be able to identify legal and ethical issues that arise in business decisions and the laws that apply to them. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

# BUS 116 Business Law II

Prerequisites: Take BUS 115

This course includes the study of the legal and ethical framework of business. Business Organizations, property law, intellectual property law, agency and employment law, consumer law, secured transactions, and bankruptcy are examined. Upon completion, the student should be able to identify legal and ethical issues that arise in business decisions and the laws that apply to them.

### BUS 125 Personal Finance

This course provides a study of individual and family financial decisions. Emphasis is placed on building useful skills in buying, managing finances, increasing resources, and coping with current economic conditions. Upon completion, students should be able to develop a personal financial plan.

### BUS 137 Principles of Management 3-0-3

This course is designed to be an overview of the major functions of management. Emphasis is placed on planning, organizing, controlling, directing, and communicating. Upon completion, students should be able to work as contributing members of a team utilizing these functions of management. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

BUS 151 People Skills 3-0-3

This course introduces the basic concepts of identity and communication in the business setting. Topics include self-concept, values, communication styles, feelings and emotions, roles versus relationships, and basic assertiveness, listening, and conflict resolution. Upon completion, students should be able to distinguish between unhealthy, self-destructive, communication patterns and healthy, non-destructive, positive communication patterns.

### BUS 152 Human Relations

3-0-3

This course introduces the concepts of effective human interaction in the business work environment. Topics include effective communication techniques, motivation, ego states, stress, and conflict. Upon completion, students should be able to explain the importance of human relations, apply motivational techniques, and implement strategies for resolving work-related conflicts.

# BUS 153 Human Resource Management 3-0-3

This course introduces the functions of personnel/human resource management within an organization. Topics include equal opportunity and the legal environment, recruitment and selection, performance appraisal, employee development, compensation planning, and employee relations. Upon completion, students should be able to anticipate and resolve human resource concerns.

### BUS 217 Employment Law and Regulations 3-0-3

This course introduces the principle laws and regulations affecting public and private organizations and their employees or prospective employees. Topics include fair employment practices, EEO, affirmative action, and employee rights and protections. Upon completion, students should be able to evaluate organization policy for compliance and assure that decisions are not contrary to law.

# BUS 225 Business Finance 2-2-3

*Prerequisite: ACC 120* 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.

# BUS 228 Business Statistics

2-2-3

This course introduces the use of statistical methods and tools in evaluating research data for business applications. Emphasis is placed on basic probability, measures of spread and dispersion, central tendency, sampling, regression analysis, and inductive inference. Upon completion, students should be able to apply statistical problem solving to business. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

BUS 230Small Business Management3-0-3This course introduces the challenges of entrepreneurshipincluding the startup and operation of a small business. Topicsinclude market research techniques, feasibility studies, site

analysis, financing alternatives, and managerial decisionmaking. Upon completion, students should be able to develop a small business plan.

### BUS 234 Training and Development 3-0-3

This course covers developing, conducting, and evaluating employee training with attention to adult learning principles. Emphasis is placed on conducting a needs assessment, using various instructional approaches, designing the learning environment, and locating learning resources. Upon completion, students should be able to design, conduct, and evaluate a training program.

### BUS 240 Business Ethics 3-0-3

This course introduces contemporary and controversial ethical issues that face the business community. Topics include moral reasoning, moral dilemmas, law and morality, equity, justice and fairness, ethical standards, and moral development. Upon completion, students should be able to demonstrate an understanding of their moral responsibilities and obligations as members of the workforce and society.

### BUS 252 Labor Relations

3-0-3

This course covers the history of the organized labor movement and the contractual relationship between corporate management and employees represented by a union. Topics include labor laws and unfair labor practices, the role of the NLRB, organizational campaigns, certification/decertification elections, and grievance procedures. Upon completion, students should be able to act in a proactive and collaborative manner in an environment where union representation exists.

# BUS 255 Organizational Behavior in Business 3-0-3

This course covers the impact of different management practices and leadership styles on worker satisfaction and morale, organizational effectiveness, productivity, and profitability. Topics include a discussion of formal and informal organizations, group dynamics, motivation, and managing conflict and change. Upon completion, students should be able to analyze different types of interpersonal situations and determine an appropriate course of action.

# BUS 256 Recruiting, Selection & Personnel Planning 3-0-3

This course introduces the basic principles involved in managing the employment process. Topics include personnel planning, recruiting, interviewing and screening techniques, maintaining employee records; and voluntary and involuntary separations. Upon completion, students should be able to acquire and retain employees who match position requirements and fulfill organizational objectives.

# BUS 258Compensation and Benefits3-0-3

This course is designed to study the basic concepts of pay and its role in rewarding performance. Topics include wage and salary surveys, job analysis, job evaluation techniques, benefits, and pay-for-performance programs. Upon completion, students should be able to develop and manage a

# BUS 259 HRM Applications 3-0-3

*Prerequisites: Take all: BUS 217, BUS 234, BUS 256, and BUS 258* 

This course provides students in the Human Resource Management concentration the opportunity to reinforce their learning experiences from preceding HRM courses. Emphasis is placed on application of day-to-day HRM functions by completing in-basket exercises and through simulations. Upon completion, students should be able to determine the appropriate actions called for by typical events that affect the status of people at work.

# BUS 260 Business Communication 3-0-3

Prerequisite: ENG 110 or ENG 111

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.

# BUS 261Diversity in Management3-0-3

This course is designed to help managers recognize the need to incorporate diversity into all phases of organizational management. Topics include self-evaluation, management, sexual harassment, workforce diversity, dual careers, role conflict, and communication issues. Upon completion, students should be able to implement solutions that minimize policies, attitudes, and stereotypical behaviors that block effective team building.

# BUS 270 Professional Development 3-0-3

This course provides basic knowledge of self-improvement techniques as related to success in the professional world. Topics include positive human relations, job-seeking skills, and projecting positive self-image. Upon completion, students should be able to demonstrate competent personal and professional skills necessary to get and keep a job.

# BUS 280 REAL Small Business

4-0-4

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.

# CARPENTRY

# CAR 111 Carpentry I

C-L-SHC 3-15-8

This course introduces the theory and construction methods associated with the building industry; including framing, materials, tools, and equipment. Topics include safety,

hand/power tool use, site preparation, measurement and layout, footings and foundations, construction framing, and other related topics. Upon completion, students should be able to safely lay out and perform basic framing skills with supervision. This is a diploma-level course.

## CAR-112 Carpentry II

3-15-8

3-9-6

Prerequisite: Take CAR 111

This course covers the advanced theory and construction methods associated with the building industry including framing and exterior finishes. Topics include safety, hand/power tool use, measurement and layout, construction framing, exterior trim and finish, and other related topics. Upon completion, students should be able to safely frame and apply exterior finishes to a residential building with supervision.

## CAR 113 Carpentry III

Prerequisite: CAR 111

This course covers interior trim and finishes. Topics include safety, hand/power tool use, measurement and layout, specialty framing, interior trim and finishes, cabinetry, and other related topics. Upon completion, students should be able to safely install various interior trim and finishes in a residential building with supervision.

CAR 114 Residential Building Codes 3-0-3

This course covers building codes and the requirements of state and local construction regulations. Emphasis is placed on the minimum requirements of the North Carolina building codes related to residential structures. Upon completion, students should be able to determine if a structure is in compliance with North Carolina building codes.

### CAR 115 Residential Planning/Estimating 3-0-3 Prerequisite: BPR 130

This course covers project planning, management, and estimating for residential or light commercial buildings. Topics include planning and scheduling, interpretation of working drawings and specifications, estimating practices, and other related topics. Upon completion, students should be able to perform quantity take-offs and cost estimates.

# **COMPUTER ENGINEERING TECHNOLOGY**

C-L-SHC

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# CET 225 Digital Signal Processing

Local Prerequisite: ELN 133

This course introduces concepts and applications of digital signal processing. Topics include Fourier analysis, signal sampling, digital filtering, IIR filters, FIR filters, and DSP programming. Upon completion, students should be able to implement and troubleshoot DSP systems in hardware and software.

# CHEMISTRY

		C-LSHC
CHM 092	Fundamentals of Chemistry	3-2-4

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This course covers fundamentals of chemistry with laboratory applications. Topics include measurements, matter, energy, atomic theory, bonding, molecular structure, nomenclature, balancing equations, stoichiometry, solutions, acids and bases, gases, and basic organic chemistry. Upon completion, students should be able to understand and apply basic chemical concepts and demonstrate basic laboratory skills necessary for success in college-level science courses.

# CHM 130General, Organic and Biochemistry3-0-3Corequisite: CHM 130A

This course provides a survey of basic facts and principles of general, organic, and biochemistry. Topics include measurement, molecular structure, nuclear chemistry, solutions, acid-base chemistry, gas laws, and the structure, properties, and reactions of major organic and biological groups. Upon completion, students should be able to demonstrate an understanding of fundamental chemical concepts. This course has been approved for transfer under the CAA and ICAA a premajor and/or elective course requirement.

### CHM 130A General, Organic & Biochemistry Lab 0-2-1 Corequisite: CHM 130

This course is a laboratory for CHM 130. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 130. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical principles presented in CHM 130. Also included are EMR, spectrophotometry, extraction, safety, and feed analysis. This course has been approved for transfer under the CAA and ICAA a premajor and/or elective course requirement.

### CHM 131 Introduction to Chemistry 3-0-3 Corequisite: CHM 131A

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 for transfer under the CAA and ICAA as a general education course in Natural Science.

# CHM 131A Introduction to Chemistry Lab 0-3-1

*Corequisite: CHM 131* 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 for transfer under the CAA and

ICAA as a general education course in Natural Science.

### CHM 132 Organic and Biochemistry 3-3-4

*Prerequisite: Take one set: 1) CHM 131 & CHM 131A; 2) CHM 151* 

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 for transfer under the CAA and ICAA as a general education course in Natural Science.

### CHM 151 General Chemistry I

Prerequisite: MAT 003 P3 grade, or Corequisite MAT 071 or MAT 171 or equivalent.

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 for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in Natural Sciences.

### CHM 152 General Chemistry II

Prerequisite: CHM 151

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 for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in Natural Sciences.

### CHM 251 Organic Chemistry I Prerequisite: CHM 152

3-3-4

3-3-4

3-3-4

This course provides a systematic study of the theories, principles, and techniques of organic chemistry. Topics include nomenclature, structure, properties, reactions, and mechanisms of hydrocarbons, alkyl halides, alcohols, and ethers; further topics include isomerization, stereochemistry, and spectroscopy. Upon completion, students should be able to demonstrate an understanding of the fundamental concepts of covered organic topics as needed in CHM 252. This course has been approved for transfer under the CAA and ICAA a premajor and/or elective course requirement.

# 174

### CHM 252 Organic Chemistry II

### Prerequisite: CHM 251

This course provides continuation of the systematic study of the theories, principles, and techniques of organic chemistry. Topics include nomenclature, structure, properties, reactions, and mechanisms of aromatics, aldehydes, ketones, carboxylic acids and derivatives, amines and heterocyclics; multi-step synthesis will be emphasized. Upon completion, students should be able to demonstrate an understanding of organic concepts as needed to pursue further study in chemistry and related professional fields. This course has been approved for transfer under the CAA and ICAA a premajor and/or elective course requirement.

### **COMPUTER INFORMATION SYSTEMS**

C-L-SHC

1-2-2

CIS 110 Introduction to Computers 2-2-3 This course introduces computer concepts, including fundamental functions and operations of the computer. Topics include identification of hardware components, basic computer operations, security issues, and use of software applications. Upon completion, students should be able to demonstrate an understanding of the role and function of computers and use the computer to solve problems. This course has been approved for transfer under the CAA and ICAA as a general education course in Mathematics.

### CIS 111 Basic PC Literacy

This course provides an overview of computer concepts. Emphasis is placed on the use of personal computers and software applications for personal and fundamental workplace use. Upon completion, students should be able to demonstrate basic personal computer skills.

### CIS 115 Introduction to Programming and Logic 2-3-3 Prerequisites: MAT-003 P3 grade

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 CAA and ICAA as a general education course in Mathematics.

# **CRIMINAL JUSTICE**

C-L-SHC

CJC 110 Basic Law Enforcement Training 10-30-20 This course covers the basic skills and knowledge needed for entry-level employment as a law enforcement officer in North Carolina. Topics include those mandated by North Carolina Administration Code as essential for functioning in law enforcement. Upon completion, the student should be able to demonstrate competence in the topics required for the state comprehensive certification examination.

### 3-3-4

**CJC 111 Introduction to Criminal Justice 3-0-3** This course introduces the components and processes of the criminal justice system. Topics include history, structure, functions, and philosophy of the criminal justice system and their relationship to life in our society. Upon completion, students should be able to define and describe the major system components and their interrelationships and evaluate career options. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

### CJC 112 Criminology 3-0-3

This course introduces deviant behavior as it relates to criminal activity. Topics include theories of crime causation; statistical analysis of criminal behavior; past, present, and future social control initiatives; and other related topics. Upon completion, students should be able to explain and discuss various theories of crime causation and societal response.

3-0-3

### CJC 113 Juvenile Justice

This course covers the juvenile justice system and related juvenile issues. Topics include an overview of the juvenile justice system, treatment and prevention programs, special areas and laws unique to juveniles, and other related topics. Upon completion, students should be able to identify/discuss juvenile court structure/procedures, function and jurisdiction of juvenile agencies, processing/detention of juveniles, and case disposition. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

### CJC 114 Investigative Photography 1-2-2

This course covers the operation of digital photographic equipment and its application to criminal justice. Topics include the use of digital cameras, storage of digital images, retrieval of digital images, and preparation of digital images as evidence. Upon completion, students should be able to demonstrate and explain the role and use of digital photography, image storage, and retrieval in criminal investigation.

**CJC 120** Interviews/Interrogations 1-2-2 This course covers basic and special techniques employed in criminal justice interviews and interrogations. Emphasis is placed on the interview/interrogation process, including interpretation of verbal and physical behavior and legal perspectives. Upon completion, students should be able to conduct interviews/interrogations in a legal, efficient, and professional manner and obtain the truth from suspects, witnesses, and victims.

CJC 121 Law Enforcement Operations 3-0-3 This course introduces fundamental law enforcement operations. Topics include the contemporary evolution of law enforcement operations and related issues. Upon completion, students should be able to explain theories, practices, and issues related to law enforcement operations. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement. 2022-2023 College Catalog – Central Carolina Community College

### CJC 122 Community Policing 3-0-3

This course covers the historical, philosophical, and practical dimensions of community policing. Emphasis is placed on the empowerment of police and the community to find solutions to problems by forming partnerships. Upon completion, students should be able to define community policing, describe how community-policing strategies solve problems, and compare community policing to traditional policing.

CJC 131 Criminal Law 3-0-3

This course covers the history/evolution/principles and contemporary applications of criminal law. Topics include sources of substantive law, classification of crimes, parties to crime, elements of crimes, matters of criminal responsibility, and other related topics. Upon completion, students should be able to discuss the sources of law and identify, interpret, and apply the appropriate statutes/elements.

# CJC 132 Court Procedure & Evidence 3-0-3

This course covers judicial structure/process/procedure from incident to disposition, kinds and degrees of evidence, and the rules governing admissibility of evidence in court. Topics include consideration of state and federal courts, arrest, search and seizure laws, exclusionary and statutory rules of evidence, and other related issues. Upon completion, students should be able to identify and discuss procedures necessary to establish a lawful arrest/search, proper judicial procedures, and the admissibility of evidence.

### CJC 141 Corrections

3-0-3

This course covers the history, major philosophies, components, and current practices and problems of the field of corrections. Topics include historical evolution, functions of the various components, alternatives to incarceration, treatment programs, inmate control, and other related topics. Upon completion, students should be able to explain the various components, processes, and functions of the correctional system. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

### CJC 144 Crime Scene Processing

2-3-3

This course introduces the theories and practices of crime scene processing and investigating. Topics include legal considerations at the crime scene, processing indoor and outdoor scenes, recording, note taking, collection and preservation of evidence, and submission to the crime laboratory. Upon completion, the student should be able to evaluate and search various crime scenes and demonstrate the appropriate techniques.

# CJC 146 Trace Evidence 2-3-3

This course provides a study of trace evidence as it relates to forensic science. Topics include collection, packaging, and preservation of trace evidence from crime scenes such as bombings, fires, and other scenes. Upon completion, students should be able to demonstrate the fundamental concepts of trace evidence collection, preservation, and submission to the crime laboratory.

CJC 151 Intro to Loss Prevention 3-0-3 This course introduces the concepts and methods related to commercial and private security systems. Topics include the historical, philosophical, and legal basis of security, with emphasis on security surveys, risk analysis, and associated functions. Upon completion, students should be able to demonstrate and understand security systems, risk management, and the laws relative to loss prevention.

CJC 160 Terrorism: Underlying Issues 3-0-3 This course identifies the fundamental reasons why America is a target for terrorists, covering various domestic/international terrorist groups and ideologies from a historical aspect. Emphasis is placed upon recognition of terrorist crime scene; weapons of mass destruction; chemical, biological, and nuclear terrorism; and planning considerations involving threat assessments. Upon completion, the student should be able to identify and discuss the methods used in terrorists' activities and complete a threat assessment for terrorists' incidents.

### CJC 170 Critical Incident Management Pub 3-0-3 Safety

This course prepares the student to specialize in the direct response operations, and management of critical incidents. Emphasis is placed upon the theoretical and applied models to understand and manage disasters, terrorism, and school/work place violence. Upon completion, the student should be able to identify and discuss managerial techniques, legal issues, and response procedures to critical incidents.

CJC 212 Ethics & Community Relations 3-0-3 This course covers ethical considerations and accepted standards applicable to criminal justice organizations and professionals. Topics include ethical systems; social change, values, and norms; cultural diversity; citizen involvement in criminal justice issues; and other related topics. Upon completion, students should be able to apply ethical considerations to the decision-making process in identifiable criminal justice situations. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

## CJC 213 Substance Abuse 3-0-3

This course is a study of substance abuse in our society. Topics include the history and classifications of drug abuse and the social, physical, and psychological impact of drug abuse. Upon completion, students should be able to identify various types of drugs, their effects on human behavior and society, and treatment modalities.

### CJC 214 Victimology

3-0-3

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 176 completion, students should be able to discuss and identify victims, the uniqueness of victims' roles, and current victim assistance programs.

### CJC 215 Organization & Administration 3-0-3

This course introduces the components and functions of organization and administration as it applies to the agencies of the criminal justice system. Topics include operations/functions of organizations; recruiting, training, and retention of personnel; funding and budgeting; communications; span of control and discretion; and other related topics. Upon completion, students should be able to identify and discuss the basic components and functions of a criminal justice organization and its administrative operations.

### CJC 221 Investigative Principles 3-2-4

This course introduces the theories and fundamentals of the investigative process. Topics include crime scene/incident processing, information gathering techniques, collection/preservation of evidence, preparation of appropriate reports, court presentations, and other related topics. Upon completion, students should be able to identify, explain, and demonstrate the techniques of the investigative process, report preparation, and courtroom presentation.

### CJC 222 Criminalistics

This course covers the functions of the forensic laboratory and its relationship to successful criminal investigations and prosecutions. Topics include advanced crime scene processing, investigative techniques, current forensic technologies, and other related topics. Upon completion, students should be able to identify and collect relevant evidence at simulated crime scenes and request appropriate laboratory analysis of submitted evidence.

### CJC 225 Crisis Intervention

This course introduces critical incident intervention and management techniques as they apply to operational criminal justice practitioners. Emphasis is placed on the victim/offender situation as well as job-related high stress, dangerous, or problem solving citizen contacts. Upon completion, students should be able to provide insightful analysis of emotional, violent, drug-induced, and other critical and/or stressful incidents that require field analysis and/or resolution.

### CJC 231 Constitutional Law 3-0-3

The course covers the impact of the Constitution of the United States and its amendments on the criminal justice system. Topics include the structure of the Constitution and its amendments, court decisions pertinent to contemporary criminal justice issues, and other related topics. Upon completion, students should be able to identify/discuss the basic structure of the United States Constitution and the rights/procedures as interpreted by the courts.

### CJC 232 Civil Liability

This course covers liability issues for the criminal justice professional. Topics include civil rights violations, fort

3-0-3

3-0-3

3-0-3

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liability, employment issues, and other related topics. Upon completion, students should be able to explain civil trial procedures and discuss contemporary liability issues.

### CJC 240 Law Enforcement Mgmt & Sup 3-0-3

This course provides a study of the best known methods and practices of police leadership and management. Topics include the role of the manager in law enforcement, communications time-management in law enforcement, managing problems, training and law enforcement productivity. Upon completion, students should be able to identify and discuss methods and practices capable of moving law enforcement agencies forward into the twenty-first century.

### CJC 245 Friction Ridge Analysis 2-3-3

This course introduces the basic elements of fingerprint technology and techniques applicable to the criminal justice field. Topics include the history and meaning of fingerprints, pattern types and classification, filing sequence, searching, and referencing. Upon completion, students should be able to discuss and demonstrate the fundamental techniques of basic fingerprint technology.

### CJC 246 Advanced Friction Ridge Analysis 2-3-3 Prereauisite: CJC 245

This course introduces the theories and processes of advanced friction ridge analysis. Topics include evaluation of friction ridges, chart preparation, comparative analysis for values determination rendering proper identification, chemical enhancement, and AFIS preparation and usage. Upon completion, students must show an understanding of proper procedures for friction ridge analysis through written testing and practical exercises.

# CJC 250 Forensic Biology I 2-2-3

This course covers important biological principles that are applied in the crime laboratory. Topics include forensic toxicology, forensic serology, microscopy, and DNA typing analysis, with an overview of organic and inorganic analysis. Upon completion, students should be able to articulate how a crime laboratory processes physical evidence submitted by law enforcement agencies.

### CJC 251 Forensic Chemistry I 3-2-4

This course provides a study of the fundamental concepts of chemistry as it relates to forensic science. Topics include physical and chemical properties of substances, metric measurements, chemical changes, elements, compounds, gases, and atomic structure. Upon completion, students should be able to demonstrate an understanding of the fundamental concepts of forensic chemistry.

# **CONSTRUCTION MANAGEMENT**

# CMT 120 Codes and Inspections

3-0-3

This course covers building codes and the code inspections process used in the design and construction of residential and commercial buildings. Emphasis is placed on commercial, residential, and accessibility (ADA) building codes. Upon completion, students should understand the building code inspections process and apply building code principles and requirements to construction projects.

# COMMUNICATION

C-L-SHC

**COM 110** Introduction to Communication 3-0-3 This course provides an overview of the basic concepts of communication and the skills necessary to communicate in various contexts. Emphasis is placed on communication theories and techniques used in interpersonal group, public, intercultural, and mass communication situations. Upon completion, students should be able to explain and illustrate the forms and purposes of human communication in a variety of contexts. This course has been approved for transfer under the CAA and ICAA as a general education course in Communications.

**COM 120** Intro to Interpersonal Communication 3-0-3 This course introduces the practices and principles of interpersonal communication in both dyadic and group settings. Emphasis is placed on the communication process, perception, listening, self-disclosure, speech apprehension, ethics, nonverbal communication, conflict, power, and dysfunctional communication relationships. Upon completion, students should be able to demonstrate interpersonal communication skills, apply basic principles of group discussion, and manage conflict in interpersonal communication situations. This course has been approved for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in Humanities/Fine Arts.

# COM 130 Nonverbal Communication 3-0-3

*Prerequisite: COM 110 or COM 120* 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 verbal communication habits. This course has been approved for transfer under the CAA and ICAA a premajor and/or elective course requirement.

**COM 140** Intro to Intercultural Communication 3-0-3 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 CAA and ICAA as a general education course in Communications.

### COM 231 Public Speaking

3-0-3

C-L-SHC

4-0-4

0-24-8

4-0-4

0-24-8

4-0-4

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 for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in Humanities/Fine Arts.

# COSMETOLOGY

### COS 111 Cosmetology Concepts I Corequisite: COS 112

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.

# COS 112 Salon I

Corequisite: COS 111

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.

### COS 113 Cosmetology Concepts II

*Prerequisites: COS 111 and COS 112 Local Corequisite: COS 114* 

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.

### COS 114 Salon II

Prerequisites: COS 111 and COS 112 Local Corequisite: COS 113

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.

# COS 115 Cosmetology Concepts III

Prerequisites: COS 111 and COS 112 Local Corequisite: COS 116

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.

# COS 116 Salon III 0-12-4

Prerequisites: COS 111 and COS 112 Local Corequisite: COS 115

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.

COS 117	<b>Cosmetology Concepts IV</b>	2-0-2
Prerequisites:	COS 111 and COS 112	

Local Corequisite: COS 111 and Corequisite: COS 118

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.

# COS 118 Salon IV 0-21-7

*Prerequisite: COS 111 and COS 112 Local Corequisite: COS 117* 

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.

COS 119Esthetics Concepts I2-0-2This course covers the concepts of esthetics. Topics include<br/>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.

### COS 120 Esthetics Salon I

0-18-6

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.

COS 121Manicure/Nail Technology I4-6-6This course covers techniques of nail technology, hand and<br/>arm surface manipulation, and recognition of nail diseases and<br/>disorders. Topics include OSHA/safety, sanitation,<br/>bacteriology, product knowledge, salesmanship, manicures,<br/>artificial applications, pedicures, surface manipulation, and

other related topics. Upon completion, students should be able to safely and competently perform nail care, including manicures, pedicures, surface manipulations, decorating and artificial applications in a salon setting.

#### **COS 125 Esthetics Concepts II**

This course covers more comprehensive esthetics concepts. Topics include nutrition, business management, make-up, and color analysis. Upon completion, students should be able to demonstrate an understanding of the advanced esthetics concepts and meet course requirements.

#### 0-18-6 **COS 126 Esthetics Salon II**

This course provides experience in a simulated esthetics setting. Topics include machine facials, aromatherapy, surface manipulation in relation to skin care, 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.

#### Manicure/Nail Tech. II **COS 222**

Prerequisite: COS 121 This course covers advanced techniques of nail technology and hand and arm surface manipulation. 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.

#### **COS 223 Contemp Hair Coloring**

1-3-2

1-3-2

4-6-6

2-0-2

Prerequisite: COS 111 and COS 112

This course covers basic color concepts, hair coloring problems, and application techniques. Topics include color theory, terminology, contemporary techniques, product knowledge, and other related topics. Upon completion, students should be able to identify a client's color needs and safely and competently perform color applications and correct problems.

#### **COS 224 Trichology & Chemistry**

This course is a study of hair and the interaction of applied chemicals. Emphasis is placed on pH actions and the reactions and effects of chemical ingredients. Upon completion, students should be able to demonstrate an understanding of chemical terminology, pH testing, and chemical reactions on hair.

#### **COS 253 Esthetics Instructional Concepts I** 6-15-11 Local Prerequisite: Esthetics License

This course introduces esthetic instructional concepts and skills. Topics include orientation, theories of education, unit planning, daily lesson plans, laboratory management, and student assessment in a laboratory setting. Upon completion, students should be able to demonstrate esthetic services and instruct and objectively assess student performance in a classroom setting.

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#### COS 254 **Esthetics Instr Concepts II** 6-15-11

Local Prerequisite: Esthetics License

This course covers advanced esthetic instructional concepts and skills. Topics include practical demonstrations, lesson planning, lecture techniques, development and administration of assessment tools, record keeping, and other related topics. Upon completion, students should be able to demonstrate competencies in the areas covered by the Esthetics Instructor Licensing Examination and meet program requirements.

#### **COS 271 Instructor Concepts I** 5-0-5

Local Prerequisite: Cosmetology License Corequisite: COS 272

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.

#### **COS 272 Instructor Practicum I** 0-21-7 Local Prerequisite: Cosmetology License

Corequisite: COS 271

This course covers supervisory and instructional skills for teaching entry-level cosmetology students in a laboratory setting. Topics include demonstrations of services, supervision, and entry-level student assessment. Upon completion, students should be able to demonstrate salon services and instruct and objectively assess the entry-level student.

#### **Instructor Concepts II COS 273**

Prerequisites: COS 271 and COS 272 Corequisite: COS 274

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.

#### **COS 274** Instructor Practicum II

Prerequisites: COS 271 and COS 272 Corequisite: COS 273

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.

5-0-5

0 - 21 - 7

# **COMPUTER SCIENCE**

### CSC 118 Swift Programming I

This course introduces the development of iOS applications and Apple applications using Swift programming language. Emphasis is placed on syntax, object-oriented principles, memory management, and functional concepts of Swift programming. Upon completion, students should be able to develop fully functional iOS and Apple applications using Swift programming language.

C-L-SHC

2 - 3 - 3

2-3-3

2-3-3

2-3-3

### CSC 121 Python Programming 2-3-3

This course introduces computer programming using the Python programming language. Emphasis is placed on common algorithms and programming principles utilizing the standard library distributed with Python. Upon completion, students should be able to design, code, test, and debug Python language programs.

### CSC 134 C++ Programming

This course introduces computer programming using the C++ programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test and debug at a beginning level. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

### CSC 139 Visual BASIC Programming 2-3-3

This course introduces computer programming using the Visual BASIC programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test and debug at a beginning level. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

### CSC 151 JAVA Programming

This course introduces computer programming using the JAVA programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion students should be able to design, code, test, debug JAVA language programs. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

### **CSC 218 Swift Programming II** *Prerequisite: Take CSC 118*

This course introduces advanced iOS application development using the Swift programming language. Emphasis is placed on navigation, data manipulation, web services, prototyping, debugging, and project planning. Upon completion, students should be able to develop advanced multifunctional iOS and Apple applications using the Swift programming language.

# **CONSTRUCTION TECHNOLOGY**

### CST 111 Construction I

C-L-SHC 3-3-4

3-3-4

This course covers standard and alternative building methods to include wall framing. Topics include safety and footings, foundations, floor framing systems, and wall framing systems commonly used in the construction industry. Upon completion, students should be able to safely erect all framing necessary to begin roof framing.

### CST 112 Construction II Prereauisites: CST 111

This course covers building methods and materials used to dry-in a building. Topics include safety, ceiling/roof framing applications, roof finishes, windows, and exterior doors. Upon completion, students should be able to safely erect different roof types and properly install windows and exterior doors, roofing, and exterior finish materials.

## CST 113 Construction III 3-3-4

### Prerequisite: CST 112

This course covers building methods and materials used to complete the interior of a structure. Topics include safety, installation of thermal and acoustical barriers, and interior finishes including millwork, cabinets, interior doors, flooring, and wall treatments. Upon completion, students should be able to safely and accurately install interior treatments including insulation, paneling, drywall, molding, doors, flooring, and cabinetry.

### CST 131 OSHA/Safety/Certification 2-2-3

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 150 Building Science

2-2-3

2 - 3 - 3

This course introduces concepts and techniques for the design and interaction of the mechanical systems of high performance buildings. Topics include building envelope, heating, ventilation and air conditioning (HVAC), indoor air quality, lighting, plumbing and electrical. Upon completion, students should be able to understand building systems interaction and performance.

# CST 211 Construction Surveying

Prerequisite: MAT 121 or MAT 171

This course covers field surveying applications for residential and commercial construction. Topics include building layout and leveling, linear measurement and turning angles, plumbing vertical members, and topographic and utilities surveys. Upon completion, students should be able to properly and accurately use surveying equipment to lay out residential and commercial buildings.

### CST 221 Statics/Structure 3-3-4

*Prerequisite: Take one set: Set 1: ARC-112 and MAT-110 Set 2: ARC-112 and MAT-121 Set 3: ARC-112 and MAT-171 Set 4: CAR-112 and MAT-110 Set 5: CAR-112 and MAT-121 Set 6: CAR-112 and MAT-171 Set 7: CST-112 and MAT-171 Set 8: CST-112 and MAT-121 Set 9: CST-112 and MAT-171* 

This course covers the principles of statics and strength of materials as applied to structural building components. Topics include forces on columns, beams, girders, and footings and connection points when timber, steel, and concrete members are used. Upon completion, students should be able to accurately analyze load conditions present in structural members.

CST 241 Planning/Estimating I 2-2-3

*Prerequisite: Take one: BPR 130, MAT 121, MAT 171* This course covers the procedures involved in planning and estimating a construction/building project. Topics include performing quantity take-offs of materials necessary for a building project. Upon completion, students should be able to accurately complete a take-off of materials and equipment needs involved in a construction project.

### **COMPUTER TECH INTEGRATION**

# CTI 110 Web, Programming, & Database Foundation 2-2-3

C-L-SHC

1-4-3

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 & Sec Foundation 2-2-3

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.

### CTI 140 Virtualization Concepts

This course introduces operating system virtualization. Emphasis is placed on virtualization terminology, virtual machine storage, virtual networking and access control. Upon completion, students should be able to perform tasks related to installation, configuration and management of virtual machines.

# CTI 289CTI Capstone Project1-6-3Prereauisites: Take all: CTI 110. CTI 120. CTS 115

This course provides students an opportunity to complete a significant integrated technology project from the design phase through implementation with minimal instructor support. Emphasis is placed on technology policy, process planning, procedure definition, systems architecture, and security issues to create projects for the many areas in which computer technology is integrated. Upon completion, students should be able to create, implement, and support a comprehensive technology integration project from the planning and design phase through implementation.

### COMPUTER INFORMATION TECHNOLOGY C-L-SHC

**CTS 115 Information Systems Business Concept 3-0-3** 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. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

### CTS 120 Hardware/Software Support

2-3-3

This course covers the basic hardware of a personal computer, including installation, operations and interactions with software. Topics include component identification, memory-system, peripheral installation and configuration, preventive maintenance, hardware diagnostics/repair, installation and optimization of system software, commercial programs, system configuration, and device-drivers. Upon completion, students should be able to select appropriate computer equipment and software, upgrade/maintain existing equipment and software, and troubleshoot/repair non-functioning personal computers.

### CTS 130 Spreadsheet

2-2-3

This course introduces basic spreadsheet design and development. Topics include writing formulas, using functions, enhancing spreadsheets, creating charts, and printing. Upon completion, students should be able to design and print basic spreadsheets and charts.

**CTS 135 Integrated Software Introduction** 2-4-4 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.

#### **CTS 220 Advanced Hardware/Software Support** 2-3-3 Prerequisite: CTS 120

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.

#### **CTS 285 Systems Analysis and Design** 3-0-3 Local Prerequisite: CIS 115

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.

#### **CTS 289 System Support Project**

Prerequisite: CTI 110, CTI 120, and CTS 115 Local Prerequisite: CTS 285

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.

### **CULINARY**

#### CUL 110 Sanitation & Safety

This course introduces the basic principles of sanitation and safety relative to the hospitality industry. Topics include personal hygiene, sanitation and safety regulations, use and care of equipment, the principles of food-borne illness, and other related topics. Upon completion, students should be able to demonstrate an understanding of the content necessary for successful completion of a nationally recognized food/safety/sanitation exam.

#### CUL 112 **Nutrition for Foodservice**

This course covers the principles of nutrition and its relationship to the foodservice industry. Topics include personal nutrition fundamentals, weight management, exercise, nutritional adaptation/analysis of recipes/menus, healthy cooking techniques and marketing nutrition in a foodservice operation. Upon completion, students should be able to apply basic nutritional concepts to food preparation and selection.

### CUL 112A Nutrition for Foodservice Lab Corequisite: CUL 112

This course provides a laboratory experience for enhancing student skills in the principles of nutrition and its relationship to the foodservice industry. Emphasis is placed on personal nutrition fundamentals, weight management/exercise, nutritional adaptation/analysis of recipes/menus, healthy cooking techniques and marketing nutrition in a foodservice operation. Upon completion, students should be able to apply basic nutritional concepts to food preparation and selection.

#### CUL 120 Purchasing

This course covers purchasing for foodservice operations. Emphasis is placed on yield tests, procurement, negotiating, inventory control, product specification, purchasing ethics, vendor relationships, food product specifications and software applications. Upon completion, students should be able to apply effective purchasing techniques based on the end-use of the product.

#### 2-0-2 CUL 135 Food & Beverage Service

This course is designed to cover the practical skills and knowledge necessary for effective food and beverage service in a variety of settings. Topics include greeting/service of guests, dining room set-up, profitability, menu sales and merchandising, service styles and reservations. Upon completion, students should be able to demonstrate competence in human relations and the skills required in the service of foods and beverages.

#### **CUL 140 Culinary Skills I**

Corequisite: CUL 110

This course introduces the fundamental concepts, skills and techniques in basic cookery, and moist, dry and combination heat. Emphasis is placed on recipe conversion, measurements, terminology, classical knife cuts, safe food/equipment handling, flavorings/seasonings, stocks/sauces/soups, and related topics. Upon completion, students should be able to exhibit the basic cooking skills used in the foodservice industry.

#### **CUL 140A Culinary Skills I Lab**

Corequisite: CUL 110 and CUL 140

This course provides laboratory experience for enhancing student skills in the fundamental concepts, skills and techniques in basic cookery, and moist, dry and combination heat. Emphasis is placed on practical experiences including recipe conversion, measurements, terminology, classical knife cuts, safe food/equipment handling, flavorings/seasonings, stocks/sauces/soups, and related topics. Upon completion, students should be able to demonstrate competency in the basic cooking skills used in the foodservice industry.

#### **CUL 160 Baking I**

Corequisite: CUL 110

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This course covers basic ingredients, techniques, weights and measures, baking terminology and formula calculations. Topics include yeast/chemically leavened products, laminated

2-0-2

2-6-5

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1-4-3

C-L-SHC 2-0-2

3-0-3

completion, students should be able to demonstrate pastry preparation, plating, and dessert buffet production skills.

### CUL 270 Garde Manger II 1-4-3

*Prerequisites: CUL 110, CUL 140 and CUL 170* This course is designed to further students' knowledge in basic cold food preparation techniques and pantry production. Topics include pâtés, terrines, galantines, decorative garnishing skills, carving, charcuterie, smoking, canapés, hors d'oeuvres, and related food items. Upon completion, students should be able to design, set up, and evaluate a catering/event display to include a cold buffet with appropriate showpieces.

### CUL 270A Garde Manger II Lab

Prerequisites: CUL 110, CUL 140 and CUL 170 Corequisite: CUL 270

This course provides a laboratory experience for enhancing student skills in basic cold food preparation techniques and pantry production. Emphasis is placed on practical experiences with pâtés, terrines, galantines, decorative garnishing skills, carving, charcuterie, smoking, canapés, hors d'oeuvres, and related food items. Upon completion, students should be able to demonstrate proficiency in the design/technical applications of advanced garde manger work including classical cold buffets incorporating appropriate showpieces.

### CUL 275 Catering Cuisine 1-8-5

*Prerequisites:* CUL 110, CUL 140 and CUL 240 This course covers the sequential steps to successful catering that include sales, client needs, menu planning, purchasing, costing, event pricing, staffing and sanitation concerns. Emphasis is placed on new culinary competencies and skills specific to catering preparation, presentation, and customer service. Upon completion, students should be able to demonstrate proficiency in the successful design and execution of various types of catering events.

### CUL 283 Farm-To-Table

Prerequisites: CUL 110 and CUL 140

This course introduces students to the cooperation between sustainable farmers and foodservice operations. Emphasis is placed on environmental relationships, including how foods are grown, processed, and distributed, as well as related implications on quality and sustainability. Upon completion, students should be able to demonstrate an understanding of environmental stewardship and its impact on cuisine.

### CUL 283A Farm-To-Table Lab

Prerequisites: CUL 110 and CUL 140 Corequisite: CUL 283

This course provides a laboratory experience for enhancing students' agricultural skills and understanding the development of cooperation between sustainable farmers and foodservice operations. Emphasis is placed on practical experiences such as practicing agricultural methods, observation of the farm and related field trips. Upon completion, students should be able to demonstrate an understanding of environmental stewardship and its impact on cuisine and sustainability.

doughs, pastry dough batter, pies/tarts, meringue, custard, cakes and cookies, icings, glazes and basic sauces. Upon completion, students should be able to demonstrate proper scaling and measurement techniques, and prepare and evaluate a variety of bakery products.

1-4-3

0-3-1

1-4-3

### CUL 165 Therapeutic Cuisine

*Prerequisites: CUL 110 and CUL 140* This course covers the principles of therapeutic cooking with an emphasis on gluten free, allergy free, and vegan cooking. Topics include vegan, lacto-ovo, vegetarian, nut-free, dairy-free, wheat-free, soy-free, and corn-free meal preparation. Upon completion, students should be able to demonstrate an understanding of common dietary preferences and intolerances, and be able to safely and accurately execute allergy-free meal plan preparation.

### CUL 170 Garde Manger I 1-4-3

*Corequisite: CUL 110* This course introduces basic cold food preparation techniques and pantry production. Topics include salads, sandwiches, appetizers, dressings, basic garnishes, cheeses, cold sauces, and related food items. Upon completion, students should be able to present a cold food display and exhibit an understanding of the cold kitchen and its related terminology.

### CUL 240 Culinary Skills II 1-8-5

Prerequisites: Take one group: 1) CUL 110 and CUL 140; 2) CUL 110, CUL 142, CUL 170

This course is designed to further students' knowledge of the fundamental concepts, skills, and techniques involved in basic cookery. Emphasis is placed on meat identification/fabrication, butchery and cooking techniques/methods; appropriate vegetable/starch accompaniments; compound sauces; plate presentation; breakfast cookery; and quantity food preparation. Upon completion, students should be able to plan, execute, and successfully serve entrees with complementary side items.

### CUL 240A Culinary Skills II Lab

*Prerequisites: CUL 110 and CUL 140 Corequisite: CUL 240* 

This course provides a laboratory experience for furthering students' knowledge of the fundamental concepts, skills, and techniques involved in basic cookery. Emphasis is placed on practical applications of meat identification/fabrication; butchery and cooking techniques/methods; appropriate vegetable/starch accompaniments; compound sauces; plate presentation; breakfast cookery; and food preparation. Upon completion, students should be able to demonstrate a basic proficiency in the preparation of entrees and accompaniments.

### CUL 260 Baking II

Prerequisites: Take CUL 110 and CUL 160

This course is designed to further students' knowledge in ingredients, weights and measures, baking terminology and formula calculation. Topics include classical desserts, frozen desserts, cake and torte production, decorating and icings/glazes, dessert plating and presentation. Upon 2-6-5

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0-3-1

### **DATABASE MANAGEMENT TECHNOLOGY**

#### **DBA 110 Database Concepts**

This course introduces database design and creation using a DBMS product. Emphasis is placed on data dictionaries. normalization, data integrity, data modeling, and creation of simple tables, queries, reports, and forms. Upon completion, students should be able to design and implement normalized database structures by creating simple database tables, queries, reports, and forms.

**DBA 120 Database Programming I** 2-2-3

This course is designed to develop SOL 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 that create, update, and produce reports.

### **DESIGN DRAFTING**

#### **DDF 211 Design Process I**

Local Corequisite: DFT 153 or DFT 154

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.

#### **DDF 212 Design Process II**

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C-L-SHC

1-6-4

C-L-SHC

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Prerequisite: DDF 211 This course stresses the integration of various design practices. Emphasis is placed on the creation of an original design. Upon completion, students should be able to apply engineering graphics and design procedures to a design project.

### DENTAL

### **DEN 100**

C-L-CI-SHC 2-0-0-2

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2-4-0-4

**Basic Orofacial Anatomy** This course provides a basic introduction to the structures of the head, neck, and oral cavity. Topics include tooth morphology, head and neck anatomy, histology, and embryology. Upon completion, students should be able to demonstrate knowledge of normal structures and development and how they relate to the practice of dental assisting.

#### **DEN 101 Preclinical Procedures**

This course provides instruction in procedures for the clinical dental assistant as specified by the North Carolina Dental Practice Act. Emphasis is placed on orientation to the profession, infection control techniques, instruments, related expanded functions, and diagnostic, operative, and specialty procedures. Upon completion, students should be able to demonstrate proficiency in clinical dental assisting procedures.

**DEN 102 Dental Materials** 

This course provides instruction in identification, properties, evaluation of quality, principles, and procedures related to manipulation and storage of operative and specialty dental materials. Emphasis is placed on the understanding and safe application of materials used in the dental office and laboratory. Upon completion, students should be able to demonstrate proficiency in the laboratory and clinical application of routinely used dental materials.

#### **DEN 103 Dental Sciences** 2-0-0-2

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.

#### **DEN 104 Dental Health Education** 2-2-0-3

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.

#### DEN 105 **Practice Management** 2-0-0-2

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.

#### **DEN 106 Clinical Practice I** Prereauisite: DEN 101

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.

#### **Clinical Practice II DEN 107**

Prerequisite: DEN 106

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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.

#### **DEN 110 Orofacial Anatomy**

This course introduces the structures of the head, neck, and oral cavity. Topics include tooth morphology, head and neck anatomy, histology, and embryology. Upon completion, students should be able to relate the identification of normal

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structures and development to the practice of dental assisting and dental hygiene.

### DEN 111 Infection/Hazard Control 2-0-0-2

This course introduces the infection and hazard control procedures necessary for the safe practice of dentistry. Topics include microbiology, practical infection control, sterilization and monitoring, chemical disinfectants, aseptic technique, infectious diseases, OSHA standards, and applicable North Carolina laws. Upon completion, students should be able to understand infectious diseases, disease transmission, infection control procedures, biohazard management, OSHA standards, and applicable North Carolina laws.

### DEN 112 Dental Radiography 2-3-0-3

This course provides a comprehensive view of the principles and procedures of radiology as they apply to dentistry. Topics include techniques in exposing, processing, and evaluating radiographs, as well as radiation safety, quality assurance, and legal issues. Upon completion, students should be able to demonstrate proficiency in the production of diagnostically acceptable radiographs using appropriate safety precautions.

# **DEN 120Dental Hygiene Preclinic Lecture2-0-0-2**Corequisite:DEN 121

This course introduces preoperative and clinical dental hygiene concepts. Emphasis is placed on the assessment phase of patient care as well as the theory of basic dental hygiene instrumentation. Upon completion, students should be able to collect and evaluate patient data at a basic level and demonstrate knowledge of dental hygiene instrumentation.

### **DEN 121 Dental Hygiene Preclinic Laboratory 0-6-0-2** *Corequisite: DEN 120*

This course provides the opportunity to perform clinical dental hygiene procedures discussed in DEN 120. Emphasis is placed on clinical skills in patient assessment and instrumentation techniques. Upon completion, students should be able to demonstrate the ability to perform specific preclinical procedures.

### DEN 123 Nutrition/Dental Health

2-0-0-2

2-0-0-2

This course introduces basic principles of nutrition with emphasis on nutritional requirements and their application to individual patient needs. Topics include the study of Federal Nutritional Guidelines, nutrient functions, Recommended Daily Allowances, Adequate Intake, Tolerable Upper Intake Level, Estimated Average Requirement, and related psychological principles. Upon completion, students should be able to recommend and counsel individuals on their food intake as related to their dental health.

### DEN 124 Periodontology

### Prerequisites: DEN 110

This course provides an in-depth study of the periodontium, periodontal pathology, periodontal monitoring, and the principles of periodontal therapy. Topics include periodontal anatomy and a study of the etiology, classification, and treatment modalities of periodontal diseases. Upon completion, students should be able to describe, compare, and contrast techniques involved in periodontal/maintenance therapy, as well as patient care management.

### DEN-125 Dental Office Emergencies 0-2-0-1

This course provides a study of the management of dental office emergencies. Topics include methods of prevention, necessary equipment/drugs, medicolegal considerations, recognition and effective initial management of a variety of emergencies. Upon completion, the student should be able to recognize, assess and manage various dental office emergencies and activate advanced medical support when indicated.

### DEN 130 Dental Hygiene Theory I 2-0-0-2

Prerequisite: DEN 120 Corequisite: DEN 131

This course is a continuation of the didactic dental hygiene concepts necessary for providing an oral prophylaxis. Topics include deposits/removal, instrument sharpening, patient education, fluorides, planning for dental hygiene treatment, charting, and clinical records and procedures. Upon completion, students should be able to demonstrate knowledge needed to complete a thorough oral prophylaxis.

# **DEN 131Dental Hygiene Clinic I0-0-9-3**Prerequisite:DEN 121

Corequisite: DEN 121 Corequisite: DEN 130

This course continues skill development in providing an oral prophylaxis. Emphasis is placed on treatment of the recall patients with gingivitis or light deposits. Upon completion, students should be able to assess these patients' needs and complete the necessary dental hygiene treatment.

# **DEN 140Dental Hygiene Theory II**1-2-0-2Prerequisites: DEN 130

Corequisite: DEN 141

This course introduces principles in treatment modification. Topics include modification of treatment for pain management and advanced radiographic interpretation. Upon completion, students should be able to differentiate necessary treatment modifications and radiographic abnormalities.

### DEN 141 Dental Hygiene Clinic II

Prerequisite: DEN 131 Corequisite: DEN 140

This course continues skill development in providing an oral prophylaxis. Emphasis is placed on treatment of patients with early periodontal disease and subgingival deposits. Upon completion, students should be able to assess these patients' needs and complete the necessary dental hygiene treatment.

### DEN 220 Dental Hygiene Theory III 2-0-0-2

Prerequisite: DEN 140 Corequisite: DEN 221

This course introduces advanced principles of patient care. Topics include advanced periodontal debridement, subgingival irrigation, air polishing, special needs and case presentations. Upon completion, students should be able to demonstrate

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knowledge of methods of treatment and management of periodontally compromised and special needs patients.

### DEN 221 Dental Hygiene Clinic III 0-0-12-4

Prerequisite: DEN 141 Corequisite: DEN 220

This course continues skill development in providing an oral prophylaxis. Emphasis is placed on treatment of patients with moderate to advanced periodontal involvement and moderate deposits. Upon completion, students should be able to assess these patients' needs and complete the necessary dental hygiene treatment.

### DEN 222 General and Oral Pathology 2-0-0-2

*Prerequisite: Take one: BIO 163, BIO 165, or BIO 168* This course provides a general knowledge of oral pathological manifestations associated with selected systemic and oral diseases. Topics include developmental and degenerative diseases, selected microbial diseases, and specific and nonspecific immune and inflammatory responses with emphasis on recognizing abnormalities. Upon completion, students should be able to differentiate between normal and abnormal tissues and refer unusual findings to the dentist for diagnosis.

### DEN 223 Dental Pharmacology 2-0-0-2

*Corequisite: Take one: BIO 163, BIO 165, or BIO 168* This course provides basic drug terminology, general principles of drug actions, dosages, routes of administration, adverse reactions, and basic principles of anesthesiology. Emphasis is placed on knowledge of drugs in overall understanding of patient histories and health status. Upon completion, students should be able to recognize that each patient's general health or drug usage may require modification of the treatment procedures.

# **DEN 224**Materials and Procedures1-3-0-2Prerequisite:DEN 111

This course introduces the physical properties of materials and related procedures used in dentistry. Topics include restorative and preventive materials, fabrication of casts and appliances, and chairside functions of the dental hygienist. Upon completion, students should be able to demonstrate proficiency in the laboratory and/or clinical application of routinely used dental materials and chairside functions.

### DEN 230 Dental Hygiene Theory IV 1-0-0-1

Prerequisite: DEN 220 Corequisite: DEN 231

This course provides an opportunity to increase knowledge of the profession. Emphasis is placed on dental specialties, technological advances, and completion of a case presentation. Upon completion, students should be able to demonstrate knowledge of various disciplines of dentistry, technological advances and principles of case presentations

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### DEN 231 Dental Hygiene Clinic IV

Prerequisite: DEN 221 Corequisite: DEN 230

This course continues skill development in providing an oral prophylaxis. Emphasis is placed on periodontal maintenance and on treating patients with moderate to advanced/refractory periodontal disease. Upon completion, students should be able to assess these patients' needs and complete the necessary dental hygiene treatment.

### DEN 232 Community Dental Health 2-3-0-3

This course provides a study of the principles and methods used in assessing, planning, implementing, and evaluating community dental health programs. Topics include epidemiology, research methodology, biostatistics, preventive dental care, dental health education, program planning, and financing and utilization of dental services. Upon completion, students should be able to assess, plan, implement, and evaluate a community dental health program.

### DEN 233 Professional Development 2-0-0-2

This course includes professional development, ethics, and jurisprudence with applications to practice management. Topics include conflict management, state laws, résumés, interviews, and legal liabilities as health care professionals. Upon completion, students should be able to demonstrate the ability to practice dental hygiene within established ethical standards and state laws.

### DRAFTING

### DFT 111 Technical Drafting I

C-L-SHC 1-3-2

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2-3-3

2 - 3 - 3

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.

### DFT 151 CAD I

This course introduces CAD software as a drawing tool. Topics include drawing, editing, file management, and plotting. Upon completion, students should be able to produce and plot a CAD drawing.

### DFT 152 CAD II

Local Prerequisite: DFT 151

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.

### DFT 153 CAD III

Local Prerequisite: DFT 111

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.

0-0-12-4

### **DRAMA/THEATRE**

spreadsheets.

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#### DRA 111 Theatre Appreciation

3-0-3 This course provides a study of the art, craft, and business of the theatre. Emphasis is placed on the audience's appreciation of the work of the playwright, director, actor, designer, producer, and critic. Upon completion, students should be able to demonstrate a vocabulary of theatre terms This course has been approved for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in Humanities/Fine Arts.

### **ECONOMICS**

#### ECO 151 **Survey of Economics**

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,

C-L-SHC

C-L-SHC

3-0-3

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 for transfer under the CAA and ICAA as a general education course in Social/Behavioral Sciences.

#### ECO 251 **Principles of Microeconomics** 3-0-3

This course introduces economic analysis of individual, business, and industry in the market economy. Topics include the price mechanism, supply and demand, optimizing economic behavior, costs and revenue, market structures, factor markets, income distribution, market failure, and government intervention. Upon completion, students should be able to identify and evaluate consumer and business alternatives in order to efficiently achieve economic objectives. This course has been approved for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in Social/Behavioral Sciences.

#### ECO 252 **Principles of Macroeconomics** 3-0-3

This course introduces economic analysis of aggregate employment, income, and prices. Topics include major schools of economic thought; aggregate supply and demand; economic measures, fluctuations, and growth; money and banking; stabilization techniques; and international trade. Upon completion, students should be able to evaluate national economic components, conditions, and alternatives for achieving socioeconomic goals. This course has been approved for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in Social/Behavioral Sciences.

### **EDUCATION**

# 2-2-3

2 - 3 - 3

2-2-3

Prerequisite: DFT 151

**DFT 154** 

**DFT 170** 

**DFT 211** 

**DFT 253** 

This course covers engineering document management techniques. Topics include efficient control of engineering

#### **Intermed Solid Model/Render DFT 254** 2 - 3 - 3

This course presents a continuation of basic three-dimensional solid modeling and design software. Topics include advanced study of parametric design, creation, editing, rendering and analysis of solid model assemblies, and multiview drawing generation. Upon completion, students should be able to use parametric design techniques to create and analyze the engineering design properties of a model assembly.

This course is a capstone course experience for programs with

use of design principles and computer technology in planning,

managing, and completing a design project. Upon completion,

students should be able to plan and produce engineering

documents of a design project, including solid models, working drawings, Bills of Material, annotations, and

a focus in computer-aided design. Emphasis is placed on the

#### **DFT 259** CAD Project Local Prerequisite: DDF 211 and either DFT 153 or DFT 154

1-4-3

Gears, Cams, & Pullevs 1-3-2 Prerequisites: DFT 111 and MAT 121 or DFT 111 and MAT 171 This course introduces the principles of motion transfer.

Topics include gears, cams, pulleys, and drive components. Upon completion, students should be able to solve problems and produce drawings dealing with ratios.

documents, manipulation of CAD drawing data, generation of bill of materials, and linking to spreadsheets or databases. Upon completion, students should be able to utilize systems for managing CAD drawings, extract data from drawings, and link data to spreadsheets or database applications.

**Introduction to Solid Modeling** 

modeling and design software. Topics include basic design,

creation, editing, rendering, and analysis of solid models and

creation of multi view drawings. Upon completion, students

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 for

transfer under the CAA and ICAA as a premajor and/or

**CAD Data Management** 

**Engineering Graphics** 

and generate a multi view drawing.

elective course requirement.

should be able to use design techniques to create, edit, render,

This course is an introduction to basic three-dimensional solid

# Prerequisites: DFT 154

#### EDU 119 Intro to Early Childhood Educ

This course introduces the foundations of culturally responsive, equitable and inclusive early childhood education, planning intentional developmentally appropriate experiences, learning activities, and teaching strategies for indoor and outdoor environments for all young children, guidance techniques, and professionalism. Topics include theoretical foundations, national early learning standards, NC Foundations for Early Learning and Development, state regulations, program types, career options, professionalism, ethical conduct, quality inclusive environments, guidance techniques, and curriculum responsive to the needs of each child/family. Upon completion, students should be able to implement developmentally appropriate environments, guidance techniques, schedules, and teaching strategies across developmental domains to support culturally, linguistically, and ability diverse children and their families in inclusive settings, and design a personal career/professional development plan.

Child, Family, & Community 3-0-3 EDU 131

This course covers the development of partnerships among culturally, linguistically and ability diverse families, children, schools and communities through the use of evidence-based strategies. Emphasis is placed on developing skills and identifying benefits for establishing and supporting respectful relationships between diverse families, programs/schools, and community agencies/resources reflective of the NAEYC Code of Ethical Conduct and the Code of Ethics for North Carolina Educators. Upon completion, students should be able to identify appropriate relationship building strategies between diverse families, children birth through adolescence, schools, and communities and demonstrate a variety of communication skills including appropriate use of technology to support every child.

#### EDU 144 **Child Development I**

3-0-3

This course includes the theories of child development, observation and assessment, milestones, and factors that influence development, from conception through approximately 36 months. Emphasis is placed on knowledge. observation and assessment of developmental sequences in approaches to play/learning, emotional/social, health/physical, language/communication and cognitive domains. Upon completion, students should be able to compare/contrast typical/atypical developmental characteristics, explain biological and environmental factors that impact development, and identify evidence-based strategies for enhancing development for children that are culturally, linguistically, and ability diverse. This course has been approved for transfer under the CAA as a premajor and/or elective course requirement. This course has been approved for transfer under the ICAA as a premajor and/or elective course requirement.

3-0-3 This course includes the theories of child development, observation and assessment, milestones, and factors that influence development, from preschool through middle childhood. Emphasis is placed on knowledge, observation and assessment of developmental sequences in approaches to play/learning, emotional/social, health/physical, language/communication and cognitive domains. Upon

completion, students should be able to compare/contrast typical/atypical developmental characteristics, explain biological and environmental factors that impact development, and identify evidence-based strategies for enhancing development for children that are culturally, linguistically, and ability diverse. This course has been approved for transfer under the CAA as a premajor and/or elective course requirement. This course has been approved for transfer under the ICAA as a premajor and/or elective course requirement.

#### EDU 146 **Child Guidance**

This course introduces evidence-based strategies to build nurturing relationships with each child by applying principles and practical techniques to facilitate developmentally appropriate guidance. Topics include designing responsive/supportive learning environments, cultural, linguistic and socio-economic influences on behavior, appropriate expectations, the importance of communication with children/families including using technology and the use of formative assessments in establishing intentional strategies for children with unique needs. Upon completion, students should be able to demonstrate direct/indirect strategies to encourage social skills, self-regulation, emotional expression and positive behaviors while recognizing the relationship between children's social, emotional and cognitive development.

#### EDU 151 **Creative Activities**

3-0-3

3-0-3

This course introduces developmentally supportive, diverse, equitable, and inclusive creative learning environments with attention to divergent thinking, creative problem-solving, evidence-based teaching practices, and open-ended learning materials and activities that align with the NC Foundations for Early Learning and Development. Emphasis is placed on best practices providing process-driven culturally diverse, learning experiences in art, music, creative movement, dance, and dramatic play integrated across all domains and academic content in indoor/outdoor environments for every young child age birth through age eight. Upon completion, students should be able to observe, examine, create, adapt, and advocate for developmentally appropriate creative learning materials, experiences, and environments for children that are culturally, linguistically, and ability diverse.

EDU 153 Health, Safety, and Nutrition 3-0-3 This course covers promoting and maintaining the health and well-being of every child. Topics include health and nutritional guidelines, common childhood illnesses, maintaining safe and healthy learning environments, health benefits of active play, recognition and reporting of abuse/neglect, and state regulations. Upon completion,

students should be able to apply knowledge of NC Foundations for Early Learning and Development for health, safety, nutritional needs and safe learning environments.

### EDU 158 Healthy Lifestyles-Youth

3-0-3

and local level.

This course covers maintaining the health and well-being of all school-age children. Topics include health, safety, nutrition, physical activities and environments that promote development, fitness, and healthy lifestyles. Upon completion, students should be able to plan developmentally appropriate, safe/healthy physical activities that support the healthy development of school-age children, be able to plan and identify healthy eating choices that support healthy development as well as design safety policies and procedures and environments that promote healthy lifestyles.

**EDU 163 Classroom Management & Instruction 3-0-3** This course examines classroom management and evidence-based instructional strategies that create supportive learning environments to provide culturally, linguistically and developmentally appropriate guidance for school-age populations. Topics include classroom management and organization, teaching strategies, individual student differences and learning styles, ongoing systematic observation, and developmentally appropriate behavior management, utilize developmentally appropriate behavior management, utilize high-quality instructional strategies that enhance the teaching/learning process and promote students' academic success.

EDU 187 Teaching and Learning for All 3-3-4

This course introduces students to knowledge, concepts, and best practices needed to provide developmentally appropriate, effective, inclusive, and culturally responsive educational experiences in the classroom. Topics include growth and development, learning theory, student motivation, teaching diverse learners, classroom management, inclusive environments, student-centered practices, instructional strategies, teaching methodologies, observation/assessment techniques, educational planning, reflective practice, collaboration, cultural competence, ethics, professionalism, and leadership. Upon completion, students should be able to identify the knowledge, skills, roles, and responsibilities of an effective educator as defined by state and national professional teaching standards.

### EDU 216 Foundations of Education

3-0-3

This course introduces the examination of the American educational system and the teaching profession. Topics include the historical and philosophical influences on education, various perspectives on educational issues, and experiences in birth through grade 12 classrooms. Upon completion, students should be able to reflect on classroom observations, analyze the different educational approaches, including classical/traditional and progressive, and have knowledge of the various roles of educational systems at the federal, state EDU 221Children with Exceptional3-0-3Prerequisite. Take one set: 1) EDU 144 and EDU 145; 2) PSY 244,<br/>PSY 245PSY 244,

This course covers atypical patterns of child development, inclusive/diverse settings, evidenced-based educational/family plans, differentiated instruction, adaptive materials, and assistive technology. Emphasis is placed on the characteristics of exceptionalities and delays, early intervention/special education, transitions, observation, developmental screening, formative assessment of children, and collaborating with families and community partners. Upon completion, students should be able to recognize diverse abilities, describe the referral process, identify community resources, explain the importance of collaboration with families/professionals, and develop appropriate strategies/adaptations to support children in all environments with best practices as defined by laws, policies and the NC Foundations for Early Learning and Development. This course has been approved for transfer under the CAA as a premaior and/or elective course requirement. This course has been approved for transfer under the ICAA as a premajor and/or elective course requirement.

### **EDU 234** Infants, Toddlers, & Twos **3-0-3** *Prerequisite: EDU 119*

This course covers the development of high-quality, individualized, responsive/engaging relationships and experiences for infants, toddlers, and twos. Emphasis is placed on typical and atypical child development, working with diverse families to provide positive, supportive, and engaging early learning activities and interactions through field experiences and the application of the NC Foundations for Early Learning and Development. Upon completion, students should be able to demonstrate responsive curriculum planning, respectful relationships and exposure to a variety of developmentally appropriate experiences/materials that support a foundation for healthy development and growth of culturally, linguistically and ability diverse children birth to 36 months.

**EDU 235** School-Age Development and Program 3-0-3 This course includes developmentally appropriate practices in group settings for school-age children. Emphasis is placed on principles of development, environmental planning, and positive guidance techniques and program development. Upon completion, students should be able to discuss developmental principles for culturally, linguistically, and ability diverse children ages five to twelve and plan and implement developmentally appropriate programs and activities.

# EDU 250Teacher Licensure Preparation3-0-3Requisite: Take One Set:Set 1: ENG-111 and MAT-143Set 2: ENG-111 and MAT-152Set 3: ENG-111 and MAT-171This course provides information and strategies necessary for<br/>transfer to a teacher licensure program at a senior institution.

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Topics include entry level teacher licensure exam preparation, performance based assessment systems,

requirements for entry into teacher education programs, the process to become a licensed teacher in North Carolina, and professionalism including expectations within the field of education. Upon completion, students should be able to utilize educational terminology and demonstrate knowledge of teacher licensure processes including exam preparation, technology based portfolio assessment, and secondary admissions processes to the school of education at a senior institution.

**EDU 252** Math and Sci Activities 3-0-3 This course introduces discovery experiences in math and science. Topics include concepts, facts, phenomena, and skills in each area. Upon completion, students should be able to identify, plan, select materials and equipment, and implement and evaluate developmentally appropriate curriculum materials.

### **EDU 259 Curriculum Planning 3-0-3** *Prerequisite: EDU 119*

This course is designed to focus on using content knowledge to build effective developmentally appropriate approaches that are culturally responsive, equitable, and ability diverse for young children. Topics include components of curriculum, a variety of curriculum models, authentic observation and assessment, and planning developmentally appropriate experiences and indoor/outdoor environments aligned with the NC Foundations for Early Learning and Development. Upon completion, students should be able to understand, evaluate, and use developmentally appropriate curriculum to plan for the individual/group needs of young children.

# EDU 261Early Childhood Admin I3-0-3Corequisite: EDU 119

This course introduces principles and practices essential to preparing and supporting child care administrators. Topics include program philosophy, policies and procedures, NC Child Care Law and Rules, business planning, personnel and fiscal management, and NAEYC Code of Ethical Conduct Supplement for Early Childhood Program Administration. Upon completion, students should be able to articulate a developmentally appropriate program philosophy, locate current state licensing regulations, analyze a business plan and examine comprehensive program policies and procedures.

### EDU 262 Early Childhood Admin II 3-0-3

Prerequisite: EDU 119

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.

### EDU 263 School-Age Program Admin

This course introduces the methods and procedures for development and administration of school-age programs in the public or proprietary setting. Emphasis is placed on the construction and organization of the physical environment. Upon completion, students should be able to plan, develop and administer a quality school-age program.

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### EDU 271 Educational Technology

This course introduces the appropriate and ethical use of technology that is inclusive of digital and analog materials/tools to enhance teaching and learning in all educational settings. Emphasis is placed on the developmentally appropriate use of technology with children, ethical issues, digital citizenship, instructional strategies, assistive technology, and the use of technology for professional development and communication with families. Upon completion, student should be able to demonstrate professional and ethical implementation of various modes of technology in culturally responsive and equitable ways to support diverse children, families and communities.

EDU 279 3-3-4 **Literacy Develop & Instruction** This course is designed to provide students with concepts and skills of literacy development, instructional methods/materials and assessment techniques needed to provide scientifically-based, systematic reading and writing instruction into educational practice. Topics include literacy concepts, reading and writing development, developmentally appropriate pedagogy, culturally-responsive instruction. standards-based outcomes, lesson planning, formative/summative assessment, recognizing reading difficulties, research-based interventions, authentic learning experiences, classroom implementation, and reflective practice. Upon completion, students should be able to plan, implement, assess, evaluate, and demonstrate developmentally appropriate literacy instruction aligned to the NC Standard Course of Study and other state and national standards.

### EDU 280 Language and Literacy

This course provides evidence-based strategies for enhancing language and literacy experiences that align with NC Foundations for Early Learning and Development. Topics include developmental sequences for children's emergent receptive and expressive language, print concepts, appropriate observations/assessments, literacy enriched environments, quality selection of diverse literature, interactive media, and inclusive practices. Upon completion, students should be able to select, plan, implement and evaluate developmentally appropriate language and literacy experiences for children who are culturally, linguistically and ability diverse.

### EDU 281 Instructional Strategies in Reading and Writing

This course covers concepts, resources, and methods for teaching reading and writing to elementary through middle-grade children. Topics include the importance of literacy, learning styles, skills assessment, various reading and

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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.

### EDU 284 Early Childhood Capstone Prac 1-9-4

Prerequisites: Take One Set: Set 1: EDU-119, EDU-144, EDU-145, EDU-146, and EDU-151 Set 2: EDU-119, PSY-244, PSY-245, EDU-146, and EDU-151 Set 3: EDU-119, PSY-245, EDU-144, EDU-146, and EDU-151 Set 4: EDU-119, PSY-244, EDU-145, EDU-146, and EDU-151 This course is designed to allow students to demonstrate acquired 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/engaging families; and modeling reflective and professional practices based on national and state guidelines. Upon completion, students should be able to apply NC Foundations for Early Learning and Development to demonstrate developmentally appropriate plans/assessments, appropriate guidance techniques and ethical/professional behaviors, including the use of appropriate technology, as indicated by assignments and onsite faculty assessments.

### ENGINEERING

C-L-SHC

EGR 131 Introduction to Electronics Technology 1-2-2 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 1-2-2

This course is an overview of the engineering profession. Topics include goal setting and career assessment, ethics, public safety, the engineering method and design process, written and oral communication, interpersonal skills and team building, and computer applications. Upon completion, students should be able to understand the engineering process, the engineering profession, and utilize college resources to meet their educational goals. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

### EGR 210 Intro to Elec/Comp Eng Lab 1-3-2

*Prerequisites: Take MAT 271 and PHY 251* This course provides an overview of electrical and computer engineering, through a lecture and laboratory setting. Topics include fundamental concepts, electronic circuits, digital circuits, communication systems, and signal processing. Upon completion, students should be able to discuss the wide range of fields available to the electrical or computer engineer. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

### EGR 212 Logic System Design I 3-0-3

Prerequisite: Take MAT 271 and PHY 251

This course provides an introduction to digital circuits and analysis. Topics include Boolean Algebra; mixed logic; design of combinational circuits; introduction to sequential systems; and MSI building blocks. Upon completion, students should be able to analyze and design digital circuits and systems. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

EGR 215	Network Theory I	3-0-3

*Prerequisites: Take MAT 272 and PHY 251 Corequisite: Take PHY 252 and MAT 273* 

This course provides an introduction to Kirchoff's laws and terminal equations, circuit analysis techniques and network theorems, transient and natural response, and state variable analysis. Topics include Kirchoff's laws, Ohm's law, circuit analysis techniques, Network theorems, singularity functions, transient and natural responses, power, and state variable analysis. Upon completion, students should be able to analyze electric circuits involving capacitors, inductors, and resistors to determine required parameters. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

### EGR 216 Logic and Network Lab

Prerequisites: Take MAT 272 and PHY 251 Corequisite: EGR 215

This course provides laboratory experiments in network measurements and logic design and laboratory equipment and techniques. Topics include network measurement and applications, experimental logic design and introduction to laboratory equipment and techniques. Upon completion, students should be able to complete network measurement logic design and be able to use laboratory equipment with proper techniques. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

### EGR 220 Engineering Statics

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Prerequisites: Take PHY 251 Corequisites: Take MAT 272

This course introduces the concepts of engineering based on forces in equilibrium. Topics include concentrated forces, distributed forces, forces due to friction, and inertia as they apply to machines, structures, and systems. Upon completion, students should be able to solve problems which require the ability to analyze systems of forces in static equilibrium. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

### EGR 228 Intro to Solid Mechanics

Prerequisites: Take EGR 220

This course provides an introduction to engineering theory of deformable solids and applications. Topics include stress and deformation resulting from axial, torsion, and bending loads;

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shear and moment diagrams; Mohr's circle of stress; and strain and buckling of columns. Upon completion, students should be able to analyze solids subject to various forces and design systems using a variety of materials. This course has been approved for transfer under the CAA and ICAA as a premaior and/or elective course requirement.

#### Statics/Strength of Mater EGR 250 Local Prerequisite: MAT 121 or MAT 171

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.

#### EGR 285 **Design Project**

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This course provides the opportunity to design an instructor-approved 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.

### **ELECTRICAL**

ELC 111 **Introduction to Electricity** 

This course introduces the fundamental concepts of electricity and test equipment to non-electrical/electronics majors. Topics include basic DC and AC principles (voltage, resistance, current, impedance); components (resistors, inductors, and capacitors); power; and operation of test equipment. Upon completion, students should be able to construct and analyze simple DC and AC circuits using electrical test equipment.

#### ELC 112 **DC/AC Electricity**

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This course introduces the fundamental concepts of and computations related to DC/AC electricity. Emphasis is placed on DC/AC circuits, components, operation of test equipment; and other related topics. Upon completion, students should be able to construct, verify, and analyze simple DC/AC circuits.

#### ELC 113 **Residential Wiring**

This course introduces the care/usage of tools and materials used in residential electrical installations and the requirements of the National Electrical Code. Topics include NEC, electrical safety, and electrical print reading; planning, layout, and installation of electrical distribution equipment; lighting; overcurrent protection; conductors; branch circuits; and conduits. Upon completion, students should be able to properly install conduits, wiring, and electrical distribution equipment associated with basic electrical installations.

#### ELC 114 **Commercial Wiring**

This course provides instruction in the application of electrical tools, materials, and test equipment associated with electrical installations. Topics include the NEC; safety; electrical blueprints; planning, layout, and installation of equipment and

conduits; and wiring devices such as panels and overcurrent devices. Upon completion, students should be able to properly install equipment and conduit associated with electrical installations.

#### **ELC 115 Industrial Wiring**

This course covers layout, planning, and installation of wiring systems in industrial facilities. Emphasis is placed on industrial wiring methods and materials. Upon completion, students should be able to install industrial systems and equipment.

#### ELC 117 **Motors and Controls**

Local Prerequisites: ELC 112 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.

#### **ELC 118 National Electrical Code** 1-2-2

This course covers the use of the current National Electrical Code. Topics include the NEC history, wiring methods, overcurrent protection, materials, and other related topics. Upon completion, students should be able to effectively use the NEC.

#### ELC 119 **NEC Calculations** 1-2-0-2

This course covers branch circuit, feeder, and service calculations. Emphasis is placed on sections of the National Electrical Code related to calculations. Upon completion. students should be able to use appropriate code sections to size wire, conduit, and overcurrent devices for branch circuits, feeders, and service.

#### ELC 121 **Electrical Estimating** 1-2-0-2

Local Prerequisites: ELC 113

This course covers the principles involved in estimating electrical projects. Topics include take-offs of materials and equipment, labor, overhead, and profit. Upon completion, students should be able to estimate simple electrical projects.

#### **Advanced Residential Wiring** ELC 122 2 - 4 - 4Prerequisites: ELC 113

ELC 113

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This course introduces advanced topics in residential electrical installations including the requirements of the National Electrical Code (NEC). Topics include NEC, special purpose outlets, telephone and low voltage signal systems, swimming pool electrical systems, home automation systems, standby power systems and residential utility-interactive photovoltaic systems. Upon completion, students should be able to properly install conduits, wiring, electrical distribution equipment, low voltage, standby power, automated systems, and utility-interactive photovoltaic systems associated with advanced residential electrical installations.

ELC 125 **Diagrams and Schematics** 

This course covers the interpretation of electrical diagrams, schematics, and drawings common to electrical applications. Emphasis is placed on reading and interpreting electrical diagrams and schematics. Upon completion, students should be able to read and interpret electrical diagrams and schematics.

#### **ELC 127** Software for Technicians

This course introduces computer software which can be used to solve electrical/electronics problems. Topics include electrical/electronics calculations and applications. Upon completion, students should be able to utilize a personal computer for electrical/electronics-related applications.

#### **ELC 128 Introduction to PLC**

Local Prerequisite: ELC 112 AND ELC 117 or Permission of Instructor

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 PLC systems and create simple programs.

#### ELC 131 **Circuit Analysis I**

Local Corequisite: Take one set: 1) MAT 121 and ELC 131A; 2) ELC 131A and MAT 171

This course introduces DC and AC electricity with an emphasis on circuit analysis, measurements, and operation of test equipment. Topics include DC and AC 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, verify, and analyze DC/AC circuits; and properly use test equipment.

### ELC 131A Circuit Analysis I Lab

Corequisite: ELC 131

This course provides laboratory assignments as applied to fundamental principles of DC/AC electricity. Emphasis is placed on measurements and evaluation of electrical components, devices and circuits. Upon completion, the students will gain hands-on experience by measuring voltage, current, and opposition to current flow utilizing various meters and test equipment.

#### **ELC 213** Instrumentation

Local Prerequisites: ELC 111, ELC 112, or ELC 131 This course covers the fundamentals of instrumentation used in industry. Emphasis is placed on electric, electronic, and other instruments. Upon completion, students should be able to install, maintain, and calibrate instrumentation.

#### ELC 220 **Photovoltaic Sys Tech** 2-3-3

This course introduces the concepts, tools, techniques, and materials needed to understand systems that convert solar energy into electricity with photovoltaic (pv) technologies. Topics include site analysis for system integration, building

codes, and advances in photovoltaic technology. Upon completion, students should be able to demonstrate an understanding of the principles of photovoltaic technology and current applications.

#### ELC 221 Adv PV Sys Designs 2-3-3 Prerequisites: ELC 220

This course introduces specific elements in photovoltaic (pv) systems technologies including efficiency, modules, inverters, charge controllers, batteries, and system installation. Topics include National Electrical Code (NEC), electrical specifications, photovoltaic system components, array design and power integration requirements that combine to form a unified structure. Upon completion, students should be able to demonstrate an understanding of various photovoltaic designs and proper installation of NEC compliant solar electric power systems.

#### **ELC 228 PLC Applications**

Local Prerequisite: ELC 128

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.

#### ELC 229 **Applications Project**

Local Prerequisite: Take ELC 112, ELC 113, or ELC 140 This course provides an individual and/or integrated team approach to a practical project as approved by the instructor. Topics include project selection and planning, implementation and testing, and a final presentation. Upon completion, students should be able to plan and implement an applications-oriented project.

### **ELECTRONICS**

#### ELN 131 **Analog Electronics I**

Local Prerequisite: ELC 112 or ELC 131 This course introduces the characteristics and applications of semiconductor devices and circuits. Emphasis is placed on analysis, selection, biasing, and applications. Upon completion, students should be able to construct, analyze, verify, and troubleshoot analog circuits using appropriate techniques and test equipment.

#### ELN 132 **Analog Electronic II**

Local Prerequisite: ELN 131 or ELC 140 This course covers additional applications of analog electronic circuits with an emphasis on analog and mixed signal integrated circuits (IC). Topics include amplification, filtering, oscillation, voltage regulation, and other analog circuits. Upon completion, students should be able to construct, analyze, verify, and troubleshoot analog electronic circuits using appropriate techniques and test equipment.

**ELN 133 Digital Electronics**  2-6-4

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Local Prerequisite: EGR 131 or ELC 131 or Instructor Approval This course covers combinational and sequential logic circuits. Topics include number systems, Boolean algebra, logic families, medium scale integration (MSI) and large scale integration (LSI) circuits, analog to digital (AD) and digital to analog (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 231 Industrial Controls

*Local Prerequisite: ELC 112, ELC 131 or ELC 140* This course introduces the fundamental concepts of control of rotating machinery and associated peripheral devices. Topics include rotating machine theory, ladder logic, electromechanical and solid state relays, motor controls, pilot devices, three-phase power systems, and other related topics. Upon completion, students should be able to interpret schematics and demonstrate an understanding of electromechanical and electronic control of rotating machinery.

### ELN 232 Introduction to Microprocessors 3-3-4

*Local Prerequisite: ELN 133 or Instructor Approval* 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 3-3-4

*Local Prerequisite: Take one: ELN 132 or ELN 140* 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.

### ELN 236 Fiber Optics and Lasers

This course introduces the fundamentals of fiber optics and lasers. Topics include the transmission of light; characteristics of fiber optic and lasers and their systems; fiber optic production; types of lasers; and laser safety. Upon completion, students should be able to understand fiber optic communications and basic laser fundamentals.

### ELN 247 Electronic Application Project 1-3-2

Local Prerequisite: ELN 133, ELN 132 or ELN 140 This course provides a structured approach to an application-oriented electronics project. Emphasis is placed on selecting, planning, implementing, testing, and presenting an application-oriented project. Upon completion, students should be able to present and demonstrate an electronics application-oriented project.

### ELN 260 Prog Logic Controllers 3-3-4

### Local Prerequisites: ELC 128

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This course provides a detailed study of PLC applications, with a focus on design of industrial controls using the PLC. Topics include PLC components, memory organization, math instructions, documentation, input/output devices, and applying PLCs in industrial control systems. Upon completion, students should be able to select and program a PLC system to perform a wide variety of industrial control functions.

### ELN 275 Troubleshooting 1-3-2

Local Prerequisites: ELN 133 and ELN 132 This course covers techniques of analyzing and repairing failures in electronic equipment. Topics include safety, signal tracing, use of service manuals, and specific troubleshooting methods for analog, digital, and other electronics-based circuits and systems. Upon completion, students should be able to logically diagnose and isolate faults and perform necessary repairs to meet manufacturers' specifications.

### **EMERGENCY MEDICAL SCIENCE**

### EMS 110 EMT

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 certification.

# EMS 122EMS Clinical Practicum I0-0-3-1Prerequisite: Take EMS 110

This course provides the introductory hospital clinical experience for the paramedic student. Emphasis is placed on mastering fundamental Paramedic skills. Upon completion, students should be able to demonstrate competency with fundamental paramedic level skills.

### EMS 130 Pharmacology

Prerequisite: Take EMS 110

This course introduces the fundamental principles of pharmacology and medication administration and is required for paramedic certification. Topics include medical terminology, pharmacological concepts, weights, measures, drug calculations, vascular access for fluids and medication administration and legislation. Upon completion, students should be able to accurately calculate drug dosages, properly administer medications, and demonstrate general knowledge of pharmacology.

# EMS 131Advanced Airway Management1-2-0-2Prerequisite: Take EMS 110

This course is designed to provide advanced airway management techniques and is required for paramedic certification. Topics include respiratory anatomy and

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physiology, airway/ventilation, adjuncts, surgical intervention, and rapid sequence intubation. Upon completion, students should be able to properly utilize all airway adjuncts and pharmacology associated with airway control and maintenance.

EMS 150 Emergency Vehicles & EMS Comm 1-3-0-2

This course examines the principles governing emergency vehicles, maintenance of emergency vehicles, end EMS communication equipment and is required for paramedic certification. Topics include applicable motor vehicle laws affecting emergency vehicle operation, defensive driving, collision avoidance techniques, communication systems, and information management systems. Upon completion, students should have a basic knowledge of emergency vehicles, maintenance, and communication needs.

### EMS 160 Cardiology I

Prerequisite: EMS 110

This course introduces the study of cardiovascular emergencies and is required for paramedic certification. Topics include anatomy and physiology, pathophysiology, electrophysiology, and rhythm interpretation. Upon completion, students should be able to recognize and interpret rhythms.

# EMS 210Adv. Patient Assessment1-3-0-2Prerequisite:EMS 110

This course covers advanced patient assessment techniques and is required for paramedic certification. Topics include initial assessment, medical-trauma history, field impression, complete physical exam process, on-going assessment, and documentation skills. Upon completion, students should be able to utilize basic communication skills and record and report collected patient data.

### EMS 220 Cardiology II 2-3-0-3

*Prerequisites: Take EMS 122, EMS 130, and EMS 160* This course provides an in-depth study of cardiovascular emergencies and is required for paramedic certification. Topics include assessment and treatment of cardiac emergencies, cardiac pharmacology, and patient care. Upon completion, students should be able to manage the cardiac patient.

### EMS 221 EMS Clinical Practicum II

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*Prerequisites: Take one: EMS 121 or EMS 122* This course provides clinical experiences in the hospital and/or field. Emphasis is placed on increasing the proficiency of students; skills and abilities in patient assessments and the delivery of care. Upon completion, students should be able to demonstrate continued progress in advanced-level patient care.

# EMS 231EMS Clinical Practicum III0-0-9-3Prerequisite:EMS 221

This course provides clinical experiences in the hospital and/or field. Emphasis is placed on enhancing the students' skills and abilities in providing advanced-level care. Upon completion, students should be able to demonstrate continued progress in advanced-level patient care.

### EMS 235 EMS Management 2-0-0-2

This course stresses the principles of managing a modern emergency medical service system. Topics include structure and function of municipal governments ems grantsmanship, finance regulatory agencies, system management, legal issues, and other topics relevant to the EMS manager. Upon completion, students should be able to understand the principles of managing emergency medical service delivery systems.

# EMS 240Patients with Special Challenges1-2-0-2Prerequisites: Take EMS 122 and EMS 1301-2-0-2

This course includes concepts of crisis intervention and techniques of interacting with patients with special challenges and is required for paramedic certification. Topics include appropriate intervention and interaction for neglected abused, terminally ill, chronically ill, technology assisted, bariatric, physically challenged, mentally challenged or assaulted patients as well as behavioral emergencies. Upon completion, students should be able to recognize and manage the care of patients with special challenges.

### EMS 241 EMS Clinical Practicum IV 0-0-12-4

Prerequisites: Take EMS 130 and EMS 231

This course provides clinical experiences in the hospital and/or field. Emphasis is placed on mastering the skills/competencies required of the paramedic providing advanced-level care. Upon completion, students should be able to provide advanced-level patient care as an entry-level paramedic.

### EMS 250Medical Emergencies3-3-0-4

*Prerequisite: Take EMS 122 and EMS 130* This course provides an in-depth study of medical conditions frequently encountered in the prehospital setting and is required for paramedic certification. Topics include appropriate interventions/treatments for disorders/diseases/injuries affecting the following systems: respiratory, neurological, abdominal/gastrointestinal, endocrine genitourinary, musculoskeletal, and immunological as well as toxicology, infectious diseases and diseases of the eyes, ears, nose and throat. Upon completion, students should be able to recognize, assess and manage the care of frequently encountered medical conditions based upon initial patient assessment.

### EMS 260 Trauma Emergencies 1-3-0-2

*Prerequisites: Take EMS 122 and EMS 130* This course provides in-depth study of trauma including pharmacological interventions for conditions frequently encountered in the prehospital setting and is required for paramedic certification. Topics include an overview of thoracic, abdominal, genitourinary, orthopedic, neurological, and multi-system trauma, soft tissue trauma of the head, neck, and face as well as environmental emergencies Upon completion, students should be able to recognize and manage trauma situations based upon patient assessment and should adhere to standards of care.

### EMS 270Life Span Emergencies2-3-0-3

*Prerequisite: Take EMS 122 and EMS 130* This course covers medical/ethical/legal issues and the spectrum of age-specific emergencies from conception through death required for paramedic certification. Topics include gynecological, obstetrical, neonatal, pediatric, and geriatric emergencies and pharmacological therapeutics. Upon completion, students should be able to recognize and treat age-specific emergencies.

### EMS 285 EMS Capstone

1-3-0-2

C-L-SHC

0-6-3

*Prerequisite: Take EMS 220, EMS 250 and EMS 260* This course provides an opportunity to demonstrate problem-solving skills as a team leader in simulated patient scenarios and is required for paramedic certification Emphasis is placed on critical thinking, integration of didactic and psychomotor skills, and effective performance in simulated emergency situations. Upon completion, students should be able to recognize and appropriately respond to a variety of EMS-related events.

### ENGLISH

### ENG 002 Transition English

This course provides an opportunity to customize foundational English content in specific areas and will include developing a growth mindset. Topics include developing the academic habits, learning strategies, social skills, and growth mindset necessary to be successful in college-level English. Upon completion, students should be able to build a stronger foundation for success in their gateway level English courses by obtaining skills through a variety of instructional strategies with emphasis placed on the most essential prerequisite knowledge.

### **ENG 011 Writing and Inquiry Support 1-2-2** *Corequisites: Take ENG 111*

This course provides an opportunity to supplement the skills introduced in Writing and Inquiry. Topics include developing the necessary skills to edit and revise components of the writing process. Upon completion, students should be able to write in a variety of genres and formats using a recursive process, and effective use of

rhetorical strategies, with emphasis placed on the editing and revision components of the writing process.

### ENG 102 Applied Communications II 3-0-3

*Prerequisites: Take RED 080 and ENG 090 (minimum grade C)* 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. *196* 

### ENG 110 Freshman Composition

Prerequisites: ENG 002 P1 grade

This course is designed to develop informative and business writing skills. Emphasis is placed on logical organization of writing, including effective introductions and conclusions, precise use of grammar, and appropriate selection and use of sources. Upon completion, students should be able to produce clear, concise, well-organized short papers.

### ENG 111Writing and Inquiry3-0-3

Corequisite ENG 011 Prerequisites: ENG 002 P1 grade and ENG 011

This course is designed to develop the ability to produce clear writing in a variety of genres and formats using a recursive process. Emphasis includes inquiry, analysis, effective use of rhetorical strategies, thesis development, audience awareness, and revision. Upon completion, students should be able to produce unified, coherent, well-developed essays using standard written English. This course has been approved for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in English Composition.

# **ENG 112** Writing/Research in the Disciplines 3-0-3 *Prerequisite: ENG 111*

This course, the second in a series of two, introduces research techniques, documentation styles, and writing strategies. Emphasis is placed on analyzing information and ideas and incorporating research findings into documented writing and research projects. Upon completion, students should be able to evaluate and synthesize information from primary and secondary sources using documentation appropriate to various disciplines. This course has been approved for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in English Composition.

# **ENG 114 Professional Research and Reporting 3-0-3** *Prerequisite: ENG 111*

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 for transfer under the CAA and ICAA as a general education course in English Composition.

### ENG 115 Oral Communication

This course introduces the basic principles of oral communication in both small group and public settings. Emphasis is placed on the components of the communication process, group decision-making, and public address. Upon completion, students should be able to demonstrate the principles of effective oral communication in small group and public settings.

### 3-0-3

3-0-3

### ENG 116Technical Report Writing3-0-3

Prerequisite: ENG 110 or ENG 111

This course, the second in a series of two, introduces layout and design of technical reports used in business and industry. Emphasis is placed on audience analysis, data collection and analysis, technical writing style and organization, oral presentation or technical data, and the appropriate use of graphics in written and oral presentations. Upon completion, students should be able to produce written and oral reports using a variety of technical communication models.

### ENG 125Creative Writing I3-0-3

Prerequisite: ENG 111

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 for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

### ENG 126 Creative Writing II

Prerequisite: ENG 125

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 for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

### ENG 231 American Literature I

3-0-3

3-0-3

*Prerequisite: ENG 112, ENG 113, or ENG 114* 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 for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in Humanities/Fine Arts.

### ENG 232 American Literature II

3-0-3

Prerequisite: ENG 112, ENG 113, or ENG 114

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 for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in Humanities/Fine Arts.

### ENG 241 British Literature I

3-0-3

Prerequisite: ENG 112, ENG 113, or ENG 114

This course covers selected works in British literature from its beginnings to the Romantic Period. Emphasis is placed on

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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 for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

### ENG 242 British Literature II

3-0-3

*Prerequisite:* ENG 112, ENG 113, or ENG 114 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 for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in Humanities/Fine Arts.

### FOOD SERVICE

C-L-SHC FST 100 Introduction to Foodservice Industry 3-0-3 This course is designed to develop an understanding of the foodservice industry, its terminology, mathematics, and measurements. Emphasis is placed on employability skills, vocabulary, and culinary math including fractions, ratio and proportion, and percents. Upon completion, students should be able to identify career paths, convert recipes, and differentiate standard measurements. This course is restricted to the Foodservice Technology program and is approvable for offering only at designated Department of Correction facilities.

### FST 101 Quantity Baking I 1-4-3

*Corequisites: FST 103 or CUL 110* This course introduces fundamental concepts, skills, and techniques in quantity baking. Topics include yeast and quick breads, cookies, cakes, and other baked goods. Upon completion, students should be able to prepare and evaluate baked products. This course is restricted to the Foodservice

Technology program and is approvable for offering only at

### FST 102 Foodservice Skills I

designated Department of Correction facilities.

Corequisite: FST 103 or CUL 110

4-8-8

This course introduces the concepts, skills, and techniques for volume food production in an institutional setting. Emphasis is placed on development of skills in knife, tool, and equipment handling and applying principles of food preparation to produce varieties of food products. Upon completion, students should be able to demonstrate entry-level skills in a quantity foodservice operations. This course is restricted to the Foodservice Technology program and is approvable for offering only at designated Department of Correction facilities.

#### **FST 103 Foodservice Sanitation**

This course provides practical experience with basic principles of safety and sanitation in the foodservice industry. Emphasis is placed on personal hygiene habits, safety regulations, and food handling practices (H.A.C.C.P.) that protect the health of the consumer. Upon completion, students should be able to demonstrate appropriate safety and sanitation practices required in the foodservice industry. This course is restricted to the Foodservice Technology program and is approved only for designated Department of Correction facilities.

#### FST 103A Foodservice Sanitation Lab 0-2-1

Corequisite: FST 103 or CUL 110

This course provides a laboratory experience for enhancing student skills in the basic principles of sanitation and safety in the foodservice industry. Emphasis is placed on the practical experiences that enhance personal hygiene habits, safety regulations, and food handling practices that protect the health of the consumer. Upon completion, students should be able to demonstrate the application of sanitation and safety production procedures in foodservice operations. This course is restricted to the Foodservice Technology program and is approvable for offering only at designated Department of Correction facilities.

### FRENCH

### **FRE 111 Elementary French I**

This course introduces the fundamental elements of the French language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written French and demonstrate cultural awareness. This course has been approved for transfer under the CAA as a general education course in Humanities/Fine Art

### **FRE 112 Elementary French II**

Prerequisite: FRE 111

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 for transfer under the CAA as a general education course in Humanities/Fine Art

### **FRE 211 Intermediate French I**

Prerequisite: FRE 112

This course provides a review and expansion of the essential skills of the French language. Emphasis is placed on the study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future. This course has been approved for transfer under the CAA as a general education course in Humanities/Fine Art

### FRE 212 Intermediate French II

Prerequisite: FRE 211

This course is a continuation of FRE 211. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication. This course has been approved for transfer under the CAA as a general education course in Humanities/Fine Art

### GEOLOGY

**GEL 111 Introductory Geology** 

This course introduces basic landforms and geological processes. Topics include rocks, minerals, volcanoes, fluvial processes, geological history, plate tectonics, glaciers, and coastal dynamics. Upon completion, students should be able to describe basic geological processes that shape the earth. This course has been approved for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in Natural Sciences.

#### **GEL 113 Historical Geology**

Prerequisite: GEL 111 or GEL 120 This course covers the geological history of the earth and its life forms. Emphasis is placed on the study of rock strata, fossil groups, and geological time. Upon completion, students should be able to identify major fossil groups and associated rock strata and approximate ages of geological formations. This course has been approved for transfer under the CAA and

# ICAA as a general education course in Natural Sciences.

**GEL 230 Environmental Geology** Prerequisite: GEL 111, GEL 120, or PHS 130

This course provides insights into geologic forces that cause environmental changes influencing man's activities. Emphasis is placed on natural hazards and disasters caused by geologic forces. Upon completion, students should be able to relate major hazards and disasters to the geologic forces responsible for their occurrence. This course has been approved for transfer under the CAA and ICAA as a general education course in Natural Sciences.

### HEALTH

#### **HEA 110 Personal Health/Wellness**

This course provides an introduction to basic personal health and wellness. Emphasis is placed on current health issues such as nutrition, mental health, and fitness. Upon completion, students should be able to demonstrate an understanding of the factors necessary to the maintenance of health and wellness. This course has been approved for transfer under the CAA and ICAA pre-major and/or elective requirement.

#### **HEA 112** First Aid & CPR

This course introduces the basics of emergency first aid treatment. Topics include rescue breathing, CPR, first aid for choking and bleeding, and other first aid procedures. Upon completion, students should be able to demonstrate skills in

C-L-SHC

3-2-4

3-2-4

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C-L-SHC

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providing emergency care for the sick and injured until medical help can be obtained. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

### HEALTH AND FITNESS SCIENCE

**HFS 110 Exercise Science** 4-0-0-4 This course is a survey of scientific principles, methodologies, and research as applied to exercise and physical adaptations to exercise. Topics include the basic elements of kinesiology, biomechanics, and motor learning. Upon completion, students should be able to identify and describe physiological responses and adaptations to exercise.

HFS 111 Fitness & Exer Testing I 3-2-0-4 This course introduces the student to graded exercise testing. Topics include various exercise testing protocols with methods for prescribing exercise programs based on exercise tolerance tests and the use of various equipment and protocols. Upon completion, students should be able to conduct specific exercise tests and the use of various equipment.

**HFS 116 Pvnt & Care Exer Injuries** 2-2-0-3 This course provides information about the care and prevention of exercise injuries. Topics include proper procedures, prevention techniques, and on-site care of injuries. Upon completion, students should be able to demonstrate the knowledge and skills necessary to prevent and care for exercise related injuries.

**HFS 118 Fitness Facility Mgmt** 4-0-0-4 This course provides information about the management and operation of health and fitness facilities and programs. Topics include human resources, sales and marketing, member retention, financial management, facility design and maintenance, and risk management. Upon completion, students should be able to demonstrate the knowledge and skills necessary to effectively manage a fitness facility.

2-2-0-3

2-2-0-3

#### **HFS 120 Group Exer Instruction**

Prerequisite: HFS 110

This course introduces the concepts and guidelines of instructing exercise classes. Topics include program designs, working with special populations, and principles of teaching and monitoring physical activity. Upon completion, students should be able to demonstrate basic skills in instructing an exercise class and monitoring workout intensity.

#### **HFS 210 Personal Training**

Prerequisite: HFS 110 and HFS 111

This course introduces the student to the aspects of personal (one-on-one) training. Topics include training systems, marketing, and program development. Upon completion, students should be able to demonstrate personal training techniques and competencies of same.

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#### HFS 212 **Exercise Programming** 2-2-0-3 Prerequisite: HFS 110

This course provides information about organizing, scheduling, and implementation of physical fitness programs. Topics include programming for various age groups. competitive activities and special events, and evaluating programs. Upon completion, students should be able to organize and implement exercise activities in a competent manner.

**HFS 218** Lifestyle Change & Wellness 3-2-0-4

This course introduces health risk appraisals and their application to lifestyle changes. Topics include nutrition, weight control, stress management, and the principles of exercise. Upon completion, students should be able to conduct health risk appraisals and apply behavior modification techniques in a fitness setting.

### **HISTORY**

#### **HIS 111** World Civilizations I

3-0-3 This course introduces world history from the dawn of civilization to the early modern era. Topics include Eurasian, African, American, and Greco-Roman civilizations and Christian, Islamic, and Byzantine cultures. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in pre-modern world civilizations. This course has been approved for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in Social/Behavioral Sciences.

C-L-SHC

3-0-3

#### **HIS 112** World Civilizations II

This course introduces world history from the early modern era to the present. Topics include the cultures of Africa, Europe, India, China, Japan, and the Americas. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in modern world civilizations. This course has been approved for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in Social/Behavioral Sciences.

#### HIS 115 **Introduction to Global History** 3-0-3 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 CAA and ICAA as a general education course in Social/Behavioral Sciences.

#### HIS 131 **American History I**

This course is a survey of American history from pre-history through the Civil War era. Topics include the migrations to the Americas, the colonial and revolutionary periods, the development of the Republic, and the Civil War. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in early

3-0-3

American history. This course has been approved for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in Social/Behavioral Sciences.

### HIS 132 American History II

This course is a survey of American history from the Civil War era to the present. Topics include industrialization, immigration, the Great Depression, the major American wars, the Cold War, and social conflict. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in American history since the Civil War. This course has been approved for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in Social/Behavioral Sciences.

HIS 222 African-American History I 3-0-3 This course covers African-American history through the Civil War period. Topics include African origins, the nature of slavery, African-American participation in the American Revolution, abolitionism, and the emergence of a distinct African-American culture. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in early African-American history. This course has been approved for transfer under the CAA and ICAA a premajor and/or elective course requirement.

### HIS 223 African-American History II 3-0-3 This course covers African-American history from the Civil War to the present. Topics include Reconstruction, the Jim Crow era, urbanization, the Harlem Renaissance, the Civil Rights movement, and the philosophies of major African-American leaders. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in African-American history since the Civil War. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course

### HIS 226 The Civil War

requirement.

3-0-3

3-0-3

This course examines the social, political, economic, and ideological forces that led to the Civil War and Reconstruction. Topics include regional conflicts and sectionalism, dissolution of the Union, military campaigns, and the War's socioeconomic impact, aftermath, and consequences. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in the United States during the era of the Civil War. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

HIS 236 North Carolina History 3-0-3

This course is a study of geographical, political, economic, and social conditions existing in North Carolina from America's discovery to the present. Topics include native and immigrant backgrounds; colonial, antebellum, and Reconstruction periods; party politics; race relations; and the transition from an agrarian to an industrial economy. Upon 200 completion, students should be able to analyze significant political, socioeconomic, and cultural developments in North Carolina. This course has been approved for transfer under the CAA and ICAA a premajor and/or elective course requirement.

### HEALTH INFORMATION TECHNOLOGY

HIT 110Intro to Healthcare & Him3-0-0-3

This course introduces healthcare settings and the Health Information Management (HIM) professional's role in healthcare delivery systems. Topics include health information management operations in compliance with standards, regulations and accrediting body initiatives; healthcare providers and disciplines; and electronic health records (EHRs). Upon completion, student should be able to demonstrate an understanding of health information management and healthcare organizations, professions and trends.

HIT 112 Health Law & Ethics 3-0-0-3

This course covers legislative and regulatory processes, legal terminology, and professional-related and practice-related ethical issues. Topics include confidentiality; privacy and security policies, procedures and monitoring; release of information policies and procedures; and professional-related and practice-related ethical issues. Upon completion, students should be able to apply policies and procedures for access and disclosure of Protected Health Information and apply and promote ethical standards.

### HIT 114Health Data Sys/Standards2-3-0-3

This course covers concepts and techniques for managing and maintaining manual and electronic health records (EHR). Topics include structure and use of health information including data collection and analysis, data sources/sets, archival systems, and quality and integrity of healthcare data. Upon completion, students should be able to monitor and apply system-wide clinical documentation guidelines and comply with regulatory standards.

### HIT 124 Prof Practice Exp II

0-0-3-1

2-6-0-4

This course provides supervised and/or simulated health information technology clinical experience in healthcare settings. Emphasis is placed on practical application of HIM functions and core curriculum concepts. Upon completion, students should be able to apply health information theory to healthcare facility practices.

### HIT 211 ICD Coding

This course covers ICD diagnostics and procedural coding conventions and guidelines for inpatient, outpatient and ambulatory care. Emphasis is placed on a comprehensive application of anatomy, physiology and interrelationships among organ systems. Upon completion, students should be able to accurately assign and sequence diagnostic and procedural codes for patient outcomes, statistical and reimbursement purposes. HIT 213 Inpt Proc Coding & Reporting 1-3-0-2

This course covers the application of coding guidelines as applied to the reporting of inpatient procedures. Emphasis is placed on the rules and conventions of the ICD-PCS code set utilizing the index and tables, in relation to anatomy and physiology, to assign principal and secondary procedure codes in hospital inpatient settings. Upon completion, students should be able to accurately assign procedural codes according to the official ICD-PCS coding guidelines and evaluate compliance with regulatory requirements and reimbursement methodologies.

# HIT 214CPT/Other Coding1-3-0-2Prerequisite: HIT 211

This course covers application of principles and guidelines of CPT/HCPCS coding. Topics include clinical classification/nomenclature systems such as SNOMED, DSM, ICD-O and the use of encoders. Upon completion, students should be able to apply coding principles to correctly assign CPT/HCPCS codes.

HIT 215 Revenue Cycle Management 1-3-0-2

This course covers the revenue cycle management process used in all healthcare settings as they relate to national billing, compliance, and reporting requirements. Topics include clinical documentation improvement, prospective payment systems, billing processes and procedures, chargemaster maintenance, regulatory guidelines, fraud and abuse, reimbursement monitoring, compliance strategies and reporting. Upon completion, students should be able to perform data quality reviews to validate code assignment and comply with reimbursement and reporting requirements.

### HIT 217 Quality & Data Analysis

Prerequisite: MAT 152

This course covers the principles of quality assessment and improvement, including data analysis and decision making in healthcare. Topics include healthcare statistics, continuous quality improvement, data analysis and reporting techniques, quality of outcome metric monitoring Upon completion, students should be able to compute healthcare statistics, abstract, analyze and report clinical data for organization-wide quality and performance improvement programs for compliance purposes.

### HIT 218 Mgmt Principles in HIT

3-0-0-3

2-3-0-3

This course covers organizational management concepts as applied to healthcare settings. Topics include roles/functions of teams/committees, leadership, communication and interpersonal skills, designing and implementing orientation/training programs, monitoring workflow, performance standards, revenue cycles, and organizational resources. Upon completion, students should be able to apply management, leadership, and supervisory concepts to various healthcare settings. 2022-2023 College Catalog – Central Carolina Community College

HIT 220 Electronic Health Records 1-2-0-2 This course covers EHR systems, design, implementation and application. Topics include EHR, Informatics, information governance, health information exchange (HIE), speech & imaging technology, information/network security & integrity, data dictionaries, modeling and warehousing. Upon completion, students should be able to facilitate usage of electronic health record systems and other technologies.

### HIT 221 Lifecycle of EHR 2-2-0-3

This course covers the system selection, design and implementation of an electronic health record (EHR) in integrated delivery networks. Topics include the system development life cycle, analysis of existing systems, required resources, and common resource constraints. Upon completion, students should be able to understand system development life cycles, analyze design and engineering, and make recommendations to improve efficiency of operations.

### HIT 222 Prof Practice Exp III

This course provides supervised clinical experience in healthcare settings. Emphasis is placed on practical application of curriculum concepts to the healthcare setting. Upon completion, students should be able to apply health information theory to healthcare facility practices.

### HIT 225 Healthcare Informatics 3-2-0-4

This course covers data analysis to support decision making, patient care, and regulatory compliance. Topics include clinical terminology and vocabulary systems, data capture methodology, data presentation and reporting, and initiatives to improve the quality of patient care. Upon completion, students should be able to identify data elements and sets, analyze capture methodology in healthcare settings, analyze compliance issues and make improvement recommendations.

HIT 226 Pathophysiology & Pharmacology 2-3-0-3 Prerequisite: Take one: BIO-163, BIO-166 or BIO-169 This course covers principles of disease and the associated pharmacological treatments. Emphasis is placed on physical signs and symptoms, prognoses, common complications and therapeutic options. Upon completion, students should be able to relate disease processes to physical signs and symptoms, prognosis, common complications and their management.

### HIT 280 HIM Capstone

2-0-0-2

0-0-6-2

Prerequisite: HIT-211

This course integrates application of knowledge and skills learned in prior HIT courses and is designed to prepare students for professional roles in HIM and promote ethical standards of practice. Emphasis is placed on AHIMA domains and professional competencies, career services and preparation for the National Certification exam. Upon completion, students should be able to demonstrate competency in the entry-level domains and subdomains of health information management.

### **HEALTHCARE MANAGEMENT**

#### Intro to Healthcare Mgt HMT 110

This course introduces the functions, practices, organizational structures, and professional issues in healthcare management. Emphasis is placed on planning, controlling, directing, and communicating within health and human services organizations. Upon completion, students should be able to apply the concepts of management within a healthcare service environment.

#### HMT 210 **Medical Insurance** 3-0-3

Prerequisite: Take MED 122 or OST 142

This course introduces the concepts of medical insurance. Topics include types and characteristics of third-party payers, coding concepts, payment systems, and manual/electronic claims form preparation. Upon completion, students should be able to process third-party claims forms.

#### Long-Term Care Admin HMT 211

This course introduces the administration of long-term care facilities and services. Emphasis is placed on nursing home care, home health care, hospice, skilled nursing facilities, and other long-term care services. Upon completion, students should be able to distinguish between the different long-term care offerings, criteria for use, and benefits of the patient, resident, and participant.

### HMT 212 Mgt of Healthcare Org

This course examines current issues affecting the management of healthcare delivery systems. Topics include current problems, changes, and challenges in the healthcare environment. Upon completion, students should be able to identify current health care issues and their impact on healthcare management.

#### HMT 220 Healthcare Financial Mgmt 4-0-4

Prerequisites: HMT 110 and ACC 120

This course covers the methods and techniques utilized in the financial management of healthcare programs. Topics include cost determination, pricing of services, financial statement analysis, forecasting/projections, third-party billing, reimbursement, Medicare, Medicaid, and budgeting. Upon completion, students should be able to interpret and apply the principles of financial management in a healthcare environment.

### HORTICULTURE

#### **HOR 130 Greenhouse Design**

This course covers greenhouse facilities planning and equipment selection. Topics include types of greenhouses, location factors, materials, glazing selection, calculation of heating/cooling requirements, lighting, benches, and energy conservation. Upon completion, students should be able to demonstrate knowledge of material selection, facilities planning, equipment need selection, and appropriate calculations.

#### HOR 168 **Plant Propagation**

This course is a study of sexual and asexual reproduction of plants. Emphasis is placed on seed propagation, grafting, stem and root propagation, micro-propagation, and other propagation techniques. Upon completion, students should be able to successfully propagate ornamental plants.

### **HOTEL & RESTAURANT MANAGEMENT**

C-L-SHC 3-0-3

2-2-3

HRM 245 Human Resource Mgmt-Hosp This course introduces a systematic approach to human resource management in the hospitality industry. Topics include training/development, staffing, selection, hiring, recruitment, evaluation, benefit administration, employee relations, labor regulations/laws, discipline, motivation, productivity, shift management, contract employees and organizational culture. Upon completion, students should be able to apply human resource management skills for the hospitality industry.

### **HEALTH SCIENCES**

C-L-SHC HSC 110 **Orientation to Health Careers** 1-0-1 This course is a survey of health care professions. Topics include professional duties and responsibilities, working environments, and career choices. Upon completion, students should be able to demonstrate an understanding of the health care professions and be prepared to make informed career choices.

### HUMAN SERVICES

C-L-SHC **HSE 110 Introduction to Human Services** 2 - 2 - 3This course introduces the human services field, including the history, agencies, roles, and careers. Topics include personal/professional characteristics, diverse populations, community resources, disciplines in the field, systems, ethical standards, and major theoretical and treatment approaches. Upon completion, students should be able to identify the knowledge, skills, and roles of the human services worker.

#### **HSE 112 Group Process I**

1-2-2

This course introduces interpersonal concepts and group dynamics. Emphasis is placed on self-awareness facilitated by experiential learning in small groups with analysis of personal experiences and the behavior of others. Upon completion, students should be able to show competence in identifying and explaining how people are influenced by their interactions in group settings.

#### **HSE 123 Interviewing Techniques** 2 - 2 - 3

This course covers the purpose, structure, focus, and techniques employed in effective interviewing. Emphasis is placed on observing, attending, listening, responding, recording, and summarizing of personal histories with instructor supervision. Upon completion, students should be

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able to perform the basic interviewing skills needed to function in the helping relationship.

### HSE 125 Counseling

### Local Prerequisite: PSY 150

This course covers the major approaches to psychotherapy and counseling, including theory, characteristics, and techniques. Emphasis is placed on facilitation of

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self-exploration, problem solving, decision-making, and personal growth. Upon completion, students should be able to understand various theories of counseling and demonstrate counseling techniques.

### HSE 210 Human Services Issues 2-0-2

### Local Prerequisite: HSE 110

This course covers current issues and trends in the field of human services. Emphasis is placed on contemporary topics with relevance to special issues in a multi-faceted field. Upon completion, students should be able to integrate the knowledge, skills, and experiences gained in classroom and clinical experiences with emerging trends in the field.

### HSE 225 Crisis Intervention

This course introduces the basic theories and principles of crisis intervention. Emphasis is placed on identifying and demonstrating appropriate and differential techniques for intervening in various crisis situations. Upon completion, students should be able to assess crisis situations and respond appropriately.

### HSE 245 Stress Management

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.

### HUMANITIES

### HUM 110 Technology and Society

This course considers technological change from historical, artistic, and philosophical perspectives and its effect on human needs and concerns. Emphasis is placed on the causes and consequences of technological change. Upon completion, students should be able to critically evaluate the implications of technology. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

### HUM 115 Critical Thinking

Prerequisites: DRE 098, ENG 001, or ENG 111

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

for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

### HUM 120 Cultural Studies 3-0-3

This course introduces the distinctive features of a particular culture. Topics include art, history, music, literature, politics, philosophy, and religion. Upon completion, students should be able to appreciate the unique character of the study culture. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

### HUM 122 Southern Culture 3-0-3

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 for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

### HUM 150 American Women's Studies 3-0-3

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 CAA and ICAA as a general education course in Humanities/Fine Arts.

### HUM 160 Introduction to Film

This course introduces the fundamental elements of film artistry and production. Topics include film styles, history, and production techniques, as well as the social values reflected in film art. Upon completion, students should be able to critically analyze the elements covered in relation to selected films. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

### HUM 211 Humanities I

Prerequisite: ENG 111

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 for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

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### **HYDRAULICS**

#### **HYD 110 Hydraulics/Pneumatics I**

This course introduces the basic components and functions of hydraulic and pneumatic systems. Topics include standard symbols, pumps, control valves, control assemblies, actuators, FRL, maintenance procedures, and switching and control devices. Upon completion, students should be able to understand the operation of a fluid power system, including design, application, and troubleshooting.

#### **HYD 121 Hydraulics/Pneumatics II** 1 - 3 - 2

Prerequisite: HYD 110

This course is a continuation of HYD 110 and provides further investigation into fluid power systems. Topics include advanced system components, troubleshooting, and other related topics. Upon completion, students should be able to demonstrate an understanding of the installation, application, operation, and maintenance of fluid power components and systems.

### **INDUSTRIAL SCIENCE**

**ISC 110** Workplace Safety

This course introduces the basic concepts of workplace safety. Topics include fire, ladders, lifting, lock-out/tag-out, personal protective devices, and other workplace safety issues related to OSHA compliance. Upon completion, students should be able to demonstrate an understanding of the components of a safe workplace.

#### **ISC 112 Industrial Safety**

This course introduces the principles of industrial safety. Emphasis is placed on industrial safety and OSHA regulations. Upon completion, students should be able to demonstrate knowledge of safe working environment and OSHA compliance.

**ISC 121 Environmental Health and Safety** 3-0-3 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 175 QA Fundamentals**

This course is designed to increase fundamental knowledge in the philosophies, principles, and practice of quality in the work environment. Topics include the history and basics of quality, philosophies of quality, daily application of principles, and roles of quality professions, with emphasis on cGMP environment. Upon completion, students should be able to discuss quality fundamentals, components of quality systems, and identify standards and programs of quality.

#### ISC 221 **Statistical Qual Control**

Local Prerequisites: Completion of curriculum mathematics requirement

This course covers the principles and techniques of statistical process control for the improvement of productivity. Emphasis is placed on basic statistics for quality control, organization and procedures for efficient quality control including inspections, process control, and tests of significance. Upon completion, students should be able to apply statistical principles and techniques to enhance production.

#### **ISC 278 cGMP Ouality** Systems 2-0-2

This course focuses on the development, implementation, and on-going maintenance of a quality system in a cGMP environment. Topics include the cGMP standard, components of cGMP quality systems, quality function roles and training, and development of documentation such as SOPs and system review procedures. Upon completion, the student should be able to identify the components of a quality system and develop a quality system manual utilizing the cGMP standard.

#### **ISC 280** Validation Fundamentals 1-2-2

This course covers the fundamental concepts of components of a validation program in a cGMP environment. Emphasis is placed on FDA requirements concerning validation, types of validation, documentation, procedures, and the QA role. Upon completion, students should be able to discuss the purpose of validation, identify the steps in the validation process, and effectively utilize sample documentation.

### LASERS AND OPTICS

#### LEO 111 Lasers and Applications

Corequisite: MAT 122 This course covers the basic principles of laser operations and applications with a particular emphasis on laser safety. Topics include the properties of laser light, laser components, laser beam characteristics, and laser safety. Upon completion, students should be able to make measurements of laser beam characteristics and conduct a safety audit and hazards analysis of a laser facility.

#### LEO 211 **Photonics Technology**

Prerequisites: ELN 133

This course covers optical theory, optical equipment, optical components, and laser systems. Topics include generation and control of light using optical components such as lasers, lenses, mirrors, diffraction gratings, filters, and polarizers. Upon completion, students should be able to construct, analyze, verify, and troubleshoot optical systems using appropriate techniques and equipment.

#### **LEO 212 Photonics Applications**

Local Corequisite: LEO 211

This course provides knowledge and skills related to emerging photonics applications in North Carolina industry. Topics include applications such as materials processing, bar code scanning, surgical applications, optical data storage, and

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optical computers. Upon completion, students should be able to describe and analyze the critical issues attendant to a variety of photonics applications.

### **LEO 213** Advanced Photonic Applications 3-3-4 *Prerequisites: LEO 212*

This course covers advanced knowledge and skills related to industrial photonics applications in industry. Topics include applications such as light emitting diode (LED) semiconductor processing. LED photonics operational testing, fiber optics, and spectroscopy. Upon completion, students should be able to describe and analyze the critical issues attendant to a variety of photonics applications.

### LEO 222 Photonics Applications Project 1-3-2

Prerequisites: ELN 132 and LEO 211

This course provides a structured approach to an applications-oriented photonics project. Emphasis is placed on selecting, planning, implementing, testing, and presenting the project. Upon completion, students should be able to present and demonstrate their photonics project.

### LEGAL EDUCATION

### C-L-SHC

LEX 110 Intro to Paralegal Study 2-0-2 This course introduces the paralegal profession and the legal system, and an emphasis is placed on the role of professional and legal ethics. Topics include regulations, ethics, case analysis, legal reasoning, career opportunities, professional organizations, terminology, and other related topics. Upon completion, the student should be able to explain the role of a paralegal and identify the skills, knowledge, and ethics required of paralegals.

### LEX 120 Legal Research/Writing I 2-2-3

This course introduces the techniques of legal research and writing. Emphasis is placed on locating, analyzing, applying, and updating sources of law; effective legal writing, including proper citation; and the use of electronic research methods. Upon completion, students should be able to perform legal research and writing assignments using techniques covered in the course.

### LEX 121 Legal Research/Writing II 2-2-3

Prerequisite: LEX 120

This course covers advanced topics in legal research and writing. Topics include more complex legal issues and assignments involving preparation of legal memos, briefs, and other documents and the advanced use of electronic research methods. Upon completion, students should be able to perform legal research and writing assignments using techniques covered in the course.

### LEX 130 Civil Injuries

3-0-3

This course covers traditional tort concepts and the evolving body of individual rights created by statute. Topics include intentional and non-intentional torts with emphasis on negligence, strict liability, civil rights, workplace and environmental liability, remedies, and damages. Upon completion, students should be able to recognize, explain, and evaluate elements of civil injuries and related defenses.

### LEX 140 Civil Litigation I 3-0-3

This course introduces the structure of the legal system and the rules governing civil litigation. Topics include jurisdiction, state and federal rules of civil procedure, and evidence. Upon completion, students should be able to assist an attorney in pre-litigation matters and preparation of pleadings and motions.

### LEX 141 Civil Litigation II 2-2-3

*Prerequisite: LEX 140* This course covers advanced topics in the civil litigation process. Topics include motions, discovery, and trial and appellate procedures. Upon completion, students should be able to assist an attorney in preparing and organizing documents for trial, settlement, and post-trial practice.

### LEX 150 Commercial Law I

2-2-3

This course covers legally enforceable agreements, forms of organization, and selected portions of the Uniform Commercial Code. Topics include drafting and enforcement of contracts, leases, and related documents and selection and implementation of business organization forms, sales, and commercial papers. Upon completion, students should be able to apply the elements of a contract, prepare various business documents, and understand the role of commercial paper.

### LEX 160 Criminal Law & Procedure 2-2-3

This course introduces substantive criminal law and procedural rights of the accused. Topics include elements of state/federal crimes, defenses, constitutional issues, pre-trial and trial process, and other related topics. Upon completion, students should be able to explain elements of specific crimes and assist an attorney in preparing a criminal case.

# LEX 180Case Analysis & Reasoning1-2-2Corequisite: LEX 120

This course covers the techniques of reading and applying legal opinions and the skills of case analysis. Emphasis is placed on the components of opinions and on types of legal writing. Upon completion, students should be able to read, analyze, and brief opinions and prepare legal memoranda, briefs, and other legal documents.

### LEX 210 Real Property I

3-0-3

This course introduces the study of real property law. Topics include the distinction between real and personal property, various estates, mechanics of conveyance and encumbrance, recordation, special proceedings, and other related topics. Upon completion, students should be able to identify estates, forms of deeds, requirements for recording, and procedures to enforce rights to real property.

# LEX 211Real Property II1-4-3Prerequisite: LEX 210

This course continues the study of real property law relating to title examination and preparation of closing documents. Topics include use of courthouse and other public records in title examination and preparation of documents required in real estate transactions and closings. Upon completion. students should be able to plot/draft a description, perform complete title examination, and draft closing documents, including title insurance forms and prepare disbursement reconciliation.

#### LEX 240 **Family Law**

3-0-3

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This course covers laws governing domestic relations. Topics include marriage, separation, divorce, child custody, support, property division, adoption, domestic violence, and other related topics. Upon completion, students should be able to interview clients, gather information, and draft documents related to family law.

**LEX 250** Wills, Estates, & Trusts 2-2-3

This course covers various types of wills, trusts, probate, estate administration, and intestacy. Topics include types of wills and execution requirements, caveats and dissents, intestate succession, inventories and accountings, distribution and settlement, and other related topics. Upon completion, students should be able to draft simple wills, prepare estate forms, understand administration of estates, including taxation and explain terms regarding trusts.

Law Office Mgt/Technology LEX 270 1-2-2 This course provides an overview of law office management

and organization. Topics include office forms, filing systems, billing/time keeping, computer systems, calendar systems, library administration, case management, office/personnel procedures, ethics, and technology. Upon completion, students should be able to establish and maintain various law office systems, monitor case progress, and supervise non-lawyer personnel.

#### **LEX 271** Law Office Writing

This course covers the basics of writing for the law office including the drafting of general correspondence, the briefing of cases, and the preparation of settlement brochures. Emphasis is placed on legal vocabulary in the context of letter writing, briefing judicial opinions, and the preparation of the settlement brochure. Upon completion, students should be able to draft letters to clients, opposing counsel, government entities, and insurance companies and prepare the settlement brochure.

#### **LEX 280 Ethics & Professionalism**

This course reinforces legal ethics and the role of the paralegal in a professional work environment. Topics include a review of ethics, employment opportunities, and search techniques; paralegal certification; and other related topics. Upon completion, students should be able to understand the paralegal's role in the ethical practice of law.

### LIBRARY AND INFORMATION TECHNOLOGY

#### LIB 110 **Introduction to Libraries**

This course includes the history and future of libraries, a survey of library types, and an overview of library organization, services, and community relationships. Emphasis is placed on societal roles of the library. literary and intellectual freedom, comparisons and contrasts of library types, and the roles of professional organizations. Upon completion, students should be able to discuss literacy and intellectual freedom, describe library organization, and compare types of libraries, their materials, and services.

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#### LIB 111 Lib. Info. Resources/Svcs 2 - 2 - 3

This course provides introductory skills for selecting and using general and specialized information resources in print and electronic formats and related copyright issues. Emphasis is placed on selection tools, print and electronic censorship, core collection materials in various disciplines, compiling bibliographies, and interpreting and referring reference questions. Upon completion, students should be able to use numerous resources to answer directional and factual questions and to decide when to refer difficult reference questions.

#### LIB 112 Library Coll. Dev./Acq.

This course covers library collection development and acquisitions policies and procedures. Emphasis is placed on evaluating mission statements, needs assessment studies, purchasing materials using selection criteria and tools, and related collection development and acquisitions activities. Upon completion, students should be able to evaluate mission statements, conduct needs assessments using selected criteria, and complete related collection development and acquisitions activities.

LIB 113 Lib. Cataloging & Classification 2-2-3 This course covers standards and procedures for copy cataloging and types of classification systems. Emphasis is placed on selecting bibliographic records, maintaining and using authority records, and the importance of the catalog to the library mission. Upon completion, students should be able to select the appropriate MARC record, search OCLC, and demonstrate an understanding of authority files.

#### Lib. Public Serv. Oper. 2-2-3 LIB 114

This course covers effective library orientations, effective patron service, automated circulation systems, statistics and reports, reserves, and security. Emphasis is placed on public relations, problem solving, communication skills, circulation systems and policies, interlibrary loan procedures, shelving, and display options. Upon completion, students should be able to deal with diverse patrons, conduct library orientations, compile reports from statistical data, initiate interlibrary loans, and prepare displays.

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#### **LIB 210 Electronic Lib. Databases** 2-2-3

Prerequisite: LIB 111 and WEB 110

This course covers developing search strategies for using electronic resources in the humanities, social and behavioral sciences, physical and life sciences, and health-related fields. Emphasis is placed on the reference interview, teaching Boolean logic and other search strategies, retrieving and evaluating information, and citing it in APA/MLA style. Upon completion, students should be able to describe methods of information retrieval, use search strategies to teach basic research using databases, and cite resources appropriately.

#### LIB 211 Library Program Develop 3-0-3

This course covers the purpose of library programs and various methods used for program design, promotion, delivery, and evaluation. Topics include serving library communities through appropriate program activities such as storytelling, puppet shows, book clubs, lectures, reading aloud, workshops, special collections, and outreach. Upon completion, students should be able to prepare, promote, deliver, and evaluate appropriate library programs.

#### LIB 212 Lib. Services/Spec. Needs 3-0-3

This course covers basic information for serving library users with special needs. Emphasis is placed on ADA guidelines, the location and use of appropriate resources, and accessibility options. Upon completion, students should be able to access appropriate information about ADA guidelines, locate and use appropriate resources, and be aware of accessibility options.

#### **LIB 213 Cataloging Nonprint Mat.** 2 - 2 - 3Prerequisite: LIB 113

This course continues the study and application of information cataloging practices. Emphasis is placed on cataloging information resources, updating bibliographic materials in databases, an overview of Dublin Core, and non-print materials cataloging practices. Upon completion, students should be able to catalog nonprint and electronic resources.

#### **LIB 214** Lib. Services/Children

3-0-3

This course covers the location, evaluation, acquisition, and presentation of children's materials in libraries. Emphasis is placed on locating, evaluating, acquiring, and presenting children's literature, video and audio materials, and web sites through programs, displays, talks, and instruction. Upon completion, students should be able to locate, evaluate, acquire, and present a wide range of children's materials to library users.

#### LIB 215 **Library Management**

3-0-3

This course covers basic management duties specific to the field of Library and Information Science. Topics include supervisory skills, delegation, time management, conflict resolution, training and coaching others, communication techniques, organizational theory, leadership and decision making in the library setting. Upon completion, students should be able to demonstrate knowledge of successful library

operations, including key management concepts and strategies.

### MACHINING

#### MAC 111 **Machining Technology I**

This course introduces machining operations as they relate to the metalworking industry. Topics include machine shop safety, measuring tools, lathes, drilling machines, saws, milling machines, bench grinders, and layout instruments. Upon completion, students should be able to safely perform the basic operations of measuring, layout, drilling, sawing, turning, and milling.

#### MAC 112 Machining Technology II 2-12-6

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.

#### **Machining Technology III** 2-12-6 MAC 113 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.

### MAC 122 CNC Turning

1-3-2 This course introduces the programming, setup, and operation of CNC turning centers. Topics include programming formats, control functions, program editing, part production, and inspection. Upon completion, students should be able to manufacture simple parts using CNC turning centers.

### MAC 124 CNC Milling

This course introduces the manual programming, setup, and operation of CNC machining centers. Topics include programming formats, control functions, program editing, part production, and inspection. Upon completion, students should be able to manufacture simple parts using CNC machining centers.

#### MAC 152 Adv Machining Calc 1-2-2

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.

### MAC 153 Compound Angles

This course introduces the application of basic types and uses of compound angles. Emphasis is placed on problem solving by tilting and rotating adjacent angles to resolve an unknown compound angle. Upon completion, students should be able to

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set up and develop compound angles on parts using problem-solving techniques.

#### 0-2-1 MAC 171 Measure/Material & Safety

This course introduces precision measuring instruments. process control and adjustment, inspection, material handling and workplace safety. Topics include properly identifying and handling various measurement instruments and materials. process control, adjustment and improvement, personal protective equipment (PPE) and OSHA safety regulations. Upon completion, students should be able to safely demonstrate effective measurement techniques, identify and handle various materials, and explain safe industry practices.

#### MAC 224 **Advanced CNC Milling** 1-3-2

Local Prerequisite: MAC 124

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.

#### MAC 226 **CNC EDM Machining** 1-3-2

This course introduces the programming, setup, and operation of CNC electrical discharge machines. Topics include programming formats, control functions, program editing, production of parts, and inspection. Upon completion, students should be able to manufacture simple parts using CNC electrical discharge machines.

#### **Jigs and Fixtures I** MAC 241

2-6-4

1-9-4

This course introduces the application and use of jigs and fixtures. Emphasis is placed on design and manufacture of simple jigs and fixtures. Upon completion, students should be able to design and build simple jigs and fixtures. 2-6-4

#### MAC 243 Die Making I

This course introduces the principles and applications of die making. Topics include types, construction, and application of dies. Upon completion, students should be able to design and build simple dies.

### MAC 244 Die Making II

Local Prerequisite: MAC 243

This course provides continued study in the application and use of dies. Emphasis is placed on the design and manufacturing of complex dies. Upon completion, students should be able to design and build complex dies.

#### MAC 245 Mold Construction I 2-6-4

This course introduces the principles of mold making. Topics include types, construction, and application of molds. Upon completion, students should be able to design and build simple molds.

#### MAC 246 Mold Construction II 1 - 9 - 4

Local Prerequisite: MAC 245

This course provides continued study in the application and use of molds. Emphasis is placed on design and

manufacturing of complex molds. Upon completion, students should be able to design and build complex molds.

### MASONRY

#### MAS 110 Masonry I

This course introduces the basic principles of construction with masonry units. Topics include history of the masonry field, safety practices, blueprint reading, and principles of laying masonry units to the line using tools, equipment, and materials. Upon completion, students should be able to demonstrate knowledge of safety practices, blueprint reading, and basic tool use; identify materials; operate machinery; and lay masonry units.

#### MAS 120 **Masonry II**

This course provides practical experience in cost estimating, foundations, bonding variations, expansion joints, wall ties, building codes, and other related topics. Emphasis is placed on material estimation, layout of footing, construction of walls, reinforcements, scaffolding, insulating, and building codes. Upon completion, students should be able to determine cost, plan sound building procedures, construct masonry projects, and apply building codes.

#### MAS 130 **Masonry III**

This course provides fundamentals and skills used in masonry construction. Emphasis is placed on building chimneys, fireplaces, columns, concrete masonry, and arches; using materials economically; satisfying needs and expectations; and proper work ethics. Upon completion, students should be able to build structures covered in the course, demonstrate increased speed and accuracy, and make smooth transitions between construction stages.

MAS 140 **Introduction to Masonry** 1-2-2

This course introduces basic principles and practices of masonry. Topics include standard tools, materials, and practices used in basic masonry and other related topics. Upon completion, students should be able to demonstrate an understanding of masonry and be able to use basic masonry techniques.

### MATHEMATICS

#### MAT 003 **Transition Math**

This course provides an opportunity to customize foundational math content in specific math areas and will include developing a growth mindset. Topics include developing the academic habits, learning strategies, social skills, and growth mindset necessary to be successful in mathematics. Upon completion, students should be able to build a stronger foundation for success in their gateway level math courses by obtaining skills through a variety of instructional strategies with emphasis placed on the most essential prerequisite knowledge.

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# MAT 010Math Measurement & Literacy Su0-2-1Corequisite:MAT 110

This course provides an opportunity to customize foundational math content specific to Math Measurement & Literacy. Topics include developing the academic habits, learning strategies, social skills, and growth mindset necessary to be successful in mathematics. Upon completion, students should be able to build a stronger

foundation for success in Math Measurement & Literacy by obtaining skills through a variety of instructional strategies with emphasis placed on the most essential prerequisite knowledge.

# MAT 021Algebra/Trigonometry 1 Support1-2-2Corequisite:MAT 121

This course provides an opportunity to customize foundational math content specific to Algebra and Trigonometry I. Topics include developing the academic habits, learning strategies, social skills, and growth mindset necessary to be successful in mathematics. Upon completion, students should be able to build a stronger

foundation for success in Algebra/Trigonometry I by obtaining skills through a variety of instructional strategies with emphasis placed on the most essential prerequisite knowledge.

### **MAT 043 Quantitative Literacy Support Class 1-2-2** *Corequisite: MAT 143*

This course provides an opportunity to customize foundational math content specific to Quantitative Literacy. Topics include developing the academic habits, learning strategies, social skills, and growth mindset necessary to be

successful in mathematics. Upon completion, students should be able to build a stronger foundation for success in Quantitative Literacy by obtaining skills through a variety of instructional strategies with emphasis placed on the most essential prerequisite knowledge.

# MAT 052Statistical Methods I Support1-2-2Corequisite:MAT 152

This course provides an opportunity to customize foundational math content specific to Statistical Methods I. Topics include developing the academic habits, learning strategies, social skills, and growth mindset necessary to be successful in mathematics. Upon completion, students should be able to build a stronger foundation for success in Statistical Methods I by obtaining skills through a variety of instructional strategies with emphasis placed on the most essential prerequisite knowledge.

# MAT 071Precalculus Algebra Support0-4-2Corequisite:MAT 171

This course provides an opportunity to customize foundational math content specific to Precalculus Algebra. Topics include developing the academic habits, learning strategies, social skills, and growth mindset necessary to be successful in mathematics. Upon completion, students should be able to build a stronger foundation for success

in Precalculus Algebra by obtaining skills through a variety of

instructional strategies with emphasis placed on the most essential prerequisite knowledge.

# MAT 110Math Measurement & Literacy2-2-3Corequisite: MAT 0102-2-3

Local RISE corequisites: MAT 010; Local RISE Prerequisites: Take one group: 1) MAT 003 P1; 2) DMA 010, DMA 020, DMA 030; 3) MAT 060; 4) DMA 025

This course provides an activity-based approach that develops measurement skills and mathematical literacy using technology to solve problems for non-math intensive programs. Topics include unit conversions and estimation within a variety of measurement systems; ratio and proportion; basic geometric concepts; financial literacy; and statistics including measures of central tendency, dispersion, and charting of data. Upon completion, students should be able to demonstrate the use of mathematics and technology to solve practical problems, and to analyze and communicate results.

### MAT 121 Algebra/Trigonometry I

Local RISE corequisites: MAT-021;

Local RISE Prerequisites: Take one group 1) MAT-003 P3; 2) DMA-010, DMA-020, DMA-030, DMA-040, DMA-050, DMA-060; 3) MAT-121; 4) MAT-161

 DMA-010, DMA-020, DMA-030, DMA-040, DMA-050, DMA-065; 6) DMA-010, DMA-020, DMA-030, DMA-045, DMA-065;
 DMA-025, DMA-045, DMA-060, DMA-070, DMA-080;
 DMA-025, DMA-040, DMA-050, DMA-065; 9) MAT-060, MAT-070; 10) MAT-060, MAT-080; 11) MAT-060, MAT-090;
 MAT-095

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 the properties of plane and solid geometry, area and volume, and basic proportion applications; simplification, evaluation, and solving of algebraic equations and inequalities and radical functions; complex numbers; right triangle trigonometry; and systems of equations. Upon completion, students will be able to demonstrate the ability to use mathematics and technology for problem-solving, analyzing and communicating results.

# MAT 122Algebra/Trigonometry II2-2-3Prerequisite:MAT 121

This course is designed to cover concepts in algebra, function analysis, and trigonometry. Topics include exponential and logarithmic functions, transformations of functions, Law of Sines, Law of Cosines, vectors, and statistics. Upon completion, students should be able to demonstrate the ability to use mathematics and technology for problem-solving, analyzing and communicating results.

### MAT 143 Quantitative Literacy 2-2-3

Corequisite: MAT 043 Local RISE corequisites: MAT-043;

*Local RISE corequisites: MAT-0-3, Local RISE prerequisites: Take one group 1) MAT-003 P2 and DRE-098; 2) MAT 003 and ENG 011; 3) DMA-025, DMA-040, DMA-050, DRE-098;4) ENG-002 P2 and MAT-003 P2* This course is designed to engage students in complex and realistic situations involving the mathematical phenomena of quantity, change and relationship, and uncertainty through

2-2-3

project- and activity-based assessment. Emphasis is placed on authentic contexts which will introduce the concepts of numeracy, proportional reasoning, dimensional analysis, rates of growth, personal finance, consumer statistics, practical probabilities, and mathematics for citizenship. Upon completion, students should be able to utilize quantitative information as consumers and to make personal, professional, and civic decisions by decoding, interpreting, using, and communicating quantitative information found in modern media and encountered in everyday life. This course has been approved for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in Mathematics.

### MAT 152 Statistical Methods I

3-2-4

Corequisite: MAT 052

Local RISE corequisites: Take one group: 1) MAT-052; Local RISE prerequisites: 1) MAT-003 P2 and DRE 098; 2) MAT 003 P2 and ENG 011; 3) DMA-025, DMA-040, DMA-050, DRE-098;4) ENG-002 P2 and MAT-003 P2

This course provides a project-based approach to introductory statistics with an emphasis on using real-world data and statistical literacy. Topics include descriptive statistics, correlation and regression, basic probability, discrete and continuous probability distributions, confidence intervals and hypothesis testing. Upon completion, students should be able to use appropriate technology to describe important characteristics of a data set, draw inferences about a population from sample data, and interpret and communicate results. This course has been approved for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in Mathematics

### MAT 171 Precalculus Algebra

3-2-4

Corequisite: MAT 071

Local RISE corequisites: MAT-071; Local RISE Prerequisites: 1) MAT-003 P3; 2) DMA-010, DMA-020, DMA-030, DMA-040, DMA-050, DMA-060; 3) MAT-121; 4) MAT-161

 DMA-010, DMA-020, DMA-030, DMA-040, DMA-050, DMA-065; 6) DMA-010, DMA-020, DMA-030, DMA-045, DMA-065;
 DMA-025, DMA-045, DMA-060, DMA-070, DMA-080;
 DMA-025, DMA-040, DMA-050, DMA-065; 9) MAT-060, MAT-070; 10) MAT-060, MAT-080; 11) MAT-060, MAT-090;
 MAT-095

This course is designed to develop topics which are fundamental to the study of Calculus. Emphasis is placed on solving equations and inequalities, solving systems of equations and inequalities, and analysis of functions (absolute value, radical, polynomial, rational, exponential, and logarithmic) in multiple representations. Upon completion, students should be able to select and use appropriate models and techniques for finding solutions to algebra-related problems with and without technology. This course has been approved for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in Mathematics.

MAT 172 Precalculus Trigonometry 3-2-4

Prerequisite: MAT 171

This course is designed to develop an understanding of topics which are fundamental to the study of Calculus. Emphasis is placed on the analysis of trigonometric functions in multiple representations, right and oblique triangles, vectors, polar coordinates, conic sections, and parametric equations. Upon completion, students should be able to select and use appropriate models and techniques for finding solutions to trigonometry-related problems with and without technology. This course has been approved for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in Mathematics.

### MAT 263 Brief Calculus Prerequisite: MAT 171

This course is designed to introduce concepts of differentiation and integration and their applications to solving problems. Topics include graphing, differentiation, and integration with emphasis on applications drawn from business, economics, and biological and behavioral sciences. Upon completion, students should be able to demonstrate an understanding of the use of basic calculus and technology to solve problems and to analyze and communicate results. This course has been approved for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in Mathematics.

### MAT 271 Calculus I 3-2-4

Prerequisite: MAT 172

This course is designed to develop the topics of differential and integral calculus. Emphasis is placed on limits, continuity, derivatives and integrals of algebraic and transcendental functions of one variable. Upon completion, students should be able to select and use appropriate models and techniques for finding solutions to derivative-related problems with and without technology. This course has been approved for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in Mathematics.

### MAT 272 Calculus II

Prerequisite: MAT 271

3-2-4

3 - 2 - 4

3 - 2 - 4

This course is designed to develop advanced topics of differential and integral calculus. Emphasis is placed on the 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 select and use appropriate models and techniques for finding solutions to integral-related problems with and without technology. This course has been approved for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in Mathematics.

### MAT 273 Calculus III

Prerequisite: MAT 272

This course is designed to develop the topics of multivariate calculus. Emphasis is placed on multivariate functions, partial derivatives, multiple integration, solid analytical geometry, vector valued functions, and line and surface integrals. Upon

completion, students should be able to select and use appropriate models and techniques for finding the solution to multivariate-related problems with and without technology. This course has been approved for transfer under the CAA and ICAA as a general education course in Mathematics.

#### **MAT 280** Linear Algebra 2-2-3 Prerequisite: MAT 271

This course provides an introduction to linear algebra topics. Emphasis is placed on the development of abstract concepts and applications for vectors, systems of equations, matrices, determinants, vector spaces, multi-dimensional linear transformations, eigenvectors, eigenvalues, diagonalization and orthogonality. Upon completion, students should be able to demonstrate understanding of the theoretical concepts and select and use appropriate models and techniques for finding solutions to linear algebra-related problems with and without technology. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

#### **MAT 285 Differential Equations**

Prerequisite: MAT 272

This course provides an introduction to topics involving ordinary differential equations. Emphasis is placed on the development of abstract concepts and applications for first-order and linear higher-order differential equations, systems of differential equations, numerical methods, series solutions, eigenvalues and eigenvectors, and LaPlace transforms. Upon completion, students should be able to demonstrate understanding of the theoretical concepts and select and use appropriate models and techniques for finding solutions to differential equations-related problems with and without technology. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

### **MOTORCYCLE MECHANICS**

### MCM 111 Motorcycle Mechanics

C-L-SHC 3-8-7

1-6-3

2 - 2 - 3

This course covers the proper nomenclature of parts and components of motorcycles, ATVs, and personal watercraft. Topics include theory of operation, differences of operation, preventive maintenance, and operating principles involved in servicing and repairing motorcycles, ATVs, and personal watercraft. Upon completion, students should be able to perform basic inspection, diagnosis, repair, and/or adjustment of motorcycles, ATVs, and personal watercraft.

#### MCM 114 Motorcycle Fuel Systems 2-6-5

This course introduces various types of fuels and fuel systems used in motorcycle internal combustion engines. Emphasis is placed on the theory and principles of carburetion and fuel injection. Upon completion, students should be able to service, disassemble, inspect, reassemble, and adjust to manufacturers' specifications the components of various fuel systems.

MCM 115 Motorcycle Chassis

This course covers chassis adjustments, components, and types and uses of frames and suspensions. Emphasis is placed on proper and safe use of tools and equipment in servicing and maintaining motorcycle chassis. Upon completion, students should be able to service and repair motorcycle chassis systems and suspension components.

### MCM 117 Motorcycle Dyno Tuning I

This course introduces the theory and safe operation of motorcycle chassis dynamometers. Topics include types of dynamometers, theory of operation, differences of operations, preventative maintenance and safe operating principles involved in motorcycle dynamometer tuning and diagnostics. Upon completion, students should be able to safely use motorcycle dynamometers to measure horsepower and torque, to optimize air-fuel metering and exhaust-flow, and to diagnose performance problems.

### MCM 122 Motorcycle Engines

2 - 9 - 5

1 - 4 - 3

1 - 4 - 3

This course covers the construction and operation of components in internal combustion engines used in modern motorcycles. Topics include two- and four-cycle engines, power trains, and final drive systems. Upon completion, students should be able to disassemble, inspect, measure, reassemble, and operationally test two- and four-cycle motorcycle engines.

### MCM 217 Motorcycle Dyno Tuning II

Prerequisites: MCM 117 This course provides advanced instruction in motorcycle dynamometers that are utilized in high performance engine tuning. Topics include safe modification and customization of components and their effect on horsepower, torque, air-fuel metering, exhaust flow, fuel economy, acceleration and speed. Upon completion, students will safely use motorcycle dynamometers to optimize performance when customizing motorcycles and/or ATV's for racing and high performance street or off-road use.

### **MECHANICAL**

C-L-SHC

1-2-2 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.

#### **MEC 111 Machine Processes I** 1-4-3

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 1-2-2 This course covers the heat treating of metals. Emphasis is placed on the effects of hardening, tempering, and annealing

on the structure and physical properties of metals. Upon completion, students should be able to heat treat materials.

#### 3-0-3 MEC 161 **Manufacturing Processes I**

This course provides the fundamental principles of value-added processing of materials into usable forms for the customer. Topics include material properties and traditional and non-traditional manufacturing processes. Upon completion, students should be able to specify appropriate manufacturing processing for common engineering materials.

#### 2-3-3 **MEC 180 Engineering Materials**

This course introduces the physical and mechanical properties of materials. Topics include materials testing, pre- and post-manufacturing processes, and material selection of ferrous and non-ferrous metals, plastics, composites, and non-conventional materials. Upon completion, students should be able to utilize basic material property tests and select appropriate materials for applications.

#### MEC 275 **Engineering Mechanisms** 2-2-3

State Prerequisite: PHY 131, PHY 151, or PHY 251 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.

### MEDICAL ASSISTING

C-L-CI-SHC

**MED 110** Orientation to Medical Assisting 1-0-0-1 This course covers the history of medicine and the role of the medical assistant in the health care setting. Emphasis is placed on professionalism, communication, attitude, behaviors, and duties in the medical environment. Upon completion, students should be able to project a positive attitude and promote the profession of medical assisting.

#### **MED 116** Intro to A & P

3-2-0-4

2-0-0-2

This course introduces basic anatomy and physiology. Emphasis is placed on the relationship between body structure and function and the procedures common to health care. Upon completion, students should be able to identify body system components and functions relating this knowledge to the delivery of health care.

#### **Medical Law and Ethics MED 118**

Local Prerequisites: DRE 098 or appropriate placement.

This course covers legal relationships of physicians and patients, contractual agreements, professional liability, malpractice, medical practice acts, informed consent, and bioethical issues. Emphasis is placed on legal terms, professional attitudes, and the principles and basic concepts of ethics and laws involved in providing medical services. Upon completion, students should be able to meet the legal and ethical responsibilities of a multi-skilled health professional.

### MED 121 Medical Terminology I

3-0-0-3

This course introduces prefixes, suffixes, and word roots used in the language of medicine. Topics include medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions, and treatment of selected systems. Upon completion, students should be able to pronounce, spell, and define medical terms as related to selected body systems and their pathological disorders.

#### MED 122 **Medical Terminology II** 3-0-0-3 Prerequisite: MED 121

This course is the second in a series of medical terminology courses. Topics include medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions, and treatment of selected systems. Upon completion, students should be able to pronounce, spell, and define medical terms as related to selected body systems and their pathological disorders.

Administrative Office Procedures I MED 130 1-2-0-2 This course introduces medical office administrative procedures. Topics include appointment processing, written and oral communications, medical records, patient orientation, and safety. Upon completion, students should be able to perform basic administrative skills within the medical environment.

#### Administrative Office Procedures II **MED 131** 1-2-0-2 Local Prerequisite: MED 130

This course provides medical office procedures in both economic and management skills. Topics include physical plant maintenance, equipment and supplies, liability coverage, medical economics, and introductory insurance procedures. Upon completion, students should be able to manage the economics of the medical office and supervise personnel.

MED 140 **Exam Room Procedures I** 3-4-0-5 This course provides instruction in clinical examining room procedures. Topics include asepsis, infection control, assisting with exams and treatment, patient education, preparation and administration of medications, EKG, vital signs, and medical emergencies. Upon completion, students should be able to demonstrate competence in exam room procedures.

#### MED 150 Laboratory Procedures I 3-4-0-5

This course provides instruction in basic lab techniques used by the medical assistant. Topics include lab safety, quality control, collecting and processing specimens, performing selective tests, phlebotomy, screening and follow-up of test results, and OSHA/CLIA regulations. Upon completion, students should be able to perform basic lab tests/skills based on course topics.

#### Admin Office Procedures III 1-2-0-2 **MED 230** Prerequisite: MED 131

This course provides advanced medical office administrative procedures. Emphasis is placed on management skills including personnel supervision, practice management, public relations, and insurance coding. Upon completion, students

should be able to exhibit advanced managerial medical assisting skills.

#### 1-3-0-2 **MED 232 Medical Insurance Coding**

This course is designed to develop coding skills. Emphasis is placed on advanced diagnostic and procedural coding in the outpatient facility. Upon completion, students should be able to demonstrate proficiency in coding for reimbursement.

#### **MED 240** Exam Room Procedures II 3-4-0-5 Prerequisite: MED 140

This course is designed to expand and build upon skills presented in MED 140. Emphasis is placed on advanced exam room procedures. Upon completion, students should be able to demonstrate enhanced competence in selected exam room procedures.

#### **MED** Clinical Practicum **MED 260** 0-0-15-5

Local Prerequisites: MED 150. MED 240

This course provides the opportunity to apply clinical, laboratory, and administrative skills in a medical facility. Emphasis is placed on enhancing competence in clinical and administrative skills necessary for comprehensive patient care and strengthening professional communications and interactions. Upon completion, students should be able to function as an entry-level health care professional.

#### **Medical Assisting Overview MED 264** 2-0-0-2

This course provides an overview of the complete medical assisting curriculum. Emphasis is placed on all facets of medical assisting pertinent to administrative, laboratory, and clinical procedures performed in the medical environment. Upon completion, students should be able to demonstrate competence in the areas covered on the national certification examination for medical assistants.

#### **MED 270** Symptomatology

This course covers the study of disease symptoms and the appropriate actions taken by medical assistants in a medical facility in relation to these symptoms. Emphasis is placed on interviewing skills and appropriate triage, preparing patients for procedures, and screening test results. Upon completion, students should be able to recognize how certain symptoms relate to specific diseases, recognize emergency situations, and take appropriate actions.

2-2-0-3

3-0-0-3

#### MED 272 Drug Therapy 3-0-0-3

This course focuses on major drug groups, including their side effects, interactions, methods of administration, and proper documentation. Emphasis is placed on the theory of drug administration. Upon completion, students should be able to identify, spell, recognize side effects of, and document the most commonly used medications in a physician's office.

#### **MED 274 Diet Therapy/Nutrition**

This course introduces the basic principles of nutrition as they relate to health and disease. Topics include basic nutrients, physiology, dietary deficiencies, weight management, and therapeutic nutrition in wellness and disease. Upon

completion, students should be able to interpret clinical and dietary data and provide patient counseling and education.

#### MED 276 Patient Education 1-2-0-2

This course is designed to provide communication skills, basic education principles, and knowledge of available community resources and to apply this knowledge to the clinical setting. Emphasis is placed on identifying appropriate community resources, developing patient education materials, and perfecting written and oral communication skills. Upon completion, students should be able to instruct, communicate effectively, and act as a liaison between the patient and community agencies.

### MARKETING

### MKT 120 Principles of Marketing

3-0-3 This course introduces principles and problems of marketing goods and services. Topics include promotion, placement, and pricing strategies for products. Upon completion, students should be able to apply marketing principles in organizational decision making.

C-L-SHC

3-0-3

3 - 2 - 4

MKT 220 Advertising & Sales Promotion 3-0-3 This course covers the elements of advertising and sales promotion in the business environment. Topics include advertising and sales promotion appeals, selection of media, use of advertising and sales promotion as a marketing tool, and means of testing effectiveness. Upon completion, students should be able to demonstrate an understanding of the concepts covered through application.

### MKT 223 Customer Service

This course stresses the importance of customer relations in the business world. Emphasis is placed on learning how to respond to complex customer requirements and to efficiently handle stressful situations. Upon completion, students should be able to demonstrate the ability to handle customer relations.

### MKT 232 Social Media Marketing

This course is designed to build students' social media marketing skills by utilizing projects that give students hands on experience implementing social media marketing strategies. Topics include integrating different social media technologies into a marketing plan, creating social media marketing campaigns, and applying appropriate social media tools. Upon completion, students should be able to use social media technologies to create and improve marketing efforts for businesses.

### MAINTENANCE

C-L-SHC MNT 110 Intro to Maintenance Procedures 1-3-2 This course covers basic maintenance fundamentals for power transmission equipment. Topics include equipment inspection, lubrication, alignment, and other scheduled maintenance procedures. Upon completion, students should be able to

demonstrate knowledge of accepted maintenance procedures and practices according to current industry standards.

MNT 111 Maintenance Practices 2-2-3

This course provides in-depth theory and practical applications relating to predictive and preventive maintenance programs. Emphasis is placed on equipment failure analysis, maintenance management software, and techniques such as vibration and infrared analysis. Upon completion, students should be able to demonstrate an understanding of modern analytical and documentation methods.

MNT 230 Pumps and Piping Systems 1-3-2 This course covers pump installation and maintenance and related valves and piping systems. Topics include various types of pump systems and their associated valves, piping requirements, and other related topics. Upon completion, students should be able to select and install pump and piping systems and demonstrate proper maintenance and troubleshooting procedures.

### **MNT 240** Industrial Equipment Troubleshoot 1-3-2 Local Prerequisite: ELC 112 or ELC 131

This course covers the various service procedures, tools, instruments, and equipment necessary to analyze and repair typical industrial equipment. Emphasis is placed on electro-mechanical and fluid power equipment troubleshooting, calibration, and repair, including common techniques and procedures. Upon completion, students should be able to troubleshoot and repair industrial equipment.

### **MILITARY SCIENCE**

### MSI 110 Military Science I

C-L-SHC 1-0-1

2-0-2

2-0-2

This course introduces military-style training and confidence building, including military weapons firing, rappelling, and other related material. Emphasis is placed on US Army and ROTC organization, leadership and management techniques, principles of war, evolution of weapons, and military tactics. Upon completion, students should be able to identify and explain the basics of military science and put into practice the art of organizing, motivating, and leading others.

### MSI 120 Military Science II

This course covers the use of maps and compasses for land navigation, leadership principles and techniques, and military written and oral communication. Topics include orienteering compass techniques, assault boat training, time management, military briefings, and basic survival skills. Upon completion, students should be able to fulfill requirements for entry into the ROTC advanced program and compete for continuing ROTC scholarships.

### MSI 210 Military Science III

This course emphasizes basic concepts in leadership, team building, and management. Topics include land navigational skills, basic first aid, oral communication, military briefings and personal management skills. Upon completion, students should be able to manage and communicate effectively in a small team environment. State Requisites\*

### MSI 220 Military Science IV 2-0-2

This course completes the preparation for accession into the ROTC advanced program. Topics include introduction to the Leadership Development Program (LDP), operation orders, advance land navigation techniques, small unit tactics, and physical training. Upon completion, students will be eligible to apply for entry into the ROTC Advanced Program.

### MUSIC

### MUS 110 Music Appreciation

C-L-SHC 3-0-3

This course is a basic survey of the music of the Western world. Emphasis is placed on the elements of music, terminology, composers, form, and style within a historical perspective. Upon completion, students should be able to demonstrate skills in basic listening and understanding of the art of music. This course has been approved for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in Humanities/Fine Arts.

### MUS 112 Introduction to Jazz 3-0-3

This course introduces the origins and musical components of jazz and the contributions of its major artists. Emphasis is placed on the development of discriminating listening habits, as well as the investigation of the styles and structural forms of the jazz idiom. Upon completion, students should be able to demonstrate skills in listening and understanding this form of American music. This course has been approved for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in Humanities/Fine Arts.

# MUS 210History of Rock Music3-0-3This course is a survey of Rock music from the early 1950's to<br/>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 CAA and ICAA as a general education transfer course.

### NURSE AIDE

NAS 101 Nurse Aide I

This course includes basic nursing skills required to provide safe, competent personal care for individuals. Emphasis is placed on person-centered care, the aging process, communication, safety/emergencies, infection prevention, legal and ethical issues, vital signs, height and weight measurements, elimination, nutrition, basic restorative care/rehabilitation, dementia, mental health and end-of-life care. Upon completion, students should be able to demonstrate knowledge and skills and be eligible to test for listing on the North Carolina Nurse Aide I Registry.

C-L-CI-SHC 3-4-3-6

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#### NAS 102 Nurse Aide II

### Prerequisites: NAS 101

This course provides training in Nurse Aide II tasks. Emphasis is placed on the role of the Nurse Aide II, sterile technique and specific tasks such as urinary catheterization, wound care, respiratory procedures, ostomy care, peripheral IV assistive activities, and alternative feeding methods. Upon completion, students should be able to demonstrate knowledge and skills and safe performance of skills necessary to be eligible for listing on the North Carolina Nurse Aide II Registry.

### NETWORKING TECHNOLOGY

3-2-6-6

C-L-SHC

1-4-3

**NET 115 Telecom for IT Professionals** 2-2-3 This course introduces telecommunications technologies and topics for Information Technology students. Topics include introduction to telecommunications, wide area networking technologies, voice telephony, wireless telephony and telecommunications network management. Upon completion. students should be able to design,

implement and test key telecommunications technologies.

#### **NET 125 Introduction to Networks** 1-4-3

This course introduces the architecture, structure, functions, components, and models of the Internet and computer networks. Topics include introduction to the principles of IP addressing and fundamentals of Ethernet concepts, media, and operations. Upon completion, students should be able to build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes.

#### **NET 126 Switching and Routing** 1-4-3

This course covers the architecture, components, and operations of routers and switches in small networks and introduces wireless local area networks (WLAN) and security concepts. Emphasis is placed on configuring and troubleshooting routers and switches for advanced functionality using security best practices and resolving common network issues utilizing both IPv4 and IPv6 protocols. Upon completion, students should be able to configure VLANs and Inter-VLAN routing applying security best practices, troubleshoot inter-VLAN routing on Layer 3 devices, configure redundancy on a switched network using STP and EtherChannel, configure WLANs using a WLC and L2 security best practices and configure IPv4 and IPv6 static routing on routers.

#### NET 225 **Enterprise Networking**

This course is designed to cover the architecture, components, operations, and security to scale for large, complex networks, including wide area network (WAN) technologies. Emphasis is placed on configuring, troubleshooting, and securing enterprise network devices and understanding how application programming interfaces (API) and configuration management tools enable network automation. Upon completion, students should be able to configure link state routing protocols, implement ACLs to filter traffic and secure administrative

access, configure NAT services on the router to provide address scalability, explain techniques to provide address scalability and secure remote access for WAN, and explain how automation affects evolving networks.

### NETWORKING OPERATING SYSTEM

C-L-SHC 2-2-3

Linux/UNIX Single User This course develops the necessary skills for students to develop both GUI and command line skills for using and customizing a Linux workstation. Topics include Linux file system and access permissions, GNOME Interface, VI editor, X Window System expression pattern matching, I/O redirection, network and printing utilities. Upon completion, students should be able to customize and use Linux systems for command line requirements and desktop productivity roles.

#### **NOS 130** Windows Single User

**NOS 120** 

2-2-3

This course introduces operating system concepts for single-user systems. Topics include hardware management, file and memory management, system configuration/ optimization, and utilities. Upon completion, students should be able to perform operating systems functions at the support level in a single-user environment.

#### **NOS 220 Linux/UNIX Administration I** 2 - 2 - 3

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.

#### **NOS 230** Windows Administration I 2-2-3 This course covers the installation and configuration of a Windows Server operating system. Emphasis is placed on the

basic configuration of core network services, Active Directory and group policies. Upon completion, students should be able to install and configure a Windows Server operating system.

### PRACTICAL NURSING

#### NUR 101 **Practical Nursing I**

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 assessment, clinical decision making, professional behaviors, caring interventions, biophysical and psychosocial concepts. communication, collaboration, teaching/learning, safety, ethical principles, legal issues, informatics, and evidence-based practice. Upon completion, students should be able to provide safe nursing care across the lifespan incorporating the concepts identified in this course.

C-L-Cl-SHC

7-6-6-11

### NUR 102 Practical Nursing II

7-0-9-10

6-0-9-9

### Prerequisites: NUR 101

This course is designed to further develop the concepts within the three domains of the individual, nursing, and healthcare. Emphasis is placed on the concepts within each domain including clinical decision making, caring interventions, biophysical and psychosocial concepts, communication, collaboration, teaching and learning, accountability, safety, informatics, and evidence-based practice. Upon completion, students should be able to provide safe nursing care across the lifespan incorporating the concepts identified in this course.

### NUR 103 Practical Nursing III

### Prerequisites: NUR 101

This course is designed to assimilate the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on biophysical and psychosocial concepts, professional behaviors, healthcare systems, health policy, and quality improvement. Upon completion, students should be able to demonstrate the knowledge, skills, and attitudes necessary to provide safe, quality, and individualized entry level nursing care.

### **ASSOCIATE DEGREE NURSING**

### C-L-Cl-SHC 4-6-6-8

3-0-6-5

3-0-6-5

NUR 111Intro to Health Concepts4-6-6-8Local Prerequisite: Admission into Associate Degree Nursing<br/>program

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.

### NUR 112 Health-Illness Concepts

Prerequisites: NUR 111

This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of acid-base, metabolism, cellular regulation, oxygenation, infection, stress/coping, health-wellness-illness, communication, caring interventions, managing care, safety, quality improvement, and informatics. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.

### NUR 113 Family Health Concepts

### Prerequisites: NUR 111

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.

### NUR 114Holistic Health Concepts3-0-6-5

### Prerequisites: NUR 111

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.

# NUR 211Health Care Concepts3-0-6-5Prerequisites: NUR 1113-0-6-5

This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of cellular regulation, perfusion, infection, immunity, mobility, comfort, behaviors, health-wellness-illness, clinical decision-making, caring interventions, managing care, and safety. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.

# NUR 212Health System Concepts3-0-6-5Prerequisites: NUR 111

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

# NUR 213Complex Health Concepts4-3-15-10Prerequisites: NUR 111111

# Corequisite: NUR 112, NUR 113, NUR 114, NUR 211 and NUR 212

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.

### NUR 214 Nsg Transition Concepts 3-0-3-4

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

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care incorporating the concepts identified in this course.

# **NUTRITION**

#### NUT 110 Nutrition

This course covers basic principles of nutrition and their relationship to human health. Topics include meeting nutritional needs of healthy people, menu modification based on special dietary needs, food habits, and contemporary problems associated with nutrition. Upon completion, students should be able to apply basic nutritional concepts as they relate to health and well-being.

# **OFFICE ADMINISTRATION**

**OST 131** Keyboarding

This course covers basic keyboarding skills. Emphasis is placed on the touch system, correct techniques, and development of speed and accuracy. Upon completion, students should be able to key at an acceptable speed and accuracy level using the touch system.

#### **OST 136** Word Processing 2-2-3

This course is designed to introduce word processing concepts and applications. Topics include preparation of a variety of documents and mastery of specialized software functions. Upon completion, students should be able to work effectively in a computerized word processing environment.

#### **OST 137 Office Applications I**

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.

#### **Office Applications II OST 138**

Prerequisite: Take One: OST 137, CIS 110, or CIS 111 This course is designed to improve the proficiency in the utilization of software applications used in business offices through a hands-on approach. Emphasis is placed on in-depth usage of software to create a variety of documents applicable to current business environments. Upon completion, students should be able to master the skills required to design documents that can be customized using the latest software applications.

#### **Med Office Terms I OST 141**

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.

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#### **OST 142 Med Office Terms II** 3-0-3

Prerequisite: Take one: MED 121 or OST 141

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.

#### **OST 148** Med Ins & Billing

This course introduces fundamentals of medical insurance and billing. 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.

#### **OST 149 Med Legal Issues**

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.

#### **OST 164 Office Editing**

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 184 Records Management** 2 - 2 - 3

This course includes the creation, maintenance, protection, security, and disposition of records stored in a variety of media forms. Topics include alphabetic, geographic, subject, and numeric filing methods. Upon completion, students should be able to set up and maintain a records management system.

#### **OST 233 Office Publications Design** Prerequisite: OST 136

This course provides entry-level skills in using software with desktop publishing capabilities. Topics include principles of page layout, desktop publishing terminology and applications, and legal and ethical considerations of software use. Upon completion, students should be able to design and produce professional business documents and publications.

#### **OST 236 Adv Word Processing** 2 - 2 - 3

Prerequisite: OST 136

This course develops proficiency in the utilization of advanced word processing functions. Emphasis is placed on advanced word processing features. Upon completion, students should be able to produce a variety of complex business documents.

C-L-SHC 1-2-2

C-L-SHC

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#### **OST 243** Med Office Simulation 2-2-3

Prerequisite: OST 148

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.

#### **OST 247 Procedure Coding**

Prerequisites: Take One: MED 121 or OST 141 The 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.

#### **Diagnostic Coding OST 248**

Prerequisite: MED 121 or OST 141

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.

#### **OST 289 Office Admin Capstone** 2 - 2 - 3

Prerequisites: Take One Set: Set 1: OST 134 and OST 164; Set 2: OST 136 and OST 164

This course is designed to be a capstone course for the office professional and provides a working knowledge of administrative office procedures. Emphasis is placed on written and oral communication skills, office software applications, office procedures, ethics, and professional development. Upon completion, students should be able to adapt in an office environment.

#### PROCESS CONTROL INSTRUMENTATION

**PCI 170** 

**DAQ and Control** 

This course is a survey of data acquisition and control applications in an industrial setting. Topics include remote I/O systems, PC-based data acquisition, real-time monitoring, and other related topics. Upon completion, students should be able to demonstrate an understanding of data acquisition circuits.

# PHYSICAL EDUCATION

#### **PED 110** Fit and Well for Life

This course is designed to investigate and apply the basic concepts and principles of lifetime physical fitness and other health-related factors. Emphasis is placed on wellness through the study of nutrition, weight control, stress management, and consumer facts on exercise and fitness. Upon completion, students should be able to plan a personal, lifelong fitness program based on individual needs, abilities, and interests. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

## 218

#### **PED 113 Aerobics I**

This course introduces a program of cardiovascular fitness involving continuous, rhythmic exercise. Emphasis is placed on developing cardiovascular efficiency, strength, and flexibility and on safety precautions. Upon completion. students should be able to select and implement a rhythmic aerobic exercise program. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

#### **PED 114 Aerobics II** Prerequisite: PED 113

This course provides a continuation of a program of cardiovascular fitness involving rhythmic exercise. Emphasis is placed on a wide variety of aerobic activities which include cardiovascular efficiency, strength, and flexibility. Upon completion, students should be able to participate in and design a rhythmic aerobic exercise routine. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

#### PED 115 **Step Aerobics I**

This course introduces the fundamentals of step aerobics. Emphasis is placed on basic stepping up and down on an adjustable platform; cardiovascular fitness; and upper body, floor, and abdominal exercises. Upon completion, students should be able to participate in basic step aerobics. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

#### **PED 117** Weight Training I

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0-3-1

This course introduces the basics of weight training. Emphasis is placed on developing muscular strength, muscular endurance, and muscle tone. Upon completion, students should be able to establish and implement a personal weight training program. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

#### Weight Training II **PED 118** 0-3-1

Prerequisite: PED 117

This course covers advanced levels of weight training. Emphasis is placed on meeting individual training goals and addressing weight training needs and interests. Upon completion, students should be able to establish and implement an individualized advanced weight training program. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

#### **PED 119 Circuit Training**

This course covers the skills necessary to participate in a developmental fitness program. Emphasis is placed on the circuit training method which involves a series of conditioning timed stations arranged for maximum benefit and variety. Upon completion, students should be able to understand and appreciate the role of circuit training as a means to develop fitness. This course has been approved for transfer under the CAA and ICAA as a premajor and/or

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elective course requirement.

#### PED 121 Walk, Jog, Run

This course covers the basic concepts involved in safely and effectively improving cardiovascular fitness. Emphasis is placed on walking, jogging, or running as a means of achieving fitness. Upon completion, students should be able to understand and appreciate the benefits derived from these activities. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

#### PED 122 Yoga I

This course introduces the basic discipline of yoga. Topics include proper breathing, relaxation techniques, and correct body positions. Upon completion, students should be able to demonstrate the procedures of yoga. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

#### PED 125 Self-Defense: Beginning 0-2-1

This course is designed to aid students in developing rudimentary skills in self-defense. Emphasis is placed on stances, blocks, punches, and kicks as well as non-physical means of self-defense. Upon completion, students should be able to demonstrate basic self-defense techniques of a physical and non-physical nature. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

#### PED 128 Golf-Beginning

0-2-1

0-2-1

0-2-1

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0 - 2 - 1

This course emphasizes the fundamentals of golf. Topics include the proper grips, stance, alignment, swings for the short and long game, putting, and the rules and etiquette of golf. Upon completion, students should be able to perform the basic golf shots and demonstrate a knowledge of the rules and etiquette of golf. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

#### PED 130 Tennis-Beginning

This course emphasizes the fundamentals of tennis. Topics include basic strokes, rules, etiquette, and court play. Upon completion, students should be able to play recreational tennis. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

#### PED 137 Badminton

This course covers the fundamentals of badminton. Emphasis is placed on the basics of serving, clears, drops, drives, smashes, and the rules and strategies of singles and doubles. Upon completion, students should be able to apply these skills in playing situations.

This course has been approved for transfer under the CAA as a premajor and/or elective course requirement.

This course has been approved for transfer under the ICAA as a premajor and/or elective course requirement.

This course introduces the fundamentals of bowling. Emphasis is placed on ball selection, grips, stance, and delivery along with rules and etiquette. Upon completion, students should be able to participate in recreational bowling. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

#### PED 143 Volleyball-Beginning

This course covers the fundamentals of volleyball. Emphasis is placed on the basics of serving, passing, setting, spiking, blocking, and the rules and etiquette of volleyball. Upon completion, students should be able to participate in recreational volleyball. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

## PED 145 Basketball-Beginning 0-2-1

This course covers the fundamentals of basketball. Emphasis is placed on skill development, knowledge of the rules, and basic game strategy. Upon completion, students should be able to participate in recreational basketball. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

## PED 149 Flag Football

This course introduces the fundamentals and rules of flag football. Emphasis is placed on proper techniques and strategies for playing in game situations. Upon completion, students should be able to participate in recreational flag football. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

#### PED 157 Pickleball

This course covers the fundamentals of pickleball. Emphasis is placed on the basics of serving, ground strokes (drives, drops, dinks, punches, and lobs), overhead strokes (smashes and slams), and the rules and strategies of singles and doubles play. Upon completion, students should be able to apply these skills in pickleball playing situations. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

#### PED 171 Nature Hiking

0-2-1

1-2-2

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0-2-1

This course provides instruction on how to equip and care for oneself on the trail. Topics include clothing, hygiene, trail ethics, and necessary equipment. Upon completion, students should be able to successfully participate in nature trail hikes. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

#### PED 172 Outdoor Living

This course is designed to acquaint the beginning camper with outdoor skills. Topics include camping techniques such as cooking and preserving food, safety, and setting up camp. Upon completion, students should be able to set up camp sites in field experiences using proper procedures. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

#### PED 217 Pilates 1

This course provides an introduction to the pilates method of body conditioning exercise. Topics include instruction in beginning and intermediate pilates exercises using a mat or equipment, history of pilates method, and relevant anatomy and physiology. Upon completion, students should be able to perform beginning and intermediate exercises, and possess an understanding of the benefits of conditioning the body's core muscles. This course has been approved for transfer under the CAA as a premajor and/or elective course requirement. This course has been approved for transfer under the ICAA as a premajor and/or elective course requirement.

#### PED 219 Disc Golf

0-2-1

C-L-SHC

C-L-SHC

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3-0-3

0-2-1

This course introduces the fundamentals of disc golf. Emphasis is placed on basic throwing techniques, putting, distance driving, scoring, and single and doubles play. Upon completion, students should be able to perform the skills required in playing situations. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

PED 254 Coaching Basketball 1-2-2 This course introduces the theory and methods of coaching basketball. Emphasis is placed on rules, game strategies, and selected techniques of coaching basketball. Upon completion, students should be able to demonstrate competent coaching skills in basketball. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

## PHILOSOPHY

# PHI 240 Introduction to Ethics

Prerequisite: ENG 111

This course introduces theories about the nature and foundations of moral judgments and applications to contemporary moral issues. Emphasis is placed on moral theories such as consequentialism, deontology, and virtue ethics. Upon completion, students should be able to apply various ethical theories to individual moral issues such as abortion, capital punishment, poverty, war, terrorism, the treatment of animals and issues arising from new technologies. This course has been approved for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in Humanities/Fine Arts.

## PHYSICS

# PHY 110Conceptual PhysicsCorequisite:PHY 110A

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 for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in Natural Sciences.

# PHY 110AConceptual Physics Laboratory0-2-1Corequisite:PHY 110

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 for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in Natural Sciences.

# PHY 121Applied Physics ILocal Prerequisite: Take MAT 003

3-2-4

This algebra-based course introduces fundamental physical concepts as applied to industrial and service technology fields. Topics include systems of units, problem solving methods, graphical analyses, vectors, motion, forces, Newton's laws of motion, work, energy, power, momentum, and properties of matter. Upon completion, students should be able to demonstrate an understanding of the principles studied as applied in industrial and service fields.

## PHY 131 Physics-Mechanics

Prerequisite: MAT 121, or MAT 171

3-2-4

This algebra/trigonometry-based course introduces fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem solving methods, graphical analysis, vectors, motion, forces, Newton's laws of motion, work, energy, power, momentum, and properties of matter. Upon completion, students should be able to apply the principles studied to applications in engineering technology fields.

# PHY 133Physics-Sound and Light3-2-4Prerequisite: PHY 131

This algebra/trigonometry-based course is a study of fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem solving methods, graphical analysis, wave motion, sound, light, and modern physics. Upon completion, students should be able to apply the principles studied to applications in engineering technology fields.

PHY 151 College Physics I

Prerequisite: MAT 171 or MAT 271

3-2-4

This course uses algebra and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include units and measurement, vectors, linear kinematics and dynamics, energy, power, momentum, fluid mechanics, and heat. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem solving ability for the topics covered. This course has been approved for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in Natural Sciences.

#### PHY 152 College Physics II

Prerequisite: PHY 151

This course uses algebra/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 for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in Natural Sciences.

#### PHY 251 General Physics I

Prerequisite: MAT 271 Corequisite: MAT 272

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 CAA and ICAA as a universal general education transfer component (UGETC) course in Natural Sciences.

#### **PHY 252** General Physics II Prerequisites: MAT 272 and PHY 251

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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 for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in Natural Sciences.

# PLUMBING

PLU 111 Intro to Basic Plumbing

understanding of a basic plumbing system.

This course introduces basic plumbing tools, materials, and fixtures. Topics include standard tools, materials, and fixtures used in basic plumbing systems and other related topics. Upon completion, students should be able to demonstrate an

# POLITICAL SCIENCE

## POL 120 American Government

C-L-SHC 3-0-3

This course is a study of the origins, development, structure, and functions of American national government. Topics include the constitutional framework, federalism, the three branches of government including the bureaucracy, civil rights and liberties, political participation and behavior, and policy formation. Upon completion, students should be able to demonstrate an understanding of the basic concepts and participatory processes of the American political system. This course has been approved for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in Social/Behavioral Sciences.

#### POL 130State and Local Government3-0-3

This course includes state and local political institutions and practices in the context of American federalism. Emphasis is placed on procedural and policy differences as well as political issues in state, regional, and local governments of North Carolina. Upon completion, students should be able to identify and discuss various problems associated with intergovernmental politics and their effect on the community and the individual. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

## PSYCHOLOGY

PSY 150 General Psychology

C-L-SHC 3-0-3

This course provides an overview of the scientific study of human behavior. Topics include history, methodology, biopsychology, sensation, perception, learning, motivation, cognition, abnormal behavior, personality theory, social psychology, and other relevant topics. Upon completion, students should be able to demonstrate a basic knowledge of the science of psychology. This course has been approved for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in Social/Behavioral Sciences.

#### **PSY 237** Social Psychology Prerequisite: PSY 150 or SOC 210

3-0-3

This course introduces the study of individual behavior within social contexts. Topics include affiliation, attitude formation and change, conformity, altruism, aggression, attribution, interpersonal attraction, and group behavior. Upon completion, students should be able to demonstrate an understanding of the basic principles of social influences on behavior. This course has been approved for transfer under the CAA and ICAA as a general education course in Social/Behavioral Sciences.

relate to the physical, cognitive, and psychosocial aspects of

#### **PSY 241 Developmental Psychology** *Prereauisite: PSY 150*

This course is a study of human growth and development. Emphasis is placed on major theories and perspectives as they

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3-0-3

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 for transfer under the CAA and ICAA as a general education course in Social/Behavioral Sciences.

# PSY 246Adolescent Psychology3-0-3Prerequisite: PSY 150

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 socio-cultural 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 for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

#### PSY 281 Abnormal Psychology

Prerequisite: PSY 150

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 CAA and ICAA as a general education course in Social/Behavioral Sciences.

3-0-3

## PHARMACEUTICAL TECHNOLOGY

PTC 110Industrial Environment3-0-3This course introduces the pharmaceutical industry, including<br/>a broad overview of work in this field. Emphasis is placed on<br/>good manufacturing practices (GMP), work conduct, company<br/>organization, job expectations, personal safety, hygiene, and<br/>company rules and regulations. Upon completion, students<br/>should be able to follow good manufacturing practice<br/>regulations and inspect a pharmaceutical manufacturing<br/>facility for compliance with GMP.

#### PTC 228 Pharmaceutical Issues 1-0-1

Prerequisite: PTC 110

This course provides a forum for discussion of current pharmaceutical topics. Emphasis is placed on events, news, regulations, and technology in pharmaceutical manufacturing. Upon completion, students should be able to demonstrate an understanding of the dynamic nature of the pharmaceutical industry.

# PUBLIC ADMINISTRATION

PAD 151 Intro to Public Administration 3-0-3

This course includes an overview of the role of the public administrator or government and an examination of the development and implementation of public policy. Topics include personnel administration and management, decision making, public affairs ethics, organizational theories, budgetary functions within governmental agencies, and other governmental issues. Upon completion, students should be able to explain the functions of government in society and in the lives of people composing that society.

## PAD 152 Ethics in Government 3-0-3

This course introduces the ethical issues and problems within the public administration field. Emphasis is placed on building analytical skills, stimulating moral imagination, and recognizing the discretionary power of the administrator's role. Upon completion, students should be able to understand the moral dimensions of public administration decision making

# PAD 251Public Finance & Budgeting3-0-3This course provides an overview of the public finance and<br/>budgeting processes used in the allocation of public resources<br/>to meet differing public interests. Topics include the political<br/>environment, government expenditures, revenues, taxation,<br/>budgetary process theories and techniques, and the relation of<br/>government finance to the economy. Upon completion,<br/>students should be able to recognize impacts of government<br/>revenue and expenditure policies and understand the role of<br/>budgeting in executing governmental policy.

## PAD 252 Public Policy Analysis

3-0-3

3-0-3

This course is a study of methods and techniques used to determine the effectiveness of public programs. Emphasis is placed on the concept of ecology and environmental impact, informal groups and information networks, and the relationship between public and private sectors. Upon completion, students should be able to analyze case studies with the use of political analysis techniques.

#### PAD 254 Grant Writing

This course covers the basic techniques of successful grant writing. Topics include concept development, funding sources research, and writing skills relevant to the grants process. Upon completion, students should be able to demonstrate a basic understanding of the grants process.

## **PUBLIC SAFETY**

**PST 120** NCDPS Correctional Officer Trng 6-4-0-8 This course is a mechanism for awarding prior learning credit for industry-recognized training and/or credentials. The prior learning source is the 160-hour Basic Correctional Officer training course regulated by the NC Criminal Justice Education and Training Standards Commission and required for certification as a state correctional officer with the NC Department of Public Safety. Official documentation of successful completion of the state-mandated training must be provided and retained on file. \*160 Hours Minimum

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Documented Training Required.

# **PATHWAY TO EMPLOYMENT**

#### **PTE 116** Pathway to Employ-Bio/Chemical 2-3-3

This course introduces fundamental employment core skill sets required to effectively enter the biological and chemical workforce and/or a registered apprenticeship and may also serve as a component of a pre-apprenticeship. Topics include workplace safety, communication skills, industry overview, tools and equipment, computation and financial literacy, materials, employability skills, personal health, career exploration and pathways including apprenticeship, job preparation and required job skills, and site visits. Upon completion, students should be able to explain how to locate and engage employers, present themselves in a professional manner, perform basic on-the-job skills, pursue necessary job-specific training and/or certification, and enter a biological and chemical career with the knowledge required to be successfully employed.

## RELIGION

#### **REL 110** World Religions

C-L-SHC 3-0-3

This course introduces the world's major religious traditions. Topics include Primal religions, Hinduism, Buddhism, Islam, Judaism, and Christianity. Upon completion, students should be able to identify the origins, history, beliefs, and practices of the religions studied. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

#### **REL 211** Introduction to Old Testament 3-0-3

This course is a survey of the literature of the Hebrews with readings from the law, prophets, and other writings. Emphasis is placed on the use of literary, historical, archeological, and cultural analysis. Upon completion, students should be able to use the tools of critical analysis to read and understand Old Testament literature. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

## SUBSTANCE ABUSE

#### **SAB 110 Substance Abuse Overview**

C-L-SHC 3-0-3

This course provides an overview of the core concepts in substance abuse and dependence. Topics include the history of drug use/abuse, effects on societal members, treatment of addiction, and preventive measures. Upon completion, students should be able to demonstrate knowledge of the etiology of drug abuse, addiction, prevention, and treatment.

#### **SAB 120 Intake and Assessment** 3-0-3

This course develops processes for establishment of client rapport, elicitation of client information on which therapeutic activities are based, and stimulation of client introspection. Topics include diagnostic criteria, functions of counseling, nonverbal behavior, collaterals and significant others, dual

diagnosis, client strengths and weakness, uncooperative clients, and crisis interventions. Upon completion, students should be able to establish communication with clients, recognize disorders, obtain information for counseling, and terminate the counseling process.

#### **SAB 125 SA Case Management**

This course provides case management activities, including record keeping, recovery issues, community resources, and continuum of care. Emphasis is placed on establishing a systematic approach to monitor the treatment plan and maintain quality of life. Upon completion, students should be able to assist clients in the continuum of care as an ongoing recovery process and develop agency networking.

#### **SAB 210** Sub Abuse Counseling 3-0-3

This course provides theory and skills acquisition by utilizing intervention strategies designed to obtain therapeutic information, support recovery, and prevent relapse. Topics include counseling individuals and dysfunctional families, screening instruments, counseling techniques and approaches, recovery and relapse, and special populations. Upon completion, students should be able to discuss issues critical to recovery, identify intervention models, and initiate a procedure culminating in cognitive/behavioral change.

#### **SAB 230 Family Therapy**

This course covers the theories and models of family systems therapy as designed for families affected by substance abuse and addiction. Emphasis is placed on structures and procedures necessary for successful family therapy, including the needs, types of resistance, and individual family dynamics. Upon completion, students should be able to understand and identify dynamics and patterns unique to families affected by substance abuse and the appropriate model of treatment.

#### **SAB 240** Sab Issues in Client Serv 3-0-3

This course introduces systems of professional standards, values, and issues in substance abuse counseling. Topics include confidentiality, assessment of personal values, professional responsibilities, competencies, and ethics relative to multicultural counseling and research. Upon completion, students should be able to understand and discuss multiple ethical issues applicable to counseling and apply various decision-making models to current issues.

# **INFORMATION SYSTEMS SECURITY**

C-L-SHC

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3-0-3

3-0-3

**Security Concepts SEC 110** 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** 2-2-3

This course provides an overview of current technologies used to provide secure transport of information across networks. Topics include data integrity through encryption, Virtual Private Networks, SSL, SSH, and IPSec. Upon completion students should be able to implement secure data transmission technologies.

#### **SEC 160 Security Administration I** 2-2-3

This course provides an overview of security administration and fundamentals of designing security architectures. Topics include networking technologies, TCP/IP concepts, protocols, network traffic analysis, monitoring, and security best practices. Upon completion, students should be able to identify normal network traffic using network analysis tools and design basic security defenses.

#### **SEC 175 Perimeter Defense**

This course introduces the principles of securing networks using routers and firewalls. Topics include networking protocols, threat mitigation, firewall configuration, authentication, authorization, intrusion detection, encryption, IPSec, VPNs, and remote access technologies. Upon completion, students should be able to secure internal networks using router and firewall technologies.

#### **SEC 210 Intrusion Detection**

This course introduces the student to intrusion detection methods in use today. Topics include the types of intrusion detection products, traffic analysis, and planning and placement of intrusion detection solutions. Upon completion, students should be able to plan and implement intrusion detection solution for networks and host-based systems.

## SOCIOLOGY

#### SOC 210 **Introduction to Sociology**

3-0-3 This course introduces the scientific study of human society, culture, and social interactions. Topics include socialization, research methods, diversity and inequality, cooperation and conflict, social change, social institutions, and organizations. Upon completion, students should be able to demonstrate knowledge of sociological concepts as they apply to the interplay among individuals, groups, and societies. This

course has been approved for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in Social/Behavioral Sciences.

#### SOC 213 Sociology of the Family

This course covers the institution of the family and other intimate relationships. Emphasis is placed on mate selection, gender roles, sexuality, communication, power and conflict, parenthood, diverse lifestyles, divorce and remarriage, and economic issues. Upon completion, students should be able to analyze the family as a social institution and the social forces

which influence its development and change. This course has been approved for transfer under the CAA and ICAA as a general education course in Social/Behavioral Sciences.

#### SOC 215 **Group Processes**

This course introduces group processes and dynamics. Emphasis is placed on small group experiences, roles and relationships within groups, communication, cooperation and conflict resolution, and managing diversity within and among groups. Upon completion, students should be able to demonstrate the knowledge and skills essential to analyze group interaction and to work effectively in a group context. This course has been approved for transfer under the CAA and ICAA as a general education course in Social/Behavioral Sciences.

#### **SOC 220 Social Problems**

1-4-3

2 - 2 - 3

C-L-SHC

3-0-3

This course provides an in-depth study of current social problems. Emphasis is placed on causes, consequences, and possible solutions to problems associated with families, schools, workplaces, communities, and the environment. Upon completion, students should be able to recognize, define, analyze, and propose solutions to these problems. This course has been approved for transfer under the CAA and ICAA as a general education course in Social/Behavioral Sciences.

#### **SOC 225 Social Diversity**

3-0-3

3-0-3

3-0-3

3-0-3

This course provides a comparison of diverse roles, interests, opportunities, contributions, and experiences in social life. Topics include race, ethnicity, gender, sexual orientation, class, and religion. Upon completion, students should be able to analyze how cultural and ethnic differences evolve and how they affect personality development, values, and tolerance. This course has been approved for transfer under the CAA and ICAA as a general education course in Social/Behavioral Sciences.

#### **SOC 232 Social Context of Aging** 3-0-3

This course provides an overview of the social implications of the aging process. Emphasis is placed on the roles of older adults within families, work and economics, politics, religion, education, and health care. Upon completion, students should be able to identify and analyze changing perceptions, diverse lifestyles, and social and cultural realities of older adults. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

#### Social Psychology **SOC 240**

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 for transfer under the CAA and ICAA as a general education course in Social/Behavioral Sciences.

## SONOGRAPHY

#### SON 110 Intro to Sonography

This course provides an introduction to medical sonography. Topics include applications, sonographic terminology, history, patient care, ethics, and basic skills. Upon completion, students should be able to define professionalism and sonographic applications and perform basic patient care skills and preliminary scanning techniques.

#### SON 111 Sonographic Physics 3-3-0-4

This course introduces ultrasound physical principles, bioeffects, and sonographic instrumentation. Topics include sound wave mechanics, transducers, sonographic equipment, Doppler physics, bioeffects, and safety. Upon completion, students should be able to demonstrate knowledge of sound wave mechanics, transducers, sonography equipment, the Doppler effect, bioeffects, and safety.

#### SON 120 SON Clinical Ed I

Prerequisite: SON 110

0-0-15-5

0-0-15-5

C-L-CL-SHC

1-3-3-3

This course provides active participation in clinical sonography. Emphasis is placed on imaging, processing, and technically evaluating sonographic examinations. Upon completion, students should be able to image, process, and evaluate sonographic examinations.

## SON 121 SON Clinical Ed II

evaluate sonographic examinations.

*Prerequisite: SON 120* This course provides continued active participation in clinical sonography. Emphasis is placed on imaging, processing, and technically evaluating sonographic examinations. Upon completion, students should be able to image, process, and

#### SON 130 Abdominal Sonography I 2-3-0-3

This course introduces abdominal and small parts sonography. Emphasis is placed on the sonographic anatomy of the abdomen and small parts with correlated laboratory exercises. Upon completion, students should be able to recognize and acquire basic abdominal and small parts images.

# SON 131Abdominal Sonography II1-3-0-2Prerequisite:SON 130

This course covers abdominal and small parts pathology recognizable on sonograms. Emphasis is placed on abnormal sonograms of the abdomen and small parts with correlated sonographic cases. Upon completion, students should be able to recognize abnormal pathological processes in the abdomen and on small parts sonographic examinations.

# SON 140Gynecological Sonography2-0-0-2Prerequisite:SON 110

This course is designed to relate gynecological anatomy and pathology to sonography. Emphasis is placed on gynecological relational anatomy, endovaginal anatomy, and gynecological pathology. Upon completion, students should be able to recognize normal and abnormal gynecological sonograms.

## SON 220 Son Clinical Ed III 0-0-24-8

Prerequisite: SON 121

This course provides continued active participation in clinical sonography. Emphasis is placed on imaging, processing, and technically evaluating sonographic examinations. Upon completion, students should be able to image, process, and evaluate sonographic examinations.

# SON 221 Son Clinical Ed IV 0-0-24-8

Prerequisite: SON 220

This course provides continued active participation off campus in clinical sonography. Emphasis is placed on imaging, processing, and technically evaluating sonographic examinations. Upon completion, students should be able to image, process, and evaluate sonographic examinations.

#### SON 225 Case Studies

Prerequisite: SON 110 or CVS 163

This course offers the opportunity to present interesting cases found during clinical education. Emphasis is placed on presentation methods which integrate patient history, laboratory results, and sonographic findings with reference to current literature. Upon completion, students should be able to correlate information necessary for complete presentation of case studies.

# SON 241 Obstetrical Sonography I

*Prerequisite: SON 110* This course covers normal obs

This course covers normal obstetrical sonography techniques, the normal fetal environment, and abnormal first trimester pregnancy states. Topics include gestational dating, fetal anatomy, uterine environment, and first trimester complications. Upon completion, students should be able to produce gestational sonograms which document age, evaluate the uterine environment, and recognize first trimester complications.

# SON 242 Obstetrical Sonography II 2-0-0-2

Prerequisite: SON 241

This course covers second and third trimester obstetrical complications and fetal anomalies. Topics include abnormal fetal anatomy and physiology and complications in the uterine environment. Upon completion, students should be able to identify fetal anomalies, fetal distress states, and uterine pathologies.

## SON 250 Vascular Sonography 1-3-0-2

This course provides an in-depth study of the anatomy and pathology of the vascular system. Topics include peripheral arterial, peripheral venous, and cerebrovascular disease testing. Upon completion, students should be able to identify normal vascular anatomy and recognize pathology of the vascular system.

SON 289	Sonographic Topics	2-0-0-2
Prerequisite:	SON 110	

0-3-0-1

2-0-0-2

This course provides an overview of sonographic topics in preparation for certification examinations. Emphasis is placed on registry preparation. Upon completion, students should be able to demonstrate a comprehensive knowledge of sonography and be prepared for the registry examinations.

#### **SPANISH**

#### SPA 111 Elementary Spanish I

C-L-SHC 3-0-3

This course introduces the fundamental elements of the Spanish language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Spanish and demonstrate cultural awareness. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

# SPA 112Elementary Spanish II3-0-3Prerequisite: SPA 111

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 for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

# SPA 211Intermediate Spanish I3-0-3Prerequisite:SPA 112

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 for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

#### **SPA 212** Intermediate Spanish II Prerequisite: SPA 211

3-0-3

This course provides a continuation of SPA 211. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

## SUSTAINABILITY TECHNOLOGIES

#### SST 110 Intro to Sustainability

C-L-SHC

This course introduces sustainability issues and individual contributions toward environmental sustainability. Topics include management processes needed to maximize renewable/nonrenewable energy resources, economics of 226

sustainability, and reduction of environmental impacts. Upon completion, students should be able to discuss sustainability practices and demonstrate an understanding of their effectiveness and impacts.

## SST 120 Energy Use Analysis 2-2-3

This course introduces the principles of analyzing energy use, energy auditing tools and techniques, conservation techniques, and calculating energy savings. Topics include building system control theory, calibrating digital controls, energy loss calculations, and applicable conservation techniques. Upon completion, students should be able to demonstrate an understanding of energy use, audits, and controls in the analysis of energy consumption.

#### SST 130 Modeling Renewable Energy 2-2-3

This course introduces software and other technologies used for modeling renewable energy systems. Topics include renewable energy modeling software applications, data analysis, renewable energy sources, and cost of renewable energy systems. Upon completion, students should be able to use appropriate technology to model the effectiveness of renewable energy systems.

**SST 140 Green Building & Design Concepts 3-0-3** This course is designed to introduce the student to sustainable building design and construction principles and practices. Topics include sustainable building rating systems and certifications, energy efficiency, indoor environmental quality, sustainable building materials and water use. Upon completion, students should be able to identify the principles and practices of sustainable building design and construction.

#### **SST 210** Issues in Sustainability **3-0-3** *Prerequisites: SST 110*

This course introduces the long-term impacts and difficulties of applying sustainability concepts in an organization, business, or society. Topics include the application of sustainable technologies and the analysis of affordability, efficiencies, recycling, and small and large-scale design. Upon completion, students should be able to recognize the possible limitations of sustainable technologies and be prepared to reconcile such conflicts.

#### SST 250 Capstone Project 1-6-3 Prerequisites: SST 110

This course introduces an integrated team approach to a sustainability topic of interest to students, faculty, or professional community. Topics include problem identification, proposal preparation, conceptual design, and an effective project work schedule. Upon completion, students should be able to integrate the many facets of a topic based on environmental sustainability into a completed project.

## TRANSPORTATION TECHNOLOGY

		C-L-SHC
TRN 110	Intro to Transport Tech	1-2-2

This course covers workplace safety, hazardous materials, environmental regulations, hand tools, service information, basic concepts, vehicle systems, and common transportation industry terminology. Topics include familiarization with major vehicle systems, proper use of various hand and power tools, material safety data sheets, and personal protective equipment. Upon completion, students should be able to demonstrate appropriate safety procedures, identify and use basic shop tools, and describe government regulations regarding transportation repair facilities.

#### TRN 111 Chassis Maint/Light Repair 2-6-4

This course covers maintenance and light repair of transportation suspension, steering, and brake systems. Topics include general servicing and inspection procedures of steering and suspension systems, wheels and tires, and drum and disc brakes including hydraulic and power-assist units. Upon completion, students should be able to perform maintenance and light repair of transportation suspension, steering, and brake systems.

#### TRN 112 Powertrain Maint/Light Repair 2-6-4

This course covers maintenance and light repair of transportation engines, automatic and manual transmission/transaxles, engine performance systems, and HVAC systems. Topics include general servicing and inspection procedures of engines, engine lubrication and cooling systems, automatic and manual transmission/ transaxles, HVAC components, and fuel, air induction, and exhaust systems. Upon completion, students should be able to perform maintenance and light repair of transportation engines, automatic and manual transmission/transaxles, engine performance systems, and HVAC systems.

## TRN 120Basic Transp Electricity4-3-5

This course covers basic electrical theory, wiring diagrams, test equipment, and diagnosis, repair and replacement of batteries, starters, and alternators. Topics include Ohm's Law, circuit construction, wiring diagrams, circuit testing, and basic troubleshooting. Upon completion, students should be able to properly use wiring diagrams, diagnose, test, and repair basic wiring, battery, starting, charging, and electrical concerns.

#### TRN 120A Basic Transp Electricity

0-3-1

Corequisite: TRN 120

This course provides a lab that allows students to enhance their understanding of electrical components and circuits used in the transportation industry. Topics include inspection, diagnosis, and repair of electrical components and circuits using appropriate service information for specific transportation systems. Upon completion, students should be able to diagnose and service electrical components and circuits used in transportation systems.

TRN 130Intro to Sustainable Transp2-2-3

This course provides an overview of alternative fuels and alternative fuel vehicles. Topics include composition and use of alternative fuels including compressed natural gas, biodiesel, ethanol, hydrogen, and synthetic fuels, hybrid/electric, and vehicles using alternative fuels. Upon completion, students should be able to identify alternative fuel vehicles, explain how each alternative fuel delivery system operates, and perform minor repairs.

# TRN 140Transp Climate Control1-2-2

This course covers the theory of refrigeration and heating, electrical/electronic/pneumatic controls, and diagnosis and repair of climate control systems. Topics include diagnosis and repair of climate control components and systems, recovery/recycling of refrigerants, and safety and environmental regulations. Upon completion, students should be able to diagnose and repair vehicle climate control systems.

# **TRN 140ATransp Climate Cont Lab**1-2-2Corequisite:TRN 140

This course provides experiences for enhancing student skills in the diagnosis and repair of transportation climate control systems. Emphasis is placed on reclaiming, recovery, recharging, leak detection, climate control components, diagnosis, air conditioning equipment, tools and safety. Upon completion, students should be able to describe the operation, diagnose, and safely service climate control systems using appropriate tools, equipment, and service information.

# **TRN 145**Adv Transp Electronics2-3-3Prerequisites:TRN 120

This course covers advanced transportation electronic systems including programmable logic controllers, on-board data networks, telematics, high voltage systems, navigation, collision avoidance systems and electronic accessories. Topics include interpretation of wiring schematics, reprogramming PLC?s, diagnosing and testing data networks and other electronic concerns. Upon completion, students should be able to reprogram PLC?s, diagnose and test data networks and other electronic concerns, and work safely with high voltage systems.

# TRN 170 Pc Skills for Transp

This course introduces students to personal computer literacy and Internet literacy with an emphasis on the transportation service industry. Topics include service information systems, management systems, computer-based systems, and PC-based diagnostic equipment. Upon completion, students should be able to access information pertaining to transportation technology and perform word processing.

# TRN 180Basic Welding for Transp1-4-3

This course covers the terms and procedures for welding various metals used in the transportation industry with an emphasis on personal safety and environmental health. Topics include safety and precautionary measures, setup/operation of MIG equipment, metal identification methods, types of welds/joints, techniques, inspection methods, cutting processes and other related issues. Upon completion, students should be able to demonstrate a basic knowledge of welding

1-2-2

operations and safety procedures according to industry standard.

# **TRN 180ABasic Welding for Trans Lab**0-3-1Corequisite: TRN 180

This course provides a laboratory experience for enhancing student skills in welding and cutting procedures associated with the transportation industry. Emphasis is placed on safety and precautionary measures, setup/operation of MIG equipment, metal identification, welds/joints, techniques, inspection of welds/joints, cutting processes and other related topics. Upon completion, students should be able to demonstrate a basic knowledge of welding operations and safety procedures according to industry standards.

#### VETERINARY MEDICAL TECHNOLOGY C-L-SHC

C-L-SH

**VET 110 Animal Breeds and Husbandry 2-2-3** This course provides a study of the individual breed characteristics and management techniques of the canine, feline, equine, bovine, porcine, ovine, caprine, and laboratory animals. Topics include physiological data, animal health management, and basic care and handling of animals. Upon completion, students should be able to identify breeds of domestic and laboratory animals, list physiological data, and outline basic care, handling, and management techniques.

**VET 114 Intro to Veterinary Medical Technology 1-0-1** This course introduces the standard operating procedures and responsibilities of veterinary medical technology departments, common zoonotic diseases, safety and ethical issues, and USDA/DEA/OSHA regulations/compliance. Emphasis is placed on standard operating procedures, zoonotic diseases, safety and ethical issues, and the importance of USDA/DEA/OSHA regulations and compliance. Upon completion, students should be able to perform duties assigned in veterinary medical technology, recognize potential zoonotic diseases, and establish safety protocols/regulatory compliance.

#### **VET 120** Veterinary Anatomy and Physiology 3-3-4 Local Prerequisite: Completion of one of the following: high school biology course, BIO 094, BIO 110, or by permission of the instructor

This course covers the structure and function of the animal body with emphasis on the similarities and differences among domestic animals. Emphasis is placed on the structure and function of the major physiological systems of domestic, laboratory, and zoo animals. Upon completion, students should be able to identify relevant anatomical structure and describe basic physiological processes for the major body systems.

#### **VET 121** Veterinary Medical Terminology 3-0-3 This course covers the basic medical terminology required for veterinary technicians. Topics include the pronunciation, spelling, and definition of word parts and vocabulary terms unique to the anatomy, clinical pathology, and treatment of animals. Upon completion, students should be able to

demonstrate knowledge and understanding of basic medical terms as they relate to veterinary medicine.

# VET 123Veterinary Parasitology2-3-3Local Prerequisite: VET 120

This course covers the common internal and external parasites of companion animals, livestock, selected zoo animals, and wild animals. Emphasis is placed on laboratory diagnosis of the most common forms of the parasite through fecal, urine, skin, and blood exams. Upon completion, students should be able to identify common parasites and discuss life-cycles, treatment and prevention strategies, and public health aspects of veterinary parasitology.

## VET 125 Veterinary Diseases I 2-0-2

This course introduces basic immunology, fundamentals of disease processes including inflammation, and common infectious diseases of animals and their prevention through immunization. Topics include fundamental disease processes, principles of medical therapy, immunologic processes, infections and zoonotic diseases of domestic animals, and prevention of disease. Upon completion, students should be able to describe basic disease and immunological processes, recognize infections and zoonotic diseases, and discuss prevention strategies.

# VET 126Veterinary Diseases II1-3-2Prerequisite:VET 125

This course includes the study of basic disease processes, fundamentals of pathology, and other selected topics of veterinary medicine. Topics include histopathology, pathologic changes associated with common diseases of animals, necropsy procedures, specimen handling. Upon completion, students should be able to describe basic pathologic changes associated with disease, recognize histopathologic changes, and properly perform collection and submission of necropsy specimens.

## VET 131 Veterinary Laboratory Techniques I 2-3-3

Prerequisite: VET 123 Local Prerequisite: VET 120 Corequisite: VET 133

This course includes the fundamental study of hematology, hemostasis, and urinalysis. Emphasis is placed on basic hematology and urinalysis techniques, manual skill development, instrumentation, quality control, and applications to veterinary science. Upon completion, students should be able to perform manual and automated CBCs, hemostatic assays, and complete urinalyses and maintain laboratory equipment and quality control.

# VET 133Veterinary Clinical Practice I2-3-3Corequisite: VET 120

This course introduces basic practices and techniques of the veterinary clinic and biomedical research fields for dogs, cats, and laboratory animals. Topics include physical exam, husbandry, housing, sanitation, restraint and handling, administration of medications, anesthesia and euthanasia

techniques, grooming, and dentistry. Upon completion, students should be able to properly restrain, medicate, examine, groom, and maintain each of the species studied.

#### **Veterinary Office Practices** 1-2-2 **VET 137**

This course is designed to teach basic administrative techniques, client communication skills, and regulations pertaining to veterinary medicine. Topics include record keeping, telephone techniques, professional liability, office procedures, state and national regulatory laws, human relations, and animal welfare. Upon completion, students should be able to demonstrate effective communication techniques, office procedures, and knowledge of regulatory laws and issues relating to animal welfare.

#### Veterinary Laboratory Techniques II 2-3-3 **VET 211** Prerequisite: VET 131

# Corequisite: VET 213

This course covers advanced hematology, serology, immunology, and clinical chemistry. Topics include advanced hematologic, serologic, and immunologic test procedures; manual and automated clinical chemistry procedures; laboratory safety; and quality control. Upon completion, students should be able to collect, prepare, and analyze serum and plasma samples and outline quality control and safety procedures.

#### **VET 212** Veterinary Laboratory Techniques III 2-3-3 Prerequisite: VET 211

Corequisite: VET 214

This course introduces the basic principles of microbiology, histology, and cytology. Emphasis is placed on collection of microbiological samples for culture and sensitivity and collection and preparation of samples for histological and cytological examination. Upon completion, students should be able to perform microbiological culture and sensitivity and evaluate cytology and histology specimens.

#### **Veterinary Clinical Practice II** 1-9-4 **VET 213** Prerequisite: VET 133

This course covers basic radiography, anesthesia techniques, dentistry, sample collection and handling, surgical assistance and instrumentation, sterile techniques, and patient record keeping. Topics include basic radiography, injectable and gas anesthesia, dentistry, instrument identification and care, sterile surgical technique, specimen collection and processing, and maintenance of patient records. Upon completion, students should be able to take and process radiographs, administer and monitor anesthesia, assist in surgical procedures, collect specimens, and maintain surgical records.

#### **VET 214 Veterinary Clinical Practice III** 1 - 9 - 4Prerequisite: VET 213

This course covers advanced anesthetic techniques, special radiographic techniques, advanced dentistry, sample collection and processing, bandaging, and emergency and critical care procedures. Topics include induction and maintenance of anesthesia, radiographic contrast studies, advanced dentistry, external coaptation, intensive care procedures, and advanced

sample collection techniques. Upon completion, students should be able to demonstrate proficiency in sample collection, radiology, anesthesia, critical care and emergency procedures, and dentistry.

#### **Veterinary Pharmacology** 3-0-3 **VET 215**

Prerequisites: CHM 130 and CHM 130A or CHM 151 Coreauisite: VET 213

This course introduces drugs and other substances utilized in veterinary medicine. Emphasis is placed on drug classification and methods of action, administration, effects and side effects, storing and handling of drugs, and dosage calculations. Upon completion, students should be able to properly calculate and administer medications, recognize adverse reactions, and maintain pharmaceutical inventory and administration records. VET 217 Large Animal Clinical Practice 2-3-3 Prerequisite: VET 120

Corequisite: VET 213

This course covers topics relevant to the medical and surgical techniques for the common domestic large animal species. Topics include physical exam, restraint, sample collection, bandaging, emergency treatment, surgical and obstetrical procedures and instruments, herd health, and lameness topics. Upon completion, students should be able to safely perform restraint, examination, and sample collection; assist surgical, obstetrical, and emergency procedures; and discuss herd health.

#### **VET 237 Animal Nutrition**

3-0-3

This course covers the principles of nutrition and their application to feeding practices of domestic, farm, and companion animals. Topics include basic nutrients and nutritional needs of individual species, proximate analysis, interpretation of food and feed labels, types of animal foods, and ration formulation. Upon completion, students should be able to select appropriate diets for animals in various stages of health and disease, analyze nutrition labels, and identify foods.

## WORK-BASED LEARNING

C-L-W-SHC

1-0-1

WBL 110 World of Work This course covers basic knowledge necessary for gaining and maintaining employment. Topics include job search skills, work ethic, meeting employer expectations, workplace safety, and human relations. Upon completion, students should be able to successfully make the transition from school to work.

#### WBL 111 Work-Based Learning I 0-10-1

Local Prerequisite: Approval of Instructor or Department Chairperson

This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

WBL 112A Work-Based Learning I 0-0-10-1

This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

#### WBL 112B Work-Based Learning I 0-0-10-1

This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

WBL 115Work-Based Learning Seminar I1-0-1Corequisite:WBL 111, WBL 112, WBL 113, or WBL 1141-0-1This course may accompany WBL 111 or WBL 112.Studentswill present their work experience and evaluate workopportunities afforded by the co-op.

#### WBL 121 Work-Based Learning II 0-10-1

Local Prerequisite: Approval of Instructor or Department Chairperson

This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

#### WBL 122 Work-Based Learning II 0-20-2

#### Local Prerequisite: Approval of Instructor or Department Chairperson

This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

#### WBL 131 Work-Based Learning III 0-10-1

Local Prerequisite: Approval of Instructor or Department Chairperson

This course provides a work-based learning experience with a college-approved employer in an area related to the student's

program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

#### WEB TECHNOLOGIES

# WEB 110 Web Development Fundamentals 2-3-3

This course introduces World Wide Web Consortium (W3C) standard markup language. Topics include creating web pages, responsive design, file transfer, deployment, accessibility, and other related W3C topics. Upon completion, students should be able to deploy a hand-coded website created using the HyperText Markup Language (HTML) and Cascading Style Sheet (CSS) standards.

#### WEB 115 Web Markup and Scripting 2-3-3

This course introduces Worldwide Web Consortium (W3C) Internet programming using JavaScript. Topics include basic syntax, object-oriented programming, functions, variables, events, arrays, validation, accessibility, and web standards. Upon completion, students should be able to write, debug, maintain well-formed and well documented interactive web content using JavaScript code.

#### WEB 140 Web Development Tools 2-3-3

This course provides an introduction to web development tools.Topics include creating websites using web development tools and web standards. Upon completion, students should be able to create small web sites and upload files to a web server.

#### WEB 151 Mobile Application Dev I 2-3-3

This course introduces students to programming technologies, design, and development related to mobile applications. Topics include accessing device capabilities, compliance with industry standards, and programming for mobile applications. Upon completion, students should be able to develop basic applications for mobile devices.

#### WEB 214 Social Media

This course introduces students to social media for organizations. Topics include social media, marketing strategy, brand presence, blogging, social media analytics and technical writing. Upon completion, students should be able to utilize popular social media platforms as part of a marketing strategy, and work with social media analytics tools.

## WELDING

#### WLD 110 Cutting Processes

This course introduces oxy-fuel and plasma-arc cutting systems. Topics include safety, proper equipment setup, and operation of oxy-fuel and plasma-arc cutting equipment with emphasis on straight line, curve and bevel cutting. Upon completion, students should be able to oxy-fuel and plasma-arc cut metals of varying thickness.

C-L-SHC 1-3-2

2-3-3

#### WLD 112 Basic Welding Processes 1-3-2

This course introduces basic welding and cutting. Emphasis is placed on beads applied with gases, mild steel fillers, and electrodes and the capillary action of solder. Upon completion, students should be able to set up welding and oxy-fuel equipment and perform welding, brazing, and soldering processes.

#### WLD 115 SMAW (Stick) Plate 2-9-5

This course introduces the shielded metal arc (stick) welding process. Emphasis is placed on padding, fillet, and groove welds in various positions with SMAW electrodes. Upon completion, students should be able to perform SMAW fillet and groove welds on carbon plate with prescribed electrodes.

# WLD 116SMAW (Stick) Plate/Pipe1-9-4Prerequisite:WLD 115

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.

#### WLD 117 Industrial SMAW

This course introduces the SMAW (stick) process for joining carbon steel components for industrial applications. Topics include padding, fillet, and groove welds in various positions with SMAW electrodes. Upon completion, student should be able to safely perform SMAW fillet and groove welds on carbon steel plate with prescribed electrodes.

#### WLD 121 GMAW (MIG) FCAW/Plate 2-6-4

This course introduces metal arc welding and flux core arc welding processes. Topics include equipment setup and fillet and groove welds with emphasis on application of GMAW and FCAW electrodes on carbon steel plate. Upon completion, students should be able to perform fillet welds on carbon steel with prescribed electrodes in the flat, horizontal, and overhead positions.

#### WLD 131 GTAW (TIG) Plate

2-6-4

1-6-3

1 - 4 - 3

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

Prerequisites: Take WLD 131

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.

## WLD 141 Symbols and Specifications 2-2-3

This course introduces the basic symbols and specifications used in welding. Emphasis is placed on interpretation of lines, notes, welding symbols, and specifications. Upon completion, students should be able to read and interpret symbols and specifications commonly used in welding.

WLD 151	<b>Fabrication I</b>	2-6-4

Local Prerequisite: Take 1 group: Group 1: WLD 110 and WLD 115 Group 2: WLD 110 and WLD 121 Group 3: WLD 110 and WLD 131

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.

## WLD 215 SMAW (stick) Pipe 1-9-4

Prerequisites: WLD 115 or WLD 116

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.

#### WLD 251 Fabrication II Prerequisites: WLD 151

1-6-3

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.

## WLD 261Certification Practices1-3-2

*Prerequisites: Take all: WLD 115, WLD 121, and WLD 131* 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.

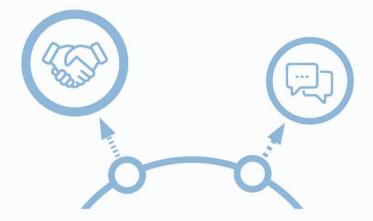
## WLD 262 Inspection and Testing 2-2-3

This course introduces destructive and non-destructive testing methods. Emphasis is placed on safety, types and methods of testing, and the use of testing equipment and materials. Upon completion, students should be able to understand and/or perform a variety of destructive and non-destructive testing processes.

# WLD 265 Automated Welding/Cutting

2-6-4

*Prerequisites: Take All: WLD 110 and WLD 121* 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.



# Board of Trustees & Personnel



# **Board of Trustees**

Jim Burgin Appointed by Harnett County Commissioners

James Crawford Appointed by Chatham County Commissioners

James French Appointed by Lee County Commissioners

Jan Hayes Appointed by Chatham, Harnett & Lee County School Boards (Jointly)

**Derrick Jordan** Appointment: Chatham, Harnett & Lee County School Boards (Jointly)

James Kelly Appointed by the Governor

**Patricia Kirkman** Appointed by the Governor

George Lucier, Vice Chairman Appointed by Chatham County Commissioners

**Genia Morris** Appointed by Chatham, Harnett, and Lee County School Boards (Jointly)

Julian Philpott – Chairman Appointed by the Lee County Commissioners

**Norman Chip Post, Jr.** Appointed by Chatham, Harnett & Lee County School Boards (Jointly)

**L. W. (Bobby) Powell** Appointed by the Lee County Commissioners

Gordon Springle Appointed by Harnett County Commissioners

**Bill Tatum** Appointed by the Governor

McAuley, Gladys Appointed by the Governor

Jim Womack Appointment: Lee County Commissioners

\*Current as of May 2023

# **Administrative Staff**

(Highest Applicable Credentials Listed)

**Bridgers, Brian** Controller MBA, East Carolina University

**Brown, Meghan** Associate Vice President of Advancement and Government Relations J.D., Law, Campbell University

**Byington, Scott** Associate Vice President, Onboarding and Advising M.S., Biology, West Virginia University M.S., Academic Advising, Kansas State University

Chapman, Lisa President Ed.D., Curriculum and Instruction, UNC Chapel Hill

Childress, Jamie Dean of Enrollment/Registrar B.A., International Studies, University of North Carolina at Chapel Hill

**Crittenden, Felicia** Dean, Workforce Development & Continuing Education Operations M.S., Professional Writing, Towson University

**Dishman, Marcie** Associate Vice President of Marketing and External Relations Ed.D., Higher Education, Texas Tech University

Farnandez, Claudia Dean, Career & Academic Engagement M.S. Instructional Technology, Fort Hays State University

**Foster, David** Director of Civic Center B.S., Hospitality Management, East Carolina University

**Goodson, Drew** Dean of Business and Applied Technologies Ph.D, Educational Research and Policy Analysis, N.C. State University

Hall, Mark Provost, Chatham Ph.D. Educational Research and Policy Analysis, North Carolina State University

Hare, Emily Executive Director, CCCC Foundation Ph.D., Higher Educational Leadership, University of the Cumberlands Harloff, Jason Physical Therapist Assistant, Clinical Education Coordinator M.S. Physical Therapy, D'Youville College

Holder, Chester (Tommy) Chief Information Officer AAS, Electronic Engineering Technology, Central Carolina Community College

Holmes, Cristy Dean of Arts and STEM Ed.D., Community College Executive Leadership, Wingate University

**Hoyle Jr., Kenneth** Vice President, Student Services M.A., Public Administration, North Carolina State University

Kelly, Tracy BLET Program Director M.S., Justice Administration, Methodist University

Martin, Denise Dean of Health & Professional Services Ed.D., Leadership, Liberty University

#### Mascitelli, Stormy

Dean of Institutional Research & Title III NAVIGATE Implementation Manager M.Ed,. College Student Affairs Administration, University of Georgia

#### Mashburn, Christa

Director of Business Services AAS, Business Administration, Central Carolina Community College

#### Matthews, Jon

Provost, Harnett Ed.D., Community College Executive Leadership, Wingate University

#### Measamer, Ronald (Ronnie)

Physical Plant Manager AAS, General Occupational Technology; Diploma, Industrial Maintenance, Central Carolina Community College

#### Newcomb, Sara

Executive Director of Secondary Partnerships Ed.D., Higher Education, Western Carolina University Pearson, Kevin

Dean of College Access Services M.A., Management and Leadership, Liberty University

**Roberton, Margaret** Vice President for Workforce Development Executive M.B.A., Kenan-Flagler School, University of North Carolina at Chapel Hill

#### Short, Kristi

Vice President/Chief Academic Officer Ed.D., Educational Leadership-Higher Education, Appalachian University

#### Singleton, Gregory

Dean, Workforce Development & Continuing Education Programs B.S. Psychology, Fayetteville State University

#### St. Peter, Deana

Executive Director of the Center for Organizational Excellence M.A., English, Mississippi State University

#### Tomita, Dan

EMS Program Director M.A., Liberal Arts, Louisiana State University

#### Wade, Adam

Dean, Student Advising and Success M.A., College Student Development, Appalachian State University

#### Werkeiser, Amber

Director of Financial Aid B.A., Communication Studies, UNC Greensboro

#### White, Jonathan

Staff Attorney J.D., Law, Duke University; M.B.A., Coastal Carolina University

# Staff

(Highest Applicable Credentials Listed)

#### Allen, Roy

Associate Dean, Public Safety & Criminal Justice M.S., Criminal Justice, University of North Carolina at Chapel Hill

#### Anderson, Patricia

Executive Director, Industry Services B.S., Industrial Engineering, North Carolina State University

#### Autry, Tracy

Lead Career & College Advisor B.S., Business Administration Franklin University

#### Babb, Jennifer

Assistant Director of Student Onboarding and Success (Lee County) B.A. Communication, North Carolina State University

**Baker, Randy** HVAC Technician A.A. S., HVAC, Fayetteville Technical Community College

Barbee, Charity SBC Coordinator/TSEC Director, Harnett County B.A. Journalism and Mass Communication, UNC Chapel Hill

**Barefoot, Brenda** Administrative Assistant AAS, Business Administration, NC Wesleyan College

#### **Barrick**, Emily

Health Information Technology Clinical Coordinator B.S., Health Information Mgmt., Charter Oak State College

#### Bera, Barbara

Library Assistant B.S., Library and Information Science, The University of Southern Mississippi

#### Berrier, Amy

Associate Director of Financial Aid M.Ed., Curriculum & Instruction/Higher Education, University of North Carolina at Greensboro

**Blakeley, Erin** Customized Training Project Manager-VinFast M.B.A., Campbell University

Blanchard, Jessica AR/CR Accountant Supervisor A.S. Accounting, Randolph Community College

#### Bogan, Annie

Administrative Specialist, Arts and STEM AAS., Applied Science, Paralegal Technology, Central Carolina Community College

**Boggs, Jimmie** Shipping and Receiving Coordinator

#### Boykin, Donna

Program Coordinator, TRiO Student Support Services M. S., Rehabilitation Counseling, Winston-Salem State University

**Boykin, Rodney** Custodian

**Brock, Beverly** Medical Programs Coordinator M.S. Nursing Education, ECPI University, B.S. Nursing, Seattle Pacific University

#### Brower, Latoya

Director, Operations & Staff Development M.A., Business Administration, University of Mount Olive

#### Brucker, Kelly

LMC, Administrative Assistant Health Sciences B.A., Educational Ministries, Mount Vernon Nazarene University

#### Bruner, Danielle

Coordinator of Accreditation, Enrollment, and Retention B.S., Dental Hygiene, West Liberty University

#### Bryan, Kaylen

PC Technician I A.A.S. Information Technology, Central Carolina Community College

#### Bryant, Lee

Staff Account B.A., Business Administration/Computer Information Systems, Campbell University

#### Buchanan, Benjamin Seth

Director of Academic and Transfer Success & Aviso Administrator M.S., Instructional Technology, East Carolina University

#### Burgess, Megan

Title III Navigate Project Activity Director B.A., Special Education, UNC-Charlotte

#### Burgess, Megan

Lead Career Coach, Lee County B.A., Special Education, UNC-Charlotte

#### **Butler, Eric**

Maintenance Supervisor (Lee County) Certificate, Telephone Communication, Central Carolina Community College

#### Byrd, Pamela

Administrative Specialist AAS, Medical Office Administration, Central Carolina Community College

**Carter, Amanda** Director of Distance Education M.S., Vocational Education, East Carolina University

Carter, Jordan Director, TRiO Upward Bound Programs M.A., Art of Teaching, University of North Carolina at Chapel Hill **Cassady, Brandon** Grounds Technician A.A.S., Criminal Justice, Sandhills Community College

**Chase, Joelle** Coordinator of Student Accessibility Services M.S., Education, NC State University

**Cheek, Jalen** Education Navigator B.A., Communication, NC Greensboro

**Christman, MontE** Executive Director of Information Technology A.A. S., Computer Programing, Central Carolina Community College

**Clark, Brianna** YouthBuild Job Developer B.S. Speech Language Pathology and Audiology, UNC Greensboro

**Clark, Vicky** Continuing Education Registrar B.A., Business Administration, University of North Carolina at Greensboro

**Coffer, Emma** Financial Aid Advisor B.S. Sport Management, Liberty University

**Collins, Gwen** Senior Center and Dunn Center Site Coordinator

**Coore, Michelle** Help Desk Support (IT) AAS, Office Systems Technology, Central Carolina Community College

**Copes, Christi** Institutional Research Analyst B.B.A., Computer Information Systems, The University of Louisiana at Monroe

**Cotten, Peggy** Library Assistant - Circulation. M.L.S., Library Science, NC Central University

**Craig, Wenonah** Dental Programs Administrative Assistant A.S., Music, Sandhills Community College

**Crisp-Sears, Angela** Coordinator of Student Learning M.Ed., Student Personnel Services, University of South Carolina

Crissman, Nicole

Administrative Assistant AAS, Accounting/Business Administration, Central Carolina Community College

Davis, Brandon PC Technician I A.S. Computer Information Technology, Central Carolina Community College

Davis, Tonya Assessment Retention Specialist M.S., General Human Resource Management, Capella University

**Dalrymple, James** Lead Maintenance & Facilities Set Up Technician AAS, Criminal Justice Technology, Central Carolina Community College

**Dehring, Kelly** Administrative Assistant A.A., General Studies, Central Carolina Community College

**Del Valle-Blair, Sara** Director, Grants Performance B.A. Business Administration, Campbell University

**Dillon, Jennifer** Director, Veterans Upward Bound and Military Affiliated Initiatives M.A., Adult and Community College Education, North Carolina State University

**Diniz, Beverly** Administrative Assistant B.S., Biology, Manhattan College

**Dixon, Wendy** Facilities Coordinator

**Dowdy, Alexandra** Director, Divisional Operations & Foundation Events M.S., Business Administration, UNC Wilmington

**Dresser, Kimberly** Academic Coach, TRiO Student Support Services M. Ed, Curriculum and Instruction, Lynchburg College

**Dunham, Ian** PC Technician I AAS, Computer Information Technology, Central Carolina Community College

**Ellis, Theresa** Custodian

**Estes, Angela** Veterans Affair Coordinator M.A.Education-Curriculum & Instruction Middle Tennessee State University

**Farley, Joseph** Maintenance Technician

**Fincher, Darren** Maintenance Supervisor Diploma in Industrial Plant Management, Central Carolina Community College

**Fincher, Pamela** Director, Business & Applied Technologies Certificate of Networking Technology, MCSA, Wake Technical Community College

Fink, Jessica Records Assessment Specialist

Foxx, Randy Custodian B.S., Accounting, Livingston College

Franks Jr., Gary Grounds Technician, Chatham County

Francis, Julie Medical Sonography Clinical Coordinator A.S. Medical Sonography, A.S. Cardiovascular Sonography, Johnston Community College

**Friday, Talia** Academic Assistance and Writing Center Coordinator M.A., Adult Education, East Carolina University

**Frye, Lincoln** Coordinator of Workforce Access Programs MA, History, UNC Charlotte

**Furr, Daniel (Danny)** Maintenance Supervisor AAS, HVAC, Fayetteville Technical Community College

Gardner, Billie Custodian

Gause, Tammy Custodian

**Gibson, Kaleigh** Financial Aid Technician

**Gibson, Michele** Coordinator of Student Accessibility Services M.A., History, SUNY Buffalo State College

**Giles, Cathy** Program Technician AAS, Business Administration/Accounting, Central Carolina Community College

**Gilmore, Felicia** Career Center Coordinator A.S., Occupational Technology, Central Carolina Community College

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**Godbold, Catherine** Academic Assistance Center & Writing Center Coordinator M.A., English, North Carolina State University

**Godfrey, Brian** Maintenance Technician Industrial Vocation, Central Carolina Community College

**Goldston, Rhonda** Custodian

**Gonzalez, Jessica** Director of Human Resources M.A. Business Administration, University of Phoenix

**Gonzalez, Jessica** Records Assessment Specialist

**Gonzalez-Venegas, Juan** Maintenance Technician

**Guin, Charles (Chuck)** Custodian

**Gustavson, Amy** Assistant Director of Student Onboarding and Success (Chatham) M.S., Library Science, NC Central University

Haire, David Director of Infrastructure and Security AAS, Information System/Network Administration and Support Concentration, Central Carolina Community College

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Harding, Joyce Deferred Payment Specialist

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**Hunt, Kelvin** Director of Student Outreach and Recruitment B.S., Health, PE and Recreation, UNC Pembroke

Hunt, Scott Director of Security AAS, Criminal Justice Technology, Central Carolina Community College

Hunter, Gerald Director, Apprenticeship & Applied Technologies Bachelor Degree Psychology/Liberal Arts Excelsior College Hurd, Brian Maintenance Technician

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Johnson, Jim B.A., General Studies, Kent State University Survey Administrator/IR Coordinator

Johnson, Joshua Director of Corrections Education Programs B.S., Industrial Technology, ECU

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Jones, Gina Records Assessment Specialist B.S., Criminal Justice, Guilford College

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Klug, Kelly Director of Grants Development B.A., Communication Studies, Northwestern University

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Lariviere, Nichelle Assistant Financial Aid Director

Lassen, Glenda Accounts Payable Specialist

Lassiter, James Lead Security, Chatham

Little, Alexandria Student Outreach and Recruitment Coordinator B.A., English, University of North Carolina at Greensboro

**Little, Alexandria** Education Navigator B.A., English, University of North Carolina at Greensboro

**Love, Roger** Education Navigator

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Matthews, Bea Learning Support Facilitator A.A., Business Administration, ECPI College of Technology

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McKoy, Pamela Continuing Education Medical Programs Administrative Assistant B.A. Business Administration University of North Carolina at Greensboro

McDaniel, Douglas Lead Writing & Reading Center Coach B.A., History, University of Minnesota – Twin Cities

McGowan, Neil Graphic Artist & Multimedia Specialist B.S., Technology, Bowling Green University

**McKenzie, Heather** Career & College Advisor B.A., Sociology University of North Carolina Pembroke

McNeill, Cameron YouthBuild Student Success Advocate BIS, Integrated Professional Studies, UNC Greensboro

McNeill, Christopher Maintenance Supervisor AAS, Industrial Systems/Biomaintenance, Central Carolina Community College

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#### Musselwhite, Laura

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Myrick, Timothy Maintenance Technician

Naylor, Allyson Assistant Director of Student Advising & Onboarding M.A., Community College & University Leadership, Appalachian State University

Newcomb, Chris Enrollment Services Coordinator M.B.A., Gardner-Webb University

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**Oglesbee, Jack** Custodian AAS, Business Administration, Central Carolina Community College

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Oliver, Cris

Web Technician M.S., Information Technology, University of Liverpool

Pappas, Phillip Small Business Center Coordinator M.B.A., Frostburg State University AACSB

Parnell, Michael Maintenance Technician Diploma Auto Restoration, Diploma Welding Technology, Certificate Motorcycle Mechanics, Certificate Building Construction, Central Carolina Community College

Parr, Greg Biotechnology Pathway Navigator B.A. Political Science, Wittenberg University

**Parrish, Carla** Payroll Supervisor/Benefits Administrator B.S., Accounting, Chaplain College

Parrish, Chad Programmer AS, Computer Programming; Internet Technology, Central Carolina Community College; AS, Recording Arts, Full Sail Real World Education

#### Patterson, Kasey Coordinator of Distance Education & Student Learning Support, B.A., Business Administration, St. Andrews University

**Pearson, James** Lead Security Guard, Harnett County

#### Pedley, Justin

VMT Animal Facilities Manager AAS, Veterinary Medical Technology, Central Carolina Community College

#### Perry, Travis

Director of Instructional Support AAS, Information Systems, Central Carolina Community College

**Petty, Ramona** Education Navigator B.A., Biology, Wake Forest University

Phillips, Jennifer Enrollment Services Coordinator B.S., State University of New York

**Pickens, Lauren** Assistant Director, YouthBuild Job Developer B.S., Social Work, North Carolina State University

Palumbo, Suzannah

Academic Coach – TRIO Student Support Services M.S. Social Work, UNC Chapel Hill

#### Post, Brian

Education Navigator M.A.Christian Education, Southeastern Baptist Theological Seminary

**Price, Jr., Thomas** Maintenance Technician

Electrical Wiring Vocational, JCCC

#### Pruitt, Morgan

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Schmid-Carter, Mary College Access Coordinator M.Ed., School Counseling, SUNY University at Buffalo

Scott, Belinda Payroll/Travel Specialist A.S., Business Administration, Central Carolina Community College

Sessoms, Kaitlyn Program Coordinator, TRIO Upward Bound Program M..S, Social Work, Appalachian State University

Sewell-Petty, Samantha Education Navigator

Sills, Allison Instructional Services Librarian M.S. Library Science, UNC Chapel Hill

Silva, Jonathan Education Navigator B.A. Instructional Design and Technology, UNC Chapel Hill

**Shoun, Penny** Chief Assessment Examiner B.A., Church Recreation, Carson-Newman College

Simmons, Falecia Academic Coach, TRiO Student Support Services B.S. Applied Information Technology, NC Pembroke

Simpson, Brian Coordinator of Institutional Effectiveness Doctorate, Business Administration North Park University

Simpson, Vivian Evening Receptionist

Sizemore, James (Cliff) Senior Buyer B.S., Business Administration, UNC-Greensboro

Smith, Crete Accounts Payable Specialist Certificate General Office, Central Carolina Community College

Smith, Crystal Business Services Coordinator AAS, Commercial Art/Advance Design, Guilford Technical CC

**Smith, Robin** Cosmetic Arts Administrative Specialist A.A., Wake Technical Community College

Soto, Verenice AR/Budget Accountant Associate of Arts, Central Carolina Community College

**Staton, Frederick** Associate Director, TRiO Student Support Services B.A., Sociology, Virginia University of Lynchburg

**Steele, Morgan** Director of Web and Creative Strategy B.F.A. Design, UNC Greensboro

**Stein, Tiffany** Associate in Arts, Wake Technical Community College Graduation Coordinator

Sullivan, Nicholas TRiO Upward Bound College Advisor B.S., History Education, East Carolina University

**Tate, Chesure** Assessment & Retention Specialist, College & Career Readiness AAS, Business Administration, Central Carolina Community College

**Taylor, Stanley** Grounds Maintenance **Testa, Nick** Early College Coordinator & Lee Early College Success Coach, M.S., School Counselor, College of Oneonta State University of New York

**Thomas, Ben** Career & College Advisor M.A., Teaching/Secondary & K-12 Specialties

**Thomas, Haley** Associate Registrar B.S., Social Work, NC State University

**Thomas, James** Director, YouthBuild Student Services Masters Theological Studies, Emory University

**Thomas, Jessica** Library Programming Assistant A.A., Library & Information Technology, CCCC

Thomas, John Maintenance Technician, Chatham County

**Thompson, Billie (BJ)** Associate Director of Learning Resources B.S., Psychology, Franklin University

**Varma, Nutan** College and Career Readiness Coordinator, Harnett Ph.D., Social Sciences, International Education Research Foundation, INC

Velazquez, Rosa Custodian

**Vielman, Tiffany** Administrative Assistant and Receptionist B.A., Communication, NC State University

Villalta, Cesar Network Administrator

Walker, Abby Assistant Director, Foundation A.A., Central Carolina Community College

Walker, Robin Program Auditor/Administrative Assistant AAS, Business Administration, Central Carolina Community College

Warner, William (Ed) Instructional Technology Specialist

Waters, Rebekah TRiO Upward Bound Academic Coordinator M.A., Teaching, North Carolina State University

Weaver, Lauren HCI Office and Grant Coordinator B.S., Criminal Justice, Austin Peay State University

Wellington, Marlon Associate Director of Instructional Support A.A.S, Network Administration & Support, Central Carolina Community College

Wells, Doug TRiO Upward Bound Assistant Director (Career and College Readiness) M.S., Human Services, Liberty University

Whitaker, Lorraine Strategic Projects Coordinator/Executive Assistant to President/Secretary to Board of Trustees AAS, Accounting, Central Piedmont Community College

Wilderson, Elaine Library Assistant - Technical Services B.A. English/Writing, ECU

Wilkins, Karen EMS Administrative Assistant

Williams, Madison Records Assessment Specialist A.S., Business Administration, Fayetteville Technical Community College

**Wimberly, Mari** M.S. Library and Information Studies, UNC Greensboro Digital Services Librarian

Wicker, M. Elizabeth Continuing Education Internal Auditor B.S., Business Administration, University of North Carolina at Pembroke

Wilson, Henry Custodian

Yarborough, Melanie Receptionist

**Ziblay, Lisa** Custodian

# **Full-time Faculty**

(Highest Applicable Credentials Listed)

Abels, Lara History Instructor M.Ed., Campbell University

Ahmed, Habeeba Mechanical Engineering Technology, Lead Instructor M.S. Mechanical Engineering., Osmania University

Acevedo, Michelle Esthetics Instructor Cosmetology Certification, The Paul Mitchell School, Fayetteville, NC

Ainsworth, John Information Technology Instructor M. S., Network Technology, East Carolina University; B.S., Industrial Technology, Concentration in Information & Computer Technology

Anderson, J. Dirk College and Career Readiness Instructor B.A., English, UNC Greensboro

Ashe, Phillip Humanities Instructor M.A., Fine Art, UNC Greensboro

Atkinson, De-Ven Culinary Arts Instructor AAS, Culinary Arts Management, Art Institute of Raleigh-Durham

Aucompaugh, Maryann Department Chair, Business Technologies M.A., Healthcare Administration, Franklin University

**Bailey, Chris** Nursing Instructor B.S., Nursing, UNC Greensboro

**Baker, David** Lead Instructor, Sciences Ph.D., Physics, North Carolina State University

**Barnes, Robert** History Instructor M.A., Liberal Studies, University of North Carolina at Wilmington

**Barnes, Timothy** Psychology Instructor M.S., Industrial Organizational Psychology, Capella University

**Barron, David** Mathematics Instructor M.A., Mathematics, University of North Carolina at Greensboro **Bartholomew, Ginger** Department Chair, Early Childhood Education M.A., Education, University of North Carolina at Chapel Hill

**Beam, Leigh** Department Chair, Social Sciences M.A., Sociology, North Carolina State University

**Beasley, Gary** Laser & Photonics, Lead Instructor M. S., Industrial Technology, East Carolina University

**Belcher, Emma** Biology Instructor M.S., Biological Sciences, Clemson University

**Bell, Charles** Program Director, Welding AAS, GOT, Concentration in Welding, Central Carolina Community College

**Blankenship, Gary** Criminal Justice Technology Instructor B.S., Criminal Justice & Criminology, Mt. Olive College

**Bowen, Sandra** Communications Instructor M.A. Communications, Wake Forest University

**Boyer, Thea** Human Services Technology Department Chair MAMFC & MACE Southwestern University

**Bradbury, Amy** Veterinary Medical Technology Instructor AAS, Veterinary Medical Technology, Central Carolina Community College

**Brewer, Christopher** Lead EMS Instructor AAS, Emergency Medical Services, Guilford Technical Community College

**Brown, Jessica** Biology Instructor M.A., Animal Physiology, Clemson University;

**Browning, Kim** Veterinary Medical Technology Instructor Doctor of Veterinary Medicine, North Carolina State University

**Brucker, Fred** Broadcasting Production Technology Instructor B.A., Communication of Arts, Eastern Nazarene College **Bryan, Carl** Department Chair Health & Wellness; Director Health and Fitness Science Ed.D, Educational Leadership, Liberty University; M.A., Physical Education, University of North Carolina at Chapel Hill

Burke, Mary Information Technology Instructor M.A., Information Technology, American InterContinental University

**Burton, Kelly** Culinary Arts Instructor AAS, Culinary Arts, Kendall College

#### Butcher, Scott

Industrial Systems Technology Instructor AAS, Industrial Systems Technology/Bioprocess, Central Carolina Community College

#### Buxens, Maria

Spanish Instructor M.A., Romance Languages Spanish American Literature, University of North Carolina at Chapel Hill

**Byrd, Elizabeth Ashley** Adult ESL Instructor M.A. Spanish, University of Georgia

Campbell, Barbara Department Chair, Nursing D.S.N., Grand Canyon University

**Carter, Juanita** Nursing Instructor M.S. Nursing Education, Western Governors University

**Castonguay, Sandra** Information and Engineering Technologies Department Chair M.S., Technology Management, East Carolina University

Cebulski-Field, Theresa Nursing Instructor M.S.N., Master of Science in Nursing: Nursing Education

**Chance, Shavonda** Criminal Justice Instructor M.S., Public Administration/Criminal Justice, University of North Carolina at Chapel Hill

Christian, Keisha Chemistry Instructor MPhil, Chemistry, University of the West Indies

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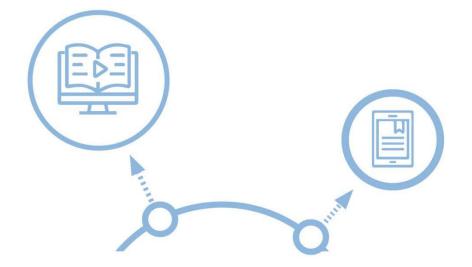
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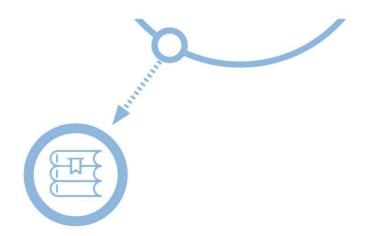
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# Glossary



# Central Carolina Community College Terminology

Academic Advisor: A faculty/staff member who assists students in making informed and responsible decisions, selecting classes, and achieving their goals. Contacting an academic advisor is required prior to each academic term. Students will be assigned a permanent advisor during their first semester in their academic program.

Academic Assistance Center: The Academic Assistance Center provides students with additional support such as tutoring at no charge.

Academic Calendar: The academic calendar contains important dates that students need to know each semester, such as the first day of class, last day to add or drop a course, withdraw deadlines, and student break days.

Academic Probation: Students who do not earn a 2.0 grade point average for any semester will be placed on academic probation. A student on academic probation will be required to enroll in an ACA-085, Improving Study Skills, to be removed from probation status.

Academic Suspension: Students who do not earn a 2.0 grade point average for two consecutive semesters will be placed on academic suspension. A student may be considered for re-entrance after one semester of suspension.

Accommodations: Supplemental services and/or auxiliary aids determined reasonable by Student Accessibility Services and provided to enable students with disabilities to participate in activities compatible with their condition and interests.

**Add/Drop:** The designated schedule adjustment time at the beginning of a semester during which a student can make changes to their semester schedule.

Adjunct Faculty: A highly qualified teaching faculty member who is employed by the college on a part-time basis. Many adjuncts are currently or formerly employed experts in the fields in which they teach. An adjunct faculty member may not have an office on campus but is available by email, virtual meeting, etc.

Advising: An interactive process in which a student, with the help of an advisor, sets and attains academic goals, acquires relevant information and services, and makes responsible decisions consistent with interests, goals, and abilities.

Associate in Applied Science (AAS): An associate degree primarily designed to lead to career opportunities immediately following graduation.

Associate in Arts (AA): An associate degree that prepares students for transfer into a four-year bachelor's degree

program in a variety of majors including humanities/liberal arts, social sciences, business, education, and more. Students who complete the degree and follow the transfer institution's suggested course list transfer with junior status.

AA versus AS versus AAS: AA and AS degrees are focused on meeting requirements for transfer to one of North Carolina's public or private universities; AAS degrees are focused on providing students with technical skills to immediately enter the workforce.

Associate in Arts – Teacher Preparation (AA-TP): An associate degree that prepares students to apply to transfer to a participating North Carolina university's competitive Education Preparation Program with junior status.

Associate in Engineering (AE): An associate degree that prepares students to apply to transfer to a participating North Carolina university's competitive Engineering Program with junior status.

Associate in Science (AS): An associate degree that prepares students to apply to transfer to a four-year bachelor's degree program in a variety of mathematics or science based majors. Students who complete the degree and follow the transfer institution's suggested course list transfer with junior status.

Associate in Science – Teacher Preparation (AS-TP): An associate degree that prepares students for transfer into a Bachelor of Science program with junior status at a university.

Asynchronous online: Asynchronous online classes do not have designated meeting times. While most asynchronous classes still have submission deadlines, students can connect with materials, peers, and instructors on their own schedules.

Audit a Class: Taking a course without credit or a grade. Students may audit a course to experience the course. Auditing a course still requires registration and full tuition payment.

**Bachelor's Degree:** The next level of education after graduating from Central Carolina Community College with a transfer degree. Often referred to as a "four-year degree." The AA and AS college-transfer degree programs prepare students to pursue a bachelor's degree at a four-year institution. Students who follow the appropriate BDP (Baccalaureate Degree Plan) to complete an AA, AE, or AS at Central Carolina transfer to a North Carolina university with junior status.

**Blackboard:** The course management system used for online components of curriculum and continuing education classes.

**Blended Course:** A course taught primarily on campus with less than or equal to half the class taught online.

**Career & College Promise:** a program that provides seamless dual enrollment educational enhancement for eligible North Carolina high school students to accelerate completion of college certificates, diplomas, and associate degrees that lead to college transfer or provide entry-level job skills

**Census Date:** The NC Community College System requires students to participate in classes by the course Census Date, which occurs 10% into the term. Any student who has not attended class on or before this date is considered non-attending and will be dropped from the course. In an online course, a specific activity will be assigned as the Enrollment Verification Assignment and must be completed to demonstrate attendance prior to or on the census date.

**Certificate Program:** A one-to-two-semester program primarily designed to lead to career opportunities immediately following graduation. Certificate programs are usually 12-18 semester credit hours. While not a degree, a certificate is a credential in a specific discipline.

**Class Schedule:** The list of courses being taught during a semester. A student's class schedule is the list of classes they are taking.

**College and Career Readiness:** pre-college courses that include Adult English as a Second Language, Adult High School Diploma, Foundational Skills, High School Equivalency, Human Resource Development, Pathways to Careers, and Special Learning Needs

**College Catalog:** A comprehensive publication that describes the college's academic programs, policies, courses, and services. It is available on the college's website.

**College Transfer Programs:** programs intended for transfer to four-year senior institutions, including the Associate in Arts, Associate in Science, and Associate in Engineering.

**Combined Course Library:** the set of statewide uniform courses from which North Carolina community colleges must choose their curriculum course offerings.

**Comprehensive Articulation Agreement (CAA):** An agreement between North Carolina's public and private universities and the North Carolina Community College System that facilitates transferring from a community college to a university.

**Continuing Education:** The department of the college that is dedicated to economic, workforce, and enrichment courses for the business sector and members of the community at large.

**Corequisite:** A course that must be taken at the same time as another course.

**Cougar Alert:** CCCC's mass notification system for campus emergencies.

Cougar Mail: The email system used by the college.

**Course Description**: a brief description of the content of a course and what the student should be able to do upon completion; lists classroom hours, laboratory hours, clinic or co-op hours, credits earned, and prerequisite/co-requisite courses (if needed).

**Course Number:** The three-digit number that follows the department prefix (ex. ENG 111, BIO 110).

**Course Plan:** A semester-by-semester plan for upcoming classes. Advisors can approve or deny courses in the course plan prior to registration.

**Course Section:** The designation after the course number that details where and when a class is located (ex. LC1).

**Credit Hours:** The unit of academic credit assigned to each course based upon the course's contact and lab hours.

**Curriculum (also called a program or program of study):** The courses required to earn a specific degree, diploma, or certificate.

**Dean:** The head of a division of the college. The academic deans are heads of CCCC's career communities.

**Department Chair:** The person who supervises the faculty of a specific department, sometimes assisted by lead instructors or program coordinators.

**Department Prefix:** The three-letter designation given to a course that identifies its department (ex. ENG, COS, BIO).

**Developmental Course:** A course that prepares students for curriculum coursework. Developmental courses are indicated with a course number below 100.

**Diploma Program:** A three-to-four semester program (36-48 semester hours) primarily designed to lead to career opportunity immediately following graduation.

**Distance Education:** Various course formats with distance components such as hybrid, HyFlex, blended, online, video-conference, and web-conference.

Education Navigators: Staff members working with students regarding first semester advising and registration; change of academic programs; dropping, adding or withdrawing from courses; and other issues that may assist in the transition to college life. They are members of the Student Advising and Success Office.

**Faculty & Staff Ambassadors:** College faculty and staff volunteers who represent the college at public events. Faculty and Staff Ambassadors provide general information about the college to the public.

**FAFSA:** Free Application for Federal Student Aid; the application completed by students to apply for federal and state aid.

**FERPA:** Family Educational Rights and Privacy Act; protects the privacy of student education records.

**Financial Aid:** Monetary assistance awarded in the form of a grant, scholarship, sponsorship, loan and/or federal work study to help pay for college.

**Financial Aid Suspension:** Students on Warning status who fail to meet the minimum requirements (cumulative 2.0 GPA and 67% completion rate) or have not met the minimum requirements for two consecutive terms will no longer be eligible for financial aid.

**Financial Aid Warning:** Students who do not meet the minimum requirements (cumulative 2.0 GPA and 67% completion rate) after an official evaluation at the end of a semester will be placed on warning for the following semester. Students may continue to receive financial aid during the warning period.

**Financial Aid Maximum Time Frame:** In order to maintain satisfactory academic standing for financial aid, students should complete the requirements for an eligible program of study within a timeframe not to exceed 150% of the published program length. For example, if an academic program length is 60 credit hours, the maximum number of credit hours eligible for financial aid is 90 (60 x 150% = 90). Students may only receive financial aid for two programs at CCCC.

**Full-time Student**: A student enrolled in 12 or more credit hours during the fall and spring semesters and 6 or more credit hours during the summer semester. Please check with the Financial Aid Office for information on how less than full-time enrollment will affect your financial aid.

**General Education Requirements:** Courses required in all degree programs to ensure graduates have the necessary general knowledge, abilities, and intellectual skills corresponding with their degrees. General education courses that all students must complete to earn an associate degree consist of courses in English, math, science, social sciences, and the humanities.

**Grade Point Average (GPA):** Measures a student's academic achievement; calculated by dividing the total number of quality points by the total number of credit hours attempted. Students' academic GPAs do not include developmental coursework, but financial aid GPAs include developmental

coursework.

**Hybrid Course:** A course taught mostly online with less than half the class taught on campus.

**HyFlex Course:** A course that provides options for attending class sessions in-person as well as synchronous and asynchronous online. Students may decide to attend a class session in-person, view it live via web conferencing, or watch a recording of it.

**Midterm:** The halfway point of a semester in which students are notified of academic progress and/or take an exam.

**NELNET:** The deferred payment plan is administered through the NELNET Payment Center. Students can use the NELNET payment center during the fall and spring semesters through the 16-week Add period only. NELNET is not a loan program or financial aid. There is no interest or finance charges assessed, and there is no credit check.

**Official Transcript:** A secure (sealed, unopened) transcript sent from the credit-earning institution. An official transcript can be delivered by the student if unopened, sent directly from the institution, or sent through an institution's official electronic document provider.

**Online Course:** A course that has totally online instruction. Online courses may be synchronous (everyone online at the same time, like a chat or live lecture) or asynchronous (activities completed at different times by different participants).

**Part-time Student:** A student enrolled in 1-11 credit hours in fall or spring or 1-5 credit hours in summer. Please check with the Financial Aid Office for information on how less than full-time enrollment will affect your financial aid.

**Placement Test:** A computerized test that assesses a new CCCC student's knowledge of English and Math if the student graduated from high school more than 10 years before applying to CCCC. This determines the classes that a new student is eligible to take or if the student needs refresher courses.

**Preregistration:** The specified time that students can meet with their academic advisor to review a student's academic plan and determine classes for the next semester.

**Prerequisite:** A course that must be taken prior to another course.

**QEP (Quality Enhancement Plan):** Our QEP is called M.A.P. for My Academic Pathway. This is a college initiative to ensure students have selected an academic and career pathway consistent with their interests and academic goals.

Learn more at cccc.edu/map.

**Returning Student:** A student who is currently enrolled or was enrolled in the semester prior.

**Scholarship:** Financial support awarded based on academic achievement or other criteria, that may include financial need, for educational purposes.

**Self-Service:** An online student platform that permits students to view enrollment-related documents, plan out all courses within their academic pathway, perform various registration functions, pay for classes, check financial aid status, and more. Students can only register for courses that have been approved on their Course Plan in Self-Service.

**Semester:** The length of the academic term; the fall and spring are 16 weeks (though some classes are offered in 8 or 12 week formats) and the summer is either 8 or 10 weeks.

**Success Team Member:** A Faculty Advisor or Education Navigator that proactively identifies a student's need and empowers them to discover available programs and services that will contribute to academic success.

**Student Hours/Office Hours:** Specific times designated for students to meet with instructors outside of class. Student Hours/Office hours are listed on all course syllabi.

**Student Learning Objectives (SLO's):** The specific skills that a student will develop during a course. These are identified on the course syllabus.

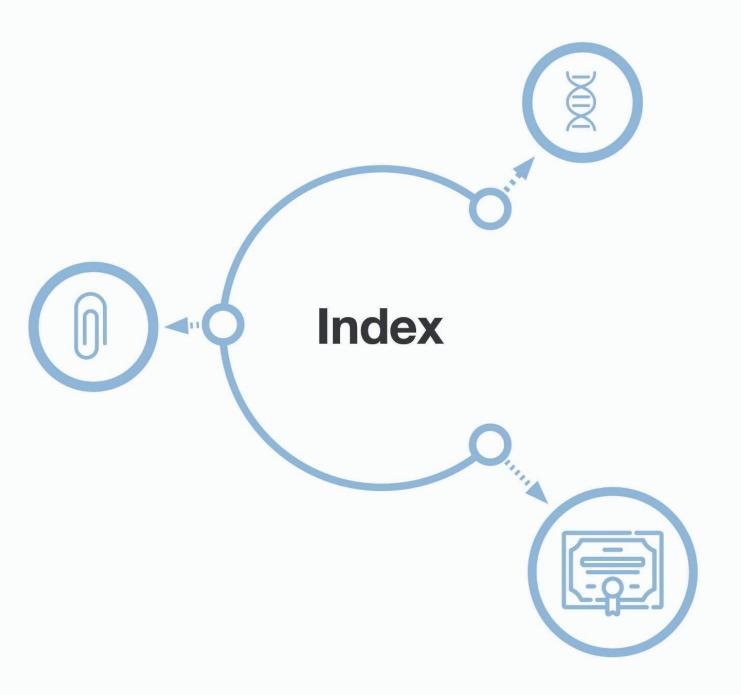
**Syllabus:** A course guide provided by the instructor that details the instructor's contact information, course objectives, assignments, late work and attendance policies, and other important information.

**Synchronous online:** Synchronous online courses have designated meeting times, during which students are expected to interact with each other and the instructor via web conferencing software like Zoom.

**Video-conference Course:** A course taught via video synchronously across main campuses or approved CCCC locations that may be taught in a solely on-campus, hybrid, or blended delivery method.

**Web-conference Course:** A course taught synchronously through a web conference software (like Zoom) that may be taught solely in a web-conference, hybrid, or blended delivery method.

**Withdrawal:** The official process of being removed from a course or all courses, which can be initiated by a student through an Education Navigator or by an instructor.



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Siler City Center 400 Progress Blvd., Siler City, NC 27344 (919) 545-8663

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Jordan-Matthews High School 910 E. Cardinal St., Siler City, NC 27344 (919) 742-2916

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Harnett Correctional Institution 1210 E. McNeill St., Lillington, NC 27546 (910) 893-2751

Harnett County Early College At The Dunn Center 660 E. Johnson St., Dunn, NC 28334 (910) 814-3470

Harnett Health Sciences Center 51 Red Mulberry Way, Lillington, NC 27546 (910) 814-8999

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**Overhills High School** 2495 Ray Rd., Spring Lake, NC 28390 (910) 436-1436

Triton High School 215 Maynard Lake Rd., Erwin, NC 28339 (910) 897-8121

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Emergency Services Training Center 3000 Airport Rd., Sanford, NC 27330 (919) 777-7755

Lee Early College At Lee Main Campus 1105 Kelly Drive, Sanford, NC 27330 (919) 888-4502

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