



**CENTRAL  
CAROLINA**  
COMMUNITY  
COLLEGE

**2013-2015**



[www.cccc.edu](http://www.cccc.edu)



# 2013 - 2015 College Catalog

## Campus Locations

### Chatham County Campus

*764 West Street • Pittsboro, NC 27312-8822*

*(919) 542-6495*

### Harnett County Campus

*1075 E. Cornelius Harnett Blvd. • Lillington, NC 27546-7672*

*(910) 893-9101*

### Lee County Campus

*1105 Kelly Dr. • Sanford, NC 27330-9840*

*(919) 775-5401*

1-800-682-8353

[www.cccc.edu](http://www.cccc.edu)

*CCCC is an Equal Opportunity College*





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# THE COLLEGE 2013 - 2015







## 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 the student succeed and are willing to go the extra mile to ensure that success. Another part of our commitment to student success is a comprehensive program of student financial and academic assistance.

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

## College Mission, Vision, & Values

### *Mission*

Central Carolina Community College serves as a catalyst for personal, community, and economic development by empowering people through education and training.

### *Vision*

Central Carolina Community College is the leading force for educational opportunities, economic progress, and cultural enrichment in the communities it serves.

### *Values*

**Community** – We are committed to active and integral partnerships within the communities we serve. We are dedicated to maintaining positive relationships among our own community of faculty, staff, and students.

**Diversity** – We are committed to inclusiveness. We value and respect the unique attributes and contributions that enrich our college and its community.

**Excellence** – We are committed to continuous improvement, working to our full potential, and demonstrating quality at all levels. We demonstrate our excellence by meeting or exceeding our goals and establishing high expectations for achievement by everyone.

**Innovation** – We are committed to innovation and creativity. We demonstrate our commitment through our leadership in learning, technology, sustainability, and community partnerships.

**Integrity** – We are committed to fairness, respect, honesty, and accountability. We strive to earn our

community's respect through our dedication to high academic and ethical standards.

**Student-Centered** – We value our students. We provide a student-focused learning environment and a support system that promote the academic and career success of every student.

**Sustainability** – We are committed to achieving sustainability by implementing best practices in policies and operations and in the identification of priorities. We promote understanding and development of communities that are ecologically, socially, and economically sustainable.

## CCCC is an Equal Opportunity College

Central Carolina Community College serves the public without regard to race, sex, color, creed, age, disability, religion, or national origin.

Central Carolina Community College has approved the following policy to guide its delivery of services to students with disabilities: No individual at Central Carolina Community College shall, by reason of disability, be excluded from participation in or be denied the benefits of or be subjected to discrimination within any program or activity for which he is 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 interests. For more information, see the "Special Populations Services" section.

## 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*

Central Carolina Community College offers Associate in Arts, Associate in Fine Arts, and Associate in Science degree programs that transfer to four-year colleges and universities, two-year programs that lead to an Associate in Applied Science degree, and one-year programs that 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.

Many decisions precede the implementation of any new curriculum program. Surveys are used to determine student interest and the availability of employment. Advisory committees are organized in order that community interest, advice, and counsel may be solicited. Funds must be available for instructors and necessary equipment and instructional space must be available. Only after the approval of the Board of Trustees and the State Board of Community Colleges may a new program be implemented.

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. This handbook is not to be read as part of a contractual relationship between the college and a student or prospective student.

### ***Non-curriculum***

The college also offers non-curriculum courses in basic education, 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/GED program awards a diploma or certificate. Continuing Education classes award a diploma or certificate with continuing education units.

### ***Lee Early College***

The college's Lee County 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.

### ***Confucius Classroom***

Central Carolina Community College offers a Confucius Classroom through an agreement with North Carolina State University's Confucius Institute. An instructor from a Chinese university teaches Chinese language, history, and culture.

## **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.

## **History and Leadership**

For more than 50 years, Central Carolina Community College has thrived on an ongoing vision of leadership, service, and success. Over the years, that vision has been transformed into reality by planning, commitment, hard work, and community support.

From a single extension class offered in 1961 in Lee County, the school has grown to a fully accredited community college of high reputation serving the people, businesses, and industries of Chatham, Harnett, and Lee counties. Its distance education programs reach far beyond those physical boundaries to enrich students' lives around the world.

In 1958, the North Carolina State Board of Education

chartered the institution as Lee County Industrial Education Center. The first classes were held in 1961. Two years later, it became a part of the North Carolina Department of Community Colleges.

In 1965, the Center became Central Carolina Technical Institute, with authority to award associate degrees. The name was changed to Central Carolina Technical College in 1979 and then to its current name, Central Carolina Community College, in 1988.

A spirit of leadership spans the college's history. Back in 1965, it was the first community college in the state to offer an Animal Hospital Technician curriculum, now Veterinary Medical Technology. In 2002, it became the first community college in the nation to offer an Associate in Applied Science in Sustainable Agriculture. Leadership is also shown in programs such as Laser and Photonics Technology, which is one of only about a dozen nationwide that trains on high-power lasers. The college is nicknamed "Green Central" for its commitment to environmentally friendly sustainable education.

In 2010, the U.S. Department of Energy recognized Central Carolina Community College as "a strong force for educational opportunities, economic progress and cultural enrichment in the communities it serves." Also in 2010, Central Carolina Community College was ranked among the top 50 community colleges in the nation by Washington Monthly magazine.

The college is committed to sustainability in its programs and on its campuses. It is a signatory to the American College & University Presidents' Climate Commitment (ACUPCC). It was the first North Carolina community college to sign on to the Association for the Advancement of Sustainability in Higher Education STARS rating system on sustainability. In 2011, it received a Silver ranking from AASHE for its achievements in this area. Only 61 colleges and universities in the United States and Canada earned this ranking, which was the highest awarded.

Central Carolina Community College's educational, cultural, and economic impact is far-reaching. Its graduates, both curriculum and continuing education, give back to their communities through myriad careers from which the economic fabric of every community is woven. Many of its graduates continue their education and enter the workforce as highly educated professionals who strengthen their communities, counties, state, and nation.

The Central Carolina Community College family of administrators, faculty, staff, and students are building on the strong foundations laid in the past to achieve even greater accomplishments in the present and future. Welcome to our family!

## **Accreditations**

Central Carolina Community College is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award associate degrees, diplomas and certificates. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-

4097 or call 404-679-4500 for questions about the accreditation of Central Carolina Community College.

*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 reaffirmed in 1976, 1987, 1997, and 2008.

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, a number of curriculum programs are approved by various accrediting or licensing agencies:

- The Barbering program is approved by the North Carolina State Barbering Board.
- The Basic Law Enforcement Training program is accredited by the North Carolina Criminal Justice Education and Training Standards Commission.
- The Cosmetology program is approved by the North Carolina State Board of Cosmetic Arts.
- 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 Machining Technology program is accredited by the National Institute for Metalworking Skills (NIMS).
- The Medical Assisting program is accredited by the Commission on Accreditation of Allied Health Education Programs and the American Association of Medical Assistants.
- The Associate Degree Nursing and Practical Nursing Programs are accredited by the North Carolina Board of Nursing.
- \*The Polysomnography program is accredited by the Commission on Accreditation of Allied Health Education Programs.
- The Radio Broadcasting program is approved by the Federal Communications Commission.
- The Real Estate program is approved by the North Carolina Real Estate Commission.
- The Veterinary Medical Technology program is accredited by the Committee on Veterinary Technician and Educational Activities of the AVMA.

## Student Services Department

The purpose of the Student Services Department is to assist students with various aspects of their education, from admissions through graduation and job placement. More specifically, the Student Services Department handles admissions, testing, counseling, registration and records, financial aid, veterans' benefits assistance, job placement, career counseling, assistance to the disabled, graduation ceremonies, transfer assistance, and coordination of student activities.

- The hours of operation for Admissions are Monday through Thursday, 7:30 a.m. to 9:00 p.m., and Friday, 7:30 a.m. to 3:30 p.m.

- The hours of operation for Financial Aid are Monday and Wednesday, 8:00 a.m. to 5:00 p.m., Tuesday and Wednesday, 8:00 a.m. to 7:00 p.m., and Friday, 8:00 a.m. to 3:30 p.m.

- Summer hours of operation are Monday through Thursday, 7:00 a.m. to 7:00 p.m. The college is closed on Friday during June and July.

## Visitors

Visitors are always welcome at Central Carolina Community College. The three county campuses are open Monday through Thursday from 7:45 a.m. to 9:00 p.m., and on Friday from 7:45 a.m. to 3:30 p.m., excluding holidays. College personnel will provide guided tours for groups or individuals and are always happy to answer questions about the college and its programs. All visitors must report to the vice president of student services on the Lee County Campus or to the provost of the Harnett or Chatham campus. Visitors are not permitted to attend classes or contact students on campus without permission of the vice president of student services, the evening supervisor, or the campus provost.

## Intellectual Property Rights/Ownership

Distance education course sites and content, programs, materials, instructional aides, strategies, methods, techniques, devices, artifacts, software, or any item or content that may be classified as "intellectual property" developed as an employee or student of Central Carolina Community College becomes the property of the college. CCCC will be granted a non-exclusive perpetual license to use any part of any category mentioned above without charge to the college. Such developed property includes materials and objects developed for, or as the result of, an instructional exercise.

Employees or students who engage in such development activities will retain their rights to continue to use and profit from the intellectual property even when they are no longer associated with CCCC.

Employees, full-time or part-time, further agree, in consideration upon entering the employment relationship, to grant the college a non-exclusive perpetual license to use distance education course sites and content, programs, materials, instructional aides, strategies, methods, techniques, devices, artifacts, software, or any item or content that may be classified as "intellectual property" developed prior to employment by CCCC.

## ADMISSIONS

### General Information

All students are admitted to the college 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. Under administrative code 23 NCAC 02C.301(a) students may be admitted as a special credit student to the college if they are over 18 or a high school graduate.

To be admitted to a curriculum program at Central Carolina Community College, applicants must have a high school diploma or an appropriate equivalent (GED).

All admission procedures should be completed at least three working days prior to actual enrollment in a program.

### 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 copy of the Certificate of Inspection issued by North Carolina.
- A full, final high school transcript (including a list of all courses taken, final course grades, and a final grade point average). The transcript should include the official school name and the principal's signature (usually one of the parents or guardians is the principal). **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.*
- A copy of test scores of a nationally standardized test, which measures 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. The State-established North Carolina competency test scores might also be accepted.

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

## GENERAL ADMISSIONS

### General Admissions 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 return the admission application.
2. Submit a high school transcript, GED scores, and complete college transcript(s). Official transcripts are required. A transcript is an "official transcript" when it is received by the college through the mail directly from the high school, college, or other institution. It is the applicant's responsibility to request that transcripts be sent.
3. Take the placement test. Minimum placement test scores are required to take entry-level curriculum English and mathematics courses. **NOTE:** *Applicants not meeting the minimum required test scores on the placement test may be required to take developmental courses at CCCC, and this may lengthen the time required to complete the degree program. See specific course descriptions and prerequisites. There are four credential options for mathematics, English composition, and other general education courses. (The choice made by the student will depend on the student's goal. The following students will be exempt from taking the CCCC placement test:*

- Students who have already completed a degree.
- Students who have acceptable SAT scores.
- Students who have acceptable ACT scores.
- 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 must take the placement test 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 for required English and mathematics courses.

4. Supply additional information if requested. For the following programs, an admissions committee consisting of faculty and student development staff makes the admission decision. Because some of these programs have limited enrollment, prospective students are advised to apply early. Please see the individual program curriculum descriptions for information.

- Associate Degree Nursing
- Basic Law Enforcement Training (BLET)
- Cosmetology Instructor Training
- Dental Assisting
- Dental Hygiene



- Licensed Practical Nurse Refresher
- Medical Assisting
- Motorcycle Mechanics
- Paralegal Technology Diploma
- 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. 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 the College Catalog (available online), a curriculum guide sheet, or from an admissions counselor. Students that withdraw from such programs must meet these specific program admissions requirements, plus any new or modified ones, again 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 he/she is 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 Admissions, 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.

## **Communicable Diseases**

Neither infected students nor employees will be excluded from enrollment or restricted in their access to college facilities/services unless medically-based judgments establish that exclusion or restriction is necessary to the welfare of the individual or community.

Students who know that they are infected are to share this information on a confidential basis with the vice president of student services. Employees who are

infected should contact the president. The college will then attempt to respond appropriately to health and educational needs.

Students or employees who have reasonable basis for believing that they are infected are expected to seek expert advice about their health circumstances and are obligated ethically and legally to conduct themselves responsibly for the protection of the community.

Communicable diseases may include, but are not limited to, chicken pox, hepatitis, measles, tuberculosis, meningitis, mononucleosis, whooping cough, AIDS, and other sexually transmitted diseases.

## **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.

## **International Students**

CCCC is not currently accepting international applicants with F-1 non-immigration student visas.

## **Special Credit Student(s)**

A student may enroll as a special student without specifying an educational objective. To be admitted, the special credit student needs only to file 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.

## **Counseling**

Counseling services are available to all enrolled and prospective students. Students are invited to use the services as they plan, upgrade, modify, and/or consider changes in their educational goals. The counselors are highly qualified and are available to discuss concerns that may influence students’ educational programs. Counselors will arrange confidential conferences to discuss any concerns, to provide needed guidance, and/or to make individual referrals.

## **Testing**

Student Services administers the North Carolina Diagnostic Assessment and Placement (NC DAP) test to students enrolled in a curriculum program or to special credit students interested in taking English, Mathematics, or other courses that require an English or Mathematics prerequisite/corequisite. The purpose of the test is to assess a student’s ability and readiness for the requirements of the

curriculum. Placement test scores are used for academic advisement and course placement, to include developmental courses if needed. Students are highly encouraged to study prior to testing. Please see “General Admission Standards and Procedures” for testing exemptions.

Students enrolled in our Allied Health programs are required to complete additional testing. Please see the program admissions counselor for further information.

The following placement testing policies will apply:

1. Students must present photo identification in order to take the NC DAP.
2. NC DAP scores will be valid to use for placement for five (5) years.
3. Students are permitted to take the NC DAP 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 NC DAP if they are currently enrolled in a developmental course.
5. NC DAP scores are transferable to other colleges with permission of the student.
6. Additional testing may be required for students, who based upon placement test scores, are placed into Mastering Mathematics.
7. It is the discretion of the Dean of Admissions and/or the Vice President of Student Services to grant or deny further retesting attempts or testing exemptions.

## Career Counseling/Services

Career counseling is available through the Career Center in Student Services. The Career Center assists students in selecting and preparing for a career and setting life goals. 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 and provides referrals to other agencies such as the Employment Security Commission, Social Security Administration, Social Services, Vocational Rehabilitation, Veterans Office, and County and State Health Departments.

## 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. Chapter 116-143.1 of the N.C. General Statutes covers the requirements for determining resident status for tuition purposes. Chapter 116-143.1(b-d) is quoted as follows: “To qualify as a resident for tuition purposes, a person must have established legal residence (domicile) in North Carolina and maintained that legal residence for at least 12 months immediately prior to his or her classification as a resident for tuition purposes. Every applicant for admission shall be required to make a statement as to his length of residence in the State.”

“To be eligible for classification as a resident for tuition purposes, a person must establish that his or her presence in

the State currently is, and during the requisite 12-month qualifying period was, for purposes of maintaining a bona fide domicile rather than of maintaining a mere temporary residence or abode incident to enrollment in an institution of higher education.”

“An individual shall not be classified as a resident for tuition purposes and, thus, not rendered eligible to receive the in-state tuition rate, until he or she has provided such evidence related to legal residence and its duration as may be required by officials of the institution of higher education from which the individual seeks the in-state tuition rate.”

Information relating to claimed North Carolina residence for tuition purposes will be required from all applicants claiming to be North Carolina residents, and a determination will be made by the vice president of student services or the registrar as to whether or not the applicant qualifies for in-state tuition rates. Should the ruling be contrary to the applicant’s expectation, it may be appealed to the Residence Status Committee of the institution. Individuals on active military duty in North Carolina and their dependents are considered in-state for tuition purposes.

The burden of establishing facts, which justify classification of a student as a resident entitled to in-state tuition rates, is on the applicant. Decisions by school officials will be based on the requirements of the North Carolina General Statutes and regulations specified in the 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 contact the vice president of student services or the college registrar. The Residency Status form is a part of the application; however, applicants will be required to complete a more in-depth form if additional information is needed.

## EXPENSES

### Business Office

Receipt of tuition and fees, collection of parking fines, receipt of loans, 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 for the 2013-2014 academic year. Visit the Business Office website: [www.cccc.edu/collegeservices/businessoffice/tuition/](http://www.cccc.edu/collegeservices/businessoffice/tuition/) for the most up-to-date information.

*NOTE: Persons 65 years of age or over are currently exempt from tuition fees up to six credit hours per semester.*

## **Refund Policy – Tuition**

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

1. A 100% refund shall be made if the student officially withdraws 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 fails to “make” due to insufficient enrollment.

2. A 75% refund shall be made if the student officially withdraws from the class(es) prior to or on the official 10% point of the semester.

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 County Campus and the Harnett County Campus are operated by Follett Higher Education Group. Students may come on campus to purchase books and supplies or they may use our website [www.centralcarolina.bkstr.com](http://www.centralcarolina.bkstr.com) to purchase books and course materials and have them shipped directly to their home.

The bookstore has a rental program that includes many of the books that are used for the classes offered at a savings of up to 50%. Buybacks are conducted daily to give the students an opportunity to sell their books.

The bookstore offers textbooks, course materials, school supplies and clothing, and gift items featuring the college logo.

The hours of operation are posted on the bookstore website listed above and also on the college’s website [www.cccc.edu](http://www.cccc.edu).

Special hours are observed during registration and from the first day of class through the drop add period of each term.

Follett Higher Education offers a wide variety of options to the students with the introduction of a rental program and the ever increasing number of books that are offered through Cafescribe, the E-book option.

## **Special Apparel and Equipment**

Students enrolled in the Automotive Technician, Barbering, Basic Law Enforcement Training, Cosmetology, Dental Assisting, Dental Hygiene, Esthetics, Industrial Plant Maintenance, Machining, Medical Assisting, Motorcycle Mechanics, Associate Degree Nursing, Practical Nursing, Tool and Die Making, 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 felt to be 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 \$5.00 malpractice insurance fee will be charged for the fall and spring semesters for students enrolled in applicable programs (total fee of \$10.00 per academic year). There will be no malpractice insurance charged for the summer semester. For questions regarding the malpractice insurance policy, please contact the Business Office.

## **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 fee of \$14 for six hours or less; those taking seven hours or more are charged \$28. Summer term student fees are \$4 per semester hour.

The student fee provides the revenue necessary for the Student Government Association to provide services and activities for the student body. Typically, the SGA provides the following benefits from the student activity fee: SGA calendar and handbook, parking stickers, activity days, dances, socials, guest speakers, intramural and intercollegiate athletics, as well as other events the Student Government Association might deem appropriate.

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

Persons 65 years of age or over are exempt from the student fee.

## **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. Occupational extension students will be charged \$5 per fiscal year.

### **Distance Education Fee**

A \$15 distance education fee will be charged for each course taken online. Hybrid, web-assisted, 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.

While no separate fees or costs associated with verification of student identity are required, students in select distance education courses who reside outside the three-county service area may elect, at instructor permission and their own expense, to utilize the web-based proctoring service offered by ProctorU. More information about the optional ProctorU service can be obtained by contacting the distance education office on the Sanford campus.

### **Graduation Fee**

A \$18 graduation fee will be charged to students who participate in graduation exercises. There is no charge to graduates who do not participate in graduation exercises. Graduation fees are used to cover costs for degrees, diplomas, certificates, caps, gowns, honorariums, flowers, etc.

### **Student Housing**

The college does not operate dormitory facilities nor does it assume responsibility for housing and maintenance. The Student Services Department will provide lists of available housing to students on a non-discriminatory basis. Payment for such facilities is the responsibility of the student and must be made directly to the landlord.

### **Vehicle Registration**

Students using the campus parking facilities will be required to register their vehicles with the Business Office. A numbered sticker will be issued for placement on the vehicle. The initial cost of vehicle registration is included in the student fee.

- Students are required to park in the white-lined spaces only.
- Students will be assessed a \$5.00 fine when parking in the faculty and staff spaces or other designated, reserved, or no parking area (such as cosmetology patron parking or visitor parking).

### **Policy on Student Publications**

All student publications, including, but not limited to, flyers, posters, memos, newsletters, promotional/publicity materials, and media advertisements, must be submitted to the organization's advisor prior to duplication or

publication. The advisor must then sign and date the original and maintain it in the organization's files. Larger posters and flyers also should be signed and dated by the advisor and kept on file.

The advisor is responsible for the content of the student publications and should consult with the vice president of student services if there are any questions or concerns about content. The advisor should also check to verify accuracy (i.e., dates, times, locations) and assure that nothing contained in the publication violates campus policy. Publications considered controversial in the view of the advisor should be cleared by the vice president prior to publication. Media advertisements or publicity (i.e., newspaper, radio station, TV station, billboard, etc.) must be cleared and processed through the CCCC Marketing and Public Affairs Department.

### **Policy on Solicitation and Fund Raising**

Individuals representing college groups, clubs, or associations may solicit funds, in-kind donations, or engage in other types of on-campus fundraising activities only after receiving prior approval of the campus provost where applicable and the vice president of student services. Solicitation and fundraising by any "For Profit" individual or group is prohibited.

All college-affiliated, off-campus fundraising activities require prior approval of the campus provost or the vice president of student services and the college president.

### **Policy on Internet Acceptable Use**

Faculty, staff, students and community patrons are responsible for good behavior on College computer networks. Communications on the network are often public in nature. General College rules for behavior and communications apply. The network is provided for faculty and students to conduct research and communicate with others. Independent access to network services is provided to faculty and students who agree to act in a considerate and responsible manner. Access is a privilege, not a right. Access entails responsibility. Individual users of the institution's computer networks are responsible for their behavior and communications over those networks. It is presumed that users will comply with the institution's standards and will honor the agreements they have signed. Users are advised that they may encounter materials which may be considered offensive or objectionable in nature or content. Central Carolina Community College is unable to influence content on the World Wide Web and does not assume responsibility for any of these sources.

Network storage areas may be treated as public space. Network administrators may review files and communications to maintain system integrity and ensure that users are using the system responsibly. Users should not expect that files stored on the institution's servers will always be private.

### **RULES:**

The following are not permitted:

1. Sending or displaying obscene messages or pictures
2. Using obscene language
3. Harassing, insulting, or attacking others
4. Damaging computers, computer systems, or computer networks
5. Violating copyright laws
6. Using others' passwords
7. Trespassing in others' folders, work, or files
8. Intentionally wasting limited resources
9. Employing the network for commercial purposes

**SANCTIONS:**

1. Violations may result in a loss of access.
2. When applicable, law enforcement agencies may be involved.

**Policy on Copyright – Computer Software**

The college will rigidly comply with all copyright laws including that which applies to computer software. It is against college policy to utilize software in a college-owned or leased computer unless an individual site license, receipt or letter of permission from the copyright owner is on file in the Computer Resource Center.

**RULES:**

1. College employees and students shall not reproduce copyrighted software without the written permission of the copyright owner nor shall the computer be linked or otherwise configured to circumvent copyright law.
2. College employees and students shall not enter copies of "personal" programs into a college computer without permission from the director of computer services.
3. Purchase receipt or other evidence of compliance with copyright law is required before entering "personal" programs into a college-owned or leased computer.
4. Failure to comply with this policy could result in punitive action by the college and/or the copyright owner.

**Policy on Copyright – Printed Material**

The college will comply with the copyright limitations set forth in federal legislation for protection of original works of authorship.

**DEFINITIONS:**

Copyright protection: governs exclusive right of copyright owners to literary works, musical works, dramatic works, pantomime and choreographic works, pictorial/graphic/sculptural works, motion pictures and other audiovisual works and sound recordings. Fair use: (not susceptible to definition) involves the allowance of copying without permission from, or payment to, the copyrighted owner where the use is reasonable and not harmful to the rights of the copyrighted owner.

**Brevity:**

1. Poetry
  - A. A complete poem if less than 250 words and if

- printed on not more than two pages, or
  - B. From a longer poem, an excerpt of not more than 250 words
2. Prose
  - A. Either a complete article, story or essay of less than 2,500 words, or
  - B. An excerpt from any prose work of not more than 1,000 words or 10% of the work, whichever is less, but in any event a minimum of 500 words (Each of the numerical limits stated in "a" and "b" above may be extended to permit the completion of an unfinished line of a poem or of an unfinished prose paragraph)
3. Illustration - one chart, graph, diagram, drawing, cartoon or picture per book or per periodical issue
4. "Special" works – certain works in poetry, prose or in "poetic prose" which often combine language with illustrations and which are intended sometimes for children and at other times for a more general audience but fall short of 2,500 words in their entirety. Paragraph "b" above notwithstanding, such "special works" may not be reproduced in their entirety; however, an excerpt comprising not more than two of the published pages of such special work and containing not more than 10% of the words found in the text, thereof, may be reproduced.

**Spontaneity:**

1. The copying is at the instance and inspiration of the individual teacher, and
2. The inspiration and decision to use the work and the moment of its use for maximum teaching effectiveness are so close in time that it would be unreasonable to expect a timely reply to a request for permission.

**Cumulative Effect:**

1. The copying of the material is for only one course in the school in which the copies are made.
2. Not more than one short poem, article, story, essay or two excerpts may be copied from the same author, nor more than three from the same collective work or periodical column during one class term.
3. There shall not be more than nine instances of such multiple copying for one course during one class term. (The limitations stated in 2 and 3 above shall not apply to current news periodicals and newspapers and current news sections of other periodicals.)

**PROCEDURES:**

1. Fair use: Single copying for teachers
  - single copy may be made of any of the following by or for a teacher at his individual request for his scholarly research or use in teaching or preparation to teach a class:
    - A. A chapter from a book
    - B. An article from a periodical or newspaper
    - C. A short story, short essay or short poem whether or not from a collective work
    - D. A chart, graph, diagram, drawing, cartoon or picture from a book, periodical, newspaper.
2. Fair use: Multiple copies for classroom use



Multiple copies (not to exceed in any event more than one copy per pupil in a course) may be made by or for the teacher giving the course for classroom use or discussion, provided that the following three requirements are met:

- A. The copying meets the tests of brevity and spontaneity as defined
- B. The copying meets the cumulative effect test as defined
- C. Each copy includes a notice of copyright

**RULES:**

1. Infringement of copyright is subject to the principal remedies of injunction, damages, profits, and attorney's fees.
2. U.S. Government works are excluded from copyright limitations.
3. Copying shall not be used to create or to replace or substitute for anthologies, compilations or collective works. Such replacement or substitution may occur whether copies of various works or excerpts there from are accumulated or are "reproduced and used" separately
4. There shall be no copying of or from works intended to be "consumable" in the course of study or of teaching. These include workbooks, exercises, standardized tests and test booklets and answer sheets and like consumable material.
5. Copying shall not substitute for the purchase of books, publisher's reprints or periodicals.
6. Copying shall not be directed by higher authority.
7. Copying shall not be repeated with respect to the same item by the same teacher from term to term.
8. No charge for copying shall be made to the student beyond the actual cost of the photocopying.
9. The responsibility of employee and student copyright obligations is the federal legislation, The Copyright Act of 1976.

**Policy on Copyright – Video**

The college will comply with video copyright limitations set forth in federal legislation for protection of original work of authorship.

**DEFINITIONS:**

Broadcast programs are television programs transmitted by television stations for reception by the general public without charge. School days are school session days which means one does not count weekends, holidays, vacations, examination periods, or other scheduled interruptions.

**PROCEDURES:**

A video broadcast program may be recorded off-air simultaneously with broadcast transmission and retained by an educational institution for a period of forty-five (45) consecutive calendar days after the date of recording. At the end of this time, all off-air recordings must be erased or destroyed immediately. Off-air recordings may be (a) used by individual teachers in the course of relevant teaching

activities and (b) repeated only when instructional reinforcement is necessary. The use of the recording for instructional purposes must occur during the first ten (10) consecutive school days within the 45 calendar day retention period. After the first ten (10) consecutive school days, the off-air recording can only be used, up to the end of the 45 consecutive calendar days, for teacher evaluation purposes, (i.e., to determine whether to include the broadcast program) in the teaching curriculum and may not be used in the recording institution for student exhibition or any other non-evaluation purpose without authorization.

Off-air recordings may:

1. be made only at the request of an individual teacher
2. be used only by an individual teacher
3. not be recorded off-air more than once at the request of the same teacher, regardless of the number of times the program may be broadcast. A limited number of copies may be reproduced from each off-air recording to meet the legitimate needs of teachers under these guidelines. Each such additional copy is subject to all provisions governing the original recording. Off-air recordings need not be used in their entirety, but the recorded programs may not be altered from their original content. Off-air recording may not be physically or electronically combined or merged to constitute teaching anthologies or compilations. All copies of off-air recordings must include the copyright notice on the broadcast program as recorded.

**RULES:**

Copying and using audiovisual material is governed by specific licensing agreements provided by the seller.

## FINANCIAL AID

### Financial Aid

Financial aid options are available at Central Carolina 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.

### Financial Aid Eligibility Requirements

In order to receive financial aid from federal 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;
- Be enrolled in an eligible degree program;
- Have a valid Social Security number;
- Demonstrate financial need;
- Not have a drug conviction for an offence that occurred while receiving federal student aid;
- Be registered with Selective Service if you are a male;
- Apply for Admissions to CCCC and have ALL Admissions requirements met;
- Provide an official copy of your high school, GED, or Adult High School transcript to the Registrar's Office;
- Provide an official copy of college transcripts to the Registrar's Office;
- Complete placement tests with the Placement Test Office; and
- Financial aid eligibility is also determined EVERY semester by the Financial Aid Office's Standards of Academic Progress (SAP). You can view these standards at: [www.cccc.edu/financialaid/policies](http://www.cccc.edu/financialaid/policies).

*NOTE: Federal student loans must be repaid.*

### Dependency/Independence 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 self and spouse (if married). A dependent student will report income and asset information for self 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 [www.fafsa.gov](http://www.fafsa.gov).

### Federal Aid Enrollment Status Determination for Clock Programs

The determination of enrollment status (full, 3/4, 1/2, or less) is, by federal regulations, different for the following programs of study:

- BLET-Basic Law Enforcement Training (C55120)
- Esthetics Certificate (C55230)

The programs are paid based on clock hours, not credit hours. For more information regarding clock hour programs, please see the Financial Aid Office.

### Financial Aid Application Process

Students interested in applying for financial aid must complete the Free Application for Federal Student Aid (FAFSA). To complete the financial aid application process, follow these steps:

1. Obtain a Personal Identification Number (PIN) online at [www.pin.ed.gov](http://www.pin.ed.gov). This PIN will allow you to electronically sign your FAFSA. If you are a dependent student, your parent will also need to apply for a PIN.
2. Complete the FAFSA application. You have three options to complete the FAFSA:
  - A. Login to apply online (Recommended) at [www.fafsa.gov](http://www.fafsa.gov)
  - B. Complete a PDF FAFSA (Must be mailed for processing) at [www.fafsa.gov](http://www.fafsa.gov)
  - C. Request a paper FAFSA by calling 1-800-433-3242; for hearing impaired contact 1-800-730-8913. Make sure you put CCCC's school code: 005449 on your FAFSA!
3. Follow up. After submitting your FAFSA, the federal processor will mail a Student Aid Report (SAR) to you at the address you listed on your FAFSA and/or email the SAR to the email address you listed on your FAFSA. It is YOUR responsibility to check the information carefully and make sure it is correct. The Financial Aid Office will NOT import your SAR until you have been accepted to CCCC. Once you are accepted, the Financial Aid Office will use the SAR data to determine your financial aid eligibility. Students must complete a FAFSA each academic year.

### Financial Aid Enrollment Classification

For all semesters of enrollment (fall, spring, summer), full-time credit hours in ONE major for financial aid is 12 or more credit hours. Financial Aid for students registered for fewer than 12 total credit hours in ONE major per semester will be prorated as follows:

- 9 to 11 credit hours =  $\frac{3}{4}$  time or 75% of your award
- 6 to 8 credit hours =  $\frac{1}{2}$  time or 50% of your award
- Fewer than 6 credit hours = 25% of your award or less

*NOTE: Students who are enrolled for fewer than 6 credit hours in ONE major per semester may be eligible for only a small amount of Pell Grant or no Pell Grant at all. Students enrolled for less than 6 credit hours are NOT eligible to receive certain State and Federal grants. NC Community College Grant (NCCCG) and NC Education Lottery Grant (NCELS) are not awarded to students who are less than*

*half-time credit hours. NCELS is awarded on a full or half-time amount only. NCELS and NCCCG are not funded in the summer.*

## **Financial Aid Application Procedure**

To apply for the Federal Pell Grant, Federal Supplemental Educational Opportunity Grant, Federal Work-Study, and scholarships, a student should complete the Free Application for Federal Student Aid (FAFSA) online at [www.fafsa.ed.gov](http://www.fafsa.ed.gov). In order to have the results of the FAFSA sent to CCCC, a student should list “CCCC” in the college release section of the application and include CCCC’s Title IV Code number of 005449.

## **Financial Aid Award Process**

Students are notified of financial aid award decisions for the academic year once the financial aid file is complete. The first notification will be mailed to student; after the first notification, all additional notifications will be emailed and available on WebAdvisor. 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 by notated deadlines (available on the web site: [www.cccc.edu/financialaid](http://www.cccc.edu/financialaid)) each semester.

## **Types of Financial Aid**

Financial aid is awarded based on student’s individual financial need and eligibility, and may include various types of aid. Financial aid is contingent on maintaining satisfactory academic progress.

**Grants:** Need based gift aid that do not have to be repaid.

- Federal Pell Grants are awarded by the US Department of Education. Federal Pell Grants are the foundation of federal student financial aid. The amount of a student’s Pell Grant award is based on the Expected Family Contribution (EFC), cost of attendance, enrollment status, and whether the student attends school for a full academic year or less. A student may not receive Pell Grant funds at more than one school at a time.

- Federal Supplemental Education Opportunity Grants (FSEOG) is grants for undergraduates with exceptional financial need; that is, students with the lowest estimated family contributions (EFC). Students must qualify for the Federal Pell Grant to be eligible for this program. Funding for this program is limited. Early filing is strongly recommended to see if you qualify.

- North Carolina Community College Grants (NCCCG) are for legal residents of North Carolina who are enrolled at least half time (six semester hours) and are maintaining satisfactory academic progress.

- North Carolina Educational Lottery Grants (NCELS) are awarded to NC residents who enroll for at least six credit hours as an undergraduate at an eligible NC College.

- Federal Work-Study Program offers employment opportunities to eligible students who wish to earn money to assist with educational costs. This grant is administered based on the availability of funds. If interested in this

program, students should indicate this interest when completing the FAFSA and/or contact the Financial Aid Office.

**Loans:** CCCC does NOT participate in the Direct Loan or Educational Loan Programs.

## **Other Financial Assistance**

Veterans Benefits may be available to eligible active duty, veterans and their dependents. Please see the Veterans Information section of the CCCC catalog on our website for more information.

Child Care Assistance Program Grants are available for students enrolled full-time. Grants are limited and are based on greatest need. Contact the Special Programs Coordinator for additional information.

Scholarships at CCCC are considered gift aid based on academic performance, talent or achievement. For a complete list of scholarships, go to [www.cccc.edu/financialaid/scholarships](http://www.cccc.edu/financialaid/scholarships).

Other outside scholarships and funds may be available to assist students. Some of these include employer-paid tuition, the Workforce Investment Act through the Employment Security Commission, Vocational Rehabilitation, Department of Social Services, and the NC Veterans Administration. Please see the appropriate agency to determine qualification for any of these programs.

## **Financial Aid Satisfactory Academic Progress**

The Department of Education requires colleges participating in Student Financial Assistance (SFA) Programs to monitor SFA recipients to ensure that they are meeting satisfactory academic progress standards. Satisfactory academic progress will be calculated at the end of each academic term and will include all periods of enrollment.

Regulations require a student’s progress for financial aid purposes to be measured both quantitatively and qualitatively. In addition to a student’s cumulative grade point average, students are also required to pass a percentage of all attempted coursework and to complete their program of study within the maximum time frame established by the institution. To reasonably measure a student’s satisfactory academic progress for financial aid, the student’s total academic record must be evaluated whether they received financial aid for periods of enrollment and include credit hours earned at other post-secondary institutions and transferred into the student’s program of study at CCCC. This requirement applies to all students who apply for financial assistance from Federal, State, and Institutional aid.

In order to be eligible for financial aid, students must meet the following minimum guidelines:

1. Quantitative Standard: 67% Completion Rate and 150% Maximum Time Frame.

- A. Completion Rate Requirement: Students must complete 67 percent of the total cumulative credit hours attempted to meet the minimum requirement. For example,

if a student has attempted 50 credit hours, the student must earn credit for at least 33 hours ( $50 \times .67 = 33$ ). Course grades of AU, W, WF, F, and I are not considered completions and will adversely affect a student's satisfactory academic rate calculations. Course grades of CE and EL are calculated in quantitative standard, but will not be included in the financial aid award calculation. Successful completion is defined as receiving a grade of A, B, C, and D.

**B. Maximum Time Frame:** Students must complete an eligible program within a time frame not to exceed 1.5 times (150%) the normal published time frame. For example, if the academic program length is 70 credit hours, the maximum credit hours that may be attempted is 105 credit hours ( $70 \times 1.5 = 105$ ). One academic year of credit (30 credit hours) may be added for required remedial coursework.

**2. Qualitative Standard:** The minimum cumulative grade point average (GPA) requirement the student must maintain to receive and/or continue receiving financial aid assistance is 2.0. This includes all degree, diploma, and certificate programs.

#### **Treatment of Selected Grades:**

**Withdrawals/Drops:** Credit hours in which a student receives a grade of "W" and "WF" are included in the number of attempted hours, but do not count toward successfully completed hours. Students who withdraw may have difficulty meeting the satisfactory academic progress requirements.

**Incompletes:** Credit hours in which a student receives a grade of an "I" are included in the number of attempted hours, but do not count toward successfully completed hours. Student with incompletes may have difficulty meeting the satisfactory academic progress requirements at the time of evaluation, but may request re-evaluation upon completion.

**Transfer Credit:** Students transferring from another college will be considered making satisfactory progress at the time of enrollment at CCCC. A student's maximum time to receive financial aid will be reduced by the equivalent transfer of credit hours towards his/her degree.

**Audit and Never Attend:** An audit "AU" or never attended "NA" grade is not considered attempted course work. It is not included in the grade point average or completion rate determination. A student cannot receive financial aid for courses that he/she audits or is considered a no show.

**Repeat Courses:** For financial aid purposes, all hours attempted will continue to be counted in the student's cumulative total of hours. Federal regulations will allow a student to repeat a "passed" course one time and still be eligible for financial aid.

**Credit by Exam:** While credit by exam "CE" is not included in enrollment status for purposes of awarding financial aid, the attempted and completed credits are counted in each component of the quantitative standard.

#### **Eligibility Status:**

**Satisfactory:** Satisfactory status is achieved when all criteria explained above is met.

**Financial Aid Warning:** Students who do not have the required grade point average and/or have not successfully completed 67% of their attempted credit hours will be placed on Warning Status for the following enrolled semester. A student may continue to receive financial aid for one semester while on financial aid warning provided they are otherwise eligible. Students should use this opportunity to re-establish satisfactory academic progress. If, at the end financial aid warning period, the student is meeting the minimum requirements for satisfactory academic progress, the financial aid warning is lifted. Students who fail to make satisfactory academic progress after the financial aid warning semester will be placed on probation and will be ineligible for financial aid until satisfactory progress has met. A student may attend the next semester(s) (at the student's expense) in order to meet the minimum standards for satisfactory academic progress. **NOTE:** Satisfactory progress will be monitored at the end of the semester to determine if the student will meet the standards of progress and will be eligible to continue to receive financial aid.

**Financial Aid Probation:** Students on financial aid warning who have not attained at least a cumulative 67% completion rate and/or earned the minimum required grade point average of a 2.0 will be placed on Probation Status and have their financial aid suspended at the conclusion of the warning period. Students who have attempted the maximum allowable credit hours for their program of study will be placed on Probation Status and have their financial aid suspended. A student may attend the next semester(s) at the student's expense.

**Notification of Financial Aid Warning and Probation:** The Financial Aid Office will send a letter/email of notification to any student who is placed on Warning Status or Probation Status.

**Remaining Eligibility:** Students who attend CCCC, without Federal Financial Aid, may regain financial aid eligibility by achieving a 67% completion rate and earning the required GPA based on hours attempted. A student may request consideration of eligibility for financial aid by completing an Appeal Form and submitting the required documentation to the Financial Aid Office.

Students who have exceeded the 150% regulation may also appeal by completing an Appeal Form and submitting the required documentation to the Financial Aid Office.

**Appeal of Satisfactory Academic Progress Standards:** Students who have been suspended from receiving financial aid may appeal to the Financial Aid Office when there are extenuating circumstances beyond a student's control. A student may submit written documentation to the Financial Aid Office by completing the Satisfactory Academic Progress Appeal Request form explaining the circumstances that have affected academic performance and what has changed that will allow him/her to make Satisfactory Academic Progress in a reasonable

period of time prior to program graduation. Supporting documentation must be presented. Circumstances that may be considered include death in the family, accident, illness, military deployment, or other serious personal problems that were beyond the control of the student and can be supported with proper documentation from involved third party sources.

Returning students are evaluated on a continuing 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 academic progress policy will be required to meet the standards of the current policy upon returning.

**Appeal Process:** A student may appeal in writing to the Financial Aid Office using the Satisfactory Academic Progress Appeal Request form explaining why satisfactory academic progress requirements were not met and what has changed that will allow him/her to make Satisfactory Academic Progress. Supporting documentation for the extenuating circumstance is required and specified according to the student's situation on the Satisfactory Academic Progress Appeal Request form. The Financial Aid Appeals Committee will review the appeal and a decision will be rendered within fifteen (15) business days of the next scheduled committee meeting. The student will be informed of the committee's appeal decision by letter. The decision of the Financial Aid Appeals Committee is final.

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

Students who withdraw 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. This policy applies to all students who withdraw, drop out, or are suspended from CCCC and who have received Title IV/State funds. Students are responsible for paying this debt. Students' records will be placed on hold and he/she will not be allowed to register for classes until the bill is paid in full.

### **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 (G.I. 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.

#### ***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.

### **Serviceman's Opportunity College (SOC)**

CCCC is a Serviceman's Opportunity College (SOC) and supports the concept that military personnel should be encouraged to begin their post-secondary education while serving their country.

Under the Serviceman's Opportunity College program, servicemen are encouraged to submit evaluations of CLEP test results, DANTES test results, military service school records, Military Occupation Specialty (MOS) evaluations, and prior college coursework for transfer credit. CLEP/DANTES must meet the recommended American Council on Education (ACE) minimum scores. All coursework considered for transfer must be equivalent to CCCC courses appropriate to the student's program of study.



## ACADEMIC INFORMATION

Central Carolina Community College offers Associate in Arts, Associate in Fine Arts, Associate in Science, 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 are assured admission into one of the UNC system's 16 public universities. CCCC also has transfer agreements with several colleges and universities outside the UNC System. Check with your academic counselor for more information on transfer credits.

### Associate in Applied Science Degree (A.A.S.) 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 that is granted may range from partial to a full two years of credit. A.A.S. students wanting to transfer are encouraged to meet with the CCCC college transfer counselor 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 administration, the College Success Center, the Student Services Department, the faculty, and the Student Government Association. CCCC's "extended orientation" model consists of: (1) an on-campus orientation that will help students make an initial connection to the campus, administration, faculty, students and 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.

### Registration

All curriculum students must register prior to or at the beginning of each term. All students are expected to register 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 executive vice president of instruction or vice president of student services.

Students will not be permitted to register for more than 22 semester credit hours.

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 executive vice president of instruction. 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. Employed students may also be advised to take a reduced course load contingent upon their academic standing.

### Double Major

Students wanting to pursue two degrees at the same time may do so by seeing a counselor 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's comprehensive schedule of distance education courses provides a top-quality, fully-accredited educational alternative for the self-directed, independent learner who values quality, convenience, and flexibility. Distance education courses contain the same basic content, require the same academic rigor, and offer the same semester credits as traditional courses. The major difference between face-to-face courses and distance courses is the instructional delivery method. Courses are offered using three methods: online, hybrid, and web-assisted. Through distance education, travel to campus is minimal or not required at all. Hybrid course delivery reduces on-site sessions but still requires regular on-campus meetings. Distance courses are learner-focused, challenging, and demand as much or more time than traditional courses. Students who are considering enrolling in a distance program or a distance course should work closely with their faculty advisor or counselor.

The Associate in Arts (A.A.); Associate in Science (A.S.); and the Associate in Applied Science (A.A.S.) in Accounting, Business Administration, Human Resources

Management, and Library and Information Technology may be earned entirely through a combination of distance education delivery methods.

### **Distance Education Online Courses**

Online courses use the Internet, e-mail, and other electronic resources to provide opportunities for meaningful student-to-faculty and student-to-student interaction comparable to the traditional college classroom. Additional tools such as software applications, e-texts, and media-enriched digital content are common components. Students must have access to a reliable personal computer (home, office, or college campus) with Internet access and appropriate software and also have the ability to use it proficiently.

Online courses have LN1, LN2, LN3, etc. section numbers. These courses are not self-paced; students followed a structured assignment and exam schedule. Successful students are motivated to learn, have easy access to technology, and are comfortable using computers and the Internet.

At the semester start, students must complete the course-specific orientation including a required orientation quiz by the deadline to remain enrolled in the course. Failure to meet this orientation requirement will result in being withdrawn from the course at the student's expense.

### **Distance Education Hybrid and Web-Assisted Courses**

Hybrid and web-assisted courses blend traditional class meetings on campus with online experiences. In hybrid and web-assisted courses, the Internet, email, software applications, e-texts, and media-enriched digital content are common components. Hybrid courses are designed and facilitated that more time is spent online than in the face-to-face setting while web-assisted courses are the opposite; web-assisted courses require more on-campus than online.

Both delivery methods provide opportunities for student-faculty and student-student interaction. Requirements for these courses include attendance at regularly scheduled on-campus class meetings and access to a reliable personal computer (home, office, or college campus) with Internet access and appropriate software. Students need the ability to use technology for learning. Hybrid courses are denoted by LJ1, HJ2, PJ3, etc. section numbers. Web-assisted courses are coded as LM1, HM2, PM3, etc.

At the semester start students must complete the course-specific orientation including a required orientation quiz by the deadline to remain enrolled in the course. Failure to meet this orientation requirement or demonstrate attendance will result in being withdrawn from the course at the student's expense.

More complete information about course and credential offerings, requirements, and services can be found on the Distance Education webpage at [www.cccc.edu/de](http://www.cccc.edu/de).

### **Auditing Courses**

A student who desires to take a course without credit may choose to audit the course by completing the Audit Declaration form, having it signed by either the instructor, department chair, or 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. **NOTE:** *Pell and VA students cannot count audited courses for payment purposes.*

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.

### **Course Substitution**

Under extenuating circumstances, a student may apply to his advisor for approval of a course substitution. A course substitution may be granted upon review and recommendation of the department chair to the dean or provost and in consultation with the executive vice president of instruction.

Consideration of any substitution involving a required core course as stipulated in the curriculum standard must receive additional approval by the North Carolina Community College System office staff. For VA purposes, the VA counselor must be notified of all approved course substitutions.

The course 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 must have relevance to the curriculum and should also have relevance to the course for which the substitution is made.

### **Independent Study**

Under extenuating circumstances, independent study may be scheduled for selected courses with the approval of the subject instructor, department chairperson, and the program dean.

### **Academic Advisors**

Students are assigned to academic advisors and success coaches upon enrollment. The role of the advisor is to serve as the primary contact with the student for his or her total academic activities while enrolled at CCCC. The role of the success coach is to provide additional academic advising/coaching that supports the overall advising process.

The student is expected to confer periodically with his advisor and/or to visit the College Success Center for a success coaching appointment (at least twice each semester) regarding academic standing, early registration, or any other areas of concern.

### **Alternative Credit**

A student may earn alternative credit in the following ways:

- Transfer of credit from one curriculum to another (Resident Credit Transfer)
- Transfer of credit from regionally accredited institutions
- Advanced Placement Examinations (AP)
- College Level Examinations Program (CLEP)
- Defense Activities for Non-Traditional Education Support Systems Examination (DANTES)
- Proficiency demonstrations
- Experience

### **Amount of Alternative Credit Allowed**

At least 1/3 of credit for a certificate, diploma, or associate degree required for graduation must be an earned grade 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.

### **Resident 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 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 to be sent to the CCCC Registrar’s Office for evaluation.
- Credit will be granted only for scores earned within the last ten (10) years unless approved by the executive vice president of instruction.
- 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.

### **Credit by Examination**

Students with prior proficiency in a course due to previous educational or work experience may apply for credit by examination. This option is available for selected courses as determined by the department chair. A proficiency demonstration may be a written exam, oral exam, shop exercise, or lab exercise. The following rules for the student apply:

- 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 the department chairperson accompanied by a written request for a review.
- Obtain permission from the appropriate department chairperson or executive vice president of instruction.
- Register and pay tuition for the course.
- Take the Proficiency Test during the first week of the term.
- Earn a grade of “B” (86%) or better.
- Drop the course using the Drop/Add form if an acceptable score is earned and then add the course as Section “OP” (Proficiency) on the Drop/Add form.
- Credit granted through a proficiency exam will not be calculated in the grade point average.
- Proficiency demonstrations may be taken only one time for each course.
- Credit for proficiency demonstration may not be granted for a course being audited by the student.
- The instructor will complete a Student Termination form and assign a grade of “CE” (Credit by Examination). Reason for termination will be “Passed by Proficiency.”

### **Credit by Experience**

Students may request credit for work experience or skills that directly correlate with competencies required in a specific course under the following rules:

- 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 Request for Credit by Experience form.

- Credit by experience may not be granted for cooperative work experience courses.
- The department chairperson 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.
- Experiences, which may require a demonstration of one's ability, must be approved by the student's curriculum department chairperson or lead instructor, the subject area department chairperson, and the vice president of Academic Affairs.
- 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 Registrar's Office.
- The registrar will record a symbol 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.

### Prerequisites/Corequisites

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 upon review and recommendation by the department chair to the dean or provost and in consultation with the executive vice president of instruction. Permissible reasons for waiver of local prerequisites (course taken prior to another course)/corequisites (course taken at the same time or prior to another course) 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 (example: a student transferring in with the local prerequisite of RED 090 would not have to take RED 090).
- Satisfactory completion of proficiency exams administered by CCCC (when such exams are available).
- Enrollment in another course deemed suitable to satisfy the corequisite.
- Student 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).
- 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

Students will abide by the college catalog and program of study requirements in place at the time of admission. Students may elect to adopt future college catalogs and program of study requirements if it is beneficial to completing degree requirements in a timelier manner.

Students who request a change of program must adopt the college catalog and program of study requirements in place when the change becomes active. Consequently, older college catalogs cannot be used for degree completion once the change of program is active.

In accordance with CCCC's mission and values, the college quests to educate, train, and graduate students who are competent, capable, and current in their chosen programs. Therefore, students who have not completed their program of study within five years of initial enrollment are subject to new or revised policies, provisions, rules, guidelines, electronic program of study, catalog, etc. in existence once the five-year term expires. **NOTE: All students are subject to provisions and guidelines imposed by the state or outside accrediting agencies that impact changes in programs. Such changes are at the discretion of the state or outside accrediting agencies. When such happens, students may be required to adhere to the provisions of the revised program prior to the five-year expiration point.**

This provision applies to all students and all curriculum programs (certificates, diplomas, degrees) and is subject to the following rules:

- When a student does not complete a program of study within five years, the department chair and appropriate faculty members may consider course-by-course credit

within a student's program and grant appropriate substitutions and credit with review by the dean/provost and final approval by the executive vice president of instruction.

- Requests for transfer credit for courses earned under special credit status or while enrolled in another program are also subject to five-year limitations. Such credit exceeding the five-year limit may be evaluated and considered for credit by the department chair and appropriate faculty members with review by the dean/provost and final approval by the executive vice president of instruction.

## Grading System

CCCC operates on a required-subject grade point system in the curriculum areas. 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.

A cumulative grade point average is maintained which includes all courses taken. If a course is re-taken, only the highest grade will be averaged in the cumulative grade point average; however, both grades will be recorded on the transcript.

## 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.

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
I	Incomplete	0
W	Withdrew	0
WF	Withdrawal/Failing	0
AU	Audit	0
P/F	Pass/Fail	0
CE	Credit by Exam	0
* (Grade)	Indicates Grade Not Applicable	0
EL	Learning By Experience	0

## 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

## General Academic Standards

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

2. Students who do not earn a 2.0 GPA for any given term will be placed on academic probation. Probation students, who are seeking a degree, diploma, or certificate, will be required to enroll in and successfully complete ACA 090 College Study Skills, a three semester hour non-credit course. A reduced course load is recommended.

**EXCEPTION 1:** Probation students who maintain a cumulative GPA of 3.0 or higher will not be required to enroll in ACA 090 College Study Skills. A reduced course load is recommended.

**EXCEPTION 2:** Probation students who have enrolled in and successfully completed ACA 090 during a previous term will not be required to repeat ACA 090. 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.

3. Students who have a term GPA below 2.0 for two consecutive terms and an overall GPA below 2.0 will be suspended from all and all college activities for one term with the exception of enrollment in ACA 090.

**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 ACA 090. This extension of suspension must be approved by the department chairperson of the new curriculum and by the Vice President of Student Services. Failure to obtain at least a 2.0 GPA during the subsequent term will result in academic suspension for one term.

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

5. Students must have an overall GPA of 2.0 and a GPA of 2.0 in the program of study to qualify for graduation.

## President's/Dean's List Eligibility

A student will be announced as a President's List

student if he is enrolled full-time in a curriculum program (minimum of 12 credit hours), receives all grades of “A” (4.0 GPA), and has 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 he is enrolled full-time in a curriculum program, receives a grade point average of 3.50 with no grades lower than a “C,” and has 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

At graduation, the Highest Academic Award will be presented to the graduates who have the highest academic average in four categories: A.A., A.S., A.A.S., and Diploma. These students must have completed 75 percent of their coursework and their last term of study at Central Carolina Community College. Only students with a minimum GPA of 3.5 are eligible to receive this academic award.

### Academic Probation Policy

Each student will be notified of his academic status at the end of each term. Students who do not earn a 2.0 GPA for any given term will be placed on academic probation. Academic probation is posted to the student’s official transcript for that term. Probation students, who are seeking a degree, diploma, or certificate, will be required to enroll in and successfully complete ACA 090, a three semester hour non-credit course. A reduced course load is recommended. Students may not participate in any athletic events while on academic probation.

**EXCEPTION 1:** *Probation students who maintain a cumulative GPA of 3.0 or higher will not be required to enroll in ACA 090 College Study Skills. A reduced course load is recommended.*

**EXCEPTION 2:** *Probation students who have enrolled in and successfully completed ACA 090 during a previous term will not be required to repeat ACA 090. 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.*

If, upon receipt of grades, a student learns that he is on academic probation, he must schedule an appointment with his advisor/counselor 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, his advisor/counselor 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 Suspension Policy

If a student has below a 2.0 term GPA for two consecutive terms and an overall GPA of less than 2.0, that student will be suspended from all coursework and all college activities for one term with the exception of enrollment in ACA 090 College Study Skills. 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, a counselor, and the vice president of student services. ACA 090 will be required during the term of suspension or the term of reentrance.

**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 ACA 090. This extension of suspension must be approved by the department chairperson of the new curriculum and by the Vice President of Student Services. Failure to obtain at least a 2.0 GPA during the subsequent term will result in academic suspension for one term.*

### Repeating a Course

A student may repeat a course to eliminate a failing grade, to attempt to earn a higher grade, or 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. They 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.

### Removal of Incomplete

Instructors may assign a grade of “I” (“Incomplete”) to any student who, due to extenuating circumstances, needs additional time to complete course requirements; however, Incompletes will be assigned with discretion.

For each grade of “I” (“Incomplete”), 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 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 in 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 his 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.

## Withdrawal

A student who wishes to withdraw from school or from an individual course during the academic year should complete an official withdrawal form in the Student Services Department. The student’s advisor is required to sign the form. This will protect the student’s scholastic standing, his right to reenroll, and his transfer credits. The date of official withdrawal (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 an admissions counselor or academic advisor.

A student may withdraw within the first 12 weeks of the semester and receive a “W.” After the 12-week point as specified in the college calendar, withdrawal from a class results in a final grade of “WF.” A grade of “WF” is treated as an “F” and affects the grade point average.

All courses dropped after the first 12 weeks will be dropped with a “WF” except in the case of hardship/medical withdrawal from the college. A hardship/medical withdrawal must be requested from and documented with the vice president of student services.

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 will complete and submit to the registrar a “Student Termination” form. The grade assigned to the student on the termination 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 12-week date or a “WF” if the last date of attendance was after the 12-week date.

## Readmission

When a student withdraws from the college, he may apply for readmission at the beginning of the next term in which courses are offered and for which he is eligible. A student who is dismissed for unsatisfactory progress may be readmitted after the department chairperson, a counselor, or the vice president of student services has granted approval.

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

## Transcript Policy

Official curriculum transcripts may be requested by two methods. In order to request a transcript, a student’s written or electronic signature is required and all financial

obligations to the college must be fulfilled.

Students may request a transcript online from our website for \$3.50 per transcript. Online orders may take up to 72 hours or three business days to process though are usually processed daily. Online requests may be sent via US post or electronically to the email address specified by the student. To order a transcript online, go to CCCC’s homepage at [www.cccc.edu](http://www.cccc.edu). At the top of the page, click on the ‘Quick Links’ drop-down menu. Click ‘Request Transcript’. Scroll down to CURRICULUM TRANSCRIPTS. Then click ‘Order online now’. All electronic request transcript fees are collected by a third party agency (AVOW/Parchment systems) that provides the transcript management and certification system for transcripts. All students must digitally sign a FERPA waiver before the transcript is released.

On-demand requests may be made to the Records Office in person for a charge of \$5.00 per transcript. On-demand transcripts will only be issued to the student. A photo ID is required. On-demand transcripts cannot be mailed or sent electronically. Payment must be made to the Business Office. Please note the Business Office hours for on-demand requests. The business office hours are from 8am until 5pm Monday through Thursday and from 8am until 3:30pm on Fridays for on-demand payment processing.

CCCC does not fax transcripts or accept faxed transcript requests for curriculum transcripts.

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, and (2) the student owes outstanding materials to the college.

## Electronic Transcript Policy (E-transcripts)

Central Carolina Community College certifies that an electronic transcript (e-transcript) issued by AVOW Systems as 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.

## Acceptance of Electronic Transcripts for Admission Purposes

Central Carolina Community College will accept electronic transcripts for admissions purposes if the following criteria are met regarding the transcript:

1. The transcript is certified as official from the college using a third party agency for the certification process. Approved agencies include AVOW Systems, Docufide, National Student Clearinghouse, and Scrip-Safe.
2. The transcript must be a PDF certified document that has no indication of tampering.
3. A college official must receive the transcript from an approved e-transcript service. CCCC will not accept forwarded transcripts from unaffiliated college sources unless it has been preapproved by the Registrar.

4. CCCC has the right to refuse electronic transcripts or request additional information if there is question about the authenticity of the document.

## Graduation

Graduation exercises are held annually at the close of the spring and summer terms. The student must apply for his degree or diploma by the midterm of the term in which coursework is scheduled for completion. A \$18.00 graduation fee will be charged to students who participate in graduation exercises. Graduation fees are used to cover costs for degrees, diplomas, certificates, caps, gowns, honorariums, flowers, etc. 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 Student Services.

## 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.

## 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. 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. The following rules apply:

- Students must attend 80% of the total hours of any class in order to receive a passing grade. At the discretion of the instructor, a student who is absent from class more than 20% of required class meetings may be dropped from the class roster.

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.

- Students withdrawn for missing more than 20% of the class meetings before the last day to drop a course will receive a grade of "W." Students withdrawn after the last day to drop a course will be assigned a grade of "WF."

- 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 the Student Services Department for counseling relative to absenteeism. 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 been absent, the instructor should not initiate student withdrawals except for students who have never attended class. Otherwise, students should be withdrawn once they exceed the 20% absence limit.

- When the instructor decides to withdraw a student, the instructor must process the student withdrawal using appropriate forms within ten (10) working days of the student exceeding the 20% absence limit.

- A student may be suspended from a course for disciplinary reasons at any point during a course.

- If a student wishes to appeal an instructor's decision to withdraw him for absences, the student should consult the instructor's immediate supervisor. Further appeals should be made to the next ranking official up to the executive vice president of instruction. The official to whom the appeal is made may reverse the withdrawal. The decision of the executive vice president of instruction is final.

- Disciplinary withdrawals may be appealed through the procedures outlined under Students Rights (Disciplinary Procedures).

- 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 his 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).**

- Attendance or participation in distance education courses is defined as completing and submitting academic work. At the semester start, students must complete the course-specific orientation including a required orientation quiz by the deadline to remain enrolled in the course. Failure to meet this orientation requirement will result in being withdrawn from the course at the student's expense.

- Simply clicking into a Blackboard site or related application does not constitute attendance. Students should reference distance education materials and their course-specific syllabi for more detailed requirements for active and appropriate participation in distance education courses. When students do not meet attendance standards in distance education courses as set forth in distance education materials and course-specific syllabi, students will be



dropped from the course with the outcomes as described for traditional students.

### **Dropping Students from Class Roll**

A student will be dropped when the student gives notice of withdrawal or has been absent from class for 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 dropped for two consecutive weeks of absences without contact or for any other reason may be readmitted through the Student Services Department. Permission to reenroll will be given only with approval of the instructor. All work missed must be made up. A student may be dropped from a course for disciplinary reasons.

## **Student Rights, Responsibilities, and Judicial Procedures**

### ***I. Preamble***

Freedom to teach and freedom to learn are inseparable facets of academic freedom. The freedom to learn depends upon appropriate opportunities and conditions in the classroom, on the campus, and in the community. Students should exercise their freedom with responsibility. As members of the academic community, students are subject to the obligations, which accrue to them by virtue of this membership. When a student's violation of the law adversely affects the college's pursuit of its recognized educational objectives, the college may enforce its own regulations. When students violate college regulations, they are subject to disciplinary action by the college whether or not their conduct violates the law. If a student's behavior simultaneously violates both college regulations and the law, the college may take disciplinary action independent of that taken by legal authorities.

### ***II. Student Rights***

A. Students are free to pursue their educational goals. Appropriate opportunities for learning in the classroom and on the campus shall be provided for by the college. Student performance will be evaluated solely on an academic basis, not on opinions or conduct in matters unrelated to academic standards.

B. Students have the right to freedom of expression, inquiry, and assembly without restraint or censorship subject to reasonable and nondiscriminatory rules and regulations regarding time, place, and manner. Freedom of expression must conform to generally recognized community standards of decency and morality.

C. Students have the right to inquire about and to propose improvements in policies, regulations, and procedures affecting the welfare of students through established student government procedures, campus committees, and college officers.

D. The Family Educational Rights and Privacy Act of 1974 provides safeguards regarding the confidentiality of and access to student records, and this Act will be adhered to by the college. Students and former students have the right to review their official records and to request a hearing if they challenge the contents of these records. Only directory information will be released without the written consent of the student. Directory information includes name, address, academic major, enrollment periods, hours earned, degrees awarded, and awards received. However, a student may request in writing to the vice president of student services that directory information be withheld. The college will not sell mail address lists of any current students, previous students, or graduates.

E. No disciplinary sanctions other than temporary removal from class or an activity may be imposed upon any student without due process (see Section IV, A.). Due process procedures are established to guarantee a student accused of a student code of conduct violation the right of a hearing, a presentation of charges, evidence for charges, the right to present evidence, the right to have witnesses on one's behalf and to hear witnesses on behalf of the accuser(s), the right to counsel, and the right of appeal.

F. Grade Appeal—Students have the right to appeal any grade within fifteen (15) business days after the posted date of the grade. Students must follow the student appeal process outlined under Section VI. Student Grievance Procedure and Section VIII. Appeals Procedure—Grade Appeal.

### ***III. Student Code of Conduct***

The college reserves the right to maintain a safe and orderly educational environment for students and staff. Therefore, when, in the judgment of college officials, a student's conduct is a clear and substantial disruption or clearly threatens to create a substantial disruption to the college community, appropriate disciplinary action will be taken to restore and protect the sanctity of the community.

Students are expected to conduct themselves in accordance with generally accepted standards of scholarship and morality. The purpose of this code is not to restrict student rights, but to protect the rights of individuals in their academic pursuits.

The following regulations set forth rules of conduct which prohibit certain types of student behavior. Violation of one or more of the following regulations may result in one of the sanctions described in Section V. This code should not be considered an exclusive list of acceptable and unacceptable behavior.

A. Academic Dishonesty—Central Carolina Community College expects every student to be committed to honesty and academic integrity. To ensure that all students understand CCC's expectations, specific examples of cheating and plagiarism, two common forms of dishonesty, are outlined below. The lists are representative, but not all inclusive of various types of academic dishonesty.

Cheating includes copying tests, assignments, projects,

presentations, and similar work; submitting work that was previously submitted in another course or at another institution without instructor approval; changing grades without the instructor's knowledge; using unapproved sources (print, electronic, or web materials, etc.) during tests; receiving and giving assistance with tests or other assignments without instructor approval; and any action which misrepresents or defrauds.

Plagiarism includes representing others' work (papers, tests, assignments, projects, etc.) in any form, print, electronic, web, etc., as your own; not giving credit to work created or composed by another author (refer to The Publication Manual of the American Psychological Association, the MLA Handbook for Writers of Research Papers, or other approved style guide); or submitting a purchased paper, project, or presentation as your own original work.

Other academic honesty violations include allowing others to copy your work, providing your work to others for submission as their own, lying to improve your grade or others' grades, changing a graded work and submitting it for regrading, stealing or destroying others' work, collaborating on work without instructor approval, and impersonating another by taking their examination.

If a student commits an act of academic dishonesty, the consequences may include one or more of the following at the discretion of CCCC administrators: receive a zero grade on that assignment, receive an "F" in that course, and/or be suspended or expelled from the college.

B. Theft of, misuse of, or damage to college property, or theft of or damage to property of a member of the college community or a campus visitor on college premises or at college functions; unauthorized entry upon the property of the college or into a college facility or a portion thereof which has been restricted in use and thereby placed off limits; unauthorized presence in a college facility after closing hours are violations of behavior.

C. Possession of or use of alcoholic beverages or being in a state of intoxication on the college campus or at college-sponsored or supervised functions off campus or in college-owned vehicles is prohibited. Possession, use, or distribution of any illegal drugs, except as expressly permitted by law is prohibited. Any influence, which may be attributed to the use of drugs or of alcoholic beverages, shall not in any way limit the responsibility of the individual for the consequences of their actions.

Furthermore, no one with the smell of alcohol on him, or whose observable behavior leads a college official to believe he is under the influence of alcohol or other drugs, will be allowed at the college or any college activity.

**NOTE:** Parents are notified when students under age 21 violate drug and/or alcohol laws.

D. Lewd or indecent conduct, including public physical or verbal action or distribution of obscene or

E. Mental or physical abuse of any person on college premises or at college-sponsored or college-supervised functions, including verbal or physical

actions which threaten or endanger the health or safety of

any such persons or which promote hatred or racial prejudice is prohibited. **NOTE:** A student who poses a serious risk of imminent harm (i.e., threat of a violent act against students/or staff), will be expelled immediately. Personal combat will not be tolerated.

F. Any act, comment, or behavior which is of a sexually suggestive or harassing nature and which in any way interferes with a student's or an employee's performance or creates an intimidating, hostile, or offensive environment is prohibited.

G. Intentional obstruction or disruption of teaching, research, administration, or disciplinary proceedings, or other college activities, including public service functions and other duly authorized activities on college premises is prohibited.

H. Occupation or seizure in any manner of college property, a college facility, or any portion thereof for a use inconsistent with prescribed, customary, or authorized use is prohibited. In addition to usual disciplinary measures, violation of this rule will result in revocation of all scholarships and grants.

I. Participating in or conducting an assembly, demonstration, or gathering in a manner which threatens or causes injury to person or property; which interferes with free access to, ingress, or egress of college facilities; which is harmful, obstructive, or disruptive to the educational process or institutional functions of the college; remaining at the scene of such an assembly after being asked to leave by a representative of the college staff are prohibited.

J. Possession or use of a firearm, incendiary device, explosive, or any weapon, except in connection with a college-approved activity is prohibited. This also includes unauthorized use of any instrument capable of inflicting serious bodily injury to any person.

K. Setting off a fire alarm or using or tampering with any fire safety equipment, except with reasonable belief in the need for such alarm or equipment is prohibited.

L. Illegal gambling is prohibited.

M. Smoking (and/or using other forms of tobacco products), eating, or drinking beverages in classrooms, shops, and labs or other unauthorized areas is prohibited.

N. Vehicles must be parked in designated areas and the parking permit must be visible. Vehicles will be operated safely, moderately, and courteously. The speed limit on all campuses is ten (10) miles per hour. Vehicles must be registered with the Business Office (Lee County Campus) or the front office (Chatham and Harnett county campuses) at the first occasion they are used on campus grounds. Violators of traffic and parking regulations are subject to a fine for each violation. Student records may be withheld until fines are paid.

O. Forgery, alteration, or misuse of college documents, records, or instruments of identification with intent to deceive is prohibited.

P. Failure to comply with instruction of college officials acting in performance of their duties is prohibited.

Q. Violation of the terms of disciplinary probation or

any college regulation during the period of probation is prohibited.

R. Fiscal irresponsibility such as failure to pay college-levied fines, failure to repay college-funded loans, or the passing of worthless checks to college officials is prohibited.

S. Violation of local, state, or federal criminal law on college premises or while attending college activities is prohibited.

T. Students are expected to dress appropriately for the occasion. This includes covering the torso and wearing shoes or sandals. Lewd, indecent, or offensive wording on clothing will not be tolerated.

U. Students are not to bring children to the campus while attending classes or other activities or using the library. Children should not be left unattended in cars while parents attend class or campus business.

V. Curriculum students are permitted to carry pagers and cellular phones on their persons provided that they comply with all the following:

- No texting or emailing during class.
- Cellular phones must be set to silent or vibrate mode or be turned off completely during class time.
- Students will not exit class to respond to messages or calls. If it is an emergency situation, students must notify their instructor prior to exiting class.

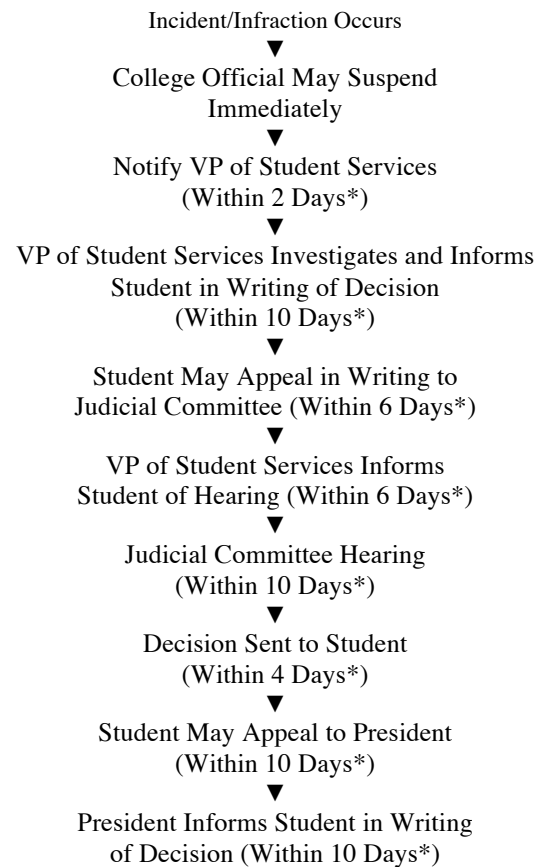
• If a student’s pager or cellular phone becomes a classroom disruption, they will be asked to remove the pager or cellular phone from class.

College personnel shall retain the right to remove pagers or persons that become disruptive to the learning process. All students choosing to carry pagers or cellular phones must abide by the policy as outlined above or face disciplinary measures from the college.

W. Library Computer Use Library computers are provided to conduct research and to communicate with others in support of the college’s educational mission. Students, faculty, staff, public patrons, and campus visitors are expected to use computer resources in an ethical, legal, and responsible manner. By logging on to library computers, users acknowledge that they are aware of and agree to the CCCC Acceptable Use Policy. Any use of library computers that violates college policy, violates federal, state, or local laws, alters computer and/or network settings, promotes commercial activity, intends harm or distress to others, or is obscene or malicious in nature is prohibited. Computer access is a privilege, not a right. Violations may result in loss of access and/or disciplinary action.

X. Policy on Pets: Pets of any type may not be brought on campus or into any college building. This policy is in no way intended to restrict access to the campus for animals specifically trained to aid individuals with disabilities, police dogs, or those pets that are part of the college’s Vet Med program. Pets cannot be left unattended in vehicles while parked on CCCC property.

**Diagram of Student Due Process Procedure**



*\*Working days, not calendar days*

**IV. Disciplinary Procedures**

A. Immediate Suspension: If an act of misconduct threatens the health or well-being of any member of the academic community or seriously disrupts the function and good order of the college, an instructor or administrative officer may direct students involved to cease and desist such conduct and advise them that failing to cease and desist will result in immediate suspension. If the students fail to cease and desist, the instructor or administrative officer may then suspend them from the class, the activity, or the college until a resolution of the matter can be made.

The instructor or administrative officer invoking such suspension shall notify the vice president of student services in writing of the individuals involved and the nature of the infraction as soon as possible but no more than two (2) days following the incident. The vice president of student services shall resolve the matter in a timely fashion utilizing the steps outlined in section IV. C. Disciplinary Procedures.

B. Responsibility for Implementation: The vice president of student services is responsible for implementing student discipline procedures. (Throughout this code, VP of Student Services refers to the vice president of student services).

C. Disciplinary Procedures: In order to provide an

orderly procedure for handling student disciplinary cases in accordance with due process and justice, the following procedures will be followed:

1. Charges: Any administrative official, faculty member, staff member, or student may file charges with the VP of Student Services against any student or student organization for violations of college regulations. The individual(s) making the charge must notify the VP of Student Services in writing stating: name of the student(s) involved, the alleged violation of the specific code of conduct, the time, place, and date of the incident, names of person(s) directly involved or witnesses to the infraction(s), any action taken that related to the matter, and desired solution(s).

2. Investigation and Decision: Within five (5) working days after the charge is filed, the VP of Student Services shall complete a preliminary investigation of the charge and shall schedule a meeting with the student. After discussing the alleged infraction with the student, the VP of Student Services may act as follows:

a. drop the charges.

b. impose a sanction consistent with those shown in Section V. Sanctions.

c. refer the student to a college office or community agency for services.

3. Notification: The decision of the VP of Student Services shall be presented to the student in writing following the meeting with the student. In instances where the student cannot be reached to schedule an appointment with the VP of Student Services or where the student refuses to cooperate, the VP of Student Services shall send a certified letter to the student's last known address providing the student with a list of the charges, the VP of Student Services' decision, and instructions governing the appeal process (Section VII. Appeals Procedure – Sanctions or Disciplinary Actions).

## **V. Sanctions**

A. Reprimand: This written communication gives official notice to the student that any subsequent offense against the Student Code of Conduct will carry heavier penalties because of this prior infraction.

B. General Probation: An individual may be placed on General Probation when involved in a minor disciplinary offense. General Probation has two (2) important implications. First, the individual is given a chance to show his capability and willingness to observe the Student Code of Conduct without further penalty; second, if he errs again, further action will be taken. This probation will be in effect for no more than two (2) terms.

C. Restrictive Probation: Restrictive Probation results in loss of good standing and becomes a matter of record. Restrictive conditions may limit activity in the college community and/or access to specified college facilities. Generally, the individual will not be eligible for initiation into any local or national organization, and may not receive any college award or other honorary recognition. The individual may not occupy a position of

leadership or responsibility within the college or with a student organization, publication, or activity. This probation will be in effect for no less than two (2) terms. Any violation of Restrictive Probation may result in immediate suspension.

D. Restitution: This requires paying for damaging, misusing, destroying, or losing property belonging to the college, college personnel, or students.

E. Interim Suspension: This results in exclusion from class and/or other privileges or activities as set forth in the notice, until a final decision has been made concerning the alleged violation.

F. Loss of Academic Credit or Grade: This is imposed as a result of academic dishonesty.

G. Withholding Transcript, Diploma, or Right to Register: These are imposed when financial obligations are not met.

H. Suspension: This results in exclusion from the college and all activities of the college for a specified period of time. This sanction is reserved for those offenses warranting discipline more severe than probation or for repeated misconduct. Students who receive this sanction must get specific, written permission from the VP of Student Services before returning to campus.

I. Expulsion: This is dismissing a student from the college and all activities of the college for an indefinite period. The student loses his student status. The student may be readmitted to the college only with the approval of the president. **NOTE:** *A student who poses a serious risk of imminent harm (i.e., threat of a violent act against students/or staff), will be expelled immediately.*

J. Group Probation: This is given to a college club or other organized group for a specified period of time. If group violations are repeated during the term of the sentence, the charter may be revoked or activities restricted.

K. Group Restriction: This is removing college recognition during the term in which the offense occurred or for a longer period (usually not more than one other term). While under restriction the group may not seek or add members, hold or sponsor events in the college community, or engage in other activities as specified.

L. Group Charter Revocation: This is removal of college recognition for a group, club, society, or other organization for a minimum of two years. Re-charter after that time must be approved by the president.

## **VI. Student Grievance Procedure**

A. Purpose: The purpose of the student grievance procedure is to provide a system to channel student complaints against a college employee. Such complaints include academic grades, alleged discrimination, and alleged harassment.

B. Procedures:

1. First, the student must go to the instructor or staff member with whom the problem originated and attempt to resolve the problem at this level. If the grievance is related to an academic grade, the student must follow the steps outlined in the Grade Appeal Form as indicated in

VIII. Appeals Procedure— Grade Appeal. In extreme cases such as alleged sexual harassment, the student may go directly to the VP of Student Services or any other college official with whom the student feels comfortable.

2. If the grievance related to discrimination or harassment is not resolved in step one, the student may appeal to the department chair or dean responsible for the student’s curriculum. The department chair or the dean will attempt to resolve the conflict.

3. If the grievance related to discrimination or harassment is not resolved in step two, the student may appeal to the responsible vice president who will attempt to resolve the conflict.

### VII. Appeals Procedure—Sanctions or Disciplinary Actions

A student who disagrees with the decision of the VP of Student Services may request a hearing before the Judicial Committee. This request must be submitted in writing to the VP of Student Services within six (6) working days after the receipt of the VP of Student Services’ decision. The VP of Student Services shall refer the matter to the Judicial Committee together with a report of the nature of the alleged misconduct, the name of the complainant, the name of the student or college employee against whom the charge has been filed, and the relevant facts revealed by the VP of Student Services’ investigation.

#### A. Committee Composition

Membership of the Judicial Committee shall be composed of the following:

1. Three faculty or staff members appointed by the executive vice president of instruction of the college.

2. Three student members who are unfamiliar with the student or the complaint, appointed by the student activities coordinator. New students may be selected for each hearing.

3. A college faculty or staff member appointed by the president to serve as committee chairperson, who will vote only in case of a tie. A new chairperson may be appointed for each hearing.

4. The student activities coordinator is an ex officio, non-voting member serving as an impartial observer to ensure that the student’s rights are protected. **NOTE: At least two faculty/staff members and two students plus the chairperson must be present in order for the committee to conduct business.**

#### B. Procedures for Hearings Before the Judicial Committee

1. Procedural Responsibilities of the VP of Student Services include the following:

The Judicial Committee must meet within ten (10) working days of receipt of a request for a hearing, unless the student (the defendant) requests additional time (not to exceed five (5) days). At least two (2) working days prior to the date set for the hearing, the VP of Student Services shall send a certified letter to the student’s last known address providing the student with the following information:

- a. A restatement of the charge or charges.
- b. The time and place of the hearing.
- c. A statement of the student’s basic

procedural rights.

2. Basic procedural rights of students include the following:

a. The right to counsel. The role of the person acting as counsel is solely to advise the student. The counsel shall not address the committee. If the student opts to bring counsel, the student must inform the VP of Student Services of this intention when the request for the hearing is filed. If the student brings counsel to the hearing without so informing the VP of Student Services, the committee chairperson will give the student the option of proceeding without counsel or postponing the hearing for five (5) working days.

b. The right to request that the committee chairperson disqualify any member of the committee for prejudice or bias. If a member is disqualified the committee must still have five members (see note below VII. A. 4.) to conduct business. Additionally, if a faculty or staff member is the defendant, the faculty or staff member also has the right to request that a committee member be disqualified for prejudice or bias.

c. The right to present evidence (including witnesses).

d. The right to face the person(s) bringing the charge(s).

e. The right to hear witnesses on behalf of the person bringing the charges.

f. The right to testify or to refuse to testify without such refusal being detrimental to the student.

g. The right to appeal the decision of the committee to the president who will review the official record of the hearing. The appeal must be in writing and it must be made within ten (10) working days of the completion of the hearing.

3. The Conduct of the Committee Hearings is as follows:

a. Hearings before the Committee shall be confidential and shall be closed to all persons except the following:

(1) The student. (Absence of the student will result in adjournment of the hearing and no further action will be taken.)

(2) The faculty or staff member bringing the charge against the student or being accused by the student.

(3) Counsels (see VII. B. 2. a. The Right to Counsel).

(4) Witnesses who shall:

(a) Give testimony singularly and in the absence of other witnesses.

(b) Leave the committee meeting room immediately after completion of the testimony.

b. The hearings will be tape-recorded. Tapes will become the property of the committee and the president will determine access to them. All tapes will be filed in the vault in the college Business Office and kept for three (3) years.

The VP of Student Services will keep copies of all correspondence and rulings surrounding the hearing for three (3) years.

c. The committee shall have the authority to adopt supplementary rules of procedure consistent with this code.

d. The committee shall have the authority to render written advisory opinions concerning the meaning and application of this code.

e. Upon completion of a hearing, the committee shall meet in executive session to determine concurrence or non-concurrence with the original finding and to recommend sanctions, if applicable.

f. Decisions of the committee shall be made by majority vote.

g. Within four (4) working days after the decision of the committee, the VP of Student Services shall send a certified letter to the student's last known address providing the student with the committee's decision.

#### C. Appeal to the President

A student who refuses to accept the findings of the committee may appeal in writing to the president within ten (10) working days after receipt of the committee's decision. The president shall have the authority to:

1. Review the findings of the proceedings of the committee.

2. Hear from the student, the VP of Student Services, and the members of the committee before ruling on an appeal.

3. Approve, modify, or overturn the decision of the committee.

4. Inform the student in writing of the final decision within ten (10) working days of the receipt of the appeal.

### **VIII. Appeals Procedure–Grade Appeal**

A. The purpose of the grade appeal procedure is to provide a system to address student complaints regarding grades awarded for specific assignments and/or courses.

#### B. Procedures

1. The student initiates the appeal of an individual grade or course grade by completing the biographical and descriptive information prompted on the first page of the Grade Appeal Form. The student then submits the completed form to the instructor of the class in which the grade was assigned.

2. The instructor reviews the description of the problem and any related supporting evidence documented on the form by the student and then renders a decision to either uphold or amend the grade. The instructor records information related to the decision on the form and reports this information to the student. Based on the instructor's decision, the student indicates on the form whether to accept the instructor's decision or to continue the appeal process.

3. If the student wishes to continue the appeal process, then the student has the right to appeal the instructor's decision to the appropriate supervising department chair who will, in turn, respond with a decision to uphold the

original grade or to overturn the instructor's decision. If, after completing this step, the student feels that the issue is still unresolved, then the student has the right to appeal the department chair's decision to the appropriate supervising academic dean who will respond with a decision to uphold the original grade or to overturn the department chair's decision. If the issue is still unresolved, the student may continue the appeal process based on the time frames and sequence specified on the Grade Appeal Form.

### **Distance Education Student Rights and Grievances**

Student rights equally apply and extend to distance education students as described above. Likewise, the requirements, guidelines, and procedures for grievances equally apply and extend to distance education students. Distance education students can refer to the College Catalog or the above for more complete information. Students can also contact the distance education staff for direction.

### **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 ([www.doc.state.nc.us](http://www.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 Protecting Distance Student Privacy**

The Family Educational Rights and Privacy Act requirements and guidelines equally apply and extend to distance education students.

#### **Verifying and Protecting Distance Student Identity**

Central Carolina Community College ensures the integrity of its courses and programs offered via distance education by verifying the identity of students participating in classes and completing course work. Methods for verification include requiring a secure login and pass code to the learning management system and related resources, proctored examinations, use of technologies like Turnitin, and employing authentic assessments. The distance education department does not share distance education

students' protected and identifying information to third parties.

The Family Educational Rights and Privacy Act (FERPA) (20 U.S.C. § 1232g; 34 CFR Part 99) is a Federal law that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education.

- Students have the right to inspect and review the student's education records maintained by the school. Schools are not required to provide copies of records unless, for reasons such as great distance, it is impossible for students to review the records. Schools may charge a fee for copies.

- Students have the right to request that a school correct records which they believe to be inaccurate or misleading. If the school decides not to amend the record, the student then has the right to a formal hearing.

After the hearing, if the school still decides not to amend the record, the student has the right to place a statement with the record setting forth his or her view about the contested information.

Generally, schools must have written permission from the student in order to release any information from a student's education record. However, FERPA allows schools to disclose those records, without consent, to the following parties or under the following conditions (34 CFR § 99.31):

- School officials with legitimate educational interest
- Other schools to which a student is transferring
- Specified officials for audit or evaluation purposes
- Appropriate parties in connection with financial aid to a student
- Organizations conducting certain studies for or on behalf of the school
- Accrediting organizations
- To comply with a judicial order or lawfully issued subpoena
- Appropriate officials in cases of health and safety emergencies
- State and local authorities, within a juvenile justice system, pursuant to specific State law

Schools may disclose, without consent, "directory" information such as a student's name, address, county of residence, telephone number, date and place of birth, honors and awards, and dates of attendance. However, schools must tell students about directory information and allow students a reasonable amount of time to request that the school not disclose directory information about them. Schools must notify students annually of their rights under FERPA. The actual means of notification (special letter, inclusion in a PTA bulletin, student handbook, or newspaper article) is left to the discretion of each school.

Students may not have access to the following information:

- Parent's financial records (without written consent from the parent)
- Law enforcement records
- Medical, psychiatric records, or similar records in

connection with the treatment of the student

- Letters/statements of recommendation

Directory Information is defined by Central Carolina Community College as the following items:

- Name
- Address
- Academic Major
- Enrollment Periods
- Hours Earned
- Degrees Awarded
- Awards Received

For additional information or technical assistance, you may call (202) 260-3887 (voice). Individuals who use TDD may call the Federal Information Relay Service at 1 (800) 877-8339. Or you may contact us at the following address: Family Policy Compliance Office  
U.S. Department of Education  
400 Maryland Avenue, SW  
Washington, D.C. 20202-5920

*NOTE: Department of Education as retrieved on 09/24/2008*  
[www.ed.gov/policy/gen/guid/fpcol/ferpa/index.html](http://www.ed.gov/policy/gen/guid/fpcol/ferpa/index.html)

## Drug and Alcohol Prevention

*Safe and Drug Free Schools and Communities Act of 1994*

Central Carolina Community College complies with the Drug-Free Schools and Communities Act of 1989 (Public Law 101-226) as implemented by regulations and contained in 34 CFR Part 86, Subpart B, (amended as Title IV Safe and Drug Free Schools and Communities Act of 1994).

### A. Program and Policy

Promoting a drug and alcohol free environment is everyone's responsibility. CCCC supports this nationwide movement and is committed to maintaining such an environment for all employees and students. The unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance by employees or students at any official college location or at any location while engaged in activities on behalf of the college is prohibited. "Controlled substance" generally refers to drugs which have a high potential for abuse. Such drugs include, but are limited to, heroin, cocaine, marijuana, PCP, and "crack." This includes, but is not limited to, narcotic drugs, hallucinogenic drugs, amphetamines, barbiturates, marijuana, anabolic steroids, or any other controlled substance as defined in Schedules I through V of Section 2020 of the Controlled Substance Act (21 U.S.C. Section 812) and is further defined by regulation at 21 C.F.R. 1300.11 through 1300.15 or article 5 Chapter 90 of the North Carolina General Statutes. They also include "legal drugs" which are not prescribed by a physician. Likewise, possessing, consuming, or serving alcoholic beverages at any college location is prohibited.

N.C. General Statutes 90-95 states that it is unlawful for any person:

- To manufacture, sell, deliver, or possess with intent to manufacture, sell, or deliver a controlled substance;
- To create, sell, deliver, or possess with intent to sell or

deliver, a counterfeit controlled substance;

- To possess a controlled substance.

CCCC policies also prohibit:

• Possessing, consuming, or serving alcohol beverages or controlled substances; or use, manufacture, and/or sell of controlled substances at any college location. Applies to all employees and students.

• Possessing, using, transmitting, or being under the influence of any narcotic drug, intoxicant of any kind. Applies to all employees and students.

#### B. Disciplinary Action

If an employee is convicted of violating and criminal drug statute while in the workplace, he or she will be subject to disciplinary action up to an including termination. Likewise, the violation of the college Alcohol Policy is also subject to disciplinary action. This action may include, but is not limited to, probation, suspension, termination, or the required successful completion of a drug or alcohol treatment program sponsored by an approved private or governmental institution as a precondition for continued employment.

A penalty will be imposed on students through the office of the vice president of student services as a result of unacceptable conduct which includes violation of the college's drug and alcohol policies.

Disciplinary actions may include: a written reprimand; being dropped from a class; receiving a failing grade on a test of course; probation; suspension from the college; dismissal from the college; or possible prosecution. More information can be found in the student code of conduct sections of the student handbook or the college catalog.

#### C. Drug Counseling and Rehabilitation Services

CCCC recognizes the effects of drug and alcohol use. For more information about health risks along with legal repercussions please see the back of the student handbook for Drugs: The Risks and the Laws and Alcohol: The Risks and the Laws.

If you need to seek assistance for any reason related to the use/abuse or drugs or alcohol, a member of the CCCC counseling staff will act as a referral source to the following services of Lee, Chatham, and Harnett counties:

- Alcoholic Anonymous (919) 776-5522
- Pinehurst Treatment Center (910) 215-3330
- Holly Hill Hospital (800) 447-1800
- Carolina Behavioral Care (910) 295-6007
- Sandhills Center/Lee (919) 774-6521
- High Point Behavioral Health (800) 525-9375
- Sandhills Center/Harnett (910) 893-2118
- Alamance Regional Medical Center (800) 522-9418

Full texts of all applicable laws and college policies are available in the office of the vice president of student services.

## Veterans' Information

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 (G.I. Bill), as well as to help them solve VA problems. CCCC has a veterans' coordinator whose office is located in the Student Services Department.

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

- Notify the veterans' 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' coordinator to insure that all enrollment and VA document data are correct and complete. Students must inform the veterans' coordinator of their class schedule each semester. Failure to inform the veterans' coordinator of changes in students' schedules may result in a lapse of educational benefits.

## Standards of Progress, Attendance, and Conduct

Public Law 93-508 requires that each educational institution approved for veterans to receive educational benefits (G.I. 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 the same for all students, veterans, and non-veterans.

### I. Unsatisfactory Progress

A final 2.0 cumulative grade point average is required for graduation in all programs, and a student is expected to maintain this average to be considered in good academic standing. (see Academic Probation Policy). Eligible veterans and dependents are expected to meet the satisfactory progress policy to receive VA benefits (See Eligible Veterans or Dependents). Eligible veterans or dependents who have been decertified may be recertified when they meet satisfactory progress (See Eligible Veterans or Dependents). Eligible veterans or dependents can appeal their termination of benefits by completing the appeal form in the Financial Aid Office. This policy is used as the basis for determining a student's status for enrollment certification purposes to the Veterans Administration.

### II. Attendance Requirements Classroom Attendance

Classroom attendance requirements are the same for veterans and non-veterans and are covered elsewhere in this 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 veterans' coordinator of any change in total semester hours may result in an overpayment in educational benefits and a debt for students.

## Serviceman's Opportunity College (SOC)

CCCC is a Serviceman's Opportunity College (SOC) and supports the concept that military personnel should be encouraged to begin their post-secondary education while serving their country.



Under the Serviceman's Opportunity College program, servicemen are encouraged to submit evaluations of CLEP test results, DANTES test results, military service school records, Military Occupation Specialty (MOS) evaluations, and prior college coursework for transfer credit. CLEP/DANTES must meet the recommended American Council on Education (ACE) minimum scores. All coursework considered for transfer must be equivalent to CCCC courses appropriate to the student's program of study.

## Student Activities

Central Carolina Community College, in cooperation with the Student Government Association, attempts to enrich the academic and social growth of the student with a wide range of student activities. Students are encouraged to participate in as many activities as time permits. Membership in all student organizations shall be open to all students without regard to race, sex, color, creed, age, disability, religion, or national origin.

## 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.

Monday – Thursday, 7:30 a.m. – 9:00 p.m.

Friday, 7:30 a.m. – 3:30 p.m.

## Alumni

Alumni are those persons who have successfully completed a certificate, diploma, or degree program at Central Carolina Community College.

The college has an active alumni association. Visit it on Facebook at [www.facebook.com/ccccalum](http://www.facebook.com/ccccalum).

The Circle for Cougar Graduates was created for loyal students and alumni who want to preserve the CCCC experience for future generations of students. By joining the Circle, students and alumni pledge to do three things:

- be a life-long ambassador for the college
- encourage future students to attend CCCC
- make an annual gift of any amount to the college

For more information, call (919) 718-7230

The college awards an Alumni/Phi Theta Kappa Scholarship.

## Ambassador Scholarship Program

The Ambassador Scholarships are awarded to a group of students who have been nominated by faculty and staff to represent the college at special events on campus and in the community. Students are nominated on the basis of grade point average (GPA), leadership potential, and communication skills. All selected Ambassadors receive free tuition and fees, plus all necessary uniforms for that year. Further information may be obtained from the Ambassador advisor in the Student Services Department.

## Carolina Student Transfer Excellence Program (C-STEP)

The Carolina Student Transfer Excellence Program, or C-STEP, is an innovative program offered via a partnership between CCCC and UNC-Chapel Hill that identifies talented low- to moderate-income students while they are still in high school or early in their community-college careers and guarantees their eventual admission to the university if they earn an appropriate associate degree and successfully complete the program. It also offers special events and advising, both at their home college and at Carolina, while they are pursuing their associate degrees.

For more information, contact Mark Hall, CCCC lead humanities instructor/C-STEP coordinator, (919) 718-7422 or [mhall@cccc.edu](mailto:mhall@cccc.edu).

## Student Government Association (SGA)

The Student Government Association (SGA) is the student body's self-government. It is the official voice of the student body. The SGA is committed to promoting the student's 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 the Student Services Department staff.

The SGA's organizational structure consists of an Executive Committee with the officers of president, a vice president for each of the county campuses, a secretary, treasurer, and a Student Senate composed of elected representatives from each curriculum. The SGA president and vice presidents are elected in the spring term of the preceding year. The other officers and representatives are elected during the fall term by the first week in October. The president of the SGA, who serves as a non-voting member of the Board, represents the students on the CCCC Board of Trustees.

The Chatham and Harnett County campuses elect an SGA vice president and senate representatives for their individual campuses and assist the student activities director with student activities on their campuses.

The major portion of the cost for all student activities is financed through the student fee paid by each student. The total amount anticipated is budgeted by the SGA Summer Standing Committee, approved or corrected by the SGA Student Senate at its first meeting, and then submitted by the SGA treasurer to the CCCC Board of Trustees for approval. Any changes in the anticipated amount must be reflected in the budget submitted for approval by the Board.

All student activities are conducted only if student interest and participation are sufficient. The following activities are funded and/or sponsored by the Student Government Association:

### 1. SGA Student Planner/Handbook

The Student Planner/Handbook is published each year by the SGA with the assistance of the Student Services Department staff. Important dates including registrations, exams, holidays, student activities, and events are listed in the Student Planner/Handbook. The purposes, rules,

regulations, activities, and policies governing student affairs at CCCC are also found in the Student Planner/Handbook. The cost is covered in the student fee.

## **2. Activity Days**

Activity Days are scheduled on each campus during the fall and spring terms of each school year and consist primarily of outdoor activities, games, and sports. Curricula enter teams in each of the athletic major events. The events currently being held are basketball, softball, volleyball, various races, pool shooting, and board games. These activities are normally preceded by a meal for the entire student body and faculty with the expense being covered by the student fee.

## **3. Athletics**

- a. Bowling: An intramural league is available to men and women and usually operates for a minimum of ten weeks with trophies presented. Participants pay a small fee per game during league bowling.
- b. 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.
- c. Volleyball: CCCC sponsors a women's volleyball team in intercollegiate play when interest is sufficient. Financial support comes from the student fee.
- d. Golf: CCCC sponsors a golf team in intercollegiate play when interest is sufficient.
- e. Other Athletics: Other athletic teams may be formed for men and women's sports as dictated by student interest.

## **4. Dances/Social Events**

Several dances, under the sponsorship of the SGA, are held each year depending upon student interest. The cost of these is covered by the student fee.

## **5. Special Events**

The Student Government Association may sponsor other activities such as socials, films, speakers, and related activities that will be of interest to the students. When such occasions arise, students are notified in advance and encouraged to participate.

## **6. Other Activities**

Various other activities are considered through student suggestions. Some of these, for which non-credit classes or clubs can be set up, include chess, bridge, dancing, drama, chorus, and African-American studies. These or any other activities will be considered if there is sufficient student interest. It is the desire of the Student Services Department staff and the SGA to provide, within budgetary limits and school policy, those activities desired by students, which lead to personal development of the individual.

## **7. SGA Elections**

SGA elections are held twice a year. An election for SGA president and vice president is held in the spring term

of the previous school year. The offices of secretary and treasurer are elected by the first week in October. The following rules have been adopted by the SGA to ensure fairness to all candidates:

- a. Voting times for each election will be announced at least one week before the election.
- b. No campaigning shall be permitted within 25 feet of the voting polls.
- c. No campaign poster will be permitted within 25 feet of the voting polls.
- d. Voting will be by ballot. Simple majority will elect officers.
- e. All currently enrolled curriculum students may vote.
- f. In the absence of an Elections Committee, the SGA president and advisor will be responsible for the election process.
- g. Any campaign violations should be immediately reported to the SGA advisor in the Student Center.

## **8. Who's Who**

CCCC has been designated an institution which is allocated listings for Who's Who Among Students in American Junior Colleges. The number of listings is usually received by CCCC in early spring. The method of selecting these students is, in part, determined by the National Committee and, in part, by the CCCC SGA. An official statement of the selection process will be published by the SGA prior to the selection. In general, students selected for listing must be scheduled for graduation during that year (spring or summer) and must have demonstrated qualities of scholarship, leadership and participation in school, and/or community activities.

## **9. 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 the cultivation of fellowship among its members. To qualify as candidates for membership, students must meet the following requirements:

- a. Must have completed 12 semester hours of associate degree coursework.
- b. 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.
- c. 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.

## **10. Clubs**

The college maintains a policy, and all clubs operate under the SGA. The student activities director will assist club advisors and students with club functions. Student fee funds may be available to active student clubs. Clubs may be added as students' interests evolve.

## Library Services

The CCCC Libraries consist of the Lee County Campus Library (Sanford), the Harnett County Campus Library (Lillington), and the Chatham Community Library (Pittsboro). The Chatham Campus Library merged with the Pittsboro Public Library in September 2010 to form a joint-use library located on the Pittsboro campus. CCCC is pleased to work with Chatham County in this capacity to provide library services to our students and to the Chatham community. All libraries provide assistance to students, faculty, and community patrons. Library cards are required for everyone to borrow materials. For students, the student ID card is also a library card. Students will need to register and activate their student ID for use as a library card at the circulation desk. Students at the Chatham campus should activate their student ID for use as a library card at the main office on campus. At the Sanford and Lillington campus libraries, community patrons are issued a community card free of charge. Library hours and phone numbers are:

### *Lee County (Sanford Campus)*

**Phone:** (919) 718-7244

**Fax:** (919) 718-7378

**Hours:** Monday through Thursday, 7:30 a.m. to 9:00 p.m.  
Friday, 7:30 a.m. to 3:30 p.m.

### *Harnett County (Lillington Campus)*

**Phone:** (910) 814-8843

**Hours:** Monday through Thursday, 7:30 a.m. to 8:00 p.m.  
Friday, 7:30 a.m. to 3:30 p.m.

### *Chatham Community Library (Pittsboro Campus)*

**Phone:** (919) 545-8084

**Hours:** Monday through Thursday, 9:00 a.m. to 8:00 p.m.  
Friday, 9:00 a.m. to 6:00 p.m.  
Saturday, 9:00 a.m. to 5:00 p.m.

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

Books and audio books may be checked out for 3 weeks. Back issues of periodicals may be checked out for 1 week. Movies may be checked out for 3 days (limit 2 titles). The CCCC libraries do not charge late fines for overdue materials with the exception of eReaders, which are \$5.00 per day if late. The replacement cost of the item is charged for items that have been lost. Charges may also be assessed for damaged materials. Grades, transcripts, and diplomas are held until the library record has been cleared. Circulation policies, loan periods, and late fines may vary at the Chatham Community Library.

## Library Resources

A variety of print and electronic library resources are available to supplement the curriculum offerings of the college. The CCCC libraries have a combined collection of over 30,000 books, 130 periodicals, and 2,000 audiovisuals. The Lee County (Sanford) campus library also has an

extensive law collection, a music CD collection, and a movie collection. Nook Color eReaders are also available for check-out at all campus libraries. The eReaders are pre-loaded with classics and best sellers.

Electronic resources via the Internet include several subscription databases and the NC LIVE collection of approximately 60 databases, providing access to over 16,000 full-text periodicals and over 25,000 electronic books. Students can access all of these electronic resources from home. Contact the library staff about off-campus access and to obtain instruction in the use of these resources.

The online catalog (CCLINC), a central database containing the holdings of CCCC and 48 other North Carolina community college libraries, provides easy and free access to additional resources. Cooperative agreements giving students borrowing privileges exist between the CCCC libraries and the public libraries in Lee, Harnett, and Chatham counties and Campbell University. The library also participates in interlibrary loan services with other types of libraries in North Carolina and throughout the country who have holdings in the OCLC WorldCat database. These services allow us to borrow materials from other libraries for you to check out from our library.

Library staff is available to assist students, faculty, and community patrons with reference questions, research, or other library needs. Assistance is available in person, by phone, by e-mail, and by a 24/7 online chat reference service called NC Knows. Students receive library instruction through curriculum classes or through online tutorials and research guides on the library web page at <http://www.cccc.edu/library>. Library patrons may request individual instruction when needed.

Computers with Internet access and Microsoft Office applications are available. A scanner and wireless Internet access are also available at all libraries. Printing and photocopying services are available using a debit card system at the Lee and Harnett campus libraries. Costs are 5¢ per page. Printing and copying services at the Chatham Community Library are payable through a coin-operated system or cash at 10¢ per page.

## College Success Center

The College Success Center supports students' needs as they persist towards their academic goals and develop into lifelong learners. Students may visit with the College Success Center for individual academic coaching sessions, advising sessions, and/or group advising sessions. All students are encouraged to visit the College Success Center if they have academic issues or experience barriers to their college attendance.

The College Success Center also offers college success courses (ACA 111, ACA 115, ACA 122) that students typically take during their first semester in college. These courses are designed to help students learn to navigate the college process and accomplish their goals. During the class, students will create individualized college success plans helping them to map their path towards a success career.

The College Success Center is located in the Miriello Building on the Lillington Campus, on the second floor of Building 2 on the Pittsboro Campus, and in Hockaday Hall on the Sanford Campus.

### **Developmental Studies Program**

Minimum proficiency requirements have been established in English, math, and reading. If a student's placement test scores are below the minimum requirements, he will take developmental courses designed to help remove deficiencies. The Developmental Studies Program is located in the Guided Studies Building on the Lee County Campus, in the Miriello Building on the Harnett County Campus, and in the Health and Small Business Building on the Chatham County Campus.

### **Writing and Reading Center**

The Writing and Reading Center helps students to develop their writing and reading skills with free services such as one-on-one tutoring, group tutoring sessions, and content-specific workshops. Through these services, students will receive constructive feedback on their writing assignments, various resources to improve writing and reading skills, and a better understanding of why writing and reading really matter.

The Writing and Reading Center tutors will help coach students to refine and revise their work. The Center will not proofread line-by-line, tell you what to write, or tell you what grade you can expect. Instead, tutors will offer guidance, instruction, and resources to help you become a better reader and writer with the ultimate goal of achieving college success.

The Center is located in the Miriello Building on the Lillington Campus, on the second floor in Building 2 on the Pittsboro Campus, and on the Lee Campus in the Science Building.

### **AVISO**

Students can use AVISO to collaborate with their faculty advisors and success coaches to develop a comprehensive academic success plan for current and future semesters. AVISO also provides students with access to transcripts, plans of study, and other important advising information.

#### ***Logging in to AVISO***

AVISO is an online academic planning tool where CCCC students can:

- Communicate with success coaches and faculty advisors.
- Create academic success plans.
- Plan for upcoming class registration periods to have advising holds lifted.

AVISO can be accessed from its icon located in the lower right column of [www.cccc.edu/connect](http://www.cccc.edu/connect) or at <http://ccc.avisapp.com>

STEP 1: Open a new tab and go to the AVISO website. The AVISO website can be found on

[www.cccc.edu/connect](http://www.cccc.edu/connect) or [ccc.avisapp.com](http://ccc.avisapp.com)

STEP 2: In the Username field, type in your full cougarmail e-mail address: the first initial of your first name, the first four letters of your last name, and the last three digits of your CCCC student ID (not your social security number) followed by "@cougarmail.cccc.edu ." For example, Jane Smith ID# 1234567 would be username: [jsmit567@cougarmail.cccc.edu](mailto:jsmit567@cougarmail.cccc.edu)

STEP 3: In the Password field, type in your cougarmail password.

The Help Desk can be contacted for troubleshooting at (919) 718-7397 or (800) 682-8353 extension 7397.

### **Academic Assistance Center**

The Academic Assistance Center (AAC) is available for students who request additional assistance with their academic studies. The center offers free tutoring, an open computer lab, and other services.

Campus phone numbers:

Sanford: (919) 718-7361

Lillington: (910) 814-8809

Pittsboro: (919) 545-8029

Visit the AAC at:

[www.cccc.edu/student-services/academic-assistance](http://www.cccc.edu/student-services/academic-assistance)

The AAC supports the mission of Central Carolina Community College. By providing computer, testing, and tutorial services in a learner-centered environment, the AAC empowers students to maximize their academic potential.

### **The Benefit Bank**

As a partner of The Benefit Bank of North Carolina, Central Carolina Community College is committed to helping enrolled students, workers, and families get access to educational and federal work support resources.

Through this online service, individuals can complete forms or applications for the following services:

- Federal and State Tax Filing (Up to 3 years back taxes)
- FAFSA (Free Application for Federal Student Aid)
- Food and Nutrition Services (Food Stamps)
- Veterans' Education and Training Benefits
- Medical Benefits (adults and children)
- Work First Family Assistance
- Energy Assistance - Crisis Assistance
- Voter Registration

Please contact the College Success Center at [success@ccc.edu](mailto:success@ccc.edu) or (919) 718-7485 or (800) 682-8353 extension 7485 for assistance in accessing the Benefits Bank.

### **The Instructional Program**

Many decisions precede the implementation of any new curriculum program. Surveys are used to determine student interest and the availability of employment. Advisory committees are organized in order that community interest, advice, and counsel may be solicited. Funds must be available for instructors and necessary equipment and instructional space must be available. Only after the

approval of the Board of Trustees and the State Board of Community Colleges may a new program be implemented.

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. This handbook is not to be read as part of a contractual relationship between the college and a student or prospective student.

### **Continuing Education**

Continuing Education provides opportunities for adults, regardless of educational backgrounds, to retrain and update themselves in 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 the Continuing Education Unit (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:

Community Service programs are offered as a part of the commitment of the college to serve the total community. Offered on day or evening basis, these courses are designed to meet the educational needs of adults in a variety of areas.

Occupational Extension programs provide pre-employment, on-the-job, and in-service training of personnel for area businesses and industries. Occupational extension courses have been or can be developed for any industrial training need, which can be addressed in a classroom, online, or lab environment. These courses may be offered “on site” or at a college location. Course content can be tailored to meet a particular company’s needs. A group of at least 8-10 people is required for most classes.

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.

### **College & Career Readiness**

The mission of the College & Career Readiness program is to assist adults to become literate and obtain the knowledge and skills necessary for employment and self-sufficiency, assist adults who are parents to obtain the

educational skills necessary to become full partners in the educational development of their children, and assist adults in the completion of a secondary school education. The North Carolina Community College System provides educational opportunities for adults to improve their reading, writing, mathematics, and communication skills through the following major program components:

#### **1. Adult Basic Education**

Adult Basic Education is offered to individuals, 16 years of age or older, who have been out of school at least six months and who desire to improve basic skills in reading, writing, arithmetic, and related subjects. Classes are offered on a non-fee basis in both the day and evening programs at sites throughout Chatham, Harnett, and Lee counties. The intent is to raise the educational standards of individuals to meet the demands of today’s world.

Individuals are tested, counseled, and placed in informal classes where they may progress in each subject area at their own individual rate.

#### **2. High School Completion Programs**

- Admission: Anyone 16 years of age or older, who has been out of school at least six months, may enroll in the General Educational Development (GED) Program or the Adult High School Diploma Program.

- Purpose of Programs: The General Educational Development (GED) or High School Equivalency Program and the Adult High School Diploma Program provide the opportunity for adults to complete their high school education. Upon completion of the program of their choice, students receive certificates from either the North Carolina State Board of Community Colleges or diplomas from the local school board of the county in which they reside.

A high school diploma or certificate is required for admission to colleges, vocational or technical schools, and for certain employment. Graduates who complete either of the adult high school programs will meet all the requirements for high school completion.

a. General Educational Development (GED): The GED program allows an adult to take a series of tests to demonstrate attainment of the basic skills of the high school graduate without having attended four years of regular high school. Beginning January 2, 2014, the GED will include four tests, will be computer based and will cost a total of \$120.00. The tests determine an individual’s ability to think clearly and evaluate information critically.

Preparation for the GED – Adults can prepare for the examination by attending classes at sites throughout the three-county service area of Chatham, Harnett, and Lee counties. Each student is evaluated and an educational plan is devised.

There is no required length of time that an individual has to study for the test. A pretest is required to determine the individual’s test readiness. GED tests are given on the Chatham, Harnett, and Lee campuses. Effective January 2, 2014, the GED will be restructured to include four tests, in the academic areas of Literacy, Mathematics, Science and

Social Studies, for which the testing fee will be \$30.00 per test or a total of \$120.00. The current overall GED testing fee until that time remains at \$35.00 total.

b. Adult High School Diploma: A student may earn units of credit and receive a diploma that is issued from a local school board. The number of credits to be earned is determined after an evaluation of the transcripts from all previously attended schools. Credit for each course is earned through the use of traditional and nontraditional methods of instruction in the Continuing Education classes organized in Chatham, Harnett, and Lee counties.

### **3. Basic Skills Plus**

Eligible students participating in this program will be concurrently enrolled in AHS/GED classes within College and Career Readiness along with occupational classes. These classes will provide employability, occupational, and technical skills alongside earning a high school diploma, a Career Readiness Certificate (CRC) or equivalent employment certificate. Visit [www.cccc.edu/ecd](http://www.cccc.edu/ecd) for more information about current career focus areas. These classes are offered tuition free.

### **4. Compensatory Education**

The compensatory education program is designed to meet the needs of developmentally challenged adults over the age of 17. The abilities of those served range from prekindergarten through high-functioning. The program offers educational opportunities that allow them to reach their fullest potential. They are trained in essential life skills, from personal hygiene to cooking. They receive enrichment education with crafts, arts, and music. Community living, consumer education, and vocational education are also an important part of their training.

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

The ESL program helps adults with limited English proficiency to achieve their desired level of competency in English through a comprehensive program in speaking, reading, writing, listening, and learning the English language through six skill levels. The Workforce Investment Act of 1998 also refers to English as a Second Language programs as English Literacy programs.

### **Small Business Centers**

The college's small business centers support the development of new businesses and the growth of existing 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 operation for entrepreneurs and prospective small business owners. Direct counseling and resources are provided to small business center clients. A special focus of assistance and loan referral is provided, as well as a small business incubator operated in conjunction with a community partner agency. 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.

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

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

In addition to customized training, incumbent workforce development program (IWDP) grants and training are provided to businesses within the four-county local workforce area to include Chatham, Harnett, Lee, and Sampson counties. The primary focus of this grant is to provide layoff aversion for companies. The grant provides training revenue for employees with a one-time maximum of \$25,000 and a lifetime maximum of \$40,000.

### **Workforce Development Services**

Central Carolina Community College, as the administrator for Triangle South Workforce Development Board programs, is responsible for planning, policy guidance and oversight of the workforce investment system in the four counties. Its goal is to combine area employment, training and supportive services and programs into a consumer based, market driven system that meets the needs of job seekers and employers. Strategies and objectives for accomplishing the WDB's goal are contained in the Workforce Investment Plan.

The WDB oversees the One-Stop Career Center System (JobLink), which is the delivery mechanism for comprehensive services for workforce investment system customers. Through planning, data collection and continuous improvement of programs and services, the WDB seeks to maximize the efficiency of the local labor market, surpass customers' expectations and exceed federally required and state determined performance standards. The mission of the Workforce Development Board is to develop and utilize effective leadership and partnerships among business, labor, government, social

services, local education agencies and other communities of interest to create and support one efficient, customer-centered and market-driven workforce development system. The mission is also to ensure a system of high quality customer service and information that supports the following concepts:

- The ability of all citizens to obtain employment that provides a livable wage
- The development of a qualified, competent and globally competitive workforce in the quad-county area
- The efficient allocation of scarce and idle resources
- A sustained economic growth and development over time in Chatham, Lee, Harnett, and Sampson counties

## 2012 PERFORMANCE FUNDING MEASURES REPORT

### Central Carolina Community College recognized for ‘Exceptional Institutional Performance’ by NCCCS

In February 1999, the North Carolina State Board of Community Colleges adopted twelve performance measures for accountability. Recognizing the importance of these measures in the System’s public accountability efforts, the System Planning Council decided to designate the twelve measures, which capture the essential elements of the mission of all community colleges in North Carolina, as the core indicators of student success and include them as the first factor of the Critical Success Factors report.

In 2007, the General Assembly of North Carolina approved a proposal from the State Board of Community Colleges to modify the performance measures. Modifications included changing the standards by which colleges qualify for Exceptional Institutional Performance (formerly Superior College), reducing the number of measures from twelve to eight, and changing the criteria and data collection methods for some of the standards.

For the 2012 reporting year, CCCC met all eight Performance Funding Measures, and was one of just 16 community colleges in the system to earn the “Exceptional Institutional Performance” recognition.

In order to receive an Exceptional Institutional Performance (EIP) rating, a college must meet or exceed all eight performance funding measures, cannot have any licensure exam (for which the college controls who takes the exam) with a passing rate of less than 70%, and the performance of students who transfer to four-year institutions must meet or exceed the performance level of students native to UNC institutions.

The full NCCCS Critical Success Factors Report can be accessed at <http://www.ncccommunitycolleges.edu/Publications/docs/Publications/csf2012.pdf>

Measures and standards for both Central Carolina Community College (CCCC) and the North Carolina Community College System (NCCCS) are provided below.

### Progress of Basic Skills Students

Basic skills students include all adult literacy students. This is a composite measure that includes the percentage of students progressing within a level of literacy, the percentage of students completing a level entered or a pre-determined goal, and the percentage of students completing the level entered and advancing to a higher level. *Data Year: 2010 – 2011*

Performance Standard – N/A for 2012 due to state-level data collection methodological issues

NCCCS Performance – N/A for 2012 due to state-level data collection methodological issues

CCCC Performance – N/A for 2012 due to state-level data collection methodological issues

### **Passing Rates on Licensure & Certification Examinations**

The percentage of first-time test takers from community colleges passing an examination required for North Carolina licensure or certification prior to practicing the profession. A licensure requirement for an occupation is one that is required by state statute for an individual to work in that occupation. Certification is generally voluntary but may be required by employers or an outside accrediting agency. Purely voluntary examinations are not reported. For privacy and statistical validity, no examination data are reported when the number of first-time test takers was fewer than 10. Depending on the exam, data may be reported on the fiscal or calendar year. *Data Year: 2010 – 2011*

Performance Standard – The performance standard for the aggregate institutional passing rate is 80%. To qualify for Exceptional Institutional Performance, a college cannot have any licensure/certification exams for which the college controlled who was eligible to sit for the exam with a passing rate less than 70%.

NCCCS Performance – 87% aggregate institutional passing rate

CCCC Performance – 84% aggregate institutional passing rate

### **Performance of College Transfer Students**

The performance of community college associate degree students who transfer to UNC universities is compared with students native to the UNC universities. (Colleges may also submit data from other 4-year colleges and universities to be included with the data from the UNC System.)

Performance Standard – 83% of community college associate degree students identified in two cohorts will have a GPA greater than or equal to 2.0 after two semesters at a UNC university or at other 4-year institutions. (See note above.) Cohort 1 includes associate degree recipients at the end of two semesters at the public university (compared to the performance of native juniors). Cohort 2 includes transfer students completing 24 hours or more of articulated college transfer credit hours at a community college but not completing the degree (compared to the performance of native sophomores). To qualify for Exceptional Institutional Performance, the performance of community college transfer students will be equivalent to the performance of students native to UNC institutions: 88% for 2010-11.

NCCCS Performance – 88% (2009 - 2010 NCCCS Students)

CCCC Performance – 94% (2009 - 2010 CCCC Students)

- CCCC Associate Degree Performance – 95%
- CCCC 24+ Hours Cohort Performance – 94%

### **Passing Rates of Students in Developmental Courses**

The percent of students who complete developmental English, mathematics, or reading courses with a grade of “C” or better. *Data Year: 2010 - 2011*

Performance Standard – 75%

NCCCS Performance – 80%

CCCC Performance – 81%

### **Success Rate of Developmental Students in Subsequent College-Level Courses**

The performance of developmental completers in subsequent college-level courses will be measured. Specifically, performance of students who took developmental English and/or reading courses and subsequently took college-level English courses was assessed. Likewise, the performance of students who took developmental math courses and then took college-level math courses was tracked. The purpose of this measure is to provide evidence that developmental courses equip students with the skills and knowledge necessary for success in their college studies.

Performance Standard – 80% of college level English or mathematics course completers with previous developmental coursework will complete the college level English or mathematics course with a grade of “D” or better.

NCCCS Performance – 87% of the students who completed a developmental English and/or math course(s) had a grade of “D” or better in subsequent college-level English and/or math course(s).

CCCC Performance – 93% of the students who completed a developmental English and/or math course(s) had a grade of “D” or better in subsequent college-level English and/or math course(s).

### **Satisfaction of Completers and Non-completers**

This indicator reports the percent of graduates and early-leavers who indicated that they were “very satisfied” or “satisfied” with the overall quality of the college. *Data Year: 2010 - 2011*

Performance Standard – 90% of the combined respondents will report being “very satisfied” or “satisfied” with the overall quality of the college.

NCCCS Performance – 97% of program completers responded that they were “very satisfied” or “satisfied” with the overall quality of the college, while 93% of program non-completers responded that they were “very satisfied” or “satisfied” with the overall quality of the college.

Aggregate percentage – 96%

CCCC Performance – 91% (Aggregate percentage)

### **Curriculum Student Retention, Graduation, and Transfer**

This composite indicator consists of the following:

- The number of individuals completing a curriculum program with a certificate, diploma, or associate degree.
- The number of individuals who have not completed a



program but who are continuing enrollment in either curriculum or occupational extension programs.

- The number of students who transfer to a university or another community college.

This composite indicator will consist of the above three measures, each reported separately for each college. The sum of the three will be divided by the total number of curriculum students in the cohort to compute an indicator of curriculum student progress and success. *Data Year: 2009 - 2010*

Performance Standard – 65% of the fall cohort will either have completed their program, still be enrolled the following fall at the community college, or transferred to a university or another community college.

NCCCS Performance – 67%

CCCC Performance – 67%

### Client Satisfaction with Customized Training

The percentage of clients receiving specialized training programs and services through Customized Training and Small Business Centers satisfied with training. *Data Year: 2010 - 2011*

Performance Standard – 90% of clients receiving specialized training programs and services through Customized Training and Small Business Centers will be satisfied with training.

NCCCS Performance – 95% responded that the services and training were excellent, or very good.

CCCC Performance – 92% Responded Excellent or Very Good

### CCCC Performance Measures Summary

	Measure	2008	2009	2010	2011	2012
1.	Progress of Basic Skills Students	Met Standard	Met Standard	Met Standard	Met Standard	Met Standard
2.	Passing Rates on Licensure	Met Standard	Met Standard	Met Standard	Met Standard	Met Standard
3.	Performance of College Transfer Students	Met Standard	Met Standard	Met Standard	Met Standard	Met Standard
4.	Passing Rates of Developmental Students	Met Standard	Met Standard	Met Standard	Met Standard	Met Standard
5.	Success Rates of Developmental Students in Subsequent College-Level Courses	Met Standard	Met Standard	Met Standard	Met Standard	Met Standard
6.	Satisfaction of Completers / Non-completers	Met Standard	Met Standard	Met Standard	Met Standard	Met Standard
7.	Student Retention, Graduation, and Transfer	Met Standard	Met Standard	Met Standard	Met Standard	Met Standard
8.	Client Satisfaction with Customized Training	Met Standard	Met Standard	Met Standard	Met Standard	Met Standard

## INCLEMENT WEATHER POLICY

When it is determined that weather conditions are severe enough to warrant closing the college, the information will be made available as soon as possible. All distance education due dates that do not require face-to-face meetings will be unaltered by inclement weather.

### **Types of Announcements:**

A. CCCC will be closed.

Optional Staff workday. (No classes will be held, but administrators, faculty, and clerical staff are expected to report for work.)

B. CCCC will be closed. (This applies to extreme conditions and no one is expected to report for work.)

C. College will open at announced time (report to classes that begin at that time).

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

**NOTE:** Students should not leave a voice mail for instructors about missing class due to bad weather. The phone system cannot handle the volume of calls.

Visit [www.cccc.edu](http://www.cccc.edu) for CCCC inclement weather postings.

### **Announcements will be made on:**

#### **Radio Stations:**

Raleigh:

WRAL – 101.5 FM  
WPTF – 680 AM  
WQDR – 94.7 FM  
WTRG – 100.7 FM

Dunn:

WCKB – 780 AM

Siler City:

WNCA – 1570 AM

Fayetteville:

WQSM – 98.1 FM  
WFNC – 640 AM  
WKML – 95.7 FM  
WFLB – 96.5 FM  
WZFX – 99.1 FM  
WUKS – 107.7 FM  
WAZZ – 1490 AM

Sanford:

WWGP – 1050 AM  
WFJA – 105.5 FM  
WXKL – 1290 AM

#### **TV Stations:**

Raleigh:

WRAL – Channel 5  
WRDC – Channel 28  
WLFL – Channel 22

High Point:

WGHP – Channel 8

RTP:

WNCN – Channel 17  
Greensboro:  
WFMY – Channel 2  
Durham:  
WTVD – Channel 11  
Fayetteville:  
WKFT – Channel 40  
Sanford:  
WBF – Channel 46

## SPECIAL POPULATIONS 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 Special Populations Office 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. Student completes standard admission application.
2. Student must identify himself or herself to the Special Populations Office and request accommodations appropriate for his or her disability. (Please request packet from Special Populations Office.)
3. Student may be referred to Special Populations Office by high school officials, community agencies, parents, Central Carolina Community College faculty or staff, or may self-refer. It is the responsibility of the student to request accommodations. Students requesting support services must register with the Special Populations Office at least thirty (30) days in advance to assure accommodations for the start of class.
4. Student must provide documentation of the disability for which accommodations are requested. Documentation must be within the last three (3) years.

5. Once documentation is received, the student and special populations coordinator will meet to determine necessary accommodations and complete a service contract.

6. Student completes a Student Schedule Request at the beginning of each semester enrolled, giving the special populations coordinator permission to notify instructors of accommodations.

7. Special populations coordinator sends Accommodations Request Form to the student's instructors each term outlining accommodations to which the student is entitled.

## Documentation Requirements

It is illegal for an institution to inquire about disability prior to admission. In postsecondary education, it is the responsibility of the student to notify the Special Populations Office of the need for special accommodations. A student generally will not receive accommodations until documentation of the disability is on file in the Special Populations Office. As the law allows, a student undergoing evaluation or awaiting transmittal of documentation may also receive services and accommodations. Acceptable documentation of disability includes: medical report, physician's statement, psychological evaluation, psycho-education evaluation, records from Division of Services from the Blind, Services for the Deaf and Hard of Hearing, and Vocational Rehabilitation. This list is not meant to be totally inclusive, but establishes the tone of accepted documentation.

## 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, not to "water down" a course or requirement. To do otherwise would decrease the credibility of the institution and would also be unfair to the student.

## Available Services

- Academic and career counseling services
- Both individual and group tutoring sessions available through Academic Assistance
- Special equipment like FM systems
- Special testing arrangements for specific courses
- Sign-language interpreters
- Special classroom seating
- Registration assistance
- Financial aid application assistance
- Coordination of services with other agencies providing services for disabled persons: Vocational Rehabilitation, Services for the Blind, etc.
- Use of computers with spell check, Zoomtext, and Jaws

This is a partial listing of available services. If an unlisted service is needed, contact the Special Populations Office coordinator on the Lee County Campus.

## CAMPUS SECURITY

All security officers are First Aid and CPR Certified. If you are calling 911 for a medical emergency, also contact Campus Security so they can respond.

All student vehicles must have a CCCC parking decal displayed. See the Vehicle Registration section and the parking map in this handbook for details on where to park.

Emergency Call Boxes are located around the campuses. In case of emergency, press the red button on the Call Box and Security personnel will answer. Speak clearly and the officer will give you instructions and respond to your location.

### Lee County

Lee Campus Security is in the Business and Mailroom section in the Library Building. The phone number is (919) 718-7512.

Wicker Lifelong Learning Center – Campus Security (919) 770-4169

### Harnett County

For security issues contact the Provost at (910) 814-8895.

### Chatham County

For security issues contact the Provost at (919) 545-8011.

### Security Tips

- Be aware of your surroundings
- Always carry your CCCC issued student ID on your person
- Do not leave valuables, book bags, or electronics unattended
- Keep your car doors locked
- Do not leave valuables visible in your vehicle
- Have your car keys in hand before you reach the car door.
- Report suspicious person(s) or behavior, threats, or harassing phone calls immediately to faculty/staff, Security, or Provost contact the Director of Campus Security and Safety at (919) 718-7211 with concerns or suggestions.

### Tobacco-Free Campus Policy

Central Carolina Community College is committed to providing its employees and students with a safe and healthful environment. CCCC also recognizes the use of tobacco products on campus grounds is detrimental to the health and safety of students, staff, faculty and visitors. CCCC also recognizes that it has the legal authority to prohibit tobacco use pursuant to G.S. 143-599. Therefore, CCCC has set the following 100% tobacco free campus policy to be implemented on January 1, 2009. The use of tobacco and tobacco products is prohibited by students, staff, faculty or visitors:

- in all campus buildings, facilities, and outside areas of the campus.
  - on campus grounds, or in vehicles that are the property of the college
  - at lectures, conferences, meetings, social and cultural events held on campus
  - for the purposes of this policy, tobacco is defined as any type of tobacco product including, but not limited to, cigarettes, cigars, cigarillos, pipes, bidis, hookahs, smokeless or spit tobacco or snuff.
- period.

### ***Enforcement***

Student Enforcement of all College policies and procedures is the responsibility of all faculty and staff members.

### ***First Offense***

Any student observed smoking or using tobacco products will be asked in a non-confrontational manner to obey the College policy and to stop using the products. Faculty or staff members will identify themselves to the student and ask to see the student's identification card to verify their student status and to identify the name of the student. Students without a student identification card should produce some form of official picture identification (e.g. driver's license) and shall be instructed to take the necessary steps to acquire an official student identification card. The faculty or staff member will explain the College's tobacco-free policy and the possible consequences for violating the policy, and will file a report with the Director of Campus Security giving the student's name and the date and time of this policy violation. The report shall be made as an e-mail, or memorandum. The Director of Campus Security will keep a record of violations identifying the student, date, time, and name of the faculty or staff member reporting the violation.

### ***Second Offense***

Faculty and staff members will follow the procedures identified in "First Offense." When the Director of Campus Security determines that this is the second reported offense for a student, the Director will give the student's name to the Vice President of Student Services. The Vice President of Student Services will send the student a first-class letter and/or e-mail, if available, warning the student that this is the second violation of the tobacco-free policy and that the student will face suspension or expulsion with any further violations.

### ***Third Offense***

Faculty and staff members will follow the procedures identified in "First Offense. When the Director of Campus Security determines that this is the third reported offense for a student, the Director will give the student's name to the Vice President of Student Services. The Vice President of Student Services will suspend the student for the remainder of the current term. The student may re-enroll, subject to any specific program limitations, following the suspension

# CURRICULUM PROGRAMS 2013 - 2015





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			SPA 212	Intermediate Spanish II	3-0-3
			SPA 141	Culture and Civilization	3-0-3
			SPA 151	Hispanic Literature	3-0-3
			SPA 161	Cultural Immersion	3-0-3
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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			
ART 117	Non-Western Art History	3-0-3			
ART 121	Design I	0-6-3			
ART 131	Drawing I	0-6-3			
ART 132	Drawing 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 283	Ceramics I	0-6-3			
ART 288	Studio	0-6-3			
CHI 211	Intermediate Chinese I	3-0-3			
CHI 212	Intermediate Chinese II	3-0-3			
DRA 111	Theatre Appreciation	3-0-3			
DRA 112	Literature of the Theatre	3-0-3			
DRA 120	Voice for Performance	3-0-3			
DRA 124	Readers Theatre	3-0-3			
DRA 130	Acting I	0-6-3			
DRA 211	Theatre History I	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 233	Major American Writers	3-0-3			
ENG 241	British Literature I	3-0-3			
ENG 242	British Literature II	3-0-3			
ENG 243	Major English Writers	3-0-3			
ENG 261	World Literature I	3-0-3			
ENG 262	World Literature II	3-0-3			
ENG 273	African-American Literature	3-0-3			
FRE 211	Intermediate French I	3-0-3			
FRE 212	Intermediate French 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	3-0-3			
HUM 220	Human Values and Meaning	3-0-3			
MUS 110	Music Appreciation	3-0-3			
MUS 112	Introduction to Jazz	3-0-3			
PHI 210	History of Philosophy	3-0-3			
PHI 215	Philosophical Issues	3-0-3			
PHI 230	Introduction to Logic	3-0-3			
PHI 240	Introduction to Ethics	3-0-3			
REL 110	World Religions	3-0-3			
REL 211	Introduction to Old Testament	3-0-3			
REL 212	Introduction to New Testament	3-0-3			
SPA 211	Intermediate Spanish I	3-0-3			

## 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
GEO 111	World Regional Geography	3-0-3
HIS 111	World Civilization I	3-0-3
HIS 112	World Civilization II	3-0-3
HIS 115	Introduction to Global History	3-0-3
HIS 121	Western Civilization I	3-0-3
HIS 122	Western Civilization II	3-0-3
HIS 131	American History I	3-0-3
HIS 132	American History II	3-0-3
HIS 151	Hispanic Civilization	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
POL 130	State and Local Government	3-0-3
POL 210	Comparative Government	3-0-3
POL 220	International Relations	3-0-3
*PSY 101	Applied Psychology	3-0-3
*PSY 102	Human Relations	2-0-2
**PSY 110	Life Span Development	3-0-3
**PSY 115	Stress Management	2-0-2
**PSY 118	Interpersonal Psychology	3-0-3
PSY 150	General Psychology	3-0-3
PSY 234	Organizational 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

\*This course is approved only for diploma credential.

\*\*Nontransferable

**Agriculture and Natural Resources**

**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: Pittsboro Campus - Day Program

**Course Requirements for Sustainable Agriculture Degree**

<b>A. General Education Courses (15 SHC)</b>		<b>C-L-SHC</b>
ENG 111	Expository Writing	3-0-3
ENG 114	Professional Research and Reporting	3-0-3
	Humanities/Fine Arts Elective	3-0-3
MAT 140	Survey of Mathematics	3-0-3
	Social/Behavioral Science Elective	3-0-3
<b>B. Required Major Core Courses (19 SHC)</b>		
AGR 111	Basic Farm Maintenance	1-3-2
AGR 121	Biological Pest Management	3-0-3
AGR 139	Introduction to Sustainable Agriculture	3-0-3
AGR 160	Plant Science	2-2-3
AGR 170	Soil Science	2-2-3
BUS 280	REAL Small Business	4-0-4
COE 111	Co-op Work Experience I	0-10-1
<b>C. Other Major Hours Required (33 SHC)</b>		
AGR 212	Farm Business Management	3-0-3
AGR 214	Agricultural Marketing	3-0-3
AGR 220	Agriculture Mechanization	2-2-3
AGR 221	Farm Structures	2-2-3
	OR	
HOR 130	Greenhouse Design	3-0-3
HOR 168	Plant Propagation	2-2-3
AGR 265	Organic Crop Production: Spring	2-2-3
	OR	
AGR 266	Organic Crop Production: Fall	2-2-3
AGR 268	Adv. Organic Crop Production	2-6-4
AGR 293	Selected Topics in Sustainable Agriculture	3-0-3
ANS 110	Animal Science	3-0-3

ANS 111	Sustainable Livestock Management	2-2-3
CIS 111	Basic PC Literacy	1-2-2

Student Success – Select One \*Effective 2014 Fall

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1
ACA 122	College Transfer Success	1-0-1

Total Semester Hours Credit Required for Graduation: 67

**Semester Curriculum for Sustainable Agriculture Associate Degree**

**1st Semester (Fall)**

AGR 111	Basic Farm Maintenance	1-3-2
AGR 139	Introduction 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/Behavioral Science Elective	3-0-3
	Student Success Course	1-0-1
		<b>14-7-17</b>

**2nd Semester (Spring)**

AGR 121	Biological Pest Management	3-0-3
AGR 160	Plant Science	2-2-3
ANS 111	Sustainable Livestock Management	2-2-3
ENG 111	Expository Writing	3-0-3
	Humanities/Fine Arts Elective	3-0-3
		<b>13-4-15</b>

**3rd Semester (Summer)**

COE 111	Co-op Work Experience I	0-10-1
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**4th Semester (Fall)**

AGR 214	Agricultural Marketing	3-0-3
AGR 220	Agriculture Mechanization	2-2-3
AGR 266	Organic Crop Production	2-2-3
AGR 221	Farm Structures	2-2-3
	OR	
HOR 130	Greenhouse Design	3-0-3
ENG 114	Professional Research and Reporting	3-0-3
HOR 168	Plant Propagation	2-2-3
		<b>14/15-6/8-18</b>

**5th Semester (Spring)**

AGR 212	Farm Business Management	3-0-3
AGR 268	Adv. Organic Crop Production	2-6-4
AGR 293	Special Topics in Sustainable Agriculture	3-0-3
BUS 280	REAL Small Business	4-0-4
MAT 140	Survey of Mathematics	3-0-3
		<b>15-2-16</b>

Total Semester Hours Credit: 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 Campus – Day Program

#### Course Requirements for Agriculture Sustainability Certificate

AGR 121	Biological Pest Management	3-0-3
AGR 139	Introduction to Sustainable Agriculture	3-0-3
AGR 170	Soil Science	2-2-3
AGR 265/6	Organic Crop Production (Spring or Fall)	2-2-3
AGR 293	Selected Topics in Sustainable Agriculture	3-0-3
AGR 265/6	Organic Crop Production (Spring or Fall) OR	2-2-3
ANS 111	Sustainable Livestock Management	2-2-3

Total Semester Hours Credit Required for Graduation: 18

#### Semester Curriculum for Agricultural Sustainability Certificate

1st Semester (Fall)		C-L-SHC
AGR 139	Introduction to Sustainable Agriculture	3-0-3
AGR 170	Soil Science	2-2-3
AGR 265/6	Organic Crop Production (Spring or Fall)	2-2-3
		7-4-9
2nd Semester (Spring)		
AGR 121	Biological Pest Management	3-0-3
AGR 265/6	Organic Crop Production (Spring or Fall) OR	2-2-3
ANS 111	Sustainable Livestock Management	2-2-3
AGR 293	Selected Topics in Sustainable Agriculture	3-0-3
		8-2-9

Total Semester Hours Credit: 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

Program Site: Chatham Campus – Day Program

#### Course Requirements for Sustainable Livestock Systems Certificate

AGR 139	Introduction to Sustainable Agriculture	3-0-3
AGR 170	Soil Science	2-2-3
AGR 214	Agricultural Marketing	3-0-3
ANS 110	Animal Science	3-0-3
ANS 111	Sustainable Livestock Management	2-2-3

Total Semester Hours Credit Required for Graduation: 15

#### Semester Curriculum for Sustainable Livestock Systems Certificate

1st Semester (Fall)		C-L-SHC
AGR 170	Soil Science	2-2-3
AGR 214	Agricultural Marketing	3-0-3
ANS 110	Animal Science	3-0-3
		8-2-9
2nd Semester (Spring)		
AGR 139	Introduction to Sustainable Agriculture	3-0-3
ANS 111	Sustainable Livestock Management	2-2-3
		5-2-6

Total Semester Hours Credit: 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 Campus – Day Program

**Course Requirements for Sustainable Vegetable Production Certificate**

AGR 121	Biological Pest Management	3-0-3
AGR 139	Introduction to Sustainable Agriculture	3-0-3
AGR 170	Soil Science	2-2-3
AGR 214	Agricultural Marketing	3-0-3
AGR 265/6	Organic Crop Production: (Spring or Fall)	2-2-3

Total Semester Hours Credit Required for Graduation: 18

**Semester Curriculum for Sustainable Vegetable Production Certificate**

1st Semester (Fall)		C-L-SHC
AGR 139	Introduction to Sustainable Agriculture	3-0-3
AGR 170	Soil Science	2-2-3
AGR 214	Agricultural Marketing	3-0-3
AGR 266	Organic Crop Production: Fall	2-2-3
		10-4-12
2nd Semester (Spring)		
AGR 121	Biological Pest Management	3-0-3
AGR 265	Organic Crop Production: Spring	2-2-3
		5-2-6

Total Semester Hours Credit: 18

**Allied Health Technologies**

**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.

Coursework includes and builds upon the domains of healthcare, nursing practice, and the holistic individual. Content emphasizes the nurse as a member of the interdisciplinary team providing safe, individualized care while employing evidence-based practice, quality improvement, and informatics.

Graduates of this program are eligible to apply to take the National Council Licensure Examination (NCLEX-RN). Employment opportunities are vast within the global health care system and may include positions within acute, chronic, extended, industrial, and community health care facilities.

**Limited Enrollment Curriculum:**

1. In the nursing programs, applicants are accepted based upon a merit-based, selective admissions process.
2. Enrollment is limited to the number of approved spaces allocated by the North Carolina Board of Nursing.
3. Admission criteria for the nursing program are reviewed annually and are subject to change.
4. Nursing is a practice discipline with cognitive, sensory, affective, and psychomotor performance requirements. Further information regarding the physical and cognitive expectations of a student nurse and CORE performance standards (critical thinking, interpersonal, communication, mobility, motor skills, hearing, visual, and tactile) may be found in the Nursing Student Guideline Handbook.
5. 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. Denial or restriction can be for the following reasons:
  - a) The student practiced fraud or deceit in attempting to procure a license to practice nursing;
  - b) The student has been convicted of a misdemeanor/felony (excluding a minor traffic violation);
  - c) The student is mentally or physically incompetent or uses any drug to a degree that interferes with fitness to practice



nursing; and

d) The student engages in conduct, which endangers the public health.

6. Clinical Affiliation Requirements: The contract between CCCC and a clinical agency requires that the college abide by the existing rules and regulations of the agency. The college follows agency protocol regarding drug screening and criminal background checks. Clinical contracts require that every student submit to and complete a medical form through own healthcare provider and a multi-state criminal background check and urine drug screen through designated vendors. If a clinical site denies a student clinical affiliation due to results of either of these requirements, the student will not be able to meet the program/course requirements and acceptance and/or progression in the program will be denied.

7. A complete Nursing Program Application must be submitted by the spring deadline.

8. It is the applicants' responsibility to ensure that they are aware of the above limitations and that all requirements are met by the established deadline.

Entrance Standards: See General Admission Standards in the electronic catalog (Gen. Info section).

Program Specific Entrance Standards:

I. All Nursing Students

A. Selective, Merit-Based Admission Process

1. A student can apply to any of the CCCC nursing programs but can only be evaluated for selective admissions for one program during any one designated selection time period.

2. Once a student completes all college admission criteria and those nursing criteria designated as "Required" he/she is determined to be a qualified applicant for the selection pool. Only after the applicant has completed the required Nursing Program Application will the applicant be ready to submit the application and worksheet for score tally. Applicants with highest combined points in the required and optional sections will be offered admission.

3. Applicants who have the Nursing Program Application in by the deadline will be ranked by tallied points and offered admission in order of ranking. Selection applications will be accepted mid-January through mid- February for each fall enrollment. In the event that all spaces are not filled, applications for late consideration will be accepted during the months of May and August. See college website announcements for specific acceptance time periods.

4. Advanced LPN-to-ADN applicants should submit their application after completion of all required criteria. An individualized entry point will be determined, and selective admission procedures utilized to determine acceptance.

5. If applicants have the same total point count, the applicant's highest Test of Essential Academic Skills (TEAS) Test Score(s) will be the determining factor in the following order:

- a) First use the applicant's total Composite Score (Combined Reading, Math, Science, and English Scores);
- b) If the total Composite Score is equal, then the highest

Science Score will be the determining factor;

c) If the Science Score is equal, the Highest Reading Score will be the determining factor.

d) If the Reading Score is equal, the Highest Math Score will be the determining factor;

e) If the Math Score is equal, the Highest English Score will be the determining factor.

6. If a student has had two previous entries into any nursing program, he/she will not be allowed to enter into any of Central Carolina Community College's nursing curriculums for three years after the date of last enrollment. The applicant will be referred for academic and/or remediation planning to promote success upon re-entry.

B. Required Admission Criteria (All Applicants)

1. Pre-requisite Courses:

a) Pre-requisite Chemistry, Algebra, and Computer Literacy: Applicants must show evidence of completion of chemistry, algebra, and computer application courses at the high school level or above with a grade of "C" or better on each within five years of program application deadline.

College courses that may be used to satisfy these requirements are:

*Chemistry (select one):*

CHM 090 Chemistry Concepts

CHM 092 Fundamentals of Chemistry

CHM 130/130A General Organic and Biochemistry

CHM 131/CHM 131A Introduction to Chemistry

CHM 151 General Chemistry I

*Algebra (select one):*

MAT 070 Introductory Algebra

MAT 080 Intermediate Algebra

MAT 110 Mathematical Measurements

MAT 115 Mathematical Models

MAT 140 Survey of Mathematics

MAT 161 College Algebra

*Computer Literacy (select one):*

CIS 110 Introduction to Computers

CIS 111 Basic PC Literacy

b) Pre-requisite Biology:

Applicants must show evidence of completion of biology courses at the college developmental level or above with a grade of "C" or better within five years of program application deadline. College courses that may be used to satisfy these requirements are (select one):

BIO 090 Foundations of Biology

BIO 094 Concepts of Biology

BIO 110 Principles of Biology

BIO 111 General Biology I

c) For courses repeated, letter grades received in the most recent course will be used to assign points for selective admissions scoring purposes. Courses must have a grade of "C" or above to receive points.

d) Proficiency exams with a grade of "B" or appropriate CLEPs will be accepted for credit or fulfillment of the pre-requisite course requirement. Selective admission points for accepted proficiency and CLEPS will be calculated based upon a letter grade of "C."

e) Completed AP course points will be awarded based upon the exam scores as follows: An AP exam score of 5 = 4 quality points, 4 = 3 quality points, and a 3 = 2 quality points multiplied by credit hours of the college curriculum course that it substitutes for.

f) Completed VOCATS course points will be awarded based upon the exam score of 80 or above. The score will be converted to a letter grade of “A” = 94-100, “B” = 86-93, and “C” = 80-85 with quality point assignments of 4, 3, and 2 respectively multiplied by credit hours of the college curriculum course that it substitutes for. The VOCAT score must be submitted within two years of high school graduation to be considered for course credit and point awards for selective admissions scoring.

2. Placement Test Scores (All test scores must be less than five years old or the student must have earned a “C” or better in the corresponding developmental courses or have received transfer credit for ENG 111 and MAT courses level 110 or above.):

a) CPT reading score of 80 or ACT score of 18 or SAT verbal score of 450 or completion of developmental reading requirements.

b) CPT English score of 86 or ACT score of 18 or SAT verbal score of 450 or completion of developmental English requirements.

c) CPT arithmetic score of 55 or ACT score of 18 or SAT mathematics score of 450 or completion of developmental arithmetic/mathematics requirements.

d) CPT algebra score of 55 or ACT score of 18 or SAT mathematics score of 450 or completion of developmental algebra/mathematics requirements.

3. Test of Essential Academic Skills (TEAS)

a) The Test of Essential Academic Skills (TEAS) will be administered on scheduled testing dates at the student’s expense.

b) The applicant will be referred for remediation assistance based on a low TEAS composite score and/or component sub-scores. The student may re-test after successful completion of required remediation, college placement tests, developmental courses, and pre-requisite courses.

c) TEAS test scores are valid for three years.

d) Applicants must meet the minimal TEAS Composite Score. (The TEAS Composite Score will be used for selective admissions scoring purposes. The TEAS sub-scores will be used for pre-nursing and nursing remediation.)

4. GPA Cumulative and Semester

a) Grade point averages of at least 2.5 cumulative and 2.0 semester on last semester of coursework completed at a secondary or postsecondary institution within the last five years is required for admission consideration.

b) Must not be on academic probation or suspension status.

5. Prior Health Care Program completion with appropriate listing/licensure is required for consideration at the designated entry points in the nursing programs:

c) Provide proof of successful completion of a state approved Nurse Aide I Training and Competency Evaluation Program (NAT/CEP) and active listing on the North Carolina Department of Health and Human Services

(NCDHHS) Nursing Assistant 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 throughout both application process and program enrollment. 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.

d) LPN-to-ADN Transition: Provide evidence of successful completion of a state approved practical nursing program and an active, non-restricted licensure as a licensed practical nurse in the state of North Carolina or another state in the multi-state compact.

6. The Test of English as a Foreign Language (TOEFL)

a) TOEFL scores are required of any naturalized citizen or non-United States citizen where English is their second language to provide evidence of adequate proficiency in the English language.

b) The minimum acceptable paper-based TOEFL score is 550. The minimum acceptable computer-based TOEFL score is 213. The minimum acceptable internet-based TOEFL score is 80.

c) This test is offered at multiple testing sites nationally and is at the student’s expense.

7. Adult/Infant/Child CPR

a) American Heart Association Certification in Adult-Infant-Child CPR and AED for Healthcare Providers that includes both testing and performance criteria is required of all applicants.

b) CPR/AED certification is required for admission selection process and must be maintained throughout both the application process and program enrollment.

C. Optional Admission Criteria

1. GPA

a) Points will be awarded based on a cumulative grade point average (through first semester for current high school seniors) or actual last college GPA.

b) Only cumulative high school or college GPAs within the last five years will be considered.

c) Students must have been enrolled in a minimum of 6 semester credit hours during the last semester for cumulative GPA consideration.

d) Points will be awarded based upon the following cumulative GPA ranges: 2.5-2.99; 3.0-3.49; and 3.5-4.0.

e) Cumulative GPAs over five years old and under 2.5 will not be assigned points for selective admission scoring purposes.

2. Residency Points will be assigned for selective admission scoring if the applicant is a legal North Carolina Resident for tuition purposes and resides in the three county service areas of Lee, Chatham, and Harnett counties.

3. Health Fields Work Experience Points will be assigned for selective admission scoring if the applicant has at least 6 months or at least 1040 hours of successful work or

accepted volunteerism in an approved health field within the last three years.

Health fields are identified as: Cardiac Care Technician, Cardiac Sonographer, Certified Medical Assistant, Certified Dental Assistant, Certified Dental Hygienist, Dialysis Technician, EKG Technician, Emergency Medical Technician, Health Care Technician, Licensed Practical Nurse, Medical laboratory Technician, Military Corpsman, Nursing Assistant I, Nursing Assistant II, Occupational Therapy Technician, Paramedics, Patient Care Technician, Pharmacy Technician, Phlebotomist, Physical Therapy Technician, Psychiatric Technician, Rehabilitation Technician, Respiratory Therapist Technician, Surgical Technician, and X-ray Technician.

4. High School Medical Career/Health Occupations Classes Points will be assigned for selective admission scoring if the applicant has successfully completed the high school Medical Career/Health Occupations Classes I and II with a grade of “C” or better within the last three years.

5. Curriculum Courses

a) Optional points will be assigned for selective admission scoring if the applicant has completed the required general education courses of the associate degree curriculum.

b) These courses are:

BIO 165 Anatomy & Physiology or high school AP Biology course/exam;

BIO 166 Anatomy & Physiology or high school AP Anatomy & Physiology course/exam;

PSY 150 Introduction to Psychology;

PSY 241 Developmental Psychology;

SOC 210 Introduction to Sociology;

ENG 111 Expository Writing or high school AP English course/exam;

ENG 112, ENG 113, OR ENG 114;

CIS 111 Basic PC Literacy or high school Computer Applications I & II/VOCATS;

Humanities elective

c) BIO 165, BIO 166, PSY 150, PSY 241, and CIS 111 and/or identified substitute high school AP must be completed within the last five years for point consideration.

A student may request and attempt a proficiency examination for courses previously completed more than five years before application. Successful completion of a proficiency examination will allow the student to receive credit for the course.

d) College curriculum course points will be awarded based upon the course credit hours multiplied by quality points achieved. Letter grades of “A” = 4 quality points, “B” = 3 quality points, and “C” = 2 quality points. Letter grades of “D” and “F” receive no points for selective admission scoring.

e) Completed AP course points will be awarded based upon the exam scores as follows: An AP exam score of 5 = 4 quality points, 4 = 3 quality points, and a 3 = 2 quality points multiplied by credit hours of the college curriculum course that it substitutes for

f) Completed VOCATS course points will be awarded based

upon the exam score of 80 or above. The score will be converted to a letter grade of “A” = 94-100, “B” = 86-93, and “C” = 80-85 with quality point assignments of 4, 3, and 2 respectively multiplied by credit hours of the college curriculum course that it substitutes for. The VOCAT score must be submitted within two years of high school graduation to be considered for course credit and point awards for selective admissions scoring.

g) Point awarded for BIO 165 and BIO 166 or high school AP substitutes will be doubled in the scoring process.

II. Additional Admission Requirements for Advanced LPN-to-ADN Admission

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. All applicants must pass the LPN General Achievement Profile test or the LPN Specialized Testing to Evaluate Preparedness (STEP) with a composite final score equal to or above the national passing score for consideration for advanced LPN-to-RN admissions. The Department Chairperson and admissions counselor will then determine point of entry based upon LPN/STEP sub-score achievements and deficits. 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 LPN/STEP composite score and/or sub scores. The time frame between each retesting attempt will be based upon successful completion of all required remediation.

5. Once the LPN/STEP is passed, all applicants must next take the Medication Calculation Test. Students may take this test only three times in a three year period to achieve a score of 86% for acceptance consideration. The applicant will be referred for remediation based upon a low Medication Calculation test score. The time frame between each retesting attempt will be based upon successful completion of all required remediation.

6. After successful completion of the Medication Calculation Test, any applicant that has been out of practical nursing school or active nursing practice for over five years must then take the Skills Validation Test. Students may take the skills validation test only three times in a three-year period to achieve a score of 86% for acceptance consideration. The applicant will be referred for remediation based upon low Skills Validation Test/Performance results. The time frame between each retesting attempt will be based upon successful completion of all required remediation.

7. Applicants must submit a copy of a current, unrestricted North Carolina LPN license or license from a state within the multi-state compact.

8. 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. 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 meeting 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.

e) Courses with a five-year time limit are:

BIO 165 Anatomy and Physiology I (4 semester hours) & BIO 166 Anatomy and Physiology II (4 semester hours), PSY 150 General Psychology (3 semester hours), PSY 241 Developmental Psych (3 semester hours), CIS 111 Basic PC Literacy (2 semester hours)

A student may request and attempt a proficiency examination for courses previously completed more than five years before application. Successful completion of a proficiency examination will allow the student to receive credit for the course.

f) Other required course is: ENG 111/111A Expository Writing/Lab (3 + 1 semester hours)

g) Course exemption ACA 115 Success and Study Skills (1 semester hour) unless identified as required pre-entry remediation.

10. If an advanced placement LPN does not meet the above admission criteria and/or validation testing, he/she may apply for regular admission as a first-year new entry student in the Associate Degree Nursing Program.

III. Re-admission or transfer into the nursing program:

1. The student must qualify under the admission criteria in effect at time of re-admission or transfer.

- a) A student may be required to re-enter a nursing course earlier in the curriculum sequence if the student is lacking major course content.
- b) All nursing courses completed more than 3 years prior to re-admission or transfer must be repeated.
- c) BIO 165 Anatomy & Physiology I, BIO 166 Anatomy & Physiology II, PSY 150 General Psychology, PSY 241 Developmental Psychology, and CIS 111 Basic PC Literacy completed more than five years prior to entry, re-admission, or transfer must be repeated or a proficiency test completed successfully.
- d) Withdrawal or academic failure within the Associate Degree Nursing Program will require the student to reapply

as a new student.

e) Advanced placement is dependent upon space availability.

f) The Nursing Department Chairperson will evaluate transferability of all 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 outlines and syllabi of 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 nursing courses rests with the chairperson.

g) Applicants must submit a letter explaining the circumstances of any previous exit from a nursing or allied health program. This letter must be sent from the previous department chair. CCCC's nursing department chair and dean 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.

IV. Requirements after Acceptance:

1. Mandatory Acceptance Session: When notified of acceptance, applicants must attend a mandatory orientation session with the Nursing Department Chair and faculty to discuss program requirements, schedules, payment due dates, and to order uniforms.
2. Clinical Affiliation Requirements: The contract between CCCC and a clinical agency requires that the college abide by the existing rules and regulations of the agency. The college follows agency protocol regarding drug screening and criminal background checks. Clinical contracts require that every student submit to and complete a medical form through his/her own healthcare provider and a multi-state criminal background check and urine drug screen through designated vendors. If a clinical site denies a student clinical affiliation due to results of either of these requirements, the student will not be able to meet the program/course requirements and acceptance will be denied.
3. Medical Forms: Applicants are required to submit a completed college approved student medical health form to the nursing department chairperson at least 90 days before entering the program. 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 nursing admission status and class space will be assigned to another applicant. NO student will be permitted to participate in clinical without having submitted his/her completed medical form.
4. Liability/Malpractice Insurance: Insurance fees must be paid to the Business Office by due date established before entry into the program and each subsequent year enrolled.

Academic Standards: See General Academic Standards in (Gen. Info section).

Program Specific Academic Standards: See additional Program Specific Academic Standards in the Nursing

Student Guidelines Handbook and specific nursing course syllabus.

1. Nursing curriculum students once enrolled must maintain an overall and semester quality point average of 2.0 or better, and must obtain a grade of “C” or better in all nursing courses. 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.

2. Nursing and progressive related courses must be taken in succession as they appear in the catalog.

3. Nursing students must meet the standards related to demonstration of emotional and physical health within the framework of nursing practice and must adhere to all other policies set forth in the Nursing Student Guidelines Handbook.

4. Nursing students must not be on academic probation or suspension status.

Program Length: Associate in Applied Science – 5 semesters

Career Pathway Options: Associate in Applied Science Degree in Associate Degree Nursing

Program Sites: Lee Campus -Day

#### Course Requirements for Associate Degree Nursing

A. General Education Courses (19 SHC)		C-L-CI-SHC
BIO 165	Anatomy & Physiology I	3-3-0-4
ENG 111	Expository Writing	3-0-0-3
ENG 112	Argument Based Research	3-0-0-3
	OR	
ENG 113	Literature Based Research	3-0-0-3
	OR	
ENG 114	Prof Research & Reporting	3-0-0-3
	Humanities Elective	3-0-0-3
PSY 150	General Psychology	3-0-0-3
SOC 210	Introduction to Sociology	3-0-0-3

#### B. Required Major Core Courses (43 SHC)

NUR 111	Introduction to Health Concepts	4-6-6-8
NUR 112	Health Illness Concepts	3-0-6-5
NUR 113	Family Health Concepts	3-0-6-5
NUR 114	Holistic Health Concepts	3-0-6-5
NUR 211	Health Care Concepts	3-0-6-5
NUR 212	Health System Concepts	3-0-6-5
NUR 213	Complex Health Concepts	4-3-15-10

#### C. Other Major Hours Required for Graduation (10 SHC)

BIO 166	Anatomy & Physiology II	3-3-0-4
CIS 111	Basic PC Literacy	1-2-0-2
PSY 241	Developmental Psychology	3-0-0-3

\*Student Success – Select One \*Effective 2014 Fall

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1

ACA 122 College Transfer Success 1-0-1

Total Semester Hours Credit Required for Graduation: 73

#### Semester Curriculum for Associate Degree Nursing

1st Semester (Fall)		C-L-CI-SHC
*ACA 115	Success and Study Skills	0-2-0-1
BIO 165	Anatomy & Physiology I	3-3-0-4
ENG 111	Expository Writing	3-0-0-3
NUR 111	Introduction to Health Concepts	4-6-6-8
PSY 150	General Psychology	3-0-0-3
		13-11-6-19

2nd Semester (Spring)		
BIO 166	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
		12-3-12-17

3rd Semester (Summer)		
CIS 111	Basic PC Literacy	1-2-0-2
NUR 211	Health Care Concepts	3-0-6-5
		4-2-6-7

4th Semester (Fall)		
ENG	English Elective	3-0-0-3
NUR 114	Holistic Health Concepts	3-0-6-5
NUR 212	Health System Concepts	3-0-6-5
SOC 210	Introduction to Sociology	3-0-0-3
		12-0-12-16

5th Semester (Spring)		
HUM	Humanities/Fine Arts Elective	3-0-0-3
NUR 213	Complex Health Concepts	4-3-15-10
		7-3-15-13

Total Semester Hours Credit: 73

5-3-6-8

## **Dental Assisting**

### **Credential: Diploma in Dental Assisting D4524000**

The Dental Assisting curriculum prepares individuals to assist the dentist in the delivery of dental treatment and to function as integral members of the dental team while performing 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 and program applicants are accepted based upon a selective admissions process. Admission criteria for the Dental Assisting program are reviewed annually and are subject to change.

#### **A. All Dental Assisting Students**

##### **Admission**

A student can apply to the Dental Assisting program once eligibility requirements have been met. Acceptance is based on a competitive selective admissions process. Students are not allowed to enter into any of the Central Carolina Community College's Dental Assisting curriculum if they have had two previous entries into any Dental Assisting program. Prospective students must attend a mandatory information session prior to submitting an application to the Dental Assisting program.

Applicants are required to contact the Dental Programs Admissions Counselor to obtain a Dental Program Application, a current set of Dental Assisting Admission Guidelines, and to be scheduled into a mandatory information session. After an applicant has completed all general college admission requirements and all Dental Assisting entrance required criteria, he/she must submit a completed Dental Program Application. Applicants who have completed the Dental Program Application by the deadline will be ranked by tallied points and offered admission in order of ranking. A second date may be announced for additional application to be considered for unfilled spaces.

A student can apply to only one of the CCCC Dental Programs during any designated selection time period. It is the applicants' responsibility to ensure that they are aware of all regulations and that all requirements are met by the established deadline.

#### **Placement Test Scores**

Placement Tests and all developmental courses must be taken prior to admittance to DA program. All test scores must be less than five years old: Each applicant should score at least the following scores on the CPT placement test or ACT or SAT or have completed the developmental requirements for reading, English, arithmetic or algebra. Indicated below are the scores required to place into English 102 and MAT 110:

CPT Reading score of 80 or ACT score of 18 or SAT verbal score of 450 or completion of developmental reading requirements.

CPT English score of 86 or ACT score of 18 or SAT verbal score of 450 or completion of developmental English requirements.

CPT Arithmetic score of 55 or ACT score of 18 or SAT verbal score of 450 or completion of developmental arithmetic requirements.

#### **GPA**

Students must have a 2.0 semester and a 2.5 cumulative GPA at the time of making application to the program and maintain a 2.5 GPA at the time of entering program from a secondary or post-secondary institution.

#### **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). There is a fee required to take the Test of Essential Academic Skills (TEAS).

The TEAS will be administered on scheduled testing dates at student's expense. 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 Dental Programs application. There is no minimum score required, but the percentage correct in the areas of Math, Reading and English will be used for admissions consideration.

#### **Pre-requisite Biology, Math and Computer Literacy**

Applicants must have completed Biology, Algebra, and a computer literacy course to submit a Dental Program application. Each course must be taken within the last five years with a grade of "C" or better.

Biology= high school, developmental, or college level BIO course

(example: BIO 094, BIO 110, BIO 111, BIO 163)

Algebra=high school, developmental or college level  
Algebra course (example: MAT 110 or higher)  
Computer proficiency may be satisfied by completion of a high school computer course OR completion of a college level computer course OR completion of a computer proficiency exam.  
(example: Computer Apps, Digital Communications, CIS 110, CIS 111)

**The Test of English as a Foreign Language (TOEFL)**  
TOEFL scores are required for all Non-US Citizens as evidence of adequate proficiency in the English language. The exception to testing is foreign students from countries where English is the official language. The minimum acceptable paper-based TOEFL score is 550. The minimum acceptable computer-based TOEFL score is 213. This test is offered at multiple testing sites nationally and is at the student's expense.

**Medical Forms/Hepatitis B Shots**  
Applicants are required to submit a completed college approved student medical health form to the Dental Assisting Program Director at least 45 days before entering the program. 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 Assisting 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 second series prior to first Fall semester and completed by Spring semester.

**Adult/Infant/Child/AEDCPR**  
CPR Certification by the American Heart Association (AHA) or American Red Cross in Adult-Infant-Child CPR and AED for Healthcare Providers that includes both performance and testing of criteria is required prior to program entry. CPR Certification must be current at time of Dental Program application and maintained while in the program.

**Mandatory Acceptance Session**  
When notified of acceptance, applicants must attend a mandatory orientation session with the Dental Assisting department.

**Liability/Malpractice Insurance**  
Insurance fees must be paid to the Business Office before entry into the program and each subsequent year enrolled.

**Re-admission or transfer into the Dental Assisting program**  
The student must qualify under the admission criteria in effect at time of 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 3 years prior for re-admission or transfer must be repeated. Withdrawal or academic failure within the Dental Assisting Program will require the student to reapply as a new student. Advanced placement is dependent upon space availability. The Dental Assisting Program Director 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 for those Dental Assisting courses taken 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 Dental Assisting courses is determined by the Dental Assisting Program Director.

Applicants must submit a letter explaining the circumstances of any previous exit from a Dental Assisting program. The letter must be sent from the previous Dental Assisting Program Director. CCCC's Dental Assisting Program Director and Dean of Students must approve students who were dismissed, expelled, or suspended for any reason. Students who withhold previous exit information may be dismissed from the program.

**Academic Standards:**  
Program Specific Academic Standards: See additional Program Specific Standards in the Dental Assisting Student Guidelines Handbook and specific Dental Assisting course syllabus.

Dental Assisting 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 Dental Assisting curriculum.

Dental Assisting and progressive related courses must be taken in succession as they appear in the catalog. Dental Assisting students must meet the standards related to demonstration of emotional and physical health within the framework of Dental Assisting practice and must adhere to the other policies set forth in the Dental Assisting Student Guidelines Handbook. Dental Assisting students must not be on probation or suspension status.

Program Length:  
Diploma: 3 semesters  
Career Pathway Options: Diploma  
Program Site: Central Carolina Dental Center; Sanford, NC-Day

**Course Requirements for Dental Assisting Diploma**

A. General Education Courses: (6 SHC)	C-L-CI-SHC
*ENG 102 Applied Communications II	3-0-0-3
*SOC 240 Social Psychology	3-0-0-3
*These courses are included within the Dental Assisting	

2013-2015 College Catalog – Central Carolina Community College curriculum. However it is advantageous to have these courses completed prior to entering the Dental Assisting program.

**B. Required Major Core Courses (36 SHC)**

DEN 100	Basic Orofacial Anatomy	2-0-0-2
DEN 101	Preclinical Procedures	4-6-0-7
DEN 102	Dental Materials	3-4-0-5
DEN 103	Dental Sciences	2-0-0-2
DEN 104	Dental Health Education	2-2-0-3
DEN 105	Practice Management	2-0-0-2
DEN 106	Clinical Practice I	1-0-12-5
DEN 107	Clinical Practice II	1-0-12-5
DEN 111	Infection/Hazard Control	2-0-0-2
DEN 112	Dental Radiology	2-3-0-3

**C. Other Major Hours Credit Required for Graduation**

BIO 106	Introduction to Anatomy/ Physiology/Microbiology	2-2-0-3
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Select One:

*ACA 111	College Student Success	1-0-0-1
*ACA 115	Success and Study Skills	0-2-0-1
*ACA 122	College Transfer Success	1-0-0-1

Total Semester Hours Credit Required for Graduation: 46

**Semester Curriculum for Dental Assisting Diploma**

**1st Semester (Fall) C-L-CI-SHC**

BIO 106	Introduction to Anatomy/ Physiology/Microbiology	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	3-4-0-5
DEN 111	Infection/Hazard Control	2-0-0-2
		13-12-0-19

**2nd Semester (Spring)**

DEN 103	Dental Sciences	2-0-0-2
DEN 104	Dental Health Education	2-2-0-3
DEN 106	Clinical Practice I	1-0-12-5
DEN 112	Dental Radiology	2-3-0-3
ENG 102	Applied Communications II	3-0-0-3
SOC 240	Social Psychology	3-0-0-3
ACA 111	College Student Success	1-0-0-1
OR		
ACA 115	Success and Study Skills	0-2-0-1
OR		
ACA 122	College Transfer Success	1-0-0-1
		13/14-5/7-12-17

**3rd Semester (Summer)**

DEN 105	Practice Management	2-0-0-2
DEN 107	Clinical Practice II	1-0-12-5
		3-0-12-7

Total Semester Hours Credit: 46

**Dental Hygiene**

**Credential: Associate in Applied Science Degree in Dental Hygiene A45260**

The Dental Hygiene 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 and program applicants are accepted based upon a selective admission process. Admission criteria for the Dental Hygiene program are reviewed annually and are subject to change.

**Program Entrance Standards:**

**Admissions Process:**

A student can apply to the Dental Hygiene program once eligibility requirements have been met. Acceptance is based on a competitive selective admissions process. Students are not allowed to enter into the Central Carolina Community College's Dental Hygiene curriculum if they have had two previous entries into any Dental Hygiene program.

Prospective students must attend a mandatory information session prior to submitting an application to the Dental Hygiene program. Applicants are required to contact the Dental Programs Admissions Counselor to obtain a Dental Program Application and current set of Dental Hygiene Admission Guidelines, and to be scheduled into a mandatory information session.

After an applicant has completed all general college admission requirements and all Dental Hygiene entrance required criteria, he/she must submit a completed Dental Program Application. Applicants who have completed the Dental Program Application by the deadline will be ranked by tallied points and offered admission in order of ranking. A second date may be announced for additional applications to be considered for unfilled spaces. A student can apply to only one of the CCCC Dental Programs during any designated selection time period. It is the applicants' responsibility to ensure that they are aware of all regulations



and that all requirements are met by the established deadline.

### **Placement Test Scores**

Placement tests and all developmental courses must be taken prior to admittance to the Dental Hygiene program. All test scores must be less than five years old or the student must have earned a “C” or better in the corresponding developmental courses or have received transfer credit for ENG 111 and MAT courses level 110 or above. Each applicant should earn at least the following minimum scores on the CPT placement test or ACT or SAT or have completed the developmental course requirements for reading, English, arithmetic or algebra. Minimum scores required to place into ENG 111 and MAT 110 are as follows:

ENG 111 placement:

CPT Reading score of 80 or ACT score of 18 or SAT verbal score of 450 or completion of developmental reading requirements.

CPT English score of 86 or ACT score of 18 or SAT verbal score of 450 or completion of developmental English requirements.

MAT 110 placement:

CPT Arithmetic score of 55 or ACT score of 18 or SAT verbal score of 450 or completion of developmental arithmetic requirements.

### **GPA**

Students must have a 2.0 semester and a 2.5 cumulative GPA at the time of making application to the program and maintain a 2.5 GPA at the time of entering program from a secondary or post-secondary institution.

### **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). There is a fee required to take the Test of Essential Academic Skills (TEAS).

The TEAS will be administered on scheduled testing dates at student’s expense. 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 Dental Programs application. There is no minimum score required, but the percentage correct in the areas of Math, Reading and English will be used for admissions consideration.

### **Pre-requisite Biology, Chemistry, Algebra and Computer Literacy**

Applicants must have completed, or be in the process of

completing, high school Biology, Chemistry, Algebra I and computer Literacy course to submit a Dental Program Application. Each course must be taken within the last five years with a grade “C” or better.

Biology = high school, developmental, or college level BIO course

(example: BIO 094, BIO 110, BIO 111, BIO 163, BIO 175, BIO 180)

CHM = high school, developmental, or college level CHM course (example: CHM 090, CHM 130/13A, CHM 151)

Algebra = high school, developmental or college level Algebra course

(example: MAT 110 or higher)

Computer proficiency may be satisfied by completion of a high school computer course OR completion of a college level computer course OR completion of a computer proficiency exam.

(example: Computer Apps, Digital Communications, CIS 110, CIS 111)

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 all Non-US Citizens as evidence of adequate proficiency in the English language. The exception to testing is foreign students from countries where English is the official language. The minimum acceptable paper-based TOEFL score is 550. The minimum acceptable computer-based TOEFL score is 213. This test is offered at multiple testing sites nationally and is at the student’s expense.

### **Medical Forms/Hepatitis B Shots**

Applicants are required to submit a completed college approved student medical health form to the Dental Hygiene Program Director at least 45 days before entering the program. 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 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 second series prior to the first Fall semester and completed by the first Spring semester.

### **Adult/Infant/Child /AED CPR**

CPR Certification by the American Heart Association (AHA) or American Red Cross in Adult-Infant-Child CPR and AED for Healthcare Providers that includes both performance and testing of criteria is required prior to program entry. CPR Certification must be current at the time of Dental Program application and maintained while in program.

**Mandatory Acceptance Session**

When notified of acceptance, applicants must attend a mandatory orientation session with the Dental Hygiene department.

**Liability/Malpractice Insurance**

Insurance fees must be paid to the Business Office before entry into the program and each subsequent year enrolled.

**Re-admission or transfer into the Dental Hygiene program**

The student must qualify under the admission criteria in effect at time of 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 courses completed more than 3 years prior for re-admission or transfer must be repeated. Withdrawal or academic failure within the Dental Hygiene program will require the student to reapply as a new student. Advanced placement is dependent upon space availability.

The Dental Hygiene Program Director will evaluate transferability of all Dental Hygiene 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 Dental Hygiene courses taken 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 Dental Hygiene courses is determined by the Dental Hygiene Program Director.

Applicants must submit a letter explaining the circumstances of any previous exit from a Dental Hygiene program. The letter must be sent from the Dental Hygiene Program Director at the former institution. CCCC’s Dental Hygiene 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.

**Program Specific Academic Standards:** See the Dental Hygiene Student Policies and Procedures Manual and specific Dental Hygiene course syllabi.

Dental Hygiene 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 Dental Hygiene curriculum. Dental Hygiene and progressive related courses must be taken in succession as they appear in the catalog. Dental Hygiene 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 probation or suspension status.

Program Length: 5 semesters

Career Pathway Options: Associate in Applied Science Degree

Program Site: Central Carolina Dental Center; Sanford, NC-Day

**Course Requirements for Dental Hygiene Degree**

A. General Education Courses (15 SHC)		C-L-CI-SHC
BIO 180	Biological Chemistry	3-0-0-3
COM 120	Interpersonal Communication	3-0-0-3
	OR	
COM 231	Public Speaking	3-0-0-3
	OR	
ENG 115	Oral Communications	3-0-0-3
ENG 111	Expository Writing	3-0-0-3
	Humanities/Fine Arts Elective	3-0-0-3
SOC 240	Social Psychology	3-0-0-3

B. Required Major Core Courses (55 SHC)		
BIO 163	Human Anatomy & Physiology with Lab	4-2-0-5
BIO 175	General Microbiology	2-2-0-3
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 Preclinic Lecture	2-0-0-2
DEN 121	Dental Hygiene Preclinic Lab	0-6-0-2
DEN 123	Nutrition/Dental Health	-0-0-2
DEN 124	Periodontology	2-0-0-2
DEN 125	Dental Office Emergencies	0-2-0-1
DEN 130	Dental Hygiene Theory I	2-0-0-2
DEN 131	Dental Hygiene Clinic I	0-0-9-3
DEN 140	Dental Hygiene Theory II	1-0-0-1
DEN 141	Dental Hygiene Clinic II	0-0-6-2
DEN 220	Dental Hygiene Theory III	2-0-0-2
DEN 221	Dental Hygiene Clinic III	0-0-12-4
DEN 222	General and Oral Pathology	2-0-0-2
DEN 223	Dental Pharmacology	2-0-0-2
DEN 224	Materials & Procedures	1-3-0-2
DEN 230	Dental Hygiene Theory IV	1-0-0-1
DEN 231	Dental Hygiene Clinic IV	0-0-12-4
DEN 232	Community Dental Health	2-0-3-3
DEN 233	Professional Development	2-0-0-2

C. Other Major Hours Required for Graduation (1SHC)		
Student Success-Select One:		
ACA 111	College Student Success	1-0-0-1
ACA 115	Success and Study Skills	0-2-0-1
ACA 122	College Transfer Success	1-0-0-1

Total Semester Hours Credit Required for Graduation: 71

**Semester Curriculum for Dental Hygiene Degree**

## Semester Curriculum for Dental Hygiene

1st Semester: (Fall)	C-L-CI-SHC
BIO 163 Human Anatomy & Physiology with 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 Preclinic Lecture	2-0-0-2
DEN 121 Dental Hygiene Preclinic Lab	0-6-0-2
ACA 111 College Student Success	1-0-0-1
OR	
ACA 115 Success and Study Skills	0-2-0-1
OR	
ACA 122 College Transfer Success	1-0-0-1
	12/13-13/15-0-18
2nd Semester: (Spring)	
BIO 180 Biological Chemistry	3-0-0-3
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
	12-3-9-16
3rd Semester: (Summer)	
DEN 140 Dental Hygiene Theory II	1-0-0-1
DEN 141 Dental Hygiene Clinic II	0-0-6-2
ENG 111 Expository Writing	3-0-0-3
DEN 125 Dental Office Emergencies	0-2-0-1
	4-2-6-7
4th 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 and Oral Pathology	2-0-0-2
DEN 232 Community Dental Health	2-0-3-3
Humanities/Fine Arts Elective	3-0-0-3
	11-2-15-17
5th Semester: (Spring)	
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
	9-0-12-13
Total Semester Credit Hours: 71	

## 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, 1st and 2nd years  
 Harnett Campus - Day, 1st year

#### Course Requirements for Human Services Technology Degree

A. General Education Courses (15 SHC)	C-L-SHC
ENG 111 Expository Writing	3-0-3
ENG 114 Professional Research and Reporting	3-0-3
Humanities/Fine Arts Elective	3-0-3
MAT 140 Survey of Mathematics	3-0-3
SOC 210 Introduction to Sociology	3-0-3
B. Required Major Core Courses (25 SHC)	
HSE 110 Introduction to Human Services	2-2-3
HSE 112 Group Process I	1-2-2
HSE 123 Interviewing Techniques	2-2-3
HSE 125 Counseling	2-2-3
HSE 210 Human Services Issues	2-0-2
HSE 225 Crisis Intervention	3-0-3
PSY 150 General Psychology	3-0-3
PSY 241 Developmental Psychology	3-0-3
SOC 213 Sociology of the Family	3-0-3
C. Other Major Hours Required for Graduation (26 SHC)	
COE 111 Co-op Work Experience I	0-10-1
COE 115 Work Experience Seminar I	1-0-1
PSY 115 Stress Management	2-0-2
SAB 110 Substance Abuse Overview	3-0-3
SOC 220 Social Problems	3-0-3
SOC 232 Social Context of Aging	3-0-3

Student Success – Select One \*Effective 2014 Fall

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1
ACA 122	College Transfer Success	1-0-1

Other Required Hours (3-5 SHC)

CIS 110	Introduction to Computers	2-2-3
	OR	
OST 131	Keyboarding I	1-2-2
	AND	
OST 137	Office Software Applications	2-2-3

Elective Course Listing (Choose 9 SHC)

PSY 234	Organizational Psychology	3-0-3
PSY 237	Social Psychology	3-0-3
PSY 246	Adolescent Psychology	3-0-3
PSY 281	Abnormal Psychology	3-0-3
SOC 225	Social Diversity	3-0-3

Total Semester Hours Credit Required for Graduation:66/68

**Semester Curriculum for Human Services Technology**

**Degree**

1st Semester (Fall) C-L-SHC

ENG 111	Expository Writing	3-0-3
HSE 110	Introduction to Human Services	2-2-3
PSY 115	Stress Management	2-0-2
PSY 150	General Psychology	3-0-3
SOC 210	Introduction to Sociology	3-0-3
	Student Success Course	1-0-1
		16-4-15

2nd Semester (Spring)

CIS 110	Introduction to Computers	2-2-3
HSE 123	Interviewing Techniques	2-2-3
	Humanities/Fine Arts Elective	3-0-3
MAT 140	Survey of Mathematics	3-0-3
PSY 241	Developmental Psychology	3-0-3
SOC 220	Social Problems	3-0-3
		16-4-18

3rd Semester (Fall)

HSE 112	Group Process I	1-2-2
HSE 225	Crisis Intervention	3-0-3
SAB 110	Substance Abuse Overview	3-0-3
SOC 213	Sociology of the Family	3-0-3
	Major Elective	3-0-3
	Major Elective	3-0-3
		16-2-17

4th Semester (Spring)

COE 111	Co-op Work Experience I	0-10-1
COE 115	Work Experience Seminar I	1-0-1
ENG 114	Professional Research and Reporting	3-0-3
HSE 125	Counseling	2-2-3
HSE 210	Human Services Issues	2-0-2
	Major Elective	3-0-3
SOC 232	Social Context of Aging	3-0-3
		13-12-16

Total Semester Hours Credit: 66/68

**Credential: Certificate in Licensed Practical Nurse Refresher C45390**

The Licensed Practical Nurse Refresher curriculum provides a refresher for individuals previously licensed as Practical Nurses and who are ineligible for reentry into nursing practice due to a lapse in licensure for five or more years. Individuals entering this curriculum must have been previously licensed as a practical nurse. Coursework includes common medical-surgical conditions and nursing approaches to their management, including mental health principles, pharmacological concepts, and safe clinical nursing practice. Graduates are eligible to apply for reinstatement of licensure by the North Carolina Board of Nursing. Employment opportunities include hospitals, long term care facilities, clinics, physicians' offices, industry, and community health agencies.

Limited Enrollment Curriculum:

1. Enrollment is limited to the number of approved spaces allocated by the North Carolina Board of Nursing. NUR 105 is offered on a demand and space available basis.
2. Admission criteria for the nursing program are reviewed annually and are subject to change.
3. Nursing is a practice discipline with cognitive, sensory, affective, and psychomotor performance requirements. Further information regarding the physical and cognitive expectations of a student nurse and CORE performance standards (critical thinking, interpersonal, communication, mobility, motor skills, hearing, visual, and tactile) may be found in the Nursing Student Guideline Handbook.
4. Students who enroll in the nursing program should be aware that the application for re-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 for re-licensure is made. Denial or restriction can be for the following reasons:
  - a) The student practiced fraud or deceit in attempting to procure a license to practice nursing;
  - b) The student has been convicted of a misdemeanor/felony (excluding a minor traffic violation);
  - c) The student is mentally or physically incompetent or uses any drug to a degree that interferes with fitness to practice nursing;
  - d) The student engages in conduct, which endangers the public health.
5. Clinical Affiliation Requirements: The contract between CCCC and a clinical agency requires that the college abide by the existing rules and regulations of the agency. The college follows agency protocol regarding drug screening and criminal background checks. Clinical contracts require that every student submit to and complete a medical form through own healthcare provider and a multi-state criminal background check and urine drug screen through designated vendors. If a clinical site denies a

student clinical affiliation due to results of either of these requirements, the student will not be able to meet the program/course requirements and acceptance and/or progression in the program will be denied.

6. It is the applicants' responsibility to ensure that they are aware of the above limitations and that all requirements are met by the established deadline.

**Program Specific Entrance Standards:**

1. Complete and submit a college application and a Nursing Program Application to the nursing admissions counselor.
2. Provide verification of previous licensure as a licensed practical nurse.
3. Provide an official transcript validating completion of an approved licensed practical nursing program.
4. Provide copies of any documentation from the North Carolina Board of Nursing directing the applicant to take the NUR 105 course for reinstatement of licensure.

**Requirements after Acceptance:**

1. Accepted applicants must attend an information session with the nursing department chairperson and/or lead instructor and/or a representative of student services to discuss program requirements and schedules and to order uniforms.
2. Applicants must submit proof of current Adult/Infant/Child CPR
  - a) American Heart Association Certification in Adult-Infant-Child CPR and AED for Healthcare Providers that includes both testing and performance criteria.
  - b) CPR/AED certification is required for admission selection process and must be maintained throughout both the application process and program enrollment.
3. Clinical Affiliation Requirements: Clinical contracts require that every student submit to and complete a medical form through own healthcare provider and a multi-state criminal background check and urine drug screen through designated vendors. If a clinical site denies a student clinical affiliation due to results of either of these requirements, the student will not be able to meet the program/course requirements and acceptance will be denied.
4. Medical Forms: Applicants are required to submit a completed college approved student medical health form to the nursing department chairperson at least 30 days before entering the program. 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 nursing admission status and class space will be assigned to another applicant. NO student will be permitted to participate in clinical without having submitted his/her completed medical form.
5. Liability/Malpractice Insurance: Insurance fees must be paid to the Business Office by due date established before entry into the program and each subsequent year enrolled.

**Program Specific Academic Standards:**

1. Students will not be allowed to enter any nursing curriculum or repeat any curriculum course more than twice.
2. Students must achieve a grade of "C" or better in all

major courses in the curriculum to progress.

3. Nursing students must meet the standards related to demonstration of emotional and physical health within the framework of nursing practice and must adhere to all other policies set forth in the Nursing Student Guidelines Handbook.

4. Nursing students must not be on academic probation or suspension status.

5. CIS Basic PC Literacy (2 semester hours) or CIS 110 Intro to Computers (3 semester hours) completed more than 5 years prior to entry, re-admission, or transfer must be repeated.

Program Length: 2 semester

Career Pathway Options:

Certificate in Licensed Practical Nurse Refresher

Program Sites:

Harnett Campus - Day/Evening as available

Chatham Campus - Day/Evening as available

**Course Requirements for Practical Nursing Refresher Certificate**

A. Required Major Core Course (12 SHC)	C-L-CI-SHC
NUR 105 LPN Refresher	8-6-6-12
B. Other Major Hours	
CIS 110 Intro to Computers	2-2-0-3
Or	
CIS 111 Basic PC Literacy	1-2-0-2

Total Semester Hours Credit: 14/15

**Semester Curriculum for Practical Nursing Refresher Certificate - Chatham**

1st Semester (Fall)	C-L-CI-SHC
NUR 105A LPN Refresher (Theory & Lab)	8-6-0-10
CIS 110 Intro to Computers	2-2-0-3
Or	
CIS 111 Basic PC Literacy	1-2-0-2
	11-10-0-12/13

**2nd Semester (Spring)**

NUR 105B LPN Refresher (Clinical)	0-0-6-2
	0-0-6-2

Total Semester Hours Credit: 14/15

**Semester Curriculum for Practical Nursing Refresher Certificate - Harnett**

1st Semester (Spring)	C-L-CI-SHC
NUR 105A LPN Refresher (Theory & Lab)	8-6-0-10
CIS 110 Intro to Computers	2-2-0-3
Or	
CIS 111 Basic PC Literacy	1-2-0-2
	11-10-0-12/13

**2nd Semester (Summer)**

NUR 105B LPN Refresher (Clinical)	0-0-6-2
	0-0-6-2

Total Semester Hours Credit: 14/15

## 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, medical transcription, computer operations; assisting with examinations/treatments, performing routine laboratory procedures, electrocardiography, supervised medication administration; and ethical/legal issues associated with patient care.

Graduates of the Commission on Accreditation of Allied Health Education Programs (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.

#### Program Specific Entrance Standards

- Complete all developmental courses. (All test scores must be less than five years old or the student must have earned a "C" or better in the corresponding developmental courses or have received transfer credit.
  - CPT reading score of 80 or ACT score of 18 or SAT verbal score of 450 or completion of developmental reading requirements.
  - CPT English score of 86 or ACT score of 18 or SAT verbal score of 450 or completion of developmental English requirements.
  - CPT arithmetic score of 55 or ACT score of 18 or SAT mathematics score of 450 or completion of developmental arithmetic requirements.
- Attend a scheduled information session or interview with a medical assisting instructor.
- A physical examination and immunization update are required. Once a student has been tentatively accepted, forms to be used by the physician will be provided by the College.
- Students transferring into the program must have a 2.5 GPA or better.
- Complete CPR Certification, Health Care Provider through The American Heart Association or the American Red Cross, are the only acceptable organizations

#### Program Specific Academic Standards:

- Students must achieve a grade of "C" or better in all major courses in the curriculum to progress.

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

#### Course Requirements for Medical Assisting Degree

A. General Education Courses (15/16 SHC)		C-L-CI-SHC
ENG 111	Expository Writing	3-0-0-3
ENG 113	Literature Based Research	3-0-0-3
	OR	
ENG 114	Professional Research and Reporting	3-0-0-3
	OR	
ENG 115	Oral Communications	3-0-0-3
MAT 110	Mathematical Measurements	2-2-0-3
	Humanities/Fine Arts Elective	3-0-0-3
PSY 110	Life Span Development	3-0-0-3

#### B. Required Major Core Courses (32 SHC)

MED 110	Orientation Medical Assisting	1-0-0-1
MED 116	Introduction to Anatomy and Physiology	3-2-0-4
MED 118	Medical Law and Ethics	2-0-0-2
MED 121	Medical Terminology I	3-0-0-3
MED 122	Medical Terminology II	3-0-0-3
MED 130	Administration Office Procedures I	1-2-0-2
MED 131	Administration Office Procedures II	1-2-0-2
MED 140	Exam Room Procedures I	3-4-0-5
MED 150	Laboratory Procedures I	3-4-0-5
MED 260	Clinical Externship	0-0-15-5

#### C. Other Major Hours Required for Graduation (25 SHC)

CIS 111	Basic PC Literacy	1-2-0-2
MED 230	Administrative Office Procedures III	1-2-0-2
MED 232	Medical Insurance Coding	1-3-0-2
MED 240	Exam Room Procedures II	3-4-0-5
MED 264	Medical Assisting Overview	2-0-0-2
MED 270	Symptomatology	2-2-0-3
MED 272	Drug Therapy	3-0-0-3
MED 274	Diet Therapy/Nutrition	3-0-0-3
MED 276	Patient Education	1-2-0-2

#### Student Success – Select One \*Effective 2014 Fall

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1
ACA 122	College Transfer Success	1-0-1

Total Semester Hours Credit Required for Graduation: 72

#### Semester Curriculum for Medical Assisting Degree

1st Semester (Fall)		C-L-CI-SHC
CIS 111	Basic PC Literacy	1-2-0-2
MAT 110	Mathematical Measurements	2-2-0-3
MED 110	Orientation to Medical Assisting	1-0-0-1
MED 116	Introduction to Anatomy and Physiology	3-2-0-4
MED 118	Medical Law and Ethics	2-0-0-2
MED 121	Medical Terminology I	3-0-0-3
MED 130	Administrative Office Procedures I	1-2-0-2

Student Success Course		0-1-0-1 13-9-0-18
2nd Semester (Spring)		
ENG 111	Expository Writing	3-0-0-3
MED 122	Medical Terminology II	3-0-0-3
MED 140	Exam Room Procedures I	3-4-0-5
MED 150	Laboratory Procedures I	3-4-0-5
PSY 110	Life Span Development	3-0-0-3
		15-8-0-19
3rd Semester (Summer)		
MED 240	Exam Room Procedures II	3-4-0-5
MED 260	Clinical Externship	0-0-15-5
		3-4-15-10
Students may elect to exit with a diploma.		
4th Semester (Fall)		
*ENG	English Requirement	3-0-0-3
MED 131	Administrative Office Procedures II	1-2-0-2
MED 270	Symptomatology	2-2-0-3
MED 272	Drug Therapy	3-0-0-3
MED 276	Patient Education	1-2-0-2
		10-6-0-13
*Select One		
ENG 113	Literature Based Research	3-0-0-3
ENG 114	Professional Research & Reporting	3-0-0-3
ENG 115	Oral Communication	3-0-0-3
5th Semester (Spring)		
HUM	Humanities Elective	3-0-0-3
MED 230	Administrative Office Procedures III	1-2-0-2
MED 232	Medical Insurance Coding	1-3-0-2
MED 264	Medical Assisting Overview	2-0-0-2
MED 274	Diet Therapy/Nutrition	3-0-0-3
		10-5-0-12
Total Semester Hours Credit: 72		

## 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, medical transcription, 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 Programs are accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), on recommendation of the Curriculum Review Board of the American Association of Medical Assistants' Endowment (AAMAE). Commission on Accreditation of Allied Health Education Programs, 35 East Wacker Drive, Suite 1970, Chicago, IL 60601-2208, (312)553-9355. 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.

(All placement test scores must be less than five years old.)

### Program Specific Entrance Standards

1. Complete all developmental courses. (All test scores must be less than five years old or the student must have earned a "C" or better in the corresponding developmental courses or have received transfer credit.
  - a) CPT reading score of 80 or ACT score of 18 or SAT verbal score of 450 or completion of developmental reading requirements.
  - b) CPT English score of 86 or ACT score of 18 or SAT verbal score of 450 or completion of developmental English requirements.
  - c) CPT arithmetic score of 55 or ACT score of 18 or SAT mathematics score of 450 or completion of developmental arithmetic requirements.
2. Attend a scheduled information session or interview with a medical assisting instructor.
3. A physical examination and immunization update are required. Once a student has been tentatively accepted, forms to be used by the physician will be provided by the College.
4. Students transferring into the program must have a 2.5 GPA or better.
5. Complete CPR certification, Health Care Provider through The American Heart Association or The American

Red Cross, are the only acceptable organizations.

Program Specific Academic Standards:

Students must achieve a grade of “C” or better in all major courses in the curriculum to progress.

Program Length: 3 semesters

Career Pathway Options: Diploma in Medical Assisting

Program Sites:

Chatham Campus - Day Program

Harnett Campus - Day Program

Course Requirements for Medical Assisting Diploma

A. General Education Courses (9 SHC) C-L-CI-SHC

ENG 111	Expository Writing	3-0-0-3
MAT 110	Mathematical Measurements	2-2-0-3
PSY 110	Life Span Development	3-0-0-3

B. Required Major Core Courses (35 SHC)

MED 110	Orientation to Medical Assisting	1-0-0-1
MED 116	Introduction to Anatomy and Physiology	3-2-0-4
MED 118	Medical Law and Ethics	2-0-0-2
MED 121	Medical Terminology I	3-0-0-3
MED 122	Medical Terminology II	3-0-0-3
MED 130	Administrative Office Procedures I	1-2-0-2
MED 140	Exam Room Procedures I	3-4-0-5
MED 150	Laboratory Procedures I	3-4-0-5
MED 240	Exam Room Procedures II	3-4-0-5
MED 260	Clinical Externship	0-0-15-5

C. Other Major Hours Required for Graduation (3 SHC)

CIS 111	Basic PC Literacy	1-2-0-2
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Student Success – Select One \*Effective 2014 Fall

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1
ACA 122	College Transfer Success	1-0-1

Total Semester Hours Credit Required for Graduation: 47

Semester Curriculum for Medical Assisting Diploma

1st Semester (Fall) C-L-CI-SHC

CIS 111	Basic PC Literacy	1-2-0-2
MAT 110	Mathematical Measurements	2-2-0-3
MED 110	Orientation to Medical Assisting	1-0-0-1
MED 116	Introduction to Anatomy and Physiology	3-2-0-4
MED 118	Medical Law and Ethics	2-0-0-2
MED 121	Medical Terminology I	3-0-0-3
MED 130	Administrative Office Procedures I	1-2-0-2
		13-8-0-17

2nd Semester (Spring)

ENG	English Requirement	3-0-0-3
MED 122	Medical Terminology II	3-0-0-3
MED 140	Exam Room Procedures I	3-4-0-5
MED 150	Laboratory Procedures I	3-4-0-5
PSY 110	Life Span Development	3-0-0-3
		15-8-0-19

3rd Semester (Summer)

MED 240	Exam Room Procedures II	3-4-0-5
MED 260	Medical Clinical Externship	0-0-15-5
		3-4-15-10

Total Semester Hours Credit: 47



## **Nursing Assistant Credential: Nursing Assistant Certificate C45480**

The Nursing Assistant curriculum prepares individuals to work under the supervision of licensed health care professionals in providing nursing care and services for clients of all ages.

Course work emphasizes personal care, vital signs, communication, nutrition, medical asepsis, catheterization, tracheostomy care, dressing changes, oxygen therapy, and the legal scope of practice for Nursing Assistants.

Graduates of this curriculum may be eligible to be listed on the registry as a Nurse Aide I and Nurse Aide II and will satisfy the Prior Health Care Program completion requirement specified in the selective admission process for CCCC's Practical Nursing and Associate Degree Nursing programs. Graduates may be employed in home health agencies, hospitals, clinics, nursing homes, extended care facilities, and doctors' offices.

Prerequisites: CPR Certification, TB Screening, and Vaccinations required 2 weeks prior to first day of class.

**Clinical Affiliation Requirements:** The contract between CCCC and a clinical agency requires that the college abide by the existing rules and regulations of the agency. The college follows agency protocol regarding drug screening and criminal background checks. Clinical contracts require that every student submit to and complete a medical form through own healthcare provider and a multi-state criminal background check and urine drug screen through designated vendors. If a clinical site denies a student clinical affiliation due to results of either of these requirements, the student will not be able to meet the program/course requirements and progression in the program will be limited.

Program Length: 2 semesters

Career Pathway Options: Nursing Assistant Certificate; Practical Nursing Diploma; Associate in Applied Science Degree in Associate Degree Nursing

Program Sites: Harnett Campus—Day

### **Course Requirements for Nursing Assistant Certificate**

A. Required Major Core Courses (14 SHC)	C-L-CI-SHC
NAS 101    Nursing Assistant I	3-4-3-6
NAS 102    Nursing Assistant II	3-2-6-6
NAS 103    Home Health Care	2-0-0-2

B. Other Major Hours Required for Graduation (3 SHC)	C-L-SHC
PSY 150    General Psychology	3-0-3

Total Semester Hours Credit Required for Graduation: 17

### Semester Curriculum for Nursing Assistant Certificate

1 <sup>st</sup> Semester (Fall)		
NAS 101	Nursing Assistant I	3-4-3-6
PSY 150	General Psychology	3-0-3
2 <sup>nd</sup> Semester (Spring)		
NAS 102	Nursing Assistant II	3-2-6-6
NAS 103	Home Health Care	2-0-0-2

Total Semester Hours Credit Required for Graduation: 17

## **Practical Nursing Credential: Diploma in Practical Nursing D45660**

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

### Limited Enrollment Curriculum:

1. In the nursing programs, applicants are accepted based upon a merit-based, selective admissions process.
2. Enrollment is limited to the number of approved spaces allocated by the North Carolina Board of Nursing.
3. Admission criteria for the nursing program are reviewed annually and are subject to change.
4. Nursing is a practice discipline with cognitive, sensory, affective, and psychomotor performance requirements. Further information regarding the physical and cognitive expectations of a student nurse and CORE performance standards (critical thinking, interpersonal, communication, mobility, motor skills, hearing, visual, and tactile) may be found in the Nursing Student Guideline Handbook.
5. 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. Denial or restriction can be for the following reasons:
  - a) The student practiced fraud or deceit in attempting to procure a license to practice nursing;
  - b) The student has been convicted of a misdemeanor/felony (excluding a minor traffic violation);
  - c) The student is mentally or physically incompetent or uses any drug to a degree that interferes with fitness to practice nursing;
  - d) The student engages in conduct, which endangers the public health.
6. Clinical Affiliation Requirements: The contract between CCCC and a clinical agency requires that the college abide by the existing rules and regulations of the agency. The college follows agency protocol regarding drug screening and criminal background checks. Clinical contracts require that every student submit to and complete a medical form through own healthcare provider and a multi-state criminal background check and urine drug screen through designated vendors. If a clinical site denies a student clinical affiliation due to results of either of these

requirements, the student will not be able to meet the program/course requirements and acceptance and/or progression in the program will be denied.

7. A complete Nursing Program Application must be submitted by the appropriate deadline.

8. It is the applicants' responsibility to ensure that they are aware of the above limitations and that all requirements are met by the established deadline.

Entrance Standards: See General Admission Standards in the electronic catalog (Gen. Info section).

### Program Specific Entrance Standards:

#### I. All Nursing Students

##### A. Selective, Merit-Based Admission Process

1. A student can apply to any of the CCCC nursing programs but can only be evaluated for selective admissions for one program during any one designated selection time period.
2. Once a student completes all college admission criteria and those nursing criteria designated as "Required," he/she is determined to be a qualified applicant for the selection pool. Only after the applicant has completed the required Nursing Program Application will the applicant be ready to submit the application and worksheet for score tally. Applicants with highest combined points in the required and optional sections will be offered admission.
3. Selection applications will be accepted mid-January through mid-February for each fall enrollment. In the event that all spaces are not filled for fall consideration, applications for late consideration will be accepted during the months of May and August. Consideration applications for spring acceptance will be considered in May. In the event that all spring spaces are not filled, late consideration applications will be accepted in September and December. See college website announcements for specific acceptance time periods.
4. If applicants have the same total point count, the applicant's highest Test of Essential Academic skills (TEAS) Test Score(s) will be the determining factor in the following order:
  - a) First use the applicant's total Composite Score (Combined Reading, Math, Science, and English Scores);
  - b) If the total Composite Score is equal, then the highest Science Score will be the determining factor;
  - c) If the Science score is equal, the Highest Reading Score will be the determining factor.
  - d) If the Reading Score is equal, the Highest Math Score will be the determining factor.
  - e) If the Math Score is equal, the Highest English Score will be the determining factor.
5. If a student has had two previous entries into any nursing program, he/she will not be allowed to enter into any of Central Carolina Community College's nursing curriculums for three years after the date of last enrollment. The application will be referred for academic and/or remediation planning to promote success upon re-entry.

## B. Required Admission Criteria (All Applicants)

## 1. Pre-requisite Courses:

a) Pre-requisite Chemistry, Algebra, and Computer Literacy: Applicants must show evidence of completion of chemistry, algebra, and computer application courses at the high school level or above with a grade of “C” or better on each within five years of program application deadline.

College courses that may be used to satisfy these requirements are:

*Chemistry (select one):*

CHM 090 Chemistry Concepts

CHM 092 Fundamentals of Chemistry

CHM 130/130A General Organic and Biochemistry

CHM 131/CHM 131A Introduction to Chemistry

CHM 151 General Chemistry I

*Algebra (select one):*

MAT 070 Introductory Algebra

MAT 080 Intermediate Algebra

MAT 110 Mathematical Measurements

MAT 115 Mathematical Models

MAT 140 Survey of Mathematics

MAT 161 College Algebra

*Computer Literacy (select one):*

CIS 110 Introduction to Computers

CIS 111 Basic PC Literacy

b) Pre-requisite Biology

Applicants must show evidence of completion of biology courses at the college developmental level or above with a grade of “C” or better within five years of program application deadline. College courses that may be used to satisfy these requirements are

(select one):

BIO 090 Foundations of Biology

BIO 094 Concepts of Biology

BIO 110 Principles of Biology

BIO 111 General Biology I

c) For courses repeated, letter grades received in the most recent course will be used to assign points for selective scoring purposes. Courses must have a grade of “C” or above to receive points.

d) Proficiency exams with a grade of “B” or appropriate CLEPs will be accepted for credit or fulfillment of the pre-requisite course requirement. Selective admission points for accepted proficiency and CLEPS will be calculated based upon a letter grade of “C.”

e) Completed AP course points will be awarded based upon the exam scores as follows: An AP exam score of 5 = 4 quality points, 4 = 3 quality points, and a 3 = 2 quality points multiplied by credit hours of the college curriculum course that it substitutes for.

f) Completed VOCATS course points will be awarded based upon the exam score of 80 or above. The score will be converted to a letter grade of “A” = 94-100, “B” = 86-93, and “C” = 80-85 with quality point assignments of 4, 3, and 2 respectively multiplied by credit hours of the college curriculum course that it substitutes for. The VOCAT score

must be submitted within two years of high school graduation to be considered for course credit and point awards for selective admissions scoring.

2. Placement Test Scores (All test scores must be less than five years old or the student must have earned a “C” or better in the corresponding developmental courses or received transfer credit for ENG 111 and MAT courses level 110 or above.):

a) CPT reading score of 80 or ACT score of 18 or SAT verbal score of 450 or completion of developmental reading requirements.

b) CPT English score of 86 or ACT score of 18 or SAT verbal score of 450 or completion of developmental English requirements.

c) CPT arithmetic score of 55 or ACT score of 18 or SAT mathematics score of 450 or completion of developmental arithmetic/mathematics requirements.

d) CPT algebra score of 55 or ACT score of 18 or SAT mathematics score of 450 or completion of developmental algebra/mathematics requirements.

3. Test of Essential Academic Skills (TEAS)

a) The Test of Essential Academic Skills (TEAS) will be administered on scheduled testing dates at the student’s expense.

b) The applicant will be referred for remediation assistance based upon a low TEAS composite score and/or component sub-scores. The student may re-test after successful completion of required remediation, college placement tests, developmental courses, and pre-requisite courses.

c) TEAS test scores are valid for three years.

d) Applicants must meet the minimal TEAS Composite Score. (The TEAS Composite Score will be used for selective admissions scoring purposes. The TEAS sub-scores will be used for pre-nursing and nursing remediation.)

4. GPA Cumulative and Semester

a) Grade point averages of at least 2.5 cumulative and 2.0 semester on last semester of coursework completed at a secondary or postsecondary institution within the last five years is required for admission consideration.

b) Must not be on academic probation or suspension status.

5. 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 successful completion of a state approved Nurse Aide I Training in Competency Evaluation Program and active listing on the North Carolina Department of Health and Human Services (NC DHHS) Nursing Assistant 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 throughout both the application process and program enrollment. 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.

6. The Test of English as a Foreign Language (TOEFL)

a) TOEFL scores are required of any naturalized citizen or

non-United States citizen where English is their second language to provide as evidence of adequate proficiency in the English language.

b) The minimum acceptable paper-based TOEFL score is 550. The minimum acceptable computer-based TOEFL score is 213. The minimum acceptable internet-based TOEFL score is 80.

c) This test is offered at multiple testing sites nationally and is at the student's expense.

#### 7. Adult/Infant/Child CPR

a) American Heart Association Certification in Adult-Infant-Child CPR and AED for Healthcare Providers that includes both testing and performance criteria is required of all applicants.

b) CPR/AED certification is required for admission selection process and must be maintained throughout both the application process and program enrollment.

### C. Optional Admission Criteria

#### 1. GPA

a) Points will be awarded based on a cumulative grade point average through first semester for current high school seniors or actual last college GPA.

b) Only cumulative high school or college GPAs within the last five years will be considered.

c) Students must have been enrolled in a minimum of 6 semester credit hours during the last semester for cumulative GPA consideration.

d) Points will be awarded based upon the following cumulative GPA ranges: 2.5-2.99; 3.0-3.49; and 3.5-4.0.

e) Cumulative GPAs over five years old and under 2.5 will not be assigned points for selective admission scoring purposes.

#### 2. Residency

Points will be assigned for selective admission scoring if the applicant is a legal North Carolina Resident for tuition purposes and resides in the three county service areas of Lee, Chatham, and Harnett counties.

#### 3. Health Fields Work Experience

Points will be assigned for selective admission scoring if the applicant has at least 6 months or at least 1040 hours of successful work or accepted volunteerism in an approved health field within the last three years.

Health fields are identified as: Cardiac Care Technician, Cardiac Sonographer, Certified Medical Assistant, Certified Dental Assistant, Certified Dental Hygienist, Dialysis Technician, EKG Technician, Emergency Medical Technician, Health Care Technician, Licensed Practical Nurse, Medical laboratory Technician, Military Corpsman, Nursing Assistant I, Nursing Assistant II, Occupational Therapy Technician, Paramedics, Patient Care Technician, Pharmacy Technician, Phlebotomist, Physical Therapy Technician, Psychiatric Technician, Rehabilitation Technician, Respiratory Therapist Technician, Surgical Technician, and X-ray Technician.

4) High School Medical Career/Health Occupations Classes Points will be assigned for selective admission scoring if the applicant has successfully completed the high school

Medical Career/Health Occupations Classes I and II with a grade of "C" or better within the last three years.

#### 5. Curriculum Courses

a) Optional points will be assigned for selective admission scoring if the applicant has completed the required general education courses of the practical nursing curriculum.

b) These courses are:

BIO 165 Anatomy & Physiology or high school AP Biology course/exam;

BIO 166 Anatomy & Physiology or high school AP Anatomy & Physiology course/exam;

PSY 110 Lifespan Development; and

ENG 111 Expository Writing/Lab or high school AP English course/exam

c) BIO 165, BIO 166, and PSY 110 and/or identified substitute high school AP must be completed within the last five years for point consideration. A student may request and attempt a proficiency examination for courses previously completed more than five years before application. Successful completion of a proficiency examination will allow the student to receive credit for the course.

d) College curriculum course points will be awarded based upon the course credit hours multiplied by quality points achieved. Letter grades of "A" = 4 quality points, "B" = 3 quality points, and "C" = 2 quality points. Letter grades of "D" and "F" receive no points for selective admission scoring.

e) Completed AP course points will be awarded based upon the exam scores as follows: An AP exam score of 5 = 4 quality points, 4 = 3 quality points, and a 3 = 2 quality points multiplied by credit hours of the college curriculum course that it substitutes for.

f) Completed VOCATS course points will be awarded based upon the exam score of 80 or above. The score will be converted to a letter grade of "A" = 94-100, "B" = 86-93, and "C" = 80-85 with quality point assignments of 4, 3, and 2 respectively multiplied by credit hours of the college curriculum course that it substitutes for. The VOCAT score must be submitted within two years of high school graduation to be considered for course credit and point awards for selective admissions scoring.

g) Point awarded for BIO 165 and BIO 166 or high school AP substitutes will be doubled in the scoring process.

#### II. Re-admission or transfer into the nursing program:

1. The student must qualify under the admission criteria in effect at time of re-admission or transfer.

2. A student may be required to re-enter a nursing course earlier in the curriculum sequence if the student is lacking major course content.

3. All nursing courses completed more than 3 years prior to re-admission or transfer must be repeated.

4. BIO 165 Anatomy & Physiology I, BIO 166 Anatomy & Physiology II, and PSY 110 Lifespan Development

completed more than 5 years prior to entry, re-admission, or transfer must be repeated. A student may request and attempt a proficiency examination for courses previously completed more than five years before application. Successful completion of a proficiency examination will allow the student to receive credit for the course.

5. Withdrawal or academic failure within the Practical Nursing Program will require the student to reapply as a new student.
6. Advanced placement is dependent upon space availability.
7. The Nursing Department Chairperson will evaluate transferability of all 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 outlines and syllabi of 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 nursing courses rests with the chairperson.
8. Applicants must submit a letter explaining the circumstances of any previous exit from a nursing or allied health program. This letter must be sent from the previous department chair. CCCC's nursing chair and dean 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.

### III. Requirements after Acceptance:

1. **Mandatory Acceptance Session:** When notified of acceptance, applicants must attend a mandatory orientation session with the nursing department chair and faculty to discuss program requirements, schedules, payment due dates, and to order uniforms.
2. **Clinical Affiliation Requirements:** The contract between CCCC and a clinical agency requires that the college abide by the existing rules and regulations of the agency. The college follows agency protocol regarding drug screening and criminal background checks. Clinical contracts require that every student submit to and complete a medical form through own healthcare provider and a multi-state criminal background check and urine drug screen through designated vendors. If a clinical site denies a student clinical affiliation due to results of either of these requirements, the student will not be able to meet the program/course requirements and acceptance will be denied.
3. **Medical Forms:** Applicants are required to submit a completed college approved student medical health form to the nursing department chairperson at least 90 days before entering the program. 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 nursing admission status and class space will be assigned to another applicant. NO student will be permitted to participate in clinical without having submitted his/her completed medical form.

4. **Liability/Malpractice Insurance:** Insurance fees must be paid to the Business Office by due date established before entry into the program and each subsequent year enrolled.

**Academic Standards:** See General Academic standards in the catalog (Gen. Info section).

**Program Specific Academic Standards:** See additional Program Specific Academic Standards in the Nursing Student Guidelines Handbook and specific nursing course syllabus.

1. Nursing curriculum students once enrolled must maintain an overall and semester quality point average of 2.0 or better, and must have a grade of "C" or better in all nursing courses. 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.
2. Nursing and progressive related courses must be taken in succession as they appear in the catalog.
3. Nursing students must meet the standards related to demonstration of emotional and physical health within the framework of nursing practice and must adhere to all other policies set forth in the Nursing Student Guidelines Handbook.
4. Nursing students must not be on academic probation or suspension status.

**Program Length:** 3 semesters

**Career Pathway Options:** Diploma in Practical Nursing

**Program Sites:** Chatham Campus – Day Program

Harnett Campus – Day Program

### Course Requirements for Practical Nursing Diploma

<b>A. General Education Courses (6 SHC)</b>		<b>C-L-CI-SHC</b>
ENG 111	Expository Writing	3-0-0-3
PSY 110	Life Span Development	3-0-0-3

### B. Required Major Core Courses (33 SHC)

NUR 101	Practical Nursing I	7-6-6-11
NUR 102	Practical Nursing II	8-0-12-12
NUR 103	Practical Nursing III	6-0-12-10

### C. Other Major Hours Required for Graduation (9 SHC)

BIO 165	Anatomy and Physiology I	3-3-0-4
BIO 166	Anatomy and Physiology II	3-3-0-4

### Student Success – Select One\*

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1
ACA 122	College Transfer Success	1-0-1

**Total Semester Hours Credit Required for Graduation: 48**

Semester Curriculum for Practical Nursing Diploma -

Chatham

1st Semester (Fall) C-L-CI-SHC

ACA 115	Success and Study Skills	0-2-0-1
BIO 165	Anatomy and Physiology I	3-3-0-4
NUR 101	Practical Nursing I	7-6-6-11
PSY 110	Life Span Development	3-0-0-3
	Student Success Course	0-1-0-1
		13-12-6-20

2nd Semester (Spring)

BIO 166	Anatomy and Physiology II	3-3-0-4
ENG 111	Expository Writing	3-0-0-3
NUR 102	Practical Nursing II	8-0-12-12
		14-5-12-20

3rd Semester (Summer)

NUR 103	Practical Nursing III	6-0-12-10
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Total Semester Hours Credit: 49

Semester Curriculum for Practical Nursing Diploma -

Harnett

1st Semester (Spring) C-L-CI-SHC

ACA 115	Success and Study Skills	0-2-0-1
BIO 165	Anatomy and Physiology I	3-3-0-4
NUR 101	Practical Nursing I	7-6-6-11
PSY 110	Life Span Development	3-0-0-3
		13-10-6-19

2nd Semester (Summer)

BIO 166	Anatomy and Physiology II	3-3-0-4
NUR 102A	Practical Nursing II	6-0-6-8
		9-3-6-12

3rd Semester (Fall)

ENG 111	Expository Writing	3-0-0-3
NUR 102B	Practical Nursing II	2-0-6-4
NUR 103	Practical Nursing III	6-0-12-10
		11-0-18-17

Total Semester Hours Credit: 49

\*Effective 2014 Spring

**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, chemistry, and computer technology.

Graduates may be eligible to take state and national examinations 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.

Program Specific Entrance Standards:

1. A grade of "C" or better in high school or college biology.
2. Each applicant is required to attend an informational session and tour of the VMT facilities conducted by an admissions counselor and/or VMT faculty. A signed agreement indicating willingness to comply with all VMT specific policies is required of each student prior to entering the VMT program.
3. Each accepted student is required to obtain 40 hours of work/voluntary experience in the veterinary field and is required to attend a VMT-specific Orientation Session prior to entering the program.
4. Upon acceptance, each student is required to submit a student medical form (provided by the College) from his/her physician documenting good health and current vaccination against common childhood diseases and tetanus. In addition, rabies pre-immunization is strongly recommended.
5. Satisfactory Placement Test Scores are required. (All test scores must be less than five years old or the student must have earned a "C" or better in the corresponding developmental courses.) See the Veterinary Medical Technology Guidelines for current required placement scores.
6. Applicants who have attended any college (including CCCC) within the past 5 years must have an overall GPA of 2.0 or better and a most recent semester GPA of 2.0 or better. (Exceptions may be made due to extenuating circumstances.)

## Program Specific Academic Standards:

1. Acceptance into the Veterinary Medical Technology degree program, A45780, is required for enrollment in VET courses.
2. VET and progressive related courses must be taken in succession as they appear in the Semester Curriculum for Veterinary Medical Technology, unless approved on a case-by-case basis by the Vet Med Department Chair.
3. VMT students who do not receive a grade of C or better in courses with a prefix of VET will not be allowed to continue in the program and must apply for readmission the next year (space available).
4. Students are not allowed to enter the VMT curriculum more than twice (i.e., only one readmission into the VMT program is allowed.)
5. VMT students must meet the standards related to demonstration of physical and emotional health within the framework of Veterinary Medical Technology practice and must adhere to all other policies set forth in the VMT Handbook.

Program Length: 5 semesters

Career Pathway Options: Associate in Applied Science in Veterinary Medical Technology

Program Sites: Lee Campus - Day Program

## Course Requirements for Veterinary Medical Technology Degree

## A. General Education Courses (15 SHC) C-L-SHC

ENG 111	Expository Writing	3-0-3
ENG 114	Professional Research and Reporting	3-0-3
MAT 110	Mathematical Measurement	2-2-3
	Humanities/Fine Arts Elective	3-0-3
	Social/Behavioral Science Elective	3-0-3

## B. Required Core Courses ( 47 SHC)

COE 112A	Co-op Work Experience I	0-10-1
COE 112B	Co-op Work Experience I	0-10-1
VET 110	Animal Breeds and Husbandry	2-2-3
VET 120	Veterinary Anatomy and Physiology	3-3-4
VET 123	Veterinary Parasitology	2-3-3
VET 125	Veterinary Diseases I	1-3-2
VET 126	Veterinary Diseases II	1-3-2
VET 131	Veterinary Lab Techniques I	2-3-3
VET 133	Veterinary Clinical Practices I	2-3-3
VET 137	Veterinary Office Practices	1-2-2
VET 211	Veterinary Lab Techniques II	2-3-3
VET 212	Veterinary Lab Techniques III	2-3-3
VET 213	Veterinary Clinical Practices II	1-9-4
VET 214	Veterinary Clinical Practices III	1-9-4
VET 215	Veterinary Pharmacology	3-0-3
VET 217	Large Animal Clinical Practices	2-3-3
VET 237	Animal Nutrition	3-0-3

## C. Required Subject Area (3 SHC)

VET 121	Veterinary Medical Terminology	3-0-3
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## D. Other Major Hours Required for Graduation (6 SHC)

CHM 130	General Organic and Biochemistry	3-0-3
CHM 130A	General Organic and Biochemistry Lab	0-2-1
VET 114	Introduction to Veterinary Med Tech.	1-0-1

## Student Success—Select one:

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1
ACA 122	College Transfer Success	1-0-1

Total Semester Hours Credit Required for Graduation: 71

## Semester Curriculum for Veterinary Medical Technology Degree

## 1st Semester (Fall) C-L-SHC

ACA 115	Success and Study Skills	0-2-1
MAT 110	Mathematical Measurement	2-2-3
VET 110	Animal Breeds and Husbandry	2-2-3
VET 114	Introduction to Veterinary Med Tech.	1-0-1
VET 120	Veterinary Anatomy and Physiology	3-3-4
VET 121	Veterinary Medical Terminology	<u>3-0-3</u>

11-9-15

## 2nd Semester (Spring)

CHM 130	General Organic and Biochemistry	3-0-3
CHM 130A	General Organic and Biochemistry Lab	0-2-1
ENG 111	Expository Writing	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	<u>3-0-3</u>

14-7-17

## 3rd Semester (Summer)

VET 131	Veterinary Lab Techniques I	2-3-3
VET 133	Veterinary Clinical Practices I	2-3-3
	Social/Behavioral Science Elective	<u>3-0-3</u>

7-6-9

## 4th Semester (Fall)

COE 112A	Co-op Work Experience I	0-10-1
ENG 114	Professional Research and Reporting	3-0-3
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	<u>3-0-3</u>

10-25-16

## 5th Semester (Spring)

COE 112B	Co-op Work Experience I	0-10-1
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
VET 237	Animal Nutrition	<u>3-0-3</u>

8-25-14

Total Semester Hours Credit: 71

**Arts and Sciences (College Transfer)**

**Associate in Arts**

**Associate in Arts**

**Pre-Major Associate in Arts Degrees**

**Arts and Sciences**

**Comprehensive Articulation Agreement**

**North Carolina Community College System**

**University of North Carolina System**

**Associate in Arts Degree**

**A1010000**

This program prepares the student to transfer courses or the degree in its entirety to a four-year senior institution. The Associate in Arts Degree stresses Communication, social and behavioral sciences, humanities, and fine arts.

To earn the Associate in Arts degree, students must successfully complete each course with a grade of “C” or better. The Associate in Arts degree is portable and transferable as a block from Central Carolina Community College to all constituent institutions of the University of North Carolina with junior status if admitted into the institution.

Program Length: 4 semesters

Career Pathway Options: Associate in Arts Degree, Baccalaureate Degree at a Senior Institution

Program Sites:

Lee Campus – Day, 1st and 2nd Year, Evening, 1st and 2nd Year

Chatham Campus – Day, 1st and 2nd Year, Evening, 1st and 2nd Year

Harnett Campus – Day, 1st and 2nd Year, Evening, 1st and 2nd Year

Distance Education - 1st and 2nd Year - All Campuses

Course Requirements for Associate in Arts Degree

I. General Education (44 SHC)

A. Composition (6 SHC)

ENG 111	Expository Writing and	C-L-CR 3-0-3
ENG 112	Argument-Based Research OR	3-0-3
ENG 113	Literature-Based Research OR	3-0-3
ENG 114	Professional Research and Reporting	3-0-3

B. Humanities/Fine Arts (12 SHC)

Select courses from at least three of the following areas: art, music, drama, dance, foreign language, interdisciplinary humanities, literature, philosophy, and religion. At least one course must be a literature course. 3 SHC of speech/Communication (COM) may substitute for 3 SHC of Humanities and Fine Arts in AA and AS Degree programs.

Speech/Communication may not substitute for the literature requirement.

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
ART 117	Non-Western Art Survey	3-0-3
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
COM 110	Introduction to Communication	3-0-3
COM 120	Interpersonal Communication	3-0-3
COM 231	Public Speaking	3-0-3
DRA 111	Theatre Appreciation	3-0-3
DRA 112	Literature of the Theatre	3-0-3
DRA 211	Theatre History I	3-0-3
ENG 231	American Literature I	3-0-3
ENG 232	American Literature II	3-0-3
ENG 233	Major American Writers	3-0-3
ENG 241	British Literature I	3-0-3
ENG 242	British Literature II	3-0-3
ENG 243	Major British Writers	3-0-3
ENG 261	World Literature I	3-0-3
ENG 262	World Literature II	3-0-3
FRE 111	Elementary French I	3-0-3
FRE 112	Elementary French II	3-0-3
FRE 211	Intermediate French I	3-0-3
FRE 212	Intermediate French 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
HUM 211	Humanities I	3-0-3
HUM 220	Human Values and Meaning	3-0-3
MUS 110	Music Appreciation	3-0-3
MUS 112	Introduction to Jazz	3-0-3
PHI 210	History of Philosophy	3-0-3
PHI 215	Philosophical Issues	3-0-3
PHI 230	Introduction to Logic	3-0-3
PHI 240	Introduction to Ethics	3-0-3
REL 110	World Religions	3-0-3
REL 211	Introduction to Old Testament	3-0-3
REL 212	Introduction to New Testament	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

C. Social and Behavioral Sciences (12 SHC)

Select courses from each of three of the following disciplines: anthropology, economics, geography, history, political science, psychology, and sociology. At least one course must be a history course.

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	MAT 161	College Algebra	3-0-3
GEO 111	World Regional Geography	3-0-3	MAT 162	College Trigonometry	3-0-3
HIS 111	World Civilizations I	3-0-3	MAT 171	Precalculus Algebra	3-0-3
HIS 112	World Civilizations II	3-0-3	MAT 172	Precalculus Trigonometry	3-0-3
HIS 115	Introduction to Global History	3-0-3	MAT 175	Precalculus	4-0-4
HIS 121	Western Civilization I	3-0-3	MAT 263	Brief Calculus	3-0-3
HIS 122	Western Civilization II	3-0-3	MAT 271	Calculus I	3-2-4
HIS 131	American History I	3-0-3	MAT 272	Calculus II	3-2-4
HIS 132	American History II	3-0-3	MAT 273	Calculus III	3-2-4
POL 120	American Government	3-0-3			
POL 210	Comparative Government	3-0-3			
POL 220	International Relations	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 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 240	Social Psychology	3-0-3			

**D. Natural Sciences (8 SHC)**

Select two courses, including accompanying 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
BIO 110	Principles of Biology	3-3-4
BIO 111	General Biology I	3-3-4
BIO 112	General Biology II	3-3-4
BIO 120	Introductory Botany	3-3-4
BIO 130	Introductory Zoology	3-3-4
BIO 140	Environmental Biology	3-0-3
BIO 140A	Environmental Biology Lab	0-3-1
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
CHM 151	General Chemistry I	3-3-4
CHM 152	General Chemistry II	3-3-4
GEL 111	Introductory Geology	3-2-4
GEL 113	Historical Geology	3-2-4
GEL 130	Historical Geology	3-2-4
GEL 230	Environmental Geology	3-2-4
PHY 110	Conceptual Physics	3-0-3
PHY 110A	Conceptual Physics Lab	0-2-1
PHY 151	College Physics I	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

**E. Mathematics (6 SHC)**

Select at least one course in introductory mathematics; the other unit may be selected from other quantitative subjects, such as computer science and statistics.

CIS 110	Introduction to Computers	2-2-3
CIS 115	Introduction to Programming and Logic	2-2-3
MAT 140	Survey of Mathematics	3-0-3
MAT 151	Statistics I	3-0-3

**II. Other Major Hours Required for Graduation (20-21 SHC)\***

These courses may be selected from the following or any of the above listed courses not used to meet minimum block requirements. Students should consult with their advisor to determine the appropriate courses to complete based upon the requirements of the selected receiving institution and the students' intended major. Must include a minimum of 2 SHC in physical education. Must take ACA 122. Work experience may be included up to 1 SHC in career exploration.

ACA 122	College Transfer Success	1-0-1
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
ART 288	Studio	0-6-3
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 169	Anatomy and Physiology II	3-3-4
BIO 175	General Microbiology	2-2-3
BIO 176	Advanced General Microbiology	1-2-2
BIO 180	Biological Chemistry	2-2-3
BIO 265	Cell Biology	3-3-4
BIO 271	Pathophysiology	3-0-3
BIO 275	Microbiology	3-3-4
BIO 280	Biotechnology	2-2-3
BUS 110	Introduction to Business	3-0-3
BUS 115	Business Law I	3-0-3
BUS 228	Business Statistics	2-2-3
CHI 181	Chinese Lab I	0-2-1
CHI 182	Chinese Lab II	0-2-1
CHM 130	General, Organic and Biochemistry	3-0-3
CHM 130A	General, Organic, and Biochemistry Lab	0-2-1

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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 121	Law Enforcement Operations	3-0-3
CJC 141	Corrections	3-0-3
COE 111	Co-op Work Experience I	0-10-1
COE 115	Work Experience Seminar I	1-0-1
COM 130	Nonverbal Communication	3-0-3
CSC 134	C++ Programming	2-3-3
DRA 120	Voice for Performance	3-0-3
DRA 124	Readers Theatre	3-0-3
DRA 130	Acting I	0-6-3
DRA 131	Acting II	0-6-3
DRA 140	Stagecraft I	0-6-3
DRA 141	Stagecraft II	0-6-3
DRA 145	Stage Makeup	
DRA 170	Play Production I	0-9-3
DRA 171	Play Production II	0-9-3
DRA 260	Directing	0-6-3
DRA 270	Play Production III	0-9-3
DRA 271	Play Production IV	0-9-3
EDU 216	Foundations of Education **	4-0-4
ENG 125	Creative Writing I	3-0-3
ENG 126	Creative Writing II	3-0-3
ENG 273	African American Literature	3-0-3
HEA 110	Personal Health and Wellness	3-0-3
HIS 151	Hispanic Civilization	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
HUM 180	International Cultural Exploration	2-3-3
MAT 210	Logic	3-0-3
MAT 280	Linear Algebra	3-0-3
MAT 285	Differential Equations	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 116	Step Aerobics II	0-3-1
PED 117	Weight Training I	0-3-1
PED 118	Weight Training II	0-3-1
PED 121	Walk, Jog, Run	0-3-1
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 148	Softball	0-2-1
PED 149	Flag Football	0-2-1
PED 152	Swimming - Beginning	0-2-1
PED 155	Water Aerobics	0-3-1
PED 160	Canoe - Basic	0-2-1
PED 219	Disc Golf	0-2-1
PED 254	Coaching Basketball	1-2-2
PHS 110	Physical Science	3-2-4
POL 130	State and Local Government	3-0-3
PSY 246	Adolescent Psychology	3-0-3
SOC 232	Social Context of Aging	3-0-3

SPA 141	Culture and Civilization	3-0-3
SPA 151	Hispanic Literature	3-0-3
SPA 161	Cultural Immersion	3-0-3
SPA 221	Spanish Conversation	3-0-3
SPA 231	Reading and Composition	3-0-3

\* Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.  
 \*\*Selected Universities (Must contact receiving institution.)

Suggested Semester Sequence for Associate in Arts Degree

1st Semester (Fall)		C-L-CR
ACA 122	College Transfer Success	1-0-1
ENG 111	Expository Writing	3-0-3
	Natural Science Course and Lab	3-3-4
	Required History Course	3-0-3
	Approved Introduction Math Course	3/4-0-3/4
	Required Physical Education Course	0-2-1
		14/15-5-15/16

2nd Semester (Spring)		C-L-CR
ENG 112	Argument-Based Research	3-0-3
	OR	
ENG 113	Literature-Based Research	
	OR	
ENG 114	Professional Research and Reporting	
	Natural Science Course and Lab	3-3-4
	Approved Social/Behavioral Science	3-0-3
	Required Mathematics Course	3-0-3
	Approved Elective Course	3-0-3
		15-3-16

3rd Semester (Fall)		C-L-CR
	Required Literature Course	3-0-3
	Required Physical Education Elective	0-2-1
	Approved Humanities/Fine Arts Course	3-0-3
	Approved Social/Behavioral Science Course	3-0-3
	Approved Elective	3-0-3
	Approved Elective	3-0-3
		15-2-16

4th Semester (Spring)		C-L-CR
	Approved Humanities/Fine Arts Course	3-0-3
	Approved Humanities/Fine Arts Course	3-0-3
	Approved Social/Behavioral Science Course	3-0-3
	Approved Elective	3-0-3
	Approved Elective	3-0-3
	Approved Elective	3-0-3
		18-0-18

Total Degree Hours Required: 65-66 SHC

**Diploma of Transfer Readiness  
(Transfer Core Diploma)  
D1010000**

This diploma is issued upon the successful completion of the Associate in Arts (AA) general education core. The Comprehensive Articulation Agreement (CAA) states that students completing the general education transfer core will be considered to have fulfilled the institution-wide, lower division general education requirements of the receiving institution. This diploma shall include 44-45 semester hours of general education core courses approved for transfer to The University of North Carolina constituent institutions.

Program Length: 3 semesters

Career Pathway Options: Associate in Arts or Associate in Science Degree; Baccalaureate Degree at a Senior Institution

Program Sites: Chatham Campus - Day and Selected Evening Courses; Harnett Campus - Day and Selected Evening Courses; Lee Campus - Day and Evening Programs; Distance Education

**Comprehensive Articulation Agreement  
North Carolina Community College System  
University of North Carolina System**

**Credential: Associate in Fine Arts  
A10200**

The course work in the Associate in Fine Arts program includes literature, humanities, social/behavioral science, mathematics, and natural science. Graduates should possess a sound fundamental knowledge of the fine arts and basic experience in practicing the fine arts. The Associate in Fine Arts program focuses heavily on the fine arts and is recommended for those who plan to continue a Bachelor of fine Arts degree program. Two concentrations are offered: Focus in Art and Focus in Drama.

The Associate in Fine Arts in Art degree is designed to prepare students to transfer to a Bachelor of Fine Arts degree program at a senior college or university. While based on the Associate in Arts--University Transfer degree, the Associate in Fine Arts degree credential is not a formal component of the Comprehensive Articulation Agreement. Graduates may be eligible to transfer up to 64 semester hours of academic credit in approved transfer courses with a grade of "C" or better in each course and an overall GPA of at least 2.0 on a 4.0 scale through bilateral agreements between Central Carolina Community College and participating senior institutions. Courses offered through bilateral agreements may not transfer to all receiving institutions. To earn the Associate in Fine Arts degree, students must successfully complete each course with a grade of "C" or better

Graduates completing the Associate of Fine Arts degree will have demonstrated the ability to achieve academic and other learning goals in their study area enhancing employment opportunities. Upon completion of the program, the student will receive an Associate in Fine Arts degree.

Program Length: 4 semesters

Career Pathway Options: Associate in Arts Degree, Baccalaureate Degree at a Senior Institution

Program Sites: Siler City Center, Pittsboro Campus

**Course Requirements for Associate in Fine Arts:**

I. General Education (28 SHC)		
A. Composition (6 SHC)		
ENG 111	Expository Writing	C-L-CR 3-0-3
	and	
ENG 112	Argument-Based Research	3-0-3
	OR	
ENG 113	Literature-Based Research	3-0-3
	OR	
ENG 114	Professional Research and Reporting	3-0-3

**B. Humanities/Fine Arts (6 SHC)**

Select courses from two of the following areas: art, music, drama, dance, foreign language, interdisciplinary humanities, literature, philosophy, and religion. One course must be a literature course. Speech/Communication may not substitute for the literature requirement.

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
ART 117	Non-Western Art Survey	3-0-3
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
COM 110	Introduction to Communication	3-0-3
COM 120	Interpersonal Communication	3-0-3
COM 231	Public Speaking	3-0-3
DRA 111	Theatre Appreciation	3-0-3
DRA 112	Literature of the Theatre	3-0-3
DRA 211	Theatre History I	3-0-3
ENG 231	American Literature I	3-0-3
ENG 232	American Literature II	3-0-3
ENG 233	Major American Writers	3-0-3
ENG 241	British Literature I	3-0-3
ENG 242	British Literature II	3-0-3
ENG 243	Major British Writers	3-0-3
ENG 261	World Literature I	3-0-3
ENG 262	World Literature II	3-0-3
FRE 111	Elementary French I	3-0-3
FRE 112	Elementary French II	3-0-3
FRE 211	Intermediate French I	3-0-3
FRE 212	Intermediate French 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
HUM 211	Humanities I	3-0-3
HUM 220	Human Values and Meaning	3-0-3
MUS 110	Music Appreciation	3-0-3
MUS 112	Introduction to Jazz	3-0-3
PHI 210	History of Philosophy	3-0-3
PHI 215	Philosophical Issues	3-0-3
PHI 230	Introduction to Logic	3-0-3
PHI 240	Introduction to Ethics	3-0-3
REL 110	World Religions	3-0-3
REL 211	Introduction to Old Testament	3-0-3
REL 212	Introduction to New Testament	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

**C. Social and Behavioral Sciences (9 SHC)**

Select courses from each of three of the following disciplines: anthropology, economics, geography, history, political science, psychology, and sociology. At least one course must be a history course.

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
GEO 111	World Regional Geography	3-0-3
HIS 111	World Civilizations I	3-0-3
HIS 112	World Civilizations II	3-0-3
HIS 115	Introduction to Global History	3-0-3
HIS 121	Western Civilization I	3-0-3
HIS 122	Western Civilization 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
POL 210	Comparative Government	3-0-3
POL 220	International Relations	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 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 240	Social Psychology	3-0-3

**D. Natural Sciences (4 SHC)**

Select one course, including accompanying 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
BIO 110	Principles of Biology	3-3-4
BIO 111	General Biology I	3-3-4
BIO 112	General Biology II	3-3-4
BIO 120	Introductory Botany	3-3-4
BIO 130	Introductory Zoology	3-3-4
BIO 140	Environmental Biology	3-0-3
BIO 140A	Environmental Biology Lab	0-3-1
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
CHM 151	General Chemistry I	3-3-4
CHM 152	General Chemistry II	3-3-4
GEL 111	Introductory Geology	3-2-4
GEL 113	Historical Geology	3-2-4
GEL 230	Environmental Geology	3-2-4
PHY 110	Conceptual Physics	3-0-3
PHY 110A	Conceptual Physics Lab	0-2-1
PHY 151	College Physics I	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

**E. Mathematics (3 SHC)**

Select one course in introductory mathematics or from other quantitative subjects, such as computer science and statistics.

CIS 110	Introduction to Computers	2-2-3
CIS 115	Introduction to Programming and Logic	2-2-3

MAT 140	Survey of Mathematics	3-0-3
MAT 151	Statistics I	3-0-3
MAT 161	College Algebra	3-0-3
MAT 162	College Trigonometry	3-0-3
MAT 171	Precalculus Algebra	3-0-3
MAT 172	Precalculus Trigonometry	3-0-3
MAT 175	Precalculus	4-0-4
MAT 263	Brief Calculus	3-0-3
MAT 271	Calculus I	3-2-4
MAT 272	Calculus II	3-2-4
MAT 273	Calculus III	3-2-4

F. Other Required Hours (37-38 SHC)

*Focus in Art*

Required Courses (16 SHC)

ART 114	Art History Survey I	3-0-3
ART 115	Art History Survey II	3-0-3
ART 121	Design I	0-6-3
ART 122	Design II	0-6-3
ART 131	Drawing I	0-6-3
ART 214	Portfolio and Résumé	0-2-1
		6-20-16

Electives: (Select a minimum of 21 SHC)

ART 132	Drawing II	0-6-3
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
		21 SHC

*Focus in Drama*

Required Courses (15 SHC)

DRA 130	Acting I	0-6-3
DRA 140	Stagecraft I	0-6-3
DRA 170	Play Production I	0-9-3
DRA 171	Play Production II	0-9-3
DRA 270	Play Production III	0-9-3
		0-39-15

Electives: (Select a minimum of 21 SHC)

ART 121	Design I	0-6-3
DRA 112	Literature of the Theatre	3-0-3
DRA 124	Readers Theatre	3-0-3
DRA 131	Acting II	0-6-3
DRA 141	Stagecraft II	0-6-3
DRA 211	Theatre History I	3-0-3
DRA 260	Directing	0-6-3
DRA 271	Play Production IV	0-9-3
		21 SHC

Student Success (1 SHC)

ACA 122	College Transfer Success	1-0-1
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Total Semester Credit Hours Required for Degree: 65/66 SHC

Suggested Semester Sequence for Associate in Fine Arts Degree *Focus in Art*

1st Semester (Fall)		C-L-CR
ACA 122	College Transfer Success	1-0-1
ART 121	Design I	0-6-3
ENG 111	Expository Writing	3-0-3
	Approved Humanities/Fine Arts Course	3-0-3
	Approved Math Course	3/4-0-3/4
	Required History Course	3-0-3
		13/14-6-16/17

2nd Semester (Spring)

ART 114	Art History Survey I	3-0-3
ART 122	Design II	0-6-3
ART 131	Drawing I	0-6-3
ENG 112	Argument-Based Research	3-0-3
	OR	
ENG 113	Literature-Based Research	
	OR	
ENG 114	Professional Research and Reporting	
	Natural Science Course and Lab	3-2/3-4
	Approved Elective	0-6-3
		9-20/21-19

3rd Semester (Fall)

ART 115	Art History Survey II	3-0-3
	Required Literature Course	3-0-3
	Approved Social/Behavioral Science Course	3-0-3
	Approved Elective	0-6-3
	Approved Elective	0-6-3
	Approved Elective	0-6-3
		9-18-18

4th Semester (Spring)

ART 214	Portfolio and Résumé	C-L-CR
	Approved Social/Behavioral Science	3-0-3
	Approved Elective	0-6-3
	Approved Elective	0-6-3
	Approved Elective	0-6-3
		3-20-13

Total Degree Hours Required: 65/66 SHC

Suggested Semester Sequence for Associate in Fine Arts Degree *Focus in Drama*

1st Semester (Fall)		C-L-CR
ACA 122	College Transfer Success	1-0-1
DRA 130	Acting I	0-6-3
ENG 111	Expository Writing	3-0-3
	Approved Humanities/Fine Arts Course	3-0-3
	Approved Math Course	3/4-0-3/4
	Required History Course	3-0-3
		13/14-6-16/17

2nd Semester (Spring)

DRA 140	Stagecraft I	0-6-3
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DRA 170	Play Production I	0-9-3
ENG 112	Argument-Based Research OR	3-0-3
ENG 113	Literature-Based Research OR	
ENG 114	Professional Research and Reporting Natural Science Course and Lab	3-2/3-4
Approved Social/Behavioral Science Course		3-0-3
Approved Elective		<u>0-6-3</u>
		9-23/24-19

3 <sup>rd</sup> Semester (Fall)		C-L-CR
DRA 171	Play Production II	0-9-3
Required Literature Course		3-0-3
Approved Elective		3-0-3
Approved Elective		3-0-3
Approved Elective		<u>0-6-3</u>
		9-15-15

4th Semester (Spring)		C-L-CR
DRA 270	Play Production III	0-9-3
Approved Social/Behavioral Science Course		3-0-3
Approved Elective		3-0-3
Approved Elective		0-6-3
Approved Elective		<u>0-6-3</u>
		6-21-15

Total Degree Hours Required: 65/66 SHC

**Arts and Sciences (College Transfer)**  
**Associate in General Education**

**Associate in General Education**  
**Pre-Major Associate in Arts Degrees**  
**Arts and Sciences**  
**Comprehensive Articulation Agreement**  
**North Carolina Community College System**  
**University of North Carolina System**

**Associate in General Education**  
**A10300**

The Associate in General Education degree is designed for the academic enrichment of students who wish to broaden their education, with emphasis on personal interest, growth and development.

Program Length: 4 semesters

Career Pathway Options: Associate in General Education Degree

Program Sites:

Lee Campus – Day, 1st and 2nd Year, Evening, 1st and 2nd Year

Chatham Campus – Day, 1st and 2nd Year, Evening, 1st and 2nd Year

Harnett Campus – Day, 1st and 2nd Year, Evening, 1st and 2nd Year

Distance Education - 1st and 2nd Year - All Campuses

Course Requirements for Associate General Education Degree

I. General Education (44 SHC)

A. Composition (6 SHC)

ENG 111	Expository Writing and	C-L-CR 3-0-3
ENG 112	Argument-Based Research OR	3-0-3
ENG 113	Literature-Based Research OR	3-0-3
ENG 114	Professional Research and Reporting	3-0-3

B. Humanities/Fine Arts (3 SHC)

Select **one** course from A.G.E approved humanities and fine arts general education courses in the following areas:

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
ART 117	Non-Western Art Survey	3-0-3
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
COM 110	Introduction to Communication	3-0-3
COM 120	Interpersonal Communication	3-0-3
COM 231	Public Speaking	3-0-3

DRA 111	Theatre Appreciation	3-0-3	PSY 241	Developmental Psychology	3-0-3
DRA 112	Literature of the Theatre	3-0-3	PSY 281	Abnormal Psychology	3-0-3
DRA 211	Theatre History I	3-0-3	SOC 210	Introduction to Sociology	3-0-3
ENG 231	American Literature I	3-0-3	SOC 213	Sociology of the Family	3-0-3
ENG 232	American Literature II	3-0-3	SOC 220	Social Problems	3-0-3
ENG 233	Major American Writers	3-0-3	SOC 225	Social Diversity	3-0-3
ENG 241	British Literature I	3-0-3	SOC 240	Social Psychology	3-0-3
ENG 242	British Literature II	3-0-3			
ENG 261	World Literature I	3-0-3			
ENG 262	World Literature II	3-0-3			
FRE 111	Elementary French I	3-0-3			
FRE 112	Elementary French II	3-0-3			
FRE 211	Intermediate French I	3-0-3			
FRE 212	Intermediate French 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			
HUM 220	Human Values and Meaning	3-0-3			
MUS 110	Music Appreciation	3-0-3			
MUS 112	Introduction to Jazz	3-0-3			
PHI 210	History of Philosophy	3-0-3			
PHI 215	Philosophical Issues	3-0-3			
PHI 240	Introduction to Ethics	3-0-3			
REL 110	World Religions	3-0-3			
REL 211	Introduction to Old Testament	3-0-3			
REL 212	Introduction to New Testament	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			
<b>C. Social and Behavioral Sciences (3 SHC)</b>					
Select <b>one</b> course from the A.G.E. approved social and behavioral sciences general education courses in the following areas: anthropology (ANT), economics (ECO), geography (GEO), history (HIS), political science (POL), psychology (PSY), and sociology (SOC).					
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			
GEO 111	World Regional Geography	3-0-3			
HIS 111	World Civilizations I	3-0-3			
HIS 112	World Civilizations II	3-0-3			
HIS 115	Introduction to Global History	3-0-3			
HIS 121	Western Civilization I	3-0-3			
HIS 122	Western Civilization 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			
POL 210	Comparative Government	3-0-3			
POL 220	International Relations	3-0-3			
PSY 150	General Psychology	3-0-3			
PSY 237	Social Psychology	3-0-3			
<b>D. Natural Sciences (4 SHC)</b>					
Select <b>one</b> course from the approved general education core in the following areas:					
AST 111	Descriptive Astronomy	3-0-3			
AST 111A	Descriptive 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			
BIO 120	Introductory Botany	3-3-4			
BIO 130	Introductory Zoology	3-3-4			
BIO 140	Environmental Biology	3-0-3			
BIO 140A	Environmental Biology Lab	0-3-1			
CHM 131	Introduction to Chemistry	3-0-3			
CHM 131A	Introduction to Chemistry Lab	0-3-1			
CHM 151	General Chemistry I	3-3-4			
CHM 152	General Chemistry II	3-3-4			
GEL 111	Introductory Geology	3-2-4			
GEL 113	Historical Geology	3-2-4			
PHY 110	Conceptual Physics	3-0-3			
PHY 110A	Conceptual Physics Lab	0-2-1			
PHY 151	College Physics I	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			
<b>E. Mathematics (6 SHC)</b>					
Select at least one course in introductory mathematics; the other unit may be selected from other quantitative subjects, such as computer science and statistics.					
CIS 110	Introduction to Computers	2-2-3			
CIS 115	Introduction to Programming and Logic	2-2-3			
MAT 140	Survey of Mathematics	3-0-3			
MAT 151	Statistics I	3-0-3			
MAT 161	College Algebra	3-0-3			
MAT 162	College Trigonometry	3-0-3			
MAT 171	Precalculus Algebra	3-0-3			
MAT 172	Precalculus Trigonometry	3-0-3			
MAT 175	Precalculus	4-0-4			
MAT 263	Brief Calculus	3-0-3			
MAT 271	Calculus I	3-2-4			
MAT 272	Calculus II	3-2-4			
MAT 273	Calculus III	3-2-4			
<b>II. Other Major Hours Required for Graduation (49-50 SHC)*</b>					
Select <b>49-50 SHC</b> from any college level course published in the Central Carolina Community College catalog numbered 100 or above, except those with a COE prefix. Students must satisfy all prerequisite requirements specified for a course. A maximum of 7 SHC in health, physical education, college orientation, and/or study skills may be					

2013-2015 College Catalog – Central Carolina Community College  
 selected. Course prefixes found in the CCCC catalog that  
 qualify as elective credits in this category include the  
 following:

Approved Elective—Other Major Hours\*  
 Approved Elective—Other Major Hours\*  
 Up to 16 semester credit hours

ACA	ACC	AGR	AHR	ALT	ANS
ANT	ARC	ARS	ART	AST	AUB
AUT	BAR	BIO	BPM	BPR	BPT
BUS	CAB	CAR	CET	CHM	CHI
CIS	CJC	CMT	COM	COS	CSC
CST	CTS	CUL	DBA	DDF	DEN
DFT	DME	DRA	ECO	EDU	EGR
ELC	ELN	ENG	ENV	FRE	FST
GEL	GEO	HBI	HEA	HIS	HOR
HSE	HUM	HYD	INT	ISC	LEO
LEX	LIB	MAC	MAS	MAT	MCM
MEC	MED	MKT	MNT	MUS	NET
NOS	NUR	NUT	OMT	OST	PCC
PCD	PCI	PCS	PED	PHI	PHY
PME	POL	PSY	PTC	REL	SAB
SEC	SOC	SPA	SRV	SST	TCT
TEL	TRN	VET	WEB	WLD	

Total Degree Hours Required: 64-65 SHC

Suggested Semester Sequence for Associate in General  
 Education Degree

1st Semester (Fall) C-L-CR  
 ENG 111 Expository Writing 3-0-3  
 Required Natural Science Course and Lab 3-2/3-4  
 Required Humanities/Fine Arts Course 3-0-3  
 Required Introductory Math Course 3/4-0-3/4  
 Required Social Sciences Course 3-0-3  
 15/16-2/3-16/17

2nd Semester (Spring) C-L-CR  
 ENG 112 Argument-Based Research 3-0-3  
 OR  
 ENG 113 Literature-Based Research  
 OR  
 ENG 114 Professional Research and Reporting  
 Required Mathematics Course 3/4-0/2-3/4  
 Approved Elective—Other Major Hours\*  
 Approved Elective—Other Major Hours\*  
 Approved Elective—Other Major Hours\*  
 Up to 16 semester credit hours

3<sup>rd</sup> Semester (Fall)  
 Approved Elective—Other Major Hours\*  
 Approved Elective—Other Major Hours\*  
 Approved Elective—Other Major Hours\*  
 Approved Elective—Other Major Hours\*  
 Approved Elective—Other Major Hours\*  
 Approved Elective—Other Major Hours\*  
 Up to 16 semester credit hours

4th Semester (Spring)  
 Approved Elective—Other Major Hours\*  
 Approved Elective—Other Major Hours\*  
 Approved Elective—Other Major Hours\*  
 Approved Elective—Other Major Hours\*



**Associate in Science  
Pre-Major Associate in Science Degrees  
Arts and Sciences  
Comprehensive Articulation Agreement  
North Carolina Community College System  
University of North Carolina System**

**Associate in Science Degree  
A1040000**

This program prepares the student to transfer courses or the degree in its entirety to a four-year senior institution. The Associate in Science Degree stresses natural and physical sciences, mathematics, communication, and the social sciences.

To earn the Associate in Science degree, students must successfully complete each course with a grade of “C” or better. The Associate in Science degree is portable and transferable as a block from Central Carolina Community College to all constituent institutions of the University of North Carolina with junior status if admitted into the institution.

Program Length: 4 semesters

Career Pathway Options: Associate in Science Degree,  
Baccalaureate Degree at a Senior Institution

Program Sites:

Lee Campus - Day and Evening, 1st and 2nd Year

Chatham Campus - Day - 1st Year, Selected Evening  
Courses

Harnett Campus - Day - 1st Year, Selected Evening Courses

Distance Education - Selected Courses

**Course Requirements for Associate in Science Degree**

**I. General Education (44 SHC)**

**A. Composition (6 SHC)**

		C-L-SHC
ENG 111	Expository Writing	3-0-3
ENG 112	Argument-Based Research	3-0-3
	OR	
ENG 113	Literature-Based Research	3-0-3
	OR	
ENG 114	Professional Research and Reporting	3-0-3

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

Choose courses from at least three different areas. One course must be a literature course (ENG). 3 SHC of speech/communication (COM) may substitute for 3 SHC of Humanities/Fine Arts in AA and AS degree programs. Speech/Communication may not substitute for the literature requirements.

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

ART 117	Non-Western Art Survey	3-0-3
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
COM 110	Introduction to Communication	3-0-3
COM 120	Interpersonal Communication	3-0-3
COM 231	Public Speaking	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 233	Major American Writers	3-0-3
ENG 241	British Literature I	3-0-3
ENG 242	British Literature II	3-0-3
ENG 243	Major British Writers	3-0-3
ENG 261	World Literature I	3-0-3
ENG 262	World Literature II	3-0-3
FRE 111	Elementary French I	3-0-3
FRE 112	Elementary French II	3-0-3
FRE 211	Intermediate French I	3-0-3
FRE 212	Intermediate French 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
HUM 211	Humanities I	3-0-3
HUM 220	Human Values and Meaning	3-0-3
MUS 110	Music Appreciation	3-0-3
MUS 112	Introduction to Jazz	3-0-3
PHI 210	History of Philosophy	3-0-3
PHI 215	Philosophical Issues	3-0-3
PHI 230	Introduction to Logic	3-0-3
PHI 240	Introduction to Ethics	3-0-3
REL 110	World Religions	3-0-3
REL 211	Introduction to Old Testament	3-0-3
REL 212	Introduction to New Testament	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
	<b>C. Social/Behavioral Sciences (9 SHC)</b>	
	Select courses from each of three disciplines. One course must be a history course.	
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
GEO 111	World Regional Geography	3-0-3
HIS 111	World Civilizations I	3-0-3
HIS 112	World Civilizations II	3-0-3
HIS 115	Introduction to Global History	3-0-3
HIS 121	Western Civilization I	3-0-3
HIS 122	Western Civilization 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
POL 210	Comparative Government	3-0-3
POL 220	International Relations	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 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 240	Social Psychology	3-0-3

D. Natural Sciences (8 SHC)

A two-course sequence in general biology, general chemistry, or general physics is required.

BIO 111	General Biology I	3-3-4
BIO 112	General Biology II	3-3-4
CHM 151	General Chemistry I	3-3-4
CHM 152	General Chemistry II	3-3-4
PHY 151	College Physics I	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

E. Mathematics (6 SHC)

At least one course in mathematics at the Precalculus algebra level or above is required; the other course may be a higher level mathematics course or may be selected from among other quantitative subjects, such as computer science and statistics.

CIS 110	Introduction to Computers	2-2-3
CIS 115	Introduction to Programming and Logic	2-2-3
MAT 151	Statistics I	3-0-3
MAT 171	Precalculus Algebra	3-0-3
MAT 172	Precalculus Trigonometry	3-0-3
MAT 175	Precalculus	4-0-4
MAT 263	Brief Calculus	3-0-3
MAT 271	Calculus I	3-2-4
MAT 272	Calculus II	3-2-4
MAT 273	Calculus III	3-2-4

F. Natural Sciences/Mathematics

\*\*Six additional semester hour credits must be selected from courses designated as Natural Sciences/Mathematics general education transfer courses. Courses can be selected from any courses in Part D or Part E above or from the courses listed below.

AST 111	Descriptive Astronomy	3-0-3
AST 111A	Descriptive Astronomy Lab	0-2-1
BIO 110	Principles of Biology	3-3-4
BIO 120	Introductory Botany	3-3-4
BIO 130	Introductory Zoology	3-3-4
BIO 140	Environmental Biology	3-0-3
BIO 140A	Environmental Biology Lab	0-3-1
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
GEL 111	Introductory Geology	3-2-4
GEL 113	Historical Geology	3-2-4
GEL 230	Environmental Geology	3-2-4
PHY 110	Conceptual Physics	3-0-3
PHY 110A	Conceptual Physics Lab	0-2-1

II. Other Required Hours (20-21 SHC)\*

Students should consult with their advisor to determine the appropriate courses to complete based upon the requirements of the selected receiving institution and the students' intended major. Must include a minimum of 14 SHC of college transfer courses in mathematics, natural science or computer science. The remaining courses may be selected from general education, pre-major or elective courses. These courses may be selected from the following or any of the above listed courses not used to meet minimum block requirements. Must include a minimum of 2 SHC in physical education. Must take ACA 122. Work experience may be included up to 1 SHC in career exploration.

ACA 122	College Transfer Success	1-0-1
ACC 120	Principles of Financial Acct.	3-2-4
ACC 121	Principles of Managerial Acct	3-2-4
ART 131	Drawing I	0-6-3
BIO 143	Field Biology	1-2-2
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 169	Anatomy and Physiology II	3-3-4
BIO 175	General Microbiology	2-2-3
BIO 176	Adv General Microbiology	1-2-2
BIO 180	Biological Chemistry	2-2-3
BIO 265	Cell Biology	3-3-4
BIO 271	Pathophysiology	3-0-3
BIO 275	Microbiology	3-3-4
BIO 280	Biotechnology	2-2-3
BUS 110	Introduction to Business	3-0-3
BUS 115	Business Law I	3-0-3
BUS 228	Business Statistics	2-2-3
CHI 181	Chinese Lab I	0-2-1
CHI 182	Chinese Lab II	0-2-1
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 121	Law Enforcement Operations	3-0-3
CJC 141	Corrections	3-0-3
COE 111	Co-op Work Experience I	0-10-1
COE 115	Work Experience Seminar I	1-0-1
COM 130	Nonverbal Communication	3-0-3
COM 140	Intercultural Communication	3-0-3

CSC 134	C++ Programming	2-3-3
DRA 124	Readers Theatre	3-0-3
DRA 130	Acting I	0-6-3
DRA 170	Play Production I	0-9-3
DRA 171	Play Production II	0-9-3
EGR 150	Introduction 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
ENG 273	African American Literature	3-0-3
HEA 110	Personal Health/Wellness	3-0-3
HIS 151	Hispanic Civilization	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
HUM 180	International Cultural Explor	2-3-3
MAT 141	Mathematical Concepts I	3-0-3
MAT 142	Mathematical Concepts II	3-0-3
MAT 161	College Algebra	3-0-3
MAT 162	College Trigonometry	3-0-3
MAT 210	Logic	3-0-3
MAT 280	Linear Algebra	3-0-3
MAT 285	Differential Equations	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 116	Step Aerobics II	0-3-1
PED 117	Weight Training I	0-3-1
PED 118	Weight Training II	0-3-1
PED 121	Walk, Jog, Run	0-3-1
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 148	Softball	0-2-1
PED 149	Flag Football	0-2-1
PED 152	Swimming–Beginning	0-2-1
PED 155	Water Aerobics	0-3-1
PED 160	Canoe–Basic	0-2-1
PED 219	Disc Golf	0-2-1
PED 254	Coaching Basketball	1-2-2
POL 130	State and Local Government	3-0-3
PSY 246	Adolescent Psychology	3-0-3
SOC 232	Social Context of Aging	3-0-3
SPA 121	Spanish Language and Culture	3-0-3
SPA 141	Culture and Civilization	3-0-3
SPA 151	Hispanic Literature	3-0-3
SPA 161	Cultural Immersion	3-0-3
SPA 221	Spanish Conversation	3-0-3
SPA 231	Reading and Comprehension	3-0-3

if applicable, prior to or after transfer to the senior institution.

Suggested Semester Curriculum for Associate in Science Degree

1st Semester (Fall)

ACA 122	College Transfer Success	1-0-1
ENG 111	Expository Writing	3-0-3
	Natural Science Course/Lab (First in Sequence)	3-3-4
	Required History Course	3-0-3
	Approved Introduction Math Course	3/4-0-3/4
	Required Physical Education elective	0-2-1
		13/14-5-15/16

2nd Semester (Spring)

ENG 112	Argument-Based Research	3-0-3
	OR	
ENG 113	Literature-Based Research	
	OR	
ENG 114	Professional Research and Reporting	
	Natural Science Course and Lab (Second in Sequence)	3-3-4
	Approved Social/Behavioral Course	3-0-3
	Required Math Course	3-0-3
	Approved Elective	3-0-3
		15-3-16

3rd Semester (Fall)

	Required Literature Course	3-0-3
	Approved Humanities/Fine Arts	3-0-3
	Required Physical Education Elective	0-2-1
	Approved Social/Behavioral Science Course	3-0-3
	Required Math/Science Course	3/4-0/3-3/4
	Required Math/Science Course	3/4-0/3-3/4
		15/16-2/8-16/17

4th Semester (Spring)

	Approved Humanities/Fine Arts Course	3-0-3
	Required Math/Science Course	3/4-0/3-3/4
	Required Math/Science Course	3/4-0/3-3/4
	Required Math/Science Course	3/4-0/3-3/4
	Required Math/Science Course	3/4-0/3-3/4
		15/16-0/12-15/16

Total Semester Hours Credit: 64

Total Semester Hours Credit Required for Graduation: 64

NOTE:

Students must meet the receiving university's foreign language and/or health and physical education requirements,

**Diploma of Transfer Readiness  
(Transfer Core Diploma)  
D1040000**

This diploma is issued upon the successful completion of the Associate in Science (AS) general education core. The Comprehensive Articulation Agreement (CAA) states that students completing the general education transfer core will be considered to have fulfilled the institution-wide, lower division general education requirements of the receiving institution. This diploma shall include 44-45 semester hours of general education core courses approved for transfer to The University of North Carolina constituent institutions.

Program Length: 3 semesters

Career Pathway Options: Associate in Arts or Associate in Science Degree; Baccalaureate Degree at a Senior Institution

Program Sites: Chatham Campus - Day and Selected Evening Courses; Harnett Campus - Day and Selected Evening Courses; Lee Campus - Day and Evening Programs; Distance Education

**Business Technologies**

**Accounting  
Credential: Associate in Applied Science  
Degree in Accounting  
A25100**

The Accounting curriculum is designed to provide students with the knowledge and the skills necessary for employment and growth in the accounting profession. Using the “language of business,” accountants assemble and analyze, process, and communicate essential information about financial operations.

In addition to 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.

Program Length: 4 semesters

Career Pathway Options: Associate in Applied Science Degree in Accounting

Program Sites: Lee County Campus - Day Program, Selected Evening; Distance Education

**Course Requirements for Accounting Degree**

<b>A. General Education Courses (15 SHC)</b>		<b>C-L-SHC</b>
ENG 111	Expository Writing	3-0-3
ENG 114	Professional Research and Reporting	3-0-3
	Humanities/Fine Arts Elective	3-0-3
*MAT140	Survey of Mathematics	3-0-3
	Social/Behavioral Science Elective	3-0-3

**B. Required Major Core Courses (23/24 SHC)**

ACC 120	Principles of Financial Accounting	3-2-4
ACC 121	Principles of Managerial Accounting	3-2-4
ACC 129	Individual Income Taxes	2-2-3
ACC 220	Intermediate Accounting I	3-2-4
BUS 115	Business Law I	3-0-3
**CIS 110	Introduction to Computers	2-2-3

**Select One (3 SHC)**

ECO 151	Survey of Economics	3-0-3
ECO 251	Principles of Microeconomics	3-0-3
ECO 252	Principles of Macroeconomics	3-0-3

\* Students may substitute MAT 115 (nontransferable)

\*\*Students may substitute CIS 111 (nontransferable)

C. Other Major Hours Required for Graduation (30/31 SHC)

ACC 122	Principles of Financial Accounting II	3-0-3
ACC 130	Business Income Taxes	2-2-3
ACC 140	Payroll Accounting	1-2-2
ACC 150	Accounting Software Applications	1-2-2
ACC 221	Intermediate Accounting II	3-2-4
ACC 227	Practices in Accounting	3-0-3
BUS 110	Introduction to Business	3-0-3
BUS 125	Personal Finance	3-0-3
BUS 225	Business Finance	2-2-3
Major electives		3/4-0-3/4

Student Success – Select One

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1
ACA 122	College Transfer Success	1-0-1

Major Elective Course Listing (Select a minimum of 3 SHC)

BUS 137	Principles of Management	3-0-3
BUS 153	Human Resource Management	3-0-3
BUS 280	REAL Small Business	4-0-4
CHI 111	Elementary Chinese I	3-0-3
ECO 151	Survey of Economics	3-0-3
ECO 251	Principles of Micro Economics	3-0-3
ECO 252	Principles of Macro Economics	3-0-3
MKT 120	Principles of Marketing	3-0-3
MKT 123	Fundamentals of Selling	3-0-3
MKT 223	Customer Service	3-0-3
SPA 111	Elementary Spanish I	3-0-3

Total Semester Hours Credit Required for Graduation:  
68/69

**Semester Curriculum for Accounting Degree**

1st Semester (Fall)		C-L-SHC
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	Expository Writing	3-0-3
	Major Elective	3-0-3
	Economics Elective	3-0-3
	Student Success Course	1-0-1
		19-2-20

2nd Semester (Spring)

ACC 121	Principles of Managerial Accounting	3-2-4
ACC 122	Principles of Financial Accounting II	3-0-3
ACC 140	Payroll Accounting	1-2-2
ACC 150	Accounting Software Applications	1-2-2
*CIS 110	Introduction to Computers	2-2-3
**MAT 140	Survey of Mathematics	3-0-3
		13-8-17

Students may exit with diploma.

3rd Semester (Fall)

ACC 129	Individual Income Taxes	2-2-3
ACC 220	Intermediate Accounting I	3-2-4
BUS 115	Business Law I	3-0-3

BUS 225	Business Finance	2-2-3
	Social/Behavioral Science Elective	3-0-3
		13-6-16

4th Semester (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
ENG 114	Professional Research & Reporting	3-0-3
	Humanities Elective	3-0-3
		14-4-16

Total Semester Hours Credit: 68/69

\*Students may substitute CIS 111 (nontransferable)

\*\*Students may substitute MAT 115 (nontransferable)

## Accounting

### Credential: Diploma in Accounting D25100

The Accounting curriculum is designed to provide students with the knowledge and the skills necessary for employment and growth in the accounting profession. Using the “language of business,” accountants assemble and analyze, process, and communicate essential information about financial operations.

In addition to 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.

Career Pathway Options: Associate in Applied Science  
Degree in Accounting

Program Length: 2 semesters

Program Sites: Lee County Campus – Day Program,  
Selected Evening; Distance Education

#### Course Requirements for Accounting Diploma

A. General Education (6 SHC)	C-L-SHC
ENG 111 Expository Writing	3-0-3
*MAT 140 Survey of Mathematics	3-0-3

B. Required Major Core Courses (13/14 SHC)	
ACC 120 Principles of Financial Accounting	3-2-4
ACC 121 Principles of Managerial Accounting	3-2-4
**CIS 110 Introduction to Computers	2-2-3

Select One (3 SHC)	
ECO 151 Survey of Economics	3-0-3
ECO 251 Prin of Microeconomics	3-0-3
ECO 252 Prin of Macroeconomics	3-0-3

C. Other Major Hours Required for Graduation (17 SHC)	
ACC 122 Principles of Financial Accounting II	3-0-3
ACC 140 Payroll Accounting	1-2-2
ACC 150 Accounting Software Applications	1-2-2
BUS 110 Introduction to Business	3-0-3
BUS 125 Personal Finance	3-0-3
Major Elective	3

Student Success – Select One	
ACA 111 College Student Success	1-0-1
ACA 115 Success and Study Skills	0-2-1
ACA 122 College Transfer Success	1-0-1

Major Elective Course Listing (Select a minimum of 3 SHC)		
BUS 137	Principles of Management	3-0-3
BUS 153	Human Resource Management	3-0-3
BUS 280	REAL Small Business	4-0-4
CHI 111	Elementary Chinese I	3-0-3
ECO 151	Survey of Economics	3-0-3
ECO 251	Principles of Micro Economics	3-0-3
ECO 252	Principles of Macro Economics	3-0-3
MKT 120	Principles of Marketing	3-0-3
MKT 123	Fundamentals of Selling	3-0-3
MKT 223	Customer Service	3-0-3
SPA 111	Elementary Spanish I	3-0-3

Total Semester Hours Credit Required for Graduation:  
36/37

#### Semester Day Sequence for Accounting Diploma

1st Semester (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	Expository Writing	3-0-3
	Major Elective	3-0-3
	Economics Elective	3-0-3
	Student Success Course	1-0-1
		19-2-20

2nd Semester (Spring)		
ACC 121	Principles of Managerial Accounting	3-2-4
ACC 122	Principles of Financial Accounting	3-0-3
ACC 140	Payroll Accounting	1-2-2
ACC 150	Accounting Software Appl	1-2-2
*CIS 110	Introduction to Computers	2-2-3
**MAT 140	Survey of Mathematics	3-0-3
		13-8-17

Total Semester Hours Credit: 36/37

## Accounting Credential: Income Tax Preparer Certificate C25100T0

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 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), Payroll Accounting Certificate, Small Business Financial Advisor Certificate I and II.

Program Sites: Lee County Campus – Day Program, Selected Evening; Distance Education

### Course Requirements for Income Tax Preparer Certificate

Required Major Core Courses (16 SHC)	C-L-SHC
ACC 120 Principles of Financial Accounting	3-2-4
ACC 122 Principles of Financial Accounting II	3-0-3
ACC 129 Individual Income Taxes	2-2-3
ACC 130 Business Income Taxes	2-2-3
BUS 125 Personal Finance	3-0-3

Total Semester Hours Credit Required for Graduation: 16

### Semester Curriculum for Income Tax Preparer Certificate

1st Semester (Fall)	C-L-SHC
ACC 120 Principles of Financial Accounting	3-2-4
ACC 129 Individual Income Taxes	2-2-3
BUS 125 Personal Finance	3-0-3
	8-4-10

2nd Semester (Spring)	C-L-SHC
ACC 122 Financial Accounting II	3-0-3
ACC 130 Business Income Taxes	2-2-3
	5-2-6

Total Semester Hours Credit: 16

## Accounting Credential: Payroll Accounting Certificate C25100P0

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, 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, Small Business Financial Advisor Certificate I and II.

Program Sites: Lee County Campus – Day Program, Selected Evening; Distance Education

### Course Requirements for Payroll Accounting Clerk Certificate

Required Major Core Courses (16/17 SHC)	C-L-SHC
ACC 120 Principles of Financial Accounting	3-2-4
ACC 129 Individual Income Taxes	2-2-3
ACC 140 Payroll Accounting	1-2-2
ACC 150 Accounting Software Applications	1-2-2
BUS 125 Personal Finance	3-0-3
*CIS 110 Introduction to Computers	2-2-3

\* Students may substitute CIS 111 (nontransferable)

Total Semester Hours Credit Required for Graduation: 16/17

### Semester Curriculum for Payroll Accounting Clerk Certificate

1st Semester (Fall)	C-L-SHC
ACC 120 Principles of Financial Accounting	3-2-4
BUS 125 Personal Finance	3-0-3
*CIS 110 Introduction to Computers	2-2-3
	7/8-4-9/10

2nd Semester (Spring)	C-L-SHC
ACC 129 Individual Income Taxes	2-2-3
ACC 140 Payroll Accounting	1-2-2
ACC 150 Accounting Software Applications	1-2-2
	4-6-7

\*Students may substitute CIS 111 (nontransferable)

Total Semester Hours Credit: 16/17

**Accounting**

**Credential: Small Business Financial Advisor I Certificate  
C25100S1**

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.

Entrance Standards: See General Admission Standards in catalog

Academic Standards: See General Academic Standards in catalog

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 County Campus – Day Program, Selected Evening; Distance Education

**Course Requirements for Small Business Financial Advisor I Certificate**

C-L-SHC

A. Required Major Core Courses (18 SHC)

ACC 120	Principles of Financial Accounting	3-2-4
ACC 121	Principles of Managerial Accounting	3-2-4
ACC 140	Payroll Accounting	1-2-2
ACC 150	Accounting Software Applications	1-2-2
BUS 125	Personal Finance	3-0-3
MKT 120	Principles of Marketing	3-0-3

Minimum Total Semester Hours Credit Required for Graduation: 18

**Semester Curriculum for Small Business Financial Advisor I Certificate**

1st Semester (Fall)		C-L-SHC
ACC 120	Principles of Financial Accounting	3-2-4
BUS 125	Personal Finance	3-0-3
MKT 120	Principles of Marketing	3-0-3
		9-2-10

2nd Semester (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
		5-6-8

Total Semester Hours Credit: 18

**Accounting**

**Credential: Small Business Financial Advisor II Certificate  
C25100S2**

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.

Entrance Standards: See General Admission Standards in catalog

NOTE: Completion of Small Business Financial Advisor I Certificate program or equivalent coursework is required prior to beginning this certificate program.

Academic Standards: See General Academic Standards in catalog

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 and Small Business Financial Advisor I Certificate

Program Sites: Lee County Campus – Day Program, Selected Evening; Distance Education

**Course Requirements for Small Business Financial Advisor II Certificate**

C-L-SHC

A. Required Major Core Courses (16 SHC)

ACC 129	Individual Income Taxes	2-2-3
ACC 130	Business Income Taxes	2-2-3
BUS 137	Principles of Management	3-0-3
BUS 225	Business Finance	2-2-3
BUS 280	REAL Small Business	4-0-4

Minimum Total Semester Hours Credit Required for Graduation: 16

**Semester Curriculum for Small Business Financial Advisor II Certificate**

1st Semester (Fall)		C-L-SHC
ACC 129	Individual Income Taxes	2-2-3
BUS 137	Principles of Management	3-0-3
BUS 225	Business Finance	2-2-3
		7-4-9

2nd Semester (Spring)		
ACC 130	Business Income Taxes	2-2-3
BUS 280	REAL Small Business	4-0-4
		6-2-7

Total Semester Hours Credit: 16



**Business Administration**  
**Credential: - Associate in Applied Science**  
**Degree in Business Administration**  
**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 Campus - Day Program Selected Evening Courses; Harnett Campus – Day Program; Distance Education

**Course Requirements for Business Administration Degree**

A. General Education Courses (15 SHC) C-L-SHC		
ENG 111	Expository Writing	3-0-3
ENG 114	Professional Research and Reporting	3-0-3
	Humanities/Fine Arts Elective	3-0-3
*MAT 140	Survey of Mathematics	3-0-3
	Social/Behavioral Science Elective	3-0-3
B. Required Major Core Courses (18/19 SHC)		
ACC 120	Principles of Financial Accounting	3-2-4
BUS 115	Business Law I	3-0-3
BUS 137	Principles of Management	3-0-3
**CIS 110	Introduction to Computers	2-2-3
MKT 120	Principles of Marketing	3-0-3
Choose One (3 SHC)		
ECO 151	Survey of Economics	3-0-3
ECO 251	Principles of Microeconomics	3-0-3
ECO 252	Principles of Macroeconomics	3-0-3
C. Other Major Hours Required (30 SHC)		
ACC 121	Principles of Managerial Accounting	3-2-4
BUS 110	Introduction to Business	3-0-3
BUS 125	Personal Finance	3-0-3
BUS 153	Human Resource Management.	3-0-3
BUS 225	Business Finance	2-2-3

BUS 240	Business Ethics	3-0-3
BUS 260	Business Communication	3-0-3
COE 111	Co-op Work Experience I	0-10-1
MKT 223	Customer Service	3-0-3
Major Electives		3

**Student Success – Select One**

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1
ACA 122	College Transfer Success	1-0-1

**Major Elective Course Listing (Select a minimum of 3 SHC hours)**

ACC 122	Principles of Financial Accounting II	3-0-3
ACC 140	Payroll Accounting	1-2-2
ACC 150	Accounting Software Applications	1-2-2
BUS 151	People Skills	3-0-3
BUS 270	Professional Development	3-0-3
BUS 280	REAL Small Business	4-0-4
CHI 111	Elementary Chinese I	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
INT 110	International Business	3-0-3
MKT 123	Fundamentals of Selling	3-0-3
SPA 111	Elementary Spanish I	3-0-3

Total Semester Hours Credit Required for Graduation: 65/66

**Semester Curriculum for Business Administration Degree**

1st Semester (Fall)		C-L-SHC
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	Expository Writing	3-0-3
	Student Success Course	1-0-1
		13-2-14
2nd Semester (Spring)		
ACC 121	Principles of Managerial Accounting	3-2-4
BUS 137	Principles of Management	3-0-3
ENG 114	Professional Research and Reporting	3-0-3
*MAT 140	Survey of Mathematics	3-0-3
MKT 120	Principles of Marketing	3-0-3
		15-2-16
3rd Semester (Summer)		
**CIS 110	Introduction to Computers	2-2-3
	Social/Behavioral Science Elective	3-0-3
		5-2-6/7
4th Semester (Fall)		
BUS 115	Business Law I	3-0-3
BUS 225	Business Finance	2-2-3
BUS 240	Business Ethics	3-0-3
	Economics Elective	3-0-3
	Major Elective	3-0-3
		14-2-15

5<sup>th</sup> Semester (Spring)

BUS 153	Human Resource Management	3-0-3
BUS 260	Business Communication	3-0-3
COE 111	Co-op Work Experience I	0-10-1
MKT 223	Customer Service	3-0-3
	Humanities/Fine Arts Elective	3-0-3
	Major Electives	3-0-3
		15-10-16

\*Students may substitute MAT 115 (nontransferable).

\*\*Student may substitute CIS 111 (nontransferable).

Total Semester Hours Credit: 65/66

**Business Administration**

**Credential: Diploma in Business Management  
D25120M0**

The Business Management 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 Campus – Day and Evening; Harnett

Campus – Day; Distance Education

Course Requirements for Business Management Diploma

A. General Education Courses (6 SHC)		C-L-SHC
ENG 111	Expository Writing	3-0-3
	Social/Behavioral Science Elective	3-0-3

B. Required Major Core Courses (15/16 SHC)		
ACC 120	Principles of Financial Accounting	3-2-4
BUS 115	Business Law I	3-0-3
BUS 137	Principles of Management	3-0-3
*CIS 110	Introduction to Computers	2-2-3

Choose One (3 SHC)		
ECO 151	Survey of Economics	3-0-3
ECO 251	Prin of Microeconomics	3-0-3
ECO 252	Prin of Macroeconomics	3-0-3

C. Other Major Hours Required (16 SHC)		
ACC 121	Principles of Managerial Accounting	3-2-4
BUS 110	Introduction to Business	3-0-3
BUS 125	Personal Finance	3-0-3
	Major Electives	5

Student Success – Select One

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1
ACA 122	College Transfer Success	1-0-1

Major Elective Course Listing (Select a minimum of 5 SHC hours)

ACC 122	Principles of Financial Accounting II	3-0-3
ACC 140	Payroll Accounting	1-2-2
BUS 151	People Skills	3-0-3
BUS 280	REAL Small Business	4-0-4
INT 110	International Business	3-0-3

Total Semester Hours Credit Required for Graduation: 37/38

Semester Curriculum for Business Management Diploma

1st Semester (Fall)		C-L-SHC
ACC 120	Principles of Financial Accounting	3-2-4
BUS 125	Personal Finance	3-0-3
BUS 137	Principles of Management	3-0-3
	Student Success Course	1-0-1
		10-2-11
2nd Semester (Spring)		
ACC 121	Principles of Managerial Accounting	3-2-4
*CIS 110	Introduction to Computers	2-2-3
	Economics Elective	3-0-3
		8-4-10
3rd Semester (Summer)		
ENG 111	Expository Writing	3-0-3
4th Semester (Fall)		
BUS 110	Introduction to Business	3-0-3
	Major Elective	3-0-3
	Social/Behavioral Science Elective	3-0-3
		9-0-9
5th Semester (Spring)		
BUS 115	Business Law I	3-0-3
	Major Elective	2-0-2
		5-0-5

Total Semester Hours Credit: 37/38

\*Students may substitute CIS 111 (nontransferable).

**Business Administration**  
**Credential: Manager Trainee Certificate**  
**C25120MO**

This certificate program is designed to prepare students in the basic aspects of business management. Emphasized in the certificate program are basic concepts of management, business mathematics, 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 Campus – Day and Evening; Harnett Campus – Day; Distance Education

Course Requirements for the Manager

Trainee Certificate:		C-L-SHC
BUS 110	Introduction to Business	3-0-3
BUS 137	Principles of Management	3-0-3
BUS 151	People Skills	3-0-3
BUS 153	Human Resource Management	3-0-3
*CIS 110	Introduction to Computers	2-2-3
MKT 223	Customer Service	3-0-3

Total Semester Hours Credit Required for Graduation:  
17/18

1st Semester (Fall)		C-L-SHC
BUS 110	Introduction to Business	3-0-3
BUS 137	Principles of Management	3-0-3
MKT 223	Customer Service	3-0-3
		9-0-9
2nd Semester (Spring)		
BUS 151	People Skills	3-0-3
BUS 153	Human Resource Management	3-0-3
CIS 110	Introduction to Computers	2-2-3
		7/8-2-8/9

\*Student may substitute CIS 111 (nontransferable).

Total Semester Hours Credit: 17/18

## Business Administration

### Credential: Entrepreneur Certificate C25120E0

This 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.

Entrance Standards: See General Admission Standards in catalog

Academic Standards: See General Academic Standards in catalog

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 – selected day; Distance Education

#### Course Requirements for Entrepreneur Certificate

Required Major Core Courses (16/17 SHC)	C-L-SHC
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
*CIS 110 Introduction to Computers	2-2-3
MKT 120 Principles of Marketing	3-0-3

#### Semester Curriculum for Entrepreneur Certificate

1st Semester (Fall)	C-L-SHC
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
	10-2-11
2nd Semester (Spring)	
*CIS 110 Introduction to Computers	2-2-3
MKT 120 Principles of Marketing	3-0-3
	4/5-2-5/6

\*Student may substitute CIS 111 (nontransferable) or OST 137 (nontransferable).

Total Semester Hours Credit: 16/17

## Business Administration

### Credential: Business Operations Certificate C2512G01

This certificate program is designed to prepare students in the basic aspects of operations for manufacturing and service industries. Emphasized in the certificate program are basic concepts in the areas of management of employees, quality and production management. Credits earned in this certificate program may be transferred toward an Associate in Applied Science Degree in Operations Management provided the student meets the entrance requirements for the degree program.

Program Length: 3 semesters

Career Pathway Options: Associate in Applied Science Degree in Operations Management (Higher entrance standards required) Operations Management Diploma (Higher entrance standards required)

Program Sites: Lee Campus - Evening Program and Distance Courses

#### Course Requirements for Business Operations Certificate

Required Major Core Courses (18 SHC)	C-L-SHC
BUS 137 Principles of Management	3-0-3
BUS 151 People Skills	3-0-3
BUS 153 Human Resource Management	3-0-3
ISC 121 Environmental Health and Safety	3-0-3
ISC 131 Quality Management	3-0-3
OMT 218 Developing Team Performance	3-0-3

Total Semester Hours Credit Required for Graduation: 18

**Business Administration**  
**Credential: Social Media Marketing**  
**Certificate**  
**C25120S0**

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 Sites: Online

Course Requirements for Social Media Marketing Certificate

Required Major Core Courses (16 SHC)	C-L-SHC
MKT 120 Principles of Marketing	3-0-3
WEB 214 Social Media	2-2-3
BUS 110 Introduction to Business	3-0-3
MKT 220 Advertising & Sales Promotion	3-0-3
MKT 232 Intermediate Social Media Marketing	3-2-4

Semester Curriculum for Entrepreneur Certificate

1st Semester (Fall)	C-L-SHC
MKT 120 Principles of Marketing	3-0-3
WEB 214 Social Media	2-2-3

2nd Semester (Spring)	
BUS 110 Introduction to Business	3-0-3
MKT 220 Advertising & Sales Promotion	3-0-3
MKT 232 Intermediate Social Media Marketing	3-2-4

Total Semester Hours Credit: 16

**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: 4 semesters  
 Career Pathway Options: Associate in Applied Science Degree in Healthcare Management Technology  
 Program Sites: Harnett Campus – Day Program, Selected Distance Courses

Course Requirements for Healthcare Management Technology

A. General Education Courses (15 SHC)	C-L-SHC
ENG 111 Expository Writing	3-0-3
Communications Elective	3-0-3
Humanities/Fine Arts Elective	3-0-3
*MAT 115 Mathematical Models	3-0-3
Social/Behavioral Science Elective	3-0-3

Communications Elective (select 3 SHC)	
ENG 115 Oral Communications	3-0-3
COM 110 Introduction to Communication	3-0-3
COM 120 Intro Interpersonal Communication	3-0-3
COM 140 Intro Intercultural Communication	3-0-3
COM 231 Public Speaking	3-0-3

\*Students may substitute MAT 140 (transferable).

B. Required Major Core Courses (30 SHC)	
ACC 120 Princ of Financial Acct	3-2-4
ACC 121 Princ of Managerial Acct	3-2-4

HMT 110	Intro to Healthcare Mgmt	3-0-3
HMT 210	Medical Insurance	3-0-3
HMT 211	Long-Term Care Administration	3-0-3
HMT 220	Healthcare Financial Mgmt	4-0-4
OST 141	Medical Terms I – Medical Office	3-0-3
OST 142	Medical Terms II – Medical Office	3-0-3
OST 149	Medical Legal Issues	3-0-3

C. Other Major Courses Required for Graduation (20 SHC)

CIS 110	Introduction to Computers	2-2-3
COE 111	Co-op Work Experience I	0-10-1
BUS 110	Introduction to Business	3-0-3
BUS 153	Human Resource Management	3-0-3
BUS 260	Business Communications	3-0-3
HMT 212	Mgmt of Healthcare Organizations	3-0-3
SPA 111	Elementary Spanish I	3-0-3

Student Success – Select One

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1
ACA 122	College Transfer Success	1-0-1

Total Semester Hours Required for Graduation: 65

**Semester Curriculum for Healthcare Management Technology**

1st Semester (Fall)		C-L-SHC
CIS 110	Introduction to Computers	2-2-3
ENG 111	Expository Writing	3-0-3
BUS 110	Introduction to Business	3-0-3
HMT 110	Intro to Healthcare Mgt	3-0-3
OST 141	Medical Terminology	3-0-3
	Student Success Course	<u>1-0-1</u>
		16

2nd Semester (Spring)		
	Humanities/Fine Arts Elective	3-0-3
OST 142	Medical Terminology II	3-0-3
OST 149	Medical Legal Issues	3-0-3
BUS 153	Human Resource Management	3-0-3
	Social/Behavioral Science Elective	3-0-3
SPA 111	Elementary Spanish I	<u>3-0-3</u>
		18

3rd Semester (Fall)		
HMT 210	Medical Insurance	3-0-3
HMT 211	Long-Term Care Administration	3-0-3
ACC 120	Princ of Financial Acct	3-2-4
BUS 260	Business Communication	3-0-3
	Communications Elective	<u>3-0-3</u>
		16

4th Semester (Spring)		
HMT 212	Mgmt of Healthcare Organizations	3-0-3
HMT 220	Healthcare Financial Mgmt	4-0-4
ACC 121	Princ of Managerial Accounting	3-2-4
*MAT 115	Mathematical Models	2-2-3
COE 111	Co-op Work Experience I	<u>0-10-1</u>
		15

\*Students may substitute MAT 140 (transferable).

Total Semester Hours Credit: 65

\*Effective 2014 Spring

**Computer Information Technology  
Credential: Associate in Applied Science  
Degree in Computer Information Technology  
A25260**

The Computer Information Technology (CIT) curriculum is designed to prepare graduates for employment with organizations that use computers to process, manage, and communicate information. This is a flexible curriculum that can be customized to meet community information system needs.

Coursework will develop a student's ability to implement and support complex technical systems related to computer hardware, software, and networks. 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: 5 semesters

Career Pathway Options: Associate in Applied Science in Computer Information Technology

Program Site: Lee Campus - Day Program

Course Requirements for Computer Information Technology Degree

A. General Education Courses (15 SHC)		C-L-SHC
ENG 111	Expository Writing	3-0-3
ENG 114	Professional Research and Reporting	3-0-3
	Humanities/Fine Arts Elective	3-0-3
*MAT 140	Survey of Mathematics	3-0-3
	Social/Behavioral Science Elective	3-0-3

\*Students may substitute MAT 115.

B. Technical Core Courses (27 SHC)

CIS 115	Introduction to Programming and Logic	2-3-3
CTS 120	Hardware/Software Support	2-3-3
CTS 285	Systems Analysis and Design	3-0-3
CTS 289	System Support Project	1-4-3
DBA 110	Database Concepts	2-3-3
NOS 110	Operating System Concepts	2-3-3
NOS 130	Windows Single User	2-2-3
NOS 230	Windows Administration I	2-2-3
SEC 110	Security Concepts	2-2-3

C. Required Subject Area (9 SHC)

*CIS 110	Introduction to Computers	2-2-3
CTS 115	Information Systems Business Concepts	3-0-3
**NET 110	Networking Concepts	2-2-3

D. Other Required Hours (19 SHC)

DBA 120	Database Programming I	2-2-3
WEB 140	Web Development Tools	2-2-3
	Technical Electives	9
	Programming Elective	3

Student Success—Select one:

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1
ACA 122	College Transfer Success	1-0-1

Technical Electives (Choose 9 SHC)

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
CTS 130	Spreadsheet	2-2-3
CTS 220	Advanced Hard/Software Support	2-3-3
NOS 120	Linux/UNIX Single User	2-2-3
WEB 151	Mobile Application Dev I	2-2-3

Programming Electives (Choose 3 SHC)

CSC 134	C++ Programming	2-3-3
CSC 139	Visual Basic Programming	2-3-3
CSC 151	JAVA Programming	2-3-3

\*May substitute CIS 111 (2 SHC) – Nontransferable

\*\*May substitute NET 125 – Networking Basics

Total Semester Credit Hours: 70

Semester Curriculum for Computer Information Technology

Degree

1st Semester		C-L-SHC
ENG 111	Expository Writing	3-0-3
ACA 111	College Student Success	1-0-1
CTS115	Information Systems Business Concepts	3-0-3
CIS 110	Introduction to Computers	2-2-3
WEB 140	Web Development Tools	2-2-3
NOS 110	Operating System Concepts	<u>2-3-3</u>
		13-7-16

2nd Semester

MAT 140	Survey of Mathematics	3-0-3
DBA 110	Database Concepts	2-3-3
CIS 115	Introduction to Programming and Logic	2-3-3
NOS 130	Windows Single User	2-2-3
NET 110	Networking Concepts	2-2-3
CTS 120	Hardware/Software Support	<u>2-3-3</u>
		13-13-18

3rd Semester

ENG 114 or Humanities/Fine Arts or Social/Behavioral	Science Elective	3-0-3
ENG 114 or Humanities/Fine Arts or Social/Behavioral	Science Elective	<u>3-0-3</u>
		6-0-6

4th Semester

CTS 285	Systems Analysis and Design	3-0-3
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NOS 230	Windows Administration I	2-2-3
Humanities/Fine Arts or Social/Behavioral	Science Elective	3-0-3
	Programming Elective	3
	OR	
	Technical Elective	3
SEC 110	Security concepts	<u>2-2-3</u>
		15

5<sup>th</sup> Semester

CTS 289	System Support Project	1-4-3
DBA 120	Database Programming I	2-2-3
	Technical Elective	3
	Technical Elective	3
	Programming Elective	3
	OR	
	Technical Elective	<u>3</u>
		15

Total Semester Credit Hours: 70

\*Effective 2014 Spring

## Computer Information Technology/Healthcare

### Business Informatics

**Credential: Associate in Applied Science**

**Degree in Computer Information Technology**

**with an Emphasis in Healthcare Business**

### Informatics

#### A25260HBI

The Computer Information Technology (CIT) curriculum is designed to prepare graduates for employment with organizations that use computers to process, manage, and communicate information. This is a flexible curriculum that can be customized to meet community information system needs.

Coursework will develop a student's ability to implement and support complex technical systems related to computer hardware, software, and networks. Classes cover computer operations and terminology, operating systems, database, networking, security, and technical support.

The Healthcare Business Informatics emphasis prepares individuals for employment as specialists in installation, data management, data archiving/retrieval, system design and support, and computer training for medical information systems. Students study terminology relating to informatics, systems analysis, networking technology, computer/network security, data warehousing, archiving and retrieval of information, and healthcare computer infrastructure support.

Graduates should qualify for employment in entry-level positions with the healthcare industry, 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: 5 semesters

Career Pathway Options: Associate in Applied Science in Computer Information Technology

Program Site: Lee Campus - Day Program

Course Requirements for CIT/HBI Degree

A. General Education Courses (15 SHC)		C-L-SHC
ENG 111	Expository Writing	3-0-3
ENG 114	Professional Research and Reporting	3-0-3
	Humanities/Fine Arts Elective	3-0-3
*MAT 140	Survey of Mathematics	3-0-3
	Social/Behavioral Science Elective	3-0-3

\*Students may substitute MAT 115

B. Technical Core Courses (27 SHC)

CIS 115	Introduction to Programming and Logic	2-3-3
CTS 120	Hardware/Software Support	2-3-3

CTS 285	Systems Analysis and Design	3-0-3
CTS 289	System Support Project	1-4-3
DBA 110	Database Concepts	2-3-3
NOS 110	Operating System Concepts	2-3-3
NOS 130	Windows Single User	2-2-3
NOS 230	Windows Administration I	2-2-3
SEC 110	Security Concepts	2-2-3

C. Required Subject Area (9 SHC)

*CIS 110	Introduction to Computers	2-2-3
CTS 115	Information Systems Business Concepts	3-0-3
**NET 110	Networking Concepts	2-2-3

\*May substitute CIS 111 (2 SHC) – Nontransferable

\*\*May substitute NET 125 – Networking Basics

D. Other Major Hours (19 SHC)

HBI 110	Issues and Trends in HBI	3-0-3
HBI 113	Survey of Medical Insurance	3-0-3
HBI 250	Data Management and Utilization	2-2-3
OST 141	Medical Terminology I	3-0-3
OST 142	Medical Terminology II	3-0-3
OST 149	Medical Legal Issues	3-0-3

Student Success—Select one:

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1
ACA 122	College Transfer Success	1-0-1

Total Semester Credit Hours: 70

Semester Sequence for CIT/HBI Degree

1st Semester		C-L-SHC
ENG 111	Expository Writing	3-0-3
ACA 111	College Student Success	1-0-1
CTS115	Information Systems Business Concepts	3-0-3
CIS 110	Introduction to Computers	2-2-3
HBI 110	Issues and Trends in HBI	3-0-3
NOS 110	Operating System Concepts	<u>2-3-3</u>
		14-5-16

2nd Semester

MAT 140	Survey of Mathematics	3-0-3
DBA 110	Database Concepts	2-3-3
CIS 115	Introduction to Programming and Logic	2-3-3
NOS 130	Windows Single User	2-2-3
NET 110	Networking Concepts	2-2-3
CTS 120	Hardware/Software Support	<u>2-3-3</u>
		13-13-18

3rd Semester

ENG 114 or Humanities/Fine Arts or Social/Behavioral Science Elective		3-0-3
ENG 114 or Humanities/Fine Arts or Social/Behavioral Science Elective		<u>3-0-3</u>
		6-0-6

4th Semester

CTS 285	Systems Analysis and Design	3-0-3
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NOS 230	Windows Administration I	2-2-3
OST 141	Medical Terminology I	3-0-3
OST 149	Medical Legal Issues	3-0-3
HBI 250	Data Management and Utilization	<u>2-2-3</u>
		13-4-15

5<sup>th</sup> Semester

CTS 289	System Support Project	1-4-3
SEC 110	Security Concepts	2-2-3
OST 142	Medical Terminology II	3-0-3
HBI 113	Survey of Medical Insurance	3-0-3
Humanities/Fine Arts or Social/Behavioral Science Elective		<u>3-0-3</u>
		12-6-15

Total Semester Credit Hours: 70

\*Effective 2014 Spring

## Computer Information Technology Credential: Diploma in Computer Information Technology D25260

The Computer Information Technology (CIT) curriculum is designed to prepare graduates for employment with organizations that use computers to process, manage, and communicate information. This is a flexible curriculum that can be customized to meet community information systems needs.

Coursework will develop a student's ability to communicate complex technical issues related to computer hardware, software, and networks in a manner that computer users can understand. Classes cover computer operations and terminology, operating systems, database, networking, security, and technical support. Graduates should qualify for employment in entry-level positions with businesses, educational systems, and governmental agencies which rely on computer systems to manage information. Graduates should be prepared to sit for industry-recognized certification exams.

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.

Program Sites: Lee Campus - Day Program

### Course Requirements for Computer Information Technology Diploma

A. General Education Courses (6 SHC)		C-L-SHC
ENG 111	Expository Writing	3-0-3
MAT 140	Survey of Mathematics	3-0-3
B. Technical Core Courses (21 SHC)		
CIS 115	Introduction to Programming and Logic	2-3-3
CTS 120	Hardware/Software Support	2-3-3
CTS 285	Systems Analysis and Design	3-0-3
DBA 110	Database Concepts	2-3-3
NOS 110	Operating System Concepts	2-3-3
NOS 130	Windows Single User	2-2-3
NOS 230	Windows Administration I	2-2-3
C. Required Subject Area (10 SHC)		
*CIS 110	Introduction to Computers	2-2-3
CTS 115	Information Systems Business Concepts	3-0-3
**NET 110	Networking Concepts	2-2-3

Student Success—Select one:

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1
ACA 122	College Transfer Success	1-0-1

\*May substitute CIS 111 (2 SHC) – Nontransferable

\*\*May substitute NET 125 – Networking Basics

Total Semester Credit Hours: 37

Semester Curriculum for Computer Information Technology Diploma

1st Semester		C-L-SHC
CTS115	Information Sys Business Concepts	3-0-3
CIS 110	Introduction to Computers	2-2-3
ENG 111	Expository Writing	3-0-3
ACA 111	College Student Success	1-0-1
NOS 110	Operating System Concepts	<u>2-3-3</u>
		11-5-13
2nd Semester		
CIS 115	Intro to Programming and Logic	2-3-3
CTS 120	Hardware/Software Support	2-3-3
DBA 110	Database Concepts	2-3-3
MAT 140	Survey of Mathematics	3-0-3
NET 110	Networking Concepts	2-2-3
NOS 130	Windows Single User	<u>2-2-3</u>
		13-13-18
3rd Semester		
CTS 285	Systems Analysis and Design	3-0-3
NOS 230	Windows Administration I	<u>2-2-3</u>
		5-2-6

Total Semester Hours Credit: 37

\*Effective 2014 Spring

**Computer Information Technology  
Credential: Certificate in Database  
Programming  
C25260DP**

Students will solve business computer problems through programming techniques and procedures, using appropriate languages and software. The primary emphasis of the curriculum is hands-on training in programming, 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: 2 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 Campus - Day Program and Selected Evening Courses

Course Requirements for Database Programming Certificate

		C-L-SHC
CIS 110	Introduction to Computers	2-2-3
CIS 115	Introduction to Programming and Logic	2-3-3
	Programming Elective	2-3-3
DBA 110	Database Concepts	2-3-3
DBA 120	Database Programming I	2-2-3
Programming Elective (Choose 3 SHC)		
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: 15

\*Effective 2014 Spring

**Computer Information Technology  
Credential: Software Specialist Certificate  
C25260SS**

Students will be exposed to office applications at the intermediate and advanced level as well as database applications and operating systems at the entry-level. Student can choose between a Web development class and an entry-level programming class to complete the certificate. The primary emphasis of the curriculum is provide students with entry-level knowledge of computing applications.

Graduates should qualify for employment in business, industry, and government organizations as entry-level software specialists, helpdesk technicians, computer operators, or any position that requires intermediate data processing skills.

Program Length: 2 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 Campus - Day Program and Selected Evening Courses

Course Requirements for Software Specialist Certificate

		C-L-SHC
*CIS 110	Introduction to Computers	2-2-3
CTS 130	Spreadsheet	2-2-3
DBA 110	Database Concepts	2-3-3
NOS 110	Operating System Concepts	2-3-3

(Select one)

CSC 139	Visual Basic Programming	2-3-3
WEB 140	Web Development Tools	2-2-3

Total Semester Hours Credit: 15

\*Students may substitute CIS 111 (nontransferable).

\*Effective 2014 Spring

**Computer Information Technology  
Credential: Internet and Computing Core -  
IC3 Certificate  
C25260IC**

Students 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.

Entrance Standards: See General Admission Standards in catalog

Academic Standards: See General Academic Standards in catalog

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 Campus - Day and Evening Programs

Course Requirements for Internet and Computing Core IC3 Certificate

		C-L-SHC
*CIS 110	Introduction to Computers	2-2-3
CTS 120	Hardware/Software Support	2-3-3
NET 110	Networking Concepts	2-2-3
NOS 110	Operating System Concepts	2-3-3

Total Semester Hours Credit: 12

\*Effective 2014 Spring

**Computer Information Technology  
Credential: Computer Hardware/  
Troubleshooting Repair Certificate  
C25260HT**

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 Campus – Day and Night Programs

**Course Requirements for Hardware/Troubleshooting Certificate**

	C-L-SHC
*CIS 110 Introduction to Computers	2-2-3
CTS 120 Hardware/Software Support	2-3-3
CTS 220 Advanced Hard/Software Support	2-3-3
NET 110 Networking Concepts	2-2-3
NOS 110 Operating System Concepts	2-3-3
NOS 130 Windows Single User	2-2-3
<b>Total Semester Hours Credit</b>	<b>18</b>

\*Students may substitute CIS 111 (nontransferable).

**Human Resources Management Concentration  
Credential: Associate in Applied Science  
Degree in Human Resources Management  
A2512C**

Human Resources Management is a concentration under the curriculum title of Business Administration. The curriculum is designed to meet the demands of business and service agencies. The objective is the development of generalists and specialists in the administration, training and management of human resources.

Coursework includes studies in management, interviewing, placement, needs assessment, planning, compensation and benefits, and training techniques. Also included are topics such as people skills, learning approaches, skills building, and development of instructional and training materials.

Graduates from this program will have a sound business educational base for life-long learning. Students will be prepared for employment opportunities in personnel, training and other human resources development areas.

Program Length: 8 semesters (Evening Program)

Career Pathway Options: Associate in Applied Science Degree in Human Resources Management

Program Sites: Lee Campus - Evening Program, Selected Day and Distance Courses

**Course Requirements for Human Resources Management Degree**

A. General Education Courses (15 SHC)		C-L-SHC
ENG 111	Expository Writing	3-0-3
ENG 114	Professional Research and Reporting	3-0-3
	Humanities/Fine Arts Elective	3-0-3
*MAT 140	Survey of Mathematics	3-0-3
	Social/Behavioral Science Elective	3-0-3
B. Required Major Core Courses (33-34 SHC)		
BUS 115	Business Law I	3-0-3
BUS 137	Principles of Management	3-0-3
MKT 120	Principles of Marketing	3-0-3

Choose one of the following courses in:

Accounting Elective		
ACC 115	College Accounting	3-2-4
ACC 120	Principles of Financial Accounting	3-2-4
**Computer Applications Elective		
CIS 110	Introduction to Computers	2-2-3
CIS 111	PC Literacy	1-2-2
Economics Elective		
ECO 151	Survey of Economics	3-0-3
ECO 251	Principles of Microeconomics	3-0-3
ECO 252	Principles of Macroeconomics	3-0-3

**Concentration (15 SHC)**

BUS 217	Employment Law and Regulations	3-0-3
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BUS 234	Training and Development	3-0-3
BUS 256	Recruiting, Selecting and Personnel Planning	3-0-3
BUS 258	Compensation and Benefits	3-0-3
BUS 259	HRM Applications	3-0-3

## C. Other Major Hours Required (20 SHC)

BUS 151	People Skills	3-0-3
BUS 153	Human Resource Management	3-0-3
BUS 252	Labor Relations	3-0-3
BUS 261	Diversity in Management	3-0-3
COE 111	Co-op Work Experience I	0-10-1
ISC 121	Environmental Health and Safety	3-0-3
	Major Electives	3-0-3

## Student Success – Select One \*Effective 2014 Fall

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1
ACA 122	College Transfer Success	1-0-1

## Major Electives (Select a minimum of 3 SHC)

ACC 121	Principles of Managerial Accounting	3-2-4
ACC 122	Principles of Financial Accounting II	3-0-3
BUS 225	Business Finance	2-2-3
BUS 228	Business Statistics	2-2-3
BUS 240	Business Ethics	3-0-3
BUS 255	Organizational Behavior in Business	3-0-3
BUS 257	Testing and Assessment	3-0-3
BUS 260	Business Communication	3-0-3
CTS 130	Spreadsheet I	2-2-3
ISC 131	Quality Management	3-0-3
SPA 111	Elementary Spanish I	3-0-3

Total Semester Hours Credit: 68/69

Semester Curriculum for Human Resources Management  
Degree – Evening Program (Selected Courses are offered during the day.)

1st Semester (Fall)		C-L-SHC
BUS 115	Business Law I	3-0-3
BUS 137	Principles of Management	3-0-3
BUS 256	Recruiting, Selecting and Personnel Planning	3-0-3
**CIS 110	Introduction to Computers	2-2-3
	Student Success Course	1-0-1
		9-2-13
2nd Semester (Spring)		
BUS 153	Human Resource Management	3-0-3
BUS 217	Employment Law and Regulations	3-0-3
	Economics Elective	3-0-3
		9-0-9
3rd Semester (Summer)		
BUS 252	Labor Relations	3-0-3
ENG 111	Expository Writing	3-0-3
		6-0-6
4th Semester (Fall)		
BUS 234	Training and Development	3-0-3
BUS 258	Compensation and Benefits	3-0-3
MKT 120	Principles of Marketing	3-0-3
	Humanities/Fine Arts Elective	3-0-3
		12-0-12

Students may exit with a diploma

## 5th Semester (Spring)

BUS 151	People Skills	3-0-3
ISC 121	Environmental Health and Safety	3-0-3
*MAT 140	Survey of Mathematics	3-0-3
		9-0-9

## 6th Semester (Summer)

COE 111	Co-op Work Experience I	0-10-1
	Major Elective	3-0-3
		3-10-4

## 7th Semester (Fall)

	Accounting Elective	3-2-4
ENG 114	Professional Research and Reporting	3-0-3
	Social/Behavioral Science Elective	3-0-3
		9-2-10

## 8th Semester (Spring)

BUS 259	HRM Applications	3-0-3
BUS 261	Diversity in Management	3-0-3
		6-0-6

Total Semester Hours Credit: 68/69

\*Students may substitute MAT 115 (nontransferable).

\*\* Students may substitute CIS 111 (nontransferable)

**Human Resources Management Concentration**  
**Credential: Diploma in Human Resources Management**  
**D2512C**

Human Resources Management Diploma is designed to provide training in the following areas of human resource management: general management strategies and techniques, employment law, employee training, employee recruitment, labor relations, and compensation and benefits. The Diploma option also provides training in economics, business law, marketing, and computer applications.

Graduates from this program will have a sound business educational base for lifelong learning. Students will be prepared for employment opportunities in personnel, training and other human resources development areas.

Program Length: 4 semesters (Evening Program)  
 Career Pathway Options: Associate in Applied Science Degree in Human Resources Management  
 Program Sites: Lee Campus - Evening Program, Selected Day and Distance Courses

**Course Requirements for Human Resources Management Diploma**

A. General Education Courses (6 SHC) C-L-SHC  
 ENG 111 Expository Writing 3-0-3  
           Humanities/Fine Arts Elective 3-0-3

B. Required Major Core Courses (32/33 SHC)

BUS 115	Business Law I	3-0-3
BUS 137	Principles of Management	3-0-3
BUS 217	Employment Law and Regulations	3-0-3
BUS 234	Training and Development	3-0-3
BUS 256	Recruit Select and Personnel Planning	3-0-3
BUS 258	Compensation and Benefits	3-0-3
*CIS 110	Introduction to Computers	2-2-3
MKT 120	Principles of Marketing	3-0-3

Required Subject Areas (3 SHC)  
 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

C. Other Major Hours Required (7-SHC)

BUS 153	Human Resource Management	3-0-3
BUS 252	Labor Relations	3-0-3

Student Success – Select One \*Effective 2014 Fall

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1
ACA 122	College Transfer Success	1-0-1

Total Semester Hours Required for the Diploma: 39/40

Evening Program for Human Resources Management Diploma

1st Semester (Fall)		C-L-SHC
BUS 115	Business Law I	3-0-3
BUS 137	Principles of Management	3-0-3
BUS 256	Recruit Select and Personnel Planning	3-0-3
*CIS 110	Introduction to Computers	2-2-3
	Student Success Course	1-0-1
		10/11-2-13
2nd Semester (Spring)		
BUS 153	Human Resource Management	3-0-3
BUS 217	Employment Law and Regulations	3-0-3
	Economics Elective	3-0-3
		9-0-9
3rd Semester (Summer)		
BUS 252	Labor Relations	3-0-3
ENG 111	Expository Writing	3-0-3
		6-0-6
4th Semester (Fall)		
BUS 234	Training and Development	3-0-3
BUS 258	Compensation and Benefits	3-0-3
MKT 120	Principles of Marketing	3-0-3
	Humanities Elective	3-0-3
		12-0-12

\*Students may substitute CIS 111 (nontransferable).  
 Total Semester Hours Credit: 39/40

**Human Resource Management Concentration  
Credential: Human Resources Management  
Certificate  
C2512C**

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 Human Resource Management.

Program Length: 2 semesters  
Career Pathway Options: Associate in Applied Science Degree in Human Resources Management Concentration and Diploma in Human Resource Management (Higher entrance standards required)  
Program Sites:  
Lee Campus – Evening Program, Selected Distance Courses

**Course Requirements for Human Resource Management Certificate**

Required Major Core Courses (18 SHC)		C-L-SHC
BUS 217	Employment Law and Regulations	3-0-3
BUS 234	Training and Development	3-0-3
BUS 256	Recruiting, Selecting and Personnel Plng.	3-0-3
BUS 258	Compensation and Benefits	3-0-3
	Major Electives	6-0-6

Elective (Choose 6 SHC)		
BUS 137	Principles of Management	3-0-3
BUS 151	People Skills	3-0-3
BUS 153	Human Resource Management	3-0-3
BUS 261	Diversity in Management	3-0-3

Total Semester Hours Credit Required for Graduation: 18

**Semester Curriculum for Human Resource Management Certificate**

1st Semester (Fall)		
BUS 234	Training and Development	3-0-3
BUS 256	Recruit Select and Personnel Planning	3-0-3
BUS 258	Compensation and Benefits	3-0-3
		9-0-9

2nd Semester (Spring)		
BUS 217	Employment Law and Regulations	3-0-3
	Major Electives	6-0-6
		9-0-9

Total Semester Hours Credit: 18

**Medical Office Administration  
Credential: Associate in Applied Science  
Degree in Medical Office Administration  
A25310**

This curriculum prepares individuals for employment in medical and other health-care related offices. Coursework will include medical terminology, information systems, office management, medical coding, billing and insurance, legal and ethical issues, and formatting and word processing. Students will learn 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 and Harnett Campus – Day Program, Selected Distance Courses

**Course Requirements for Medical Office Administration**

A. General Education Courses (15 SHC)		C-L-SHC
ENG 111	Expository Writing	3-0-3
	Humanities/Fine Arts Elective	3-0-3
*MAT 115	Mathematical Models	3-0-3
	Social/Behavioral Science Elective	3-0-3
	Communications Elective (select 3 SHC)	
ENG 115	Oral Communication	3-0-3
COM 110	Introduction to Communication	3-0-3
COM 120	Intro Interpersonal Communication	3-0-3
COM 140	Intro Intercultural Communication	3-0-3
COM 231	Public Speaking	3-0-3
*Students may substitute MAT 140 (transferable).		

B. Required Major Core Courses (28/29 SHC)		
**CIS 110	Introduction to Computers	2-2-3
OST 131	Keyboarding	1-2-2
OST 134	Text Entry and Formatting	2-2-3
OST 141	Medical Terms I – Medical Office	3-0-3
OST 142	Medical Terms II – Medical Office	3-0-3
OST 148	Medical Coding Billing and Insurance.	3-0-3
OST 149	Medical Legal Issues	3-0-3
OST 164	Text Editing Applications	3-0-3
OST 243	Medical Office Simulation	2-2-3
OST 289	Administrative Office Management	2-2-3
**Students may substitute CIS 111 (nontransferable).		

C. Other Major Courses Required for Graduation (27 SHC)		
ACC 115	College Accounting	3-2-4
COE 111	Co-op Work Experience I	0-10-1
CTS 130	Spreadsheet	2-2-3
OST 132	Keyboard Skill Building	1-2-2
OST 136	Word Processing	2-2-3
OST 184	Records Management	2-2-3

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OST 236	Advanced Word/Information Processing	2-2-3
OST 241	Medical Office Transcription I	1-2-2
OST 286	Professional Development	3-0-3
	Major Electives	2-0-2
	(Select 2.0 credit hours from the following list)	
OST 242	Medical Office Transcription II	1-2-2
OST 248	Diagnostic Coding	1-2-2
OST 281	Emergency Issues in Medical Office	3-0-3
OST 285	Adv Emergency Issues in Medical Office	3-0-3

\*Students may substitute MAT 140 (transferable).  
 \*\*Student may substitute CIS 111 (nontransferable).

Total Semester Hours Credit: 70/71

Student Success – Select One

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1
ACA 122	College Transfer Success	1-0-1

Total Semester Hours Required for Graduation: 70/71

Semester Curriculum for Medical Office Administration

1st Semester (Fall) C-L-SHC

**CIS 110	Introduction to Computers	2-2-3
ENG 111	Expository Writing	3-0-3
	Communication Elective	3-0-3
OST 131	Keyboarding	1-2-2
OST 184	Records Management	2-2-3
	Student Success Course	1-0-1
		11-6-15

2nd Semester (Spring)

OST 286	Professional Development	3-0-3
CTS 130	Spreadsheets	2-2-3
OST 132	Keyboard Skill Building	1-2-2
OST 134	Text Entry and Formatting	2-2-3
OST 136	Word Processing	2-2-3
OST 164	Text Editing Applications	3-0-3
		13-8-17

3rd Semester (Summer)

OST 236	Advanced Word/Information Processing	2-2-3
OST 289	Administrative Office Management	2-2-3
		4-4-6

4th Semester (Fall)

ACC 115	College Accounting	3-2-4
OST 141	Medical Terms I-Medical Office	3-0-3
OST 148	Medical Coding, Billing and Insurance	3-0-3
OST 149	Medical Legal Issues	3-0-3
	Social/Behavioral Science Elective	3-0-3
		15-2-16

5th Semester (Spring)

COE 111	Co-op Work Experience I	0-10-1
	Humanities/Fine Arts Elective	3-0-3
*MAT 115	Mathematical Models	2-2-3
OST 142	Medical Terms II-Medical Office	3-0-3
OST 241	Medical Office Transcription I	1-2-2
OST 243	Medical Office Simulation	2-2-3
	Major Elective	2-0-2
		12-18-17



**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-9 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: Distance Program  
 Lee and Harnett Campus – Day Program

**Course Requirements for Medical Office Ins. Coding Certificate**

Required Courses (16/17 SHC)	C-L-SHC
*CIS 110 Introduction to Computers	2-2-3
OST 141 Medical Terms I-Medical Office	3-0-3
OST 142 Medical Terms II-Medical Office	3-0-3
OST 148 Medical Coding Billing and Insurance	3-0-3
OST 149 Medical Legal Issues	3-0-3
OST 248 Diagnostic Coding	1-2-2

\*Students may substitute CIS 111 (nontransferable).

Total Semester Hours Credit Required for Graduation:  
16/17 SHC

**Semester Curriculum for Medical Office Ins. Coding Certificate**

1st Semester (Fall)	C-L-SHC
OST 141 Medical Terms I- Medical Office	3-0-3
OST 148 Medical Coding Billing and Insurance	3-0-3
OST 149 Medical Legal Issues	3-0-3
	9-0-9
2nd Semester (Spring)	
*CIS 110 Introduction to Computers	2-2-3
OST 142 Medical Terms II-Medical Office	3-0-3
OST 248 Diagnostic Coding	1-2-2
	6-4-8

\*Students may substitute CIS 111 (nontransferable).  
 Total Semester Hours Credit: 16/17 SHC

**Medical Office Administration**  
**Credential: Medical Transcription Certificate**  
**C25310T0**

This program is designed to provide the students with skills necessary to transcribe medical records for physicians in all medical disciplines. Specific skills include medical terminology, medical office procedures, medical transcription, and medical legal issues. Upon completion of this training, students will be prepared to transcribe for professional transcription agencies, hospitals, physician offices, and other health care agencies. 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 Machine Transcription Certificate.  
 Program Sites: Distance Program  
 Lee and Harnett Campus – Day Program

**Course Requirements for Medical Transcription Certificate**

Required Courses (16 SHC)	C-L-SHC
OST 141 Medical Terms I-Medical Office	3-0-3
OST 142 Medical Terms II-Medical Office	3-0-3
OST 149 Medical Legal Issues	3-0-3
OST 164 Text Editing Applications	3-0-3
OST 241 Medical Office Transcription I	1-2-2
OST 242 Medical Office Transcription II	1-2-2

Total Semester Hours Credit Required for Graduation: 16 SHC

**Semester Curriculum for Medical Transcription Certificate**

1st Semester (Fall)	C-L-SHC
OST 141 Medical Terms I- Medical Office	3-0-3
OST 149 Medical Legal Issues	3-0-3
OST 164 Text Editing Applications	3-0-3
	9-0-9
2nd Semester (Spring)	
OST 142 Medical Terms II-Medical Office	3-0-3
OST 241 Medical Office Transcription I (1 <sup>st</sup> minimester)	1-2-2
OST 242 Medical Office Transcription II (2 <sup>nd</sup> minimester)	1-2-2
	5-4-7

Total Semester Hours Credit: 16 SHC

\*Effective 2014 Spring

## Networking Technology

**Credential: Associate in Applied Science**

**Degree in Networking Technology**

**A25340**

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 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. Graduates are also prepared to sit for certification exams that can result in industry-recognized credentials.

Program Length: 5 semesters

Career Pathway Options: Specialized Networking Certificate Programs

Program Sites: North Carolina School of Telecommunications. Day and selected evening courses. Corporate and career-centered programs.

### Course Requirements for Networking Technology Degree

A. General Education Courses (15 SHC)		C-L-SHC
ENG 111	Expository Writing	3-0-3
ENG 114	Professional Research and Reporting	3-0-3
*MAT 140	Survey of Mathematics	3-0-3
	Humanities/Fine Arts Elective	3-0-3
	Social/Behavioral Science Elective	3-0-3

### B. Technical Core Courses (33 SHC):

CIS 115	Introduction to Programming and Logic	2-3-3
CTS 120	Hardware/Software Support	2-3-3
DBA 110	Database Concepts	2-3-3
NET 125	Networking Basics	1-4-3
NET 126	Routing Basics	1-4-3
NET 225	Routing and Switching I	1-4-3
NET 226	Routing and Switching II	1-4-3

NOS 110	Operating Systems Concepts	2-3-3
NOS 120	Linux/UNIX Single User	2-2-3
NOS 130	Windows Single User	2-2-3
SEC 110	Security Concepts	2-2-3

### C. Required Subject Areas (12 SHC)

#### Basic Computer Skills:

CIS 110	Introduction to Computers	2-2-3
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#### Business— Select one:

BUS 110	Introduction to Business	3-0-3
CTS 115	Information Systems Business Concepts	3-0-3

#### Design:

NET 289	Networking Project	1-4-3
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#### Operating System Administration:

NOS 220	Linux/UNIX Administration I	2-2-3
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### D. Other Major Hours (10 SHC)

NET 116	Fundamentals of Voice/Data Cable	2-2-3
NOS 230	Windows Admin I	2-2-3
SEC 160	Security Fundamentals I	2-2-3

#### Student Success—Select one:

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1
ACA 122	College Transfer Success	1-0-1

Total Semester Credit Hours: 70

### Semester Curriculum for Networking Technology

#### 1st Semester (19 SHC) C-L-SHC

ACA 111	College Student Success	1-0-1
CIS 110	Introduction to Computers	2-2-3
NET 125	Networking Basics	1-4-3
NET 126	Routing Basics	1-4-3
NOS 110	Operating Systems Concepts	2-3-3
NOS 130	Windows Single User (MCP)	2-2-3
CTS 120	Hardware/Software Support	<u>2-3-3</u>
		11-18-19

#### 2nd Semester (21 SHC)

CIS 115	Intro to Programming & Logic	2-3-3
NET 225	Routing and Switching I	1-4-3
NET 226	Routing and Switching II	1-4-3
NOS 120	Linux /UNIX Single User (Linux +)	2-2-3
NOS 220	Linux/UNIX Administration I	2-2-3
NOS 230	Windows Admin I	2-2-3
SEC 110	Security Concepts	<u>2-2-3</u>
		12-19-21

#### 3<sup>rd</sup> Semester (Summer) (6 SHC)

NET 116	Fundamentals of Voice/Data Cable	2-2-3
NET 289	Networking Project	<u>1-4-3</u>
		3-6-6

#### 4th Semester (12 SHC)

DBA 110	Database Concepts	2-3-3
ENG 111	Expository Writing	3-0-3
	Humanities/Fine Arts Elective	3-0-3

MAT 140	Survey of Mathematics	<u>3-0-3</u> 11-3-12
5th Semester (12 SHC)		
BUS 110	Introduction to Business OR	3-0-3
CTS 115	Info Sys Business Concepts	3-0-3
ENG 114	Professional Research and Reporting	3-0-3
SEC 160	Security Fundamentals I Social/Behavioral Science Elective	2-2-3 <u>3-0-3</u> 11-2-12

\*Students may substitute MAT 161

Total Semester Hours Credit: 70

\*Effective 2014 Spring  
**Networking Technology**  
**Credential: Diploma in Networking**  
**Technology**  
**D25340**

The Networking Technology Program prepares individuals for employment supporting network infrastructure and 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 take certification examinations for various network industry certifications, depending on their local program.

Program Length: 3 Semesters

Career Pathway Options: Associate in Applied Science Degree in Network Technology, Diploma in Network Technology.

Program Sites: North Carolina School of Telecommunications. Day and selected evening courses. Corporate and career-centered programs.

Course Requirements for Network Technology Diploma

A. General Education Courses (6 SHC)		C-L-SHC
ENG 111	Expository Writing	3-0-3
*MAT 140	Survey of Mathematics	3-0-3
B. Technical Core (12 SHC)		
CTS 120	Hardware/Software Support	2-3-3
NET 125	Networking Basics	1-4-3
NET 126	Routing Basics	1-4-3
NET 225	Routing and Switching I	1-4-3
C. Other Major Hours (25 SHC)		
CIS 110	Introduction to Computers	2-2-3
NET 226	Routing and Switching II	1-4-3
NOS 110	Operating Systems Concepts	2-2-3
NOS 120	Linux/UNIX Single User	2-2-3
NOS 130	Windows Single User	2-2-3
NOS 220	Linux/UNIX Administration I	2-2-3
NOS 230	Windows Admin I	2-2-3
SEC 110	Security Concepts	2-2-3

Student Success—Select one:

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1
ACA 122	College Transfer Success	1-0-1

Total Semester Hours Required for Graduation: 43

Semester Curriculum for Diploma in Networking Technology

1st Semester (19 SHC)		C-L-SHC
ACA 111	College Student Success	1-0-1
CIS 110	Computer Concepts	2-2-3
CTS 120	Hardware/Software Support	2-3-3
NET 125	Networking Basics	1-4-3
NET 126	Routing Basics	1-4-3
NOS 110	Operating Systems Concepts	2-2-3
NOS 130	Windows Single User	<u>2-2-3</u>
		11-17-19
2nd Semester (18 SHC)		
NET 225	Routing and Switching I	1-4-3
NET 226	Routing and Switching II	1-4-3
NOS 120	Linux/UNIX Single User	2-2-3
NOS 220	Linux/UNIX Administration I	2-2-3
NOS 230	Windows Admin I	2-2-3
SEC 110	Security Concepts	<u>2-2-3</u>
		10-16-18
3rd Semester (6 SHC)		
ENG 111	Expository Writing	3-0-3
*MAT 140	Survey of Mathematics	<u>3-0-3</u>
		6-0-6

\*Students may substitute MAT 161

Total Semester Hours Credit: 43

\*Effective 2014 Spring

**Networking Technology  
Credential: Network Infrastructure  
Certificate  
C25340NI**

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 are also 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

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: North Carolina School of Telecommunications. Day and selected evening courses. Corporate and career-centered programs.

Course Requirements for Network Infrastructure Certificate

Technical Core (12 SHC)		C-L-SHC
NET 125	Networking Basics	1-4-3
NET 126	Routing Basics	1-4-3
NET 225	Routing and Switching I	1-4-3
NET 226	Routing and Switching II	<u>1-4-3</u>
		4-16-12

Total Semester Hours Credit: 12

\*Effective 2014 Spring

**Networking Technology  
Credential: Network Operating System  
Certificate  
C25340N0**

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 position such as: LAN/PC network operating systems administrator, technician, and personal computer technician.

Graduates are also 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: North Carolina School of Telecommunications. Day and selected evening courses. Corporate and career-centered programs.

Course Requirements for Network Security Certificate

Technical Core Courses (15 SHC)		C-L-SHC
NOS 110	Operating Systems Concepts	2-2-3
NOS 120	Linux/UNIX Single User	2-2-3
NOS 130	Windows Single User	2-2-3
NOS 220	Linux/UNIX Administration I	2-2-3
NOS 230	Windows Admin I	<u>2-2-3</u>
		10-10-15

Total Semester Hours Credit Needed for Graduation: 15

\*Effective 2014 Spring

**Networking Technology  
Credential: Network Security Certificate  
C25340SE**

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 are also 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

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: North Carolina School of Telecommunications. Day and selected evening courses. Corporate and career-centered programs.

Course Requirements for Network Security Certificate

Required Major Core Courses (18 SHC)		C-L-SHC
NET 125	Networking Basics	1-4-3
NET 126	Routing Basics	1-4-3
NET 225	Routing and Switching I	1-4-3
NET 226	Routing and Switching II	1-4-3
SEC 110	Security Concepts	2-2-3
SEC 160	Security Fundamentals I	<u>2-2-3</u>
		8-20-18

Total Semester Hours Credit: 18

\*Effective 2014 Spring

## Networking Technology

### Credential: Voice Over IP Certificate C25340TL

The Voice Over IP Certificate is a certificate under the curriculum title of Networking Technology. This curriculum prepares students to understand and install various types of Voice over IP 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 Voice over IP tools. Classes cover installation and support of various Voice over IP electronics, Voice over IP software, troubleshooting, administrative responsibilities, and other tools.

Graduates should qualify for positions such as: LAN/PC VoIP technician and network VoIP technician. Graduates are also 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

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 Voice Over IP.

Program Sites: North Carolina School of Telecommunications. Day and selected evening courses. Corporate and career-centered programs.

#### Course Requirements for Voice Over IP Certificate

Required Major Core Courses (15 SHC)		C-L-SHC
NET 116	Fund of Voice/Data Cable	2-2-3
NET 125	Networking Basics	1-4-3
NET 126	Routing Basics	1-4-3
NET 225	Routing and Switching I	1-4-3
NET 226	Routing and Switching II	<u>1-4-3</u>
		6-18-15

Total Semester Hours Credit: 15

## 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 Systems Technology

Program Sites: Lee and Harnett Campus - Day Program, Selected Distance Courses

#### Course Requirements for Office Administration Degree

A. General Education Courses (15 SHC)		C-L-SHC
ENG 111	Expository Writing	3-0-3
	Humanities/Fine Arts Elective	3-0-3
*MAT 115	Mathematical Models	2-2-3
	Social/Behavioral Science Elective	3-0-3
*Students may substitute MAT 140 (transferable).		

#### Communications Elective (Select 3 SHC)

ENG 115	Oral Communication	3-0-3
COM 110	Introduction to Communication	3-0-3
COM 120	Intro Interpersonal Communication	3-0-3
COM 140	Intro Intercultural Communication	3-0-3
COM 231	Public Speaking	3-0-3

#### B. Required Major Core Courses (14/15 SHC)

**CIS 110	Introduction to Computers	2-2-3
OST 134	Text Entry and Formatting	2-2-3
OST 164	Text Editing Applications	3-0-3
OST 184	Records Management	2-2-3
OST 289	Administrative Office Management	2-2-3
**Students may substitute CIS 111 (nontransferable).		

#### C. Other Major Hours Required for Graduation (41 SHC)

ACC 115	College Accounting	3-2-4
BUS 115	Business Law I	3-0-3
COE 111	Co-op Work Experience I	0-10-1
CTS 130	Spreadsheets	2-2-3
OST 131	Keyboarding	1-2-2
OST 132	Keyboard Skill Building	1-2-2

OST 135	Advanced Text Entry and Format	3-2-4
OST 136	Word Processing	2-2-3
OST 137	Office Software Applications	2-2-3
OST 138	Advanced Software Application	2-2-3
OST 181	Intro to Office Systems	2-2-3
OST 233	Office Publications Design	2-2-3
OST 236	Advanced Word/Information Processing	2-2-3
OST 286	Professional Development	3-0-3

Student Success – Select One

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1
ACA 122	College Transfer Success	1-0-1

Total Semester Hours Credit Required for Graduation:  
70/71

Semester Curriculum for Office Administration Degree

1st Semester (Fall)		C-L-SHC
**CIS 110	Introduction to Computers	2-2-3
ENG 111	Expository Writing	3-0-3
	Communication Elective	3-0-3
OST 131	Keyboarding	1-2-2
OST 184	Records Management	2-2-3
	Student Success Course	1-0-1
		12-6-15
2nd Semester (Spring)		
CTS 130	Spreadsheet	2-2-3
OST 132	Keyboard Skill Building	1-2-2
OST 134	Text Entry and Formatting	2-2-3
OST 136	Word Processing	2-2-3
OST 164	Text Editing Applications	3-0-3
OST 286	Professional Development	3-0-3
		13-10-17
3rd Semester (Summer)		
OST 236	Advanced Word/Information Processing	2-2-3
OST 289	Administrative Office Management	2-2-3
		4-4-6
4th Semester (Fall)		
ACC 115	College Accounting	3-2-4
OST 135	Advanced Text Entry and Format	3-2-4
OST 137	Office Software Applications	2-2-3
OST 233	Office Publications Design	2-2-3
	Social/Behavioral Science Elective	3-0-3
		13-8-17
5th Semester (Spring)		
BUS 115	Business Law	3-0-3
COE 111	Co-op Work Experience I	0-10-1
	Humanities/Fine Arts Elective	3-0-3
*MAT 115	Mathematical Models	2-2-3
OST 138	Advanced Software Applications	2-2-3
OST 181	Intro to Office Systems	2-2-3
		10-16-16

Total Semester Hours Credit: 70/71

**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: 3 semesters

Career Pathway Options: Associate in Applied Science Degree in Office Systems Technology, Associate in Applied Science Degree in Medical Office Administration, Office Systems Technology Diploma.

Program Sites: Distance Programs

Lee and Harnett Campus - Day Program

Course Requirements for Office Administration Diploma

A. General Education Courses (9 SHC) C-L-SHC

ENG 111	Expository Writing	3-0-3
	Communications Elective	3-0-3
	Social/Behavioral Science Elective	3-0-3
	Communications Elective (Select 3 SHC)	
ENG 115	Oral Communication	3-0-3
COM 110	Introduction to Communication	3-0-3
COM 120	Intro Interpersonal Communication	3-0-3
COM 140	Intro Intercultural Communication	3-0-3
COM 231	Public Speaking	3-0-3

B. Required Major Core Courses (14-15 SHC)

*CIS 110	Introduction to Computers	2-2-3
OST 134	Text Entry and Formatting	2-2-3
OST 164	Text Editing Applications	3-0-3
OST 184	Records Management	2-2-3
OST 289	Administrative Office Management	2-2-3

\*Students may substitute CIS 111 (nontransferable).

C. Other Major Hours Required for Graduation (17 SHC)

CTS 130	Spreadsheets	2-2-3
OST 131	Keyboarding	1-2-2
OST 132	Keyboard Skill Building	1-2-2
OST 136	Word Processing	2-2-3
OST 236	Advanced Word/Information Processing	2-2-3
OST 286	Professional Development	3-0-3

Student Success – Select One

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1
ACA 122	College Transfer Success	1-0-1

Total Semester Hours Credit Required for Graduation:  
40/41

Semester Curriculum for Office Administration Diploma

1st Semester (Fall)		C-L-SHC
**CIS 110	Introduction to Computers	2-2-3
ENG 111	Expository Writing	3-0-3
	Communication Elective	3-0-3
OST 131	Keyboarding	1-2-2
OST 184	Records Management	2-2-3
	Student Success Course	1-0-1
		12-6-15
2nd Semester (Spring)		
CTS 130	Spreadsheet	2-2-3
OST 132	Keyboard Skill Building	1-2-2
OST 134	Text Entry and Formatting	2-2-3
OST 136	Word Processing	2-2-3
OST 164	Text Editing Applications	3-0-3
OST 286	Professional Development	3-0-3
		13-8-17
3rd Semester (Summer)		
OST 236	Advanced Word/Information Processing	2-2-3
OST 289	Administrative Office Management	2-2-3
	Social/Behavioral Science Elective	3-0-3
		7-4-9

Total Semester Hours Credit: 40/41

**Office Administration**

**Credential: Information and Word Processing Certificate C25370W0**

This certificate program provides the graduate with the basic keyboarding and word processing skills necessary to enter the job market as an information and word processor. Specific emphases will be placed on a variety of office software and the specific capabilities of word processing, office publications, document formatting and editing, and proofreading. 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 diploma/degree 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; Information and Word Processing Certificate.

Program Sites: Distance Program

Lee and Harnett Campus - Day Program

Course Requirements for Information and Word Processing Certificate

Required Courses (14/13 SHC)

*CIS 110	Introduction to Computers	2-2-3
OST 131	Keyboarding	1-2-2
OST 134	Text Entry and Formatting	2-2-3
OST 136	Word Processing	2-2-3
OST 236	Advanced Word/Information Processing	2-2-3

\*Students may substitute CIS 111 (nontransferable).

Total Semester Hours Credit Required for Graduation:  
14/13



**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 emphases 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); Information and Word Processing Certificate; Receptionist Certificate.

Program Sites: Distance Programs  
 Lee and Harnett Campus - Day Program

**Course Requirements for Receptionist Certificate**

Required Courses (17/16 SHC)	C-L-SHC
*CIS 110 Introduction to Computers	2-2-3
OST 131 Keyboarding	1-2-2
OST 134 Text Entry and Formatting	2-2-3
OST 136 Word Processing	2-2-3
OST 164 Text Editing Applications	3-0-3
OST 184 Records Management	2-2-3

\*Students may substitute CIS 111 (nontransferable).

Total Semester Hours Credit Required for Graduation:  
 17/16

**Paralegal Technology**  
**Credential: Associate in Applied Science**  
**Degree 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 County Campus - Day Program, Selected Hybrid Courses

**Course Requirements for Paralegal Technology Degree**

A. General Education Courses (15 SHC)	C-L-SHC
ENG 111 Expository Writing	3-0-3
ENG 114 Professional Research and Reporting	3-0-3
Humanities/Fine Arts Elective	3-0-3
*MAT 140 Survey of Mathematics	3-0-3
Social/Behavioral Science Elective	3-0-3

**B. Required Major Core Courses (23 SHC)**

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 140 Civil Litigation I	3-0-3
LEX 150 Commercial Law	2-2-3
LEX 210 Real Property I	3-0-3
LEX 240 Family Law	3-0-3
LEX 250 Wills, Estates, and Trusts	2-2-3

**C. Other Major Hours Required for Graduation (34 SHC)**

ACC 115 College Accounting	3-2-4
CIS 110 Introduction to Computers	2-2-3
COE 111 Co-op Work Experience I	0-10-1
LEX 121 Legal Research Writing II	2-2-3
LEX 141 Civil Litigation II	2-2-3
LEX 160 Criminal Law and Procedure	2-2-3
LEX 170 Administrative Law	2-0-2
LEX 180 Case Analysis and Reasoning	1-2-2
LEX 211 Real Property II	1-4-3

LEX 220	Corporate Law	2-0-2
LEX 260	Bankruptcy and Collections	3-0-3
LEX 271	Law Office Writing	1-2-2
LEX 280	Ethics and Professionalism Communications Elective	2-0-2
ENG 115	Oral Communication	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

Student Success – Select One \*Effective 2014 Fall

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1
ACA 122	College Transfer Success	1-0-1

Total Semester Hours Credit Required for Graduation: 75

Semester Curriculum for Paralegal Technology Degree

1st Semester (Fall)		C-L-SHC
ENG 111	Expository Writing	3-0-3
LEX 110	Introduction to Paralegal Study	2-0-2
LEX 150	Commercial Law	2-2-3
LEX 170	Administrative Law	2-0-2
*MAT 140	Survey of Mathematics	3-0-3
	Student Success Course	1-0-1
		13-2-14

2nd Semester (Spring)

CIS 110	Introduction to Computers	2-2-3
ENG 114	Professional Research and Reporting Humanities/Fine Arts Elective	3-0-3 3-0-3
LEX 160	Criminal Law and Procedures	2-2-3
LEX 220	Corporate Law	2-0-2
LEX 280	Ethics and Professionalism Social/Behavioral Science Elective	2-0-2 3-0-3
		17-4-19

3rd 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
		7-4-9

4th Semester (Fall)

LEX 120	Legal Research/Writing I	2-2-3
LEX 130	Civil Injuries	3-0-3
LEX 141	Civil Litigation II	2-2-3
LEX 180	Case Analysis and Reasoning	1-2-2
LEX 210	Real Property I	3-0-3
LEX 250	Wills, Estates, and Trustees	2-2-3
		13-8-17

5th Semester (Spring)

COE 111	Co-op Work Experience I	0-10-1
COM	Communications Elective	3-0-3
LEX 121	Legal Research/Writing II	2-2-3
LEX 211	Real Property II	1-4-3
LEX 240	Family Law	3-0-3
LEX 260	Bankruptcy and Collections	3-0-3
		12-16-16

Total Semester Hours Credit: 75

\* Students may substitute MAT 115 (nontransferable)

## 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 County Campus - Day Program, Selected Hybrid Courses

### Course Requirements for Paralegal Technology Diploma

A. Required Major Core Courses (23 SHC)		C-L-SHC
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 140	Civil Litigation I	3-0-3
LEX 150	Commercial Law	2-2-3
LEX 210	Real Property I	3-0-3
LEX 240	Family Law	3-0-3
LEX 250	Wills, Estates, and Trusts	2-2-3
B. Other Major Hours Required. (20 SHC)		
ACC 115	College Accounting	3-2-4
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 260	Bankruptcy and Collections	3-0-3
LEX 271	Law Office Writing	1-2-2
LEX 280	Ethics and Professionalism	2-0-2

Total Semester Hours Credit Required for Graduation: 43

### Semester Curriculum for Paralegal Technology Diploma

1st Semester (Fall)		C-L-SHC
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, Estates, and Trusts	2-2-3
		14-6-17

2nd Semester (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 260	Bankruptcy and Collections	3-0-3
LEX 280	Ethics and Professionalism	2-0-2
13-8-17		
3rd Semester (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
7-4-9		
Total Semester Hours Credit: 43		

**Commercial and Artistic Production Technologies**

**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

**Course Requirements for Broadcasting Production Technology Degree**

A. General Education Courses (15 SHC)			C-L-SHC
ENG 111	Expository Writing		3-0-3
ENG 114	Professional Research and Reporting		3-0-3
	Humanities/Fine Arts Elective		3-0-3
*MAT 115	Mathematical Models		2-2-3
	Social/Behavioral Science Elective		3-0-3

\* Students may substitute MAT 140 (transferable).

B. Required Major Core Courses (13 SHC)		
BPT 110	Introduction to Broadcasting	3-0-3
BPT 111	Broadcast Law and Ethics	3-0-3
BPT 112	Broadcast Writing	3-2-4
BPT 113	Broadcast Sales	3-0-3

C. Other Major Hours Required for Graduation (42/43 SHC)		
BPT 121	Broadcast Speech I	2-3-3
BPT 122	Broadcast Speech II	2-3-3
BPT 131	Audio/Radio Production I	2-6-4
BPT 132	Audio/Radio Production II	2-6-4
BPT 135	Radio Performance I	0-6-2
BPT 210	Broadcast Management	3-0-3
BPT 215	Broadcast Programming	3-0-3
BPT 231	Video/TV Production I	2-6-4
BPT 232	Video/TV Production II	2-6-4
BPT 235	TV Performance I	0-6-2

BPT 236	TV Performance II	0-6-2
BPT 250	Institutional Video	2-3-3
CIS 110	Introduction to Computers	2-2-3
COE 111	Co-op Work Experience I	0-10-1
COE 121	Co-op Work Experience II	0-10-1

Student Success – Select One \*Effective 2014 Fall

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1
ACA 122	College Transfer Success	1-0-1

Total Semester Hours Credit Required for Graduation:  
69/70

Semester Curriculum for Broadcasting Production  
Technology Degree

Sequence Beginning with Television

1st Semester (Fall)		C-L-SHC
BPT 110	Introduction to Broadcasting	3-0-3
BPT 111	Broadcast Law and 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	Expository Writing	3-0-3
	Student Success Course	1-0-1
		14-12-18

2nd Semester (Spring)

BPT 112	Broadcast Writing	3-2-4
BPT 113	Broadcast Sales	3-0-3
BPT 122	Broadcast Speech II	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
		13-14-18

3rd Semester (Summer) Elective: Choose One

BPT 236	TV Performance II	0-6-2
COE 121	Co-op Work Experience I	0-10-1

Students May Exit with a Diploma in Television Production  
Technology

4th Semester (Fall)

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
ENG 114	Professional Research and Reporting	3-0-3
		13-11-17

5th Semester (Spring)

BPT 132	Audio/Radio Production II	2-6-4
BPT 135B	Radio Performance IB	0-3-1
BPT 250	Institutional Video	2-3-3
	Humanities/Fine Arts Elective	3-0-3
*MAT 115	Mathematical Models	2-2-3
		9-14-14

6th Semester (Summer)

COE 111	Co-op Work Experience II	0-10-1
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\* Students may substitute MAT 140 (transferable).

Total Semester Hours Credit: 69/70

Semester Curriculum for Broadcasting Production  
Technology Degree  
Sequence Beginning with Radio

1st Semester (Fall)		C-L-SHC
BPT 110	Introduction to Broadcasting	3-0-3
BPT 111	Broadcast Law and 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
ENG 111	Expository Writing	3-0-3
	Student Success Course	1-0-1
		14-12-18

2nd Semester (Spring)

BPT 112	Broadcast Writing	3-2-4
BPT 113	Broadcast Sales	3-0-3
BPT 122	Broadcast Speech II	2-3-3
BPT 132	Audio/Radio Production II	2-6-4
BPT 135B	Radio Performance IB	0-3-1
	Social/Behavioral Science Elective	3-0-3
		13-14-18

3rd Semester (Summer)

COE 111	Co-op Work Experience I	0-10-1
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Students May Exit with a Diploma in Radio Production  
Technology

4th Semester (Fall)

BPT 210	Broadcast Management	3-0-3
BPT 215	Broadcast Programming	3-0-3
BPT 231	Video/TV Production I	2-6-4
BPT 235A	TV Performance IA	0-3-1
CIS 110	Introduction to Computers	2-2-3
ENG 114	Professional Research and Reporting	3-0-3
		13-11-17

5th Semester (Spring)

BPT 232	Video/TV Production II	2-6-4
BPT 235B	TV Performance IB	0-3-1
BPT 250	Institutional Video	2-3-3
	Human/Fine Arts Elective	3-0-3
*MAT 115	Mathematical Models	2-2-3
		9-14-14

6th Semester (Summer)

COE 121	Co-op Work Experience II	0-10-1
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\* Students may substitute MAT 140 (transferable).

Total Semester Hours Credit: 69/70

**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

**Course Requirements for Radio Broadcasting Production  
Technology Diploma**

<b>A. General Education Courses (6 SHC)</b>		<b>C-L-SHC</b>
ENG 111	Expository Writing	3-0-3
	Social/Behavioral Science Elective	3-0-3
<b>B. Required Major Core Courses (13 SHC)</b>		
BPT 110	Introduction to Broadcasting	3-0-3
BPT 111	Broadcast Law and Ethics	3-0-3
BPT 112	Broadcast Writing	3-2-4
BPT 113	Broadcast Sales	3-0-3
<b>C. Other Major Hours Required for Graduation (18 SHC)</b>		
BPT 121	Broadcast Speech I	2-3-3
BPT 122	Broadcast Speech II	2-3-3
BPT 131	Audio/Radio Production I	2-6-4
BPT 132	Audio/Radio Production II	2-6-4
BPT 135	Radio Performance I	0-6-2
COE 111	Co-op Work Experience I	0-10-1

Student Success – Select One \*Effective 2014 Fall

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1
ACA 122	College Transfer Success	1-0-1

Total Semester Hours Credit Required for Graduation: 37

**Semester Curriculum for Radio Broadcasting Production  
Technology Diploma**

<b>1st Semester (Fall)</b>		<b>C-L-SHC</b>
BPT 110	Introduction to Broadcasting	3-0-3
BPT 111	Broadcast Law and 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
ENG 111	Expository Writing	3-0-3
		13-12-17
<b>2nd Semester (Spring)</b>		
BPT 112	Broadcast Writing	3-2-4
BPT 113	Broadcast Sales	3-0-3
BPT 122	Broadcast Speech II	2-3-3
BPT 132	Audio/Radio Production II	2-6-4
BPT 135B	Radio Performance IB	0-3-1
	Social/Behavioral Science Elective	3-0-3
		13-14-18
<b>3rd Semester (Summer)</b>		
COE 111	Co-op Work Experience I	0-10-1

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.

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 Campus - Day Program

**Course Requirements for Television Broadcasting  
Production Technology Diploma**

A. General Education Courses (6 SHC)	C-L-SHC
ENG 111 Expository Writing	3-0-3
Social/Behavioral Science Elective	3-0-3

B. Required Major Core Courses (13 SHC)	
BPT 110 Introduction to Broadcasting	3-0-3
BPT 111 Broadcast Law and Ethics	3-0-3
BPT 112 Broadcast Writing	3-2-4
BPT 113 Broadcast Sales	3-0-3

C. Other Major Hours Required for Graduation (18 SHC)	
BPT 121 Broadcast Speech I	2-3-3
BPT 122 Broadcast Speech II	2-3-3
BPT 231 Video/TV Production I	2-6-4
BPT 232 Video/TV Production II	2-6-4
BPT 235 TV Performance I	0-6-2
Elective: Choose One	
BPT 236 TV Performance II	0-6-2
COE 121 Co-op Work Experience I	0-10-1

Student Success – Select One \*Effective 2014 Fall

ACA 111 College Student Success	1-0-1
ACA 115 Success and Study Skills	0-2-1
ACA 122 College Transfer Success	1-0-1

Total Semester Hours Credit Required for Graduation:37/38

**Semester Curriculum for Television Broadcasting  
Production Technology Diploma**

1st Semester (Fall)	C-L-SHC
BPT 110 Introduction to Broadcasting	3-0-3
BPT 111 Broadcast Law and 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 IA	0-3-1
ENG 111 Expository Writing	3-0-3
	13-12-17
2nd Semester (Spring)	
BPT 112 Broadcast Writing	3-2-4
BPT 113 Broadcast Sales	3-0-3
BPT 122 Broadcast Speech II	2-3-3
BPT 232 Video/TV Production II	2-6-4
BPT 235B TV Performance IB	0-3-1
Social/Behavioral Science Elective	3-0-3
	13-14-18
3rd Semester (Summer) Choose One	
BPT 236 TV Performance II	0-6-2
COE 121 Co-op Work Experience I	0-10-1

Total Semester Hours Credit: 37/38

**Engineering Technologies**

\*Effective 2014 Spring

**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 communications, 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 certification in electronics, computers, or networks.

Program Length: 5 semesters

Career Pathway Options: Associate of Applied Science Degree in Computer Engineering Technology  
 Program Sites: Lee Campus - Day

**Course Requirements for Computer Engineering Technology Degree**

<b>A. General Education (15 SHC)</b>			
ENG 111	Expository Writing		3-0-3
ENG 114	Professional Research and Reporting		3-0-3
MAT 121	Algebra/Trigonometry I		2-2-3
	Humanities/Fine Arts Elective		3-0-3
	Social/Behavioral Science Elective		3-0-3
<b>B. Technical Core Courses (12 SHC)</b>			
ELC 131	Circuit Analysis I		3-3-4
ELN 131	Analog Electronics I		3-3-4
ELN 133	Digital Electronics		3-3-4
<b>C. Program Major Courses (13 SHC)</b>			
CET 111	Computer Upgrade/Repair I		2-3-3
ELN 232	Introduction to Microprocessors		3-3-4
NOS 110	Operating Systems Concepts		2-3-3
	*Programming Elective		3
<b>D. Other Major Hours (35 SHC)</b>			
CET 211	Computer Upgrade/Repair II		2-3-3
CET 225	Digital Signal Processing		2-2-3

CIS 110	Introduction to Computers		2-2-3
EGR 131	Intro to Electronics Tech		1-2-2
ELC 131A	Circuit Analysis I Lab		0-3-1
ELN 132	Analog Electronics II		3-3-4
ELN 275	Troubleshooting		1-2-2
MAT 122	Algebra/Trigonometry		2-2-3
NET 110	Networking Concepts		2-2-3
PCI 170	DAQ and Control		3-3-4
PHY 131	Physics: Mechanics		3-2-4
	** Technical Electives		2

**Student Success—Select one:**

ACA 111	College Student Success		1-0-1
ACA 115	Success and Study Skills		0-2-1
ACA 122	College Transfer Success		1-0-1

**\*Programming Electives (choose 3 SHC)**

CSC 134	C++ Programming		2-3-3
CSC 139	Visual BASIC Programming		2-3-3
CSC 151	JAVA Programming		2-3-3

**\*\*Technical Electives: (Select 2 SHC)**

CSC 134	C++ Programming		2-3-3
CSC 139	Visual BASIC Programming		2-3-3
CSC 151	JAVA Programming		2-3-3
ELN 234	Communication Systems		3-3-4
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
NOS 130	Windows Single User		2-2-3

Total Semester Hours Credit in Program: 75

**Semester Curriculum for Computer Engineering Technology Degree**

<b>1st Semester (Fall)</b>			<b>C-L-SHC</b>
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	Expository Writing		3-0-3
ACA 111	College Student Success		1-0-1
MAT 121	Algebra/Trigonometry I		<u>2-2-3</u>
			12-12-17
<b>2nd Semester (Spring)</b>			
ELN 131	Analog Electronics I		3-3-4
ELN 133	Digital Electronics		3-3-4
MAT 122	Algebra/Trigonometry II		2-2-3
NOS 110	Operating Systems Concepts		2-3-3
PHY 131	Physics-Mechanics		<u>3-2-4</u>
			13-13-18
<b>3rd Semester (Summer)</b>			
ELN 132	Analog Electronics II		3-3-4
ENG 114	Prof. Research and Reporting		3-0-3
			6-3-7
<b>4th Semester (Fall)</b>			
CET 111	Computer Upgrade/Repair I		2-3-3
CET 225	Digital Signal Processing		2-2-3
ELN 232	Introduction to Microprocessors		3-3-4

	Social Science Elective	3-0-3
	Programming Elective	<u>2-3-3</u>
		12-11-16
5th Semester (Spring)		
CET 211	Computer Upgrade/Repair II	2-3-3
ELN 275	Troubleshooting	1-2-2
	Humanities/Fine Arts Elective	3-0-3
NET 110	Networking Concepts	2-2-3
PCI 170	DAQ and Control	3-3-4
	Technical Elective	<u>2</u>
		17

Total Semester Hours Credit: 75

\*Effective 2014 Spring

**Electronics Engineering Technology  
Credential: Associate in Applied Science  
Degree in Electronics Engineering Technology  
A40200**

This 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 Campus - Day Program

**Course Requirements for Electronics Engineering  
Technology Degree**

<b>A. General Education Courses (15 SHC)</b>		<b>C-L-SHC</b>
ENG 111	Expository Writing	3-0-3
ENG 114	Professional Research and Reporting	3-0-3
MAT 121	Algebra/Trigonometry I	2-2-3
	Humanities/Fine Arts Elective	3-0-3
	Social/Behavioral Science Elective	3-0-3
<b>B. Technical Core (12 SHC)</b>		
ELC 131	Circuit Analysis I	3-3-4
ELN 131	Analog Electronics I	3-3-4
ELN 133	Digital Electronics	3-3-4
<b>C. Program Major (12 SHC)</b>		
ELN 232	Introduction to Microprocessors	3-3-4
ELN 234	Communication Systems	3-3-4
ELN 132	Analog Electronics II	3-3-4
<b>C. Other Major Hours (35 SHC)</b>		
CET 225	Digital Signal Processing	2-2-3
CIS 110	Introduction to Computers	2-2-3
EGR 131	Introduction to Electronics Tech.	1-2-2
ELC 131A	Circuit Analysis I Lab	0-3-1
ELN 247	Electronic Applications Project	1-3-2



ELN 275	Troubleshooting	1-3-2	Humanities/Fine Arts Elective	3-0-3
ISC 221	Statistical Quality Control	3-0-3	Major Elective	<u>3</u>
MAT 122	Algebra/Trigonometry II	2-2-3		17
PCI 170	DAQ and Control	3-3-4		
PHY 131	Physics - Mechanics	3-2-4		
PHY 133	Physics-Sound and Light	3-2-4		
	Major Elective	3		
			Total Semester Hours Credit: 74	

## Student Success—Select one:

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1
ACA 122	College Transfer Success	1-0-1

## Major Elective Course Listing (Select 3 SHC)

CET 111	Computer Upgrade/Repair I	2-3-3
CSC 134	C++ Programming	2-3-3
CSC 151	JAVA Programming	2-3-3
DFT 151	CAD I	2-3-3
ELC 128	Introduction to PLCs	2-3-3
ELC 213	Instrumentation	3-2-4
ELN 236	Fiber Optics and Lasers	3-2-4
NET 110	Networking Concepts	2-2-3
NOS 110	Operating Systems Concepts	2-3-3

Total Semester Hours Credit Required for Graduation: 74

Semester Curriculum for Electronics Engineering  
Technology Degree

1st Semester (Fall)		C-L-SHC
CIS 110	Introduction to Computers	2-2-3
EGR 131	Introduction 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	Expository Writing	3-0-3
ACA 111	College Student Success	1-0-1
MAT 121	Algebra/Trigonometry I	<u>2-2-3</u>
		12-12-17
2nd Semester (Spring)		
ELN 131	Analog Electronics I	3-3-4
ELN 133	Digital Electronics	3-3-4
MAT 122	Algebra/Trigonometry II	2-2-3
PHY 131	Physics - Mechanics	<u>3-2-4</u>
		11-10-15
3rd Semester (Summer)		
ELN 132	Analog Electronics II	3-3-4
PHY 133	Physics-Sound and Light	<u>3-2-4</u>
		6-5-8
4th Semester (Fall)		
CET 225	Digital Signal Processing	2-2-3
ELN 232	Introduction to Microprocessors	3-3-4
ELN 234	Communication Systems	3-3-4
ENG 114	Professional Research and Reporting	3-0-3
	Social/Behavioral Science Elective	<u>3-0-3</u>
		14-8-17
5th Semester (Spring)		
ELN 247	Electronic Applications Project	1-3-2
ELN 275	Troubleshooting	1-3-2
ISC 221	Statistical Quality Control	3-0-3
PCI 170	DAQ and Control	3-3-4

\*Effective 2014 Spring

**Electronics Engineering Technology  
Credential: Certificate in Electronics  
Technology  
C40200**

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 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 Campus - Day Program

Harnett Campus – Day Program

Online Program

**Course Requirements for Electronics Technology Certificate**

A. General Education Courses (3 SHC) C-L-SHC  
MAT 121 Algebra/Trigonometry I 2-2-3

B. Required Major Core Courses (13 SHC)  
ELC 131 Circuit Analysis I 3-3-4  
ELC 131A Circuit Analysis I Lab 0-3-1  
ELN 131 Analog Electronics I 3-3-4  
ELN 132 Analog Electronics II 3-3-4

C. Other Major Hours Required for Graduation (2 SHC)  
EGR 131 Introduction To Electronics Technology 1-2-2

Total Semester Hours Credit Required for Graduation: 18

**Semester Curriculum for Electronics Technology Certificate**

1st Semester (Fall) C-L-SHC  
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  
MAT 121 Algebra/Trigonometry I 2-2-3  
6-10-10

2nd Semester (Spring)  
ELN 131 Analog Electronics I 3-3-4  
3-3-4

3rd Semester (Summer)  
ELN 132 Analog Electronics II 3-3-4  
3-3-4

Total Semester Hours Credit Required for Graduation: 18

\*Effective 2014 Spring

**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 technician in business and industry.

Coursework includes mathematics, science, communication, electronics and 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.

Current and emerging job opportunities exist in the areas of fiber optic communications, materials processing, laser surgery, research and a variety of related areas. Program graduates often begin work as technicians in product testing, field service, product development or sales.

Program Length: 5 semesters

Career Pathway Options: Associate in Applied Science in Laser and Photonics Technology

Program Sites: Harnett Campus - Day Program

**Course Requirements for Laser and Photonics Technology Degree**

A. General Education Courses (15 SHC) C-L-SHC  
ENG 111 Expository Writing 3-0-3  
ENG 114 Professional Research and Reporting 3-0-3  
MAT 121 Algebra/Trigonometry I 2-2-3  
Humanities/Fine Arts Elective 3-0-3  
Social/Behavioral Science Elective 3-0-3

B. Technical Core (12 SHC)  
ELC 131 Circuit Analysis I 3-3-4  
ELN 131 Analog Electronics I 3-3-4  
ELN 133 Digital Electronics 3-3-4

C. Program Major (13 SHC)  
LEO 111 Lasers and Applications 1-3-2  
LEO 211 Photonics Technology 5-6-7  
LEO 212 Photonics Applications 3-3-4

D. Other Major Hours Required for Graduation (34/35 SHC)  
CIS 111 Basic PC Literacy 1-2-2  
OR  
CIS 110 Introduction to Computers 2-2-3  
EGR 131 Introduction to Electronics Tech. 1-2-2  
ELC 131A Circuit Analysis I Lab 0-3-1  
ELN 132 Analog Electronics II 3-3-4  
LEO 221 PC Interface 3-3-4  
LEO 223 Fiber Optics 3-3-4  
ELC 127 Software for Technicians 1-2-2  
ELN 275 Troubleshooting 1-2-2  
ISC 221 Statistical Quality Control 3-0-3

MAT 122	Algebra/Trigonometry II	2-2-3
PHY 131	Physics - Mechanics	3-2-4
	Technical Elective	2

Student Success—Select one:

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1
ACA 122	College Transfer Success	1-0-1

Technical Electives

COE 111	Co-Op Work Experience I	0-10-1
COE 121	Co-Op Work Experience II	0-10-1
COE 122	Co-Op Work Experience II	0-20-2
LEO 222	Photonics Applications Project	1-3-2

Total Semester Hours Credit Required for Graduation:  
74/75

Semester Curriculum for Laser and Photonics Technology Degree

1st Semester (Fall)		C-L-SHC
CIS 111	Basic PC Literacy	1-2-2
	OR	
CIS 110	Introduction to Computers	2-2-3
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
ENG 111	Expository Writing	3-0-3
ACA 111	College Student Success	1-0-1
MAT 121	Algebra/Trigonometry I	2-2-3
		11/12-12-16/17

2nd Semester (Spring)

ELC 127	Software for Technicians	1-2-2
ELN 131	Analog Electronics I	3-3-4
ELN 133	Digital Electronics	3-3-4
LEO 111	Lasers and Applications	1-3-2
MAT 122	Algebra/Trigonometry II	2-2-3
		10-13-15

3rd Semester (Summer)

ELN 132	Analog Electronics II	3-3-4
PHY 131	Physics - Mechanics	3-2-4
		6-5-8

4th Semester (Fall )

ELN 275	Troubleshooting	1-2-2
ENG 114	Professional Research and Reporting	3-0-3
LEO 211	Photonics Technology	5-6-7
LEO 212	Photonics Applications	3-3-4
	Humanities/Fine Arts Elective	3-0-3
		15-11-19

5th Semester (Spring )

ISC 221	Statistical Quality Control	3-0-3
LEO 221	PC Interface	3-3-4
LEO 223	Fiber Optics	3-3-4
	Social/Behavioral Science Elective	3-0-3
	Technical Elective	2
		12/13- -16

Total Semester Hours Credit: 74/75

## Sustainability Technologies Credential: Associate in Applied Science 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: 4 semesters

Career Pathway Options: Associate in Applied Science in Sustainability Technologies

Program sites: Pittsboro Campus

### Course Requirements for Sustainability Technologies Degree

A. General Education Courses (15 SHC)		C-L-SHC
ENG 111	Expository Writing	3-0-3
*ENG 114	Professional Research and Reporting	3-0-3
	Humanities/Fine Arts Elective	3-0-3
**MAT 121	Algebra/Trigonometry I	2-2-3
	Social/Behavioral Science Elective	3-0-3

\*Students may substitute ENG 113.

\*\*Students may substitute MAT 161

### B. Required Major Core Courses (12 SHC)

BIO 140	Environmental Biology	3-0-3
BIO 140A	Environmental Biology Lab	0-3-1
	-or-	
ENV 110	Environmental Science	3-0-3
SST 110	Intro to Sustainability	3-0-3
SST 120	Energy Use Analysis	2-2-3
SST 210	Issues in Sustainability	3-0-3

**C. Other Major Hours Required (40/43 SHC)**

ALT 120	Renewable Energy Tech	2-2-3
ALT 220	Photovoltaic Sys Tech	2-3-3
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 111	Construction I	3-3-4
CST 112	Construction II	3-3-4
CST 150	Building Science	2-2-3
ELC 111	Introduction to Electricity	2-2-3
SST 130	Modeling Renewable Energy	2-2-3
SST 140	Green Building Design and Concepts	3-0-3
SST 250	Sustain Capstone Project	1-6-3
	-or-	
COE 111	Co-op Experience	0-10-1

ENG 111	Expository Writing	3-0-3
	Social/Behavioral Science Elective	3-0-3
4th Semester (Spring)		
SST 250	Sustain Capstone Project	1-6-3
	-or-	
COE 111	Co-op Experience	0-10-1
CST 112	Construction II	3-3-4
*ENG 114	Professional Research and Reporting	3-0-3
	Humanities/Fine Arts Elective	3-0-3
	Technical Elective	3-0-3
		12/13-9/13-14/16
Total Semester Hours Credit		67/70

**Student Success – Select One**

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1
ACA 122	College Transfer Success	1-0-1

**Technical Electives (Select minimum 3 hours)**

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 and 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:  
67/70

**Semester Curriculum for Sustainability Technologies**

**Degree**

**1st Semester (Fall)**

SST 110	Intro to Sustainability	3-0-3
SST 120	Energy Use Analysis	2-2-3
**MAT 121	Algebra/Trigonometry I	2-2-3
ALT 120	Renewable Energy Tech	2-2-3
SST 140	Green Building Design and Concepts	3-0-3
ELC 111	Intro to Electricity	2-2-3
	Student Success Course	1-0-1
		15-8-19

**2nd Semester (Spring)**

ARC 111	Intro to Arch Technology	1-6-3
SST 210	Issues in Sustainability	3-0-3
ALT 250	Thermal Systems	2-2-3
CST 150	Building Science	2-2-3
SST 130	Modeling Renewable Energy	2-2-3
CIS 110	Introduction to computers	2-2-3
		12-14-18

**3rd Semester (Fall)**

ALT 220	Photovoltaic Sys Tech	2-3-3
CST 111	Construction I	3-3-4
BIO 140	Environmental Biology	3-0-3
BIO 140A	Environmental Biology Lab	0-3-1

## 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: 2 semesters

Career Pathway Options: Associate in Applied Science in Sustainability Technologies

Program sites: Pittsboro Campus

Course Requirements for Sustainability Certificate

### Required Major Core Courses (15 SHC)

ALT 120	Renewable Energy Tech	2-2-3
SST 110	Intro to Sustainability	3-0-3
SST 120	Energy Use Analysis	2-2-3
SST 140	Green Building Design and Concepts	3-0-3
SST 210	Issues in Sustainability	3-0-3

Total Semester Hours Credit Required for Graduation: 15

Semester Curriculum for Sustainability Certificate:

#### 1st Semester (Fall)

SST 110	Intro to Sustainability	3-0-3
SST 120	Energy Use Analysis	2-2-3
SST 140	Green Building Design and Concepts	3-0-3
	8-2-9	

#### 2nd Semester (Spring)

ALT 120	Renewable Energy Tech	2-2-3
SST 210	Issues in Sustainability	3-0-3
	5-2-6	

## 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: Pittsboro Campus

Course Requirements for Green Building Certificate

Required Courses (17 SHC)

ARC 111	Intro to Arch Technology	1-6-3
CST 111	Construction I	3-3-4
CST 112	Construction II	3-3-4
CST 150	Building Science	2-2-3
SST 140	Green Building & Designs Concepts	3-0-3
		12-14-17

Semester Curriculum for Green Building Certificate

#### 1st Semester

CST 111	Construction I	3-3-4
SST 140	Green Building & Designs Concepts	3-0-3
		6-3-7

#### 2nd Semester

ARC 111	Intro to Arch Technology	1-6-3
CST 112	Construction II	3-3-4
CST 150	Building Science	2-2-3
		6-11-10

Total Semester Hours Credit

17

**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 need 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: Pittsboro Campus

Course Requirements for Biofuels Certificate:

Required Major Core Courses (16 SHC)

ALT 120	Renewable Energy Tech	2-2-3
ALT 110	Biofuels I	3-0-3
ALT 210	Biofuels II	3-2-4
ALT 211	Biofuels Analytics	2-4-4
MNT 230	Pumps and Piping	1-3-2

Total Semester Hours Credit Required for Graduation: 16

Semester Curriculum for Biofuels Certificate:

1st 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
		6-5-8

2nd Semester (Spring)

ALT 210	Biofuels II	3-2-4
ALT 211	Biofuels Analytics	2-4-4
		5-6-8

**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: Pittsboro Campus

Course Requirements for Renewable Energy Certificate

ALT 110	Biofuels I	3-0-3
ALT 120	Renewable Energy Tech	2-2-3
ALT 250	Thermal Systems 16	2-2-3
ELC 111	Intro to Electricity	2-2-3
ELC 220	Photovoltaic Systems Technology	2-3-3
SST 130	Modeling Renewable Energy	2-2-3
		13-11-18

Semester Curriculum for Renewable Energy Certificate

1st Semester

ALT 110	Biofuels I	3-0-3
ELC 111	Intro to Electricity	2-2-3
ELC 220	Photovoltaic Systems Technology	2-3-3

2nd Semester

ALT 120	Renewable Energy Tech	2-2-3
ALT 250	Thermal Systems	2-2-3
SST 130	Modeling Renewable Energy	2-2-3

Total Semester Hours Credit

18

**Industrial Technologies**

\*Effective 2014 Spring

**Bioprocess Technology****Credential: Associate in Applied Science  
Degree in Bioprocess Technology  
A50440**

The Bioprocess Technology curriculum is designed to prepare individuals to work as Process Operators in biological products manufacturing facilities. Students will combine basic science and communication skills, manufacturing technologies, and good manufacturing practices in the course of study. Students will be expected to develop a strong basic science foundation with a sound understanding of the major technologies employed in the industry. They will also be expected to develop collaborative and disciplined work ethics while consistently practicing problem-solving skills.

Upon successful completion of the program, individuals should possess the necessary skills to qualify for employment in a variety of bioprocessing industries.

Program Length: 5 semesters

Career Pathway Options: Associate in Applied Science in Bioprocess Technology; Certificate in Bioprocess Technology

Program Sites: Lee Campus - Day Program

## Course requirements for Bioprocess Technology Degree

A. General Education Courses (18 SHC)		C-L-SHC
COM 120	Interpersonal Communication	3-0-3
	OR	
COM 231	Public Speaking	3-0-3
ENG 111	Expository Writing	3-0-3
ENG 114	Professional Research and Reporting	3-0-3
	Humanities/Fine Arts Elective	3
MAT 161	College Algebra	3-0-3
	OR	
MAT 121	Algebra/Trigonometry I	2-2-3
	Social/Behavioral Science Elective	3-0-3
B. Technical Core Courses (21 SHC)		
BPM 110	Bioprocess Practices	3-4-5
BPM 111	Bioprocess Measurements	3-3-4
BPM 112	Upstream Bioprocessing	3-4-5
BPM 113	Downstream Bioprocessing	3-3-4
PTC 110	Industrial Environment	3-0-3
C. Other Major Hours (29 SHC)		
BIO 110	Principles of Biology	3-3-4
BIO 175	General Microbiology	2-2-3
BIO 176	Advanced General Microbiology	1-2-2
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

ISC 121	Environmental Health and Safety	3-0-3
ISC 221	Statistical Quality Control	3-0-3
	Co-op/Project Elective	2

Co-op/Project Elective (Choose one course.)

COE 112	Co-op Work Experience I	0-20-2
EGR 285	Design Project	0-4-2

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1
ACA 122	College Transfer Success	1-0-1

Total Semester Hours Credit required for graduation: 68

## Semester Curriculum for Bioprocess Technology Degree

1st Semester (Fall)		C-L-SHC
BIO 110	Principles of Biology	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
MAT 121	Algebra/Trigonometry I	2-2-3
	OR	
MAT 161	College Algebra	3-0-3
PTC 110	Industrial Environment	<u>3-0-3</u>
		13/14-8/10-17

## 2nd Semester (Spring)

BIO 175	General Microbiology	2-2-3
BPM 110	Bioprocess Practices	3-4-5
CHM 132	Organic/Biochemistry	3-3-4
ENG 111	Expository Writing	3-0-3
ACA 111	College Student Success	1-0-1
ISC 121	Environmental Health and Safety	<u>3-0-3</u>
		15-9-19

## 3rd Semester (Summer)

	Co-op/Project Elective	0-20/4-2
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## 4th Semester (Fall)

BIO 176	Advanced General Microbiology	1-2-2
BPM 111	Bioprocess Measurements	3-3-4
COM 120	Interpersonal Communication	3-0-3
	OR	
COM 231	Public Speaking	<u>3-0-3</u>
	Humanities/Fine Arts Elective	10-5-12

## 5th Semester (Spring)

BPM 112	Upstream Bioprocessing	3-4-5
BPM 113	Downstream Bioprocessing	3-3-4
ENG 114	Professional Research and Reporting	3-0-3
ISC 221	Statistical Quality Control	3-0-3
	Social/Behavioral Science Elective	<u>3-0-3</u>
		15-7-18

Total Semester Hours Credit: 68

\*Effective 2014 Spring

**Bioprocess Technology**  
**Credential: Certificate in Bioprocess Technology**  
**C50440**

2nd Semester (Spring)

BPM 110 Bioprocess Practices  
 Major Elective

3-4-5

3/4

5/6-4/6/7- 8/9

Total Semester Hours Credit: 17/18

This program prepares individuals to enter the workforce in biological products manufacturing facilities. Coursework includes computer or math skill development, exposure to the industrial work environment, basic bioprocessing operations, and a major course elective. Graduates should be qualified to become entry-level trainees in bioprocess manufacturing.

Program Length: 2 semesters

Career Pathway Options: Associate in Applied Science

Degree in Bioprocess Technology, Certificate in Bioprocess Technology,

Program Site: Lee Campus – Day or Evening Program

Course Requirements for Bioprocess Technology Certificate

A. Required Major Core Courses (8 SHC) C-L-SHC

BPM 110	Bioprocess Practices	3-4-5
PTC 110	Industrial Environment	3-0-3

B. Other Courses (9/10 SHC)

CIS 110	Introduction to Computers	2-2-3
	OR	
MAT 121	Algebra/Trigonometry I	2-2-3
	OR	
MAT 161	College Algebra	3-0-3
ISC 121	Environmental Health and Safety	3-0-3
	Major Elective	3/4

Major Elective may be selected from the following:

BIO 110	Principles of Biology	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
ISC 221	Statistical Quality Control	3-0-3
MAT 121	Algebra/Trigonometry I	2-2-3
MAT 161	College Algebra	3-0-3

Total Semester Hours Credit required for graduation: 17/18

Semester Curriculum for Bioprocess Technology Certificate

1st Semester (Fall) C-L-SHC

CIS 110	Introduction to Computers	2-2-3
	OR	
MAT 121	Algebra/Trigonometry I	2-2-3
	OR	
MAT 161	College Algebra	3-0-3
ISC 121	Environmental Health and Safety	3-0-3
PTC 110	Industrial Environment	<u>3-0-3</u>
		8/9-0/2-9



\*Effective 2014 Spring

**Bioprocess Technology****Credential: Associate in Applied Science****Degree in BioQuality Technology****A50440QA**

The BioQuality Technology curriculum is designed to prepare individuals to work in Quality Assurance in biological products manufacturing facilities. Students will combine basic science and communication skills, manufacturing technologies, current good manufacturing practices (cGMP), quality systems, auditing, and validation in the course of study.

Students will be expected to develop a strong basic science foundation with a sound understanding of the major technologies employed in the industry. They will also be expected to develop collaborative and disciplined work ethics while consistently practicing problem-solving skills.

Upon successful completion of the program, individuals should possess the necessary skills to qualify for employment in a variety of bioprocessing industries.

Program Length: 5 semesters

Career Pathway Options: Associate in Applied Science

Degree in BioQuality Technology

Program Sites: Lee Campus - Day Program

## Course requirements for BioQuality Technology Degree

## A. General Education Courses (18 SHC) C-L-SHC

COM 120	Interpersonal Communication	3-0-3
	OR	
COM 231	Public Speaking	3-0-3
ENG 111	Expository Writing	3-0-3
ENG 114	Professional Research and Reporting	3-0-3
	Humanities/Fine Arts Elective	3-0-3
MAT 121	Algebra/Trigonometry I	2-2-3
	OR	
MAT 161	College Algebra	3-0-3
	Social/Behavioral Science Elective	3-0-3

## B. Technical Core Courses (21 SHC)

BPM 110	Bioprocess Practices	3-4-5
BPM 111	Bioprocess Measurements	3-3-4
BPM 112	Upstream Bioprocessing	3-4-5
BPM 113	Downstream Bioprocessing	3-3-4
PTC 110	Industrial Environment	3-0-3

## C. Other Major Hours (29 SHC)

BIO 110	Principles of Biology	3-3-4
BIO 175	General Microbiology	2-2-3
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
ISC 175	Quality Assurance Fundamentals	1-0-1
ISC 278	cGMP Quality Systems	2-0-2

ISC 279	Auditing for cGMP	2-2-3
ISC 280	Validation Fundamentals	1-2-2
	*Co-op/Project Elective	0-20/4-2

## Student Success—Select one:

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1
ACA 122	College Transfer Success	1-0-1

Total Semester Hours Credit required for graduation: 68

## \*Co-Op/Project Elective (Choose one)

COE 112	Co-op Work Experience I	0-20-2
EGR 285	Design Project	0-4-2

## Semester Curriculum for BioQuality Technology Degree

1st Semester (Fall)		C-L-SHC
BIO 110	Principles of Biology	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
MAT 161	College Algebra	3-0-3
	OR	
MAT 121	Algebra/Trigonometry I	2-2-3
PTC 110	Industrial Environment	<u>3-0-3</u>
		13/14-8/10-17

## 2nd Semester (Spring)

BIO 175	General Microbiology	2-2-3
BPM 110	Bioprocess Practices	3-4-5
CHM 132	Organic/Biochemistry	3-3-4
ENG 111	Expository Writing	3-0-3
ACA 111	College Student Success	1-0-1
ISC 175	Quality Assurance Fundamentals	<u>1-0-1</u>
		13-9-17

## 3rd Semester (Summer)

	Co-op/Project Elective	0-20/4-2
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## 4th Semester (Fall)

BPM 111	Bioprocess Measurements	3-3-4
COM 231	Public Speaking	3-0-3
	OR	
COM 120	Interpersonal Communication	3-0-3
	Humanities/Fine Arts Elective	3-0-3
ISC 278	cGMP Quality Systems	2-0-2
ENG 114	Professional Research and Reporting	<u>3-0-3</u>
		14-3-15

## 5th Semester (Spring)

BPM 112	Upstream Bioprocessing	3-4-5
BPM 113	Downstream Bioprocessing	3-3-4
ISC 280	Validation Fundamentals	1-2-2
	Social/Behavioral Science Elective	3-0-3
ISC 279	Auditing for cGMP	<u>2-2-3</u>
		12-11-17

Total Semester Hours Credit: 68

\*Effective 2014 Spring

**Bioprocess Technology**  
**Credential: Certificate in BioQuality Technology**  
**C50440QA**

This program prepares individuals with a background in manufacturing to function in the quality assurance area of a biological product manufacturing facilities. Coursework includes basic bioprocessing operations, cGMP, quality systems, auditing, and validation. Graduates should be qualified to work in a bioprocess quality assurance environment.

Applicants must have previous industrial experience.

Program Length: 2 semesters

Career Pathway Options: Associate in Applied Science Degree in BioQuality Technology (Higher entrance standards required), Certificate in BioQuality Technology, Program Site: Lee Campus – Day or Evening Program or Online

Course Requirements for BioQuality Technology Certificate

A. Required Major Core Courses (5 SHC)

BPM 110	Bioprocess Practices	3-4-5
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B. Other Courses (8 SHC)

ISC 175	Quality Assurance Fundamentals	1-0-1
ISC 278	cGMP Quality Systems	2-0-2
ISC 279	Auditing for cGMP	2-2-3
ISC 280	Validation Fundamentals	1-2-2

Total Semester Hours Credit required for graduation: 13

Semester Curriculum for BioQuality Technology Certificate

1st Semester (Fall)		C-L-SHC
BPM 110	Bioprocess Practices	3-4-5
ISC 175	Quality Assurance Fundamentals	1-0-1
ISC 278	cGMP Quality Systems	<u>2-0-2</u>
		6-4-8
2nd Semester (Spring)		
ISC 279	Auditing for cGMP	2-2-3
ISC 280	Validation Fundamentals	<u>1-2-2</u>
		3-4-5

Total Semester Hours Credit: 13

\*Effective 2014 Spring

**Computer Aided Drafting Technology**  
**Credential: Associate in Applied Science Degree in Computer-Aided Drafting Technology**  
**A50150**

The Computer Aided Drafting Technology curriculum prepares graduates for employment as drafters or designers in a wide range of fields including mechanical and manufacturing engineering. Computer aided drafters and designers assist in the design and development of manufactured products.

This course-of-study prepares students to apply technical skills and advanced computer software and hardware to develop plans and related documentation, and manage the hardware and software of a CAD system. It includes instruction in mechanical drafting, computer-aided-drafting (CAD), creating and managing two and three-dimensional models, and linking CAD documents to other software applications and operating systems.

In addition to coursework in computer aided drafting, students will study computer applications, machining, computer-aided manufacturing (CAM), planning and problem solving, and oral and written communication.

Graduates of the curriculum will qualify for employment opportunities in the manufacturing or service sectors of engineering consulting firms and industrial design businesses.

Program Length: 5 semesters

Career Pathway Options: Associate in Applied Science in Computer-Aided Drafting Technology  
 Program Sites: Lee Campus - Day Program

Course Requirements for the Computer-Aided Drafting Technology Degree

A. General Education Courses (19 SHC)		C-L-SHC
*ENG 110	Freshman Composition	3-0-3
**ENG 116	Technical Report Writing	3-0-3
MAT 120	Geometry and Trigonometry	2-2-3
	Humanities/Fine Arts Elective	3-0-3
	Social/Behavioral Science Elective	3-0-3
***PHY 110	Conceptual Physics	3-0-3
***PHY 110A	Conceptual Physics Lab	0-2-1

B. Technical Core (12 SHC)

DFT 151	CAD I	2-3-3
DFT 152	CAD II	2-3-3
DFT 153	CAD III	2-3-3
DFT 154	Intro to Solid Modeling	2-3-3

C. Program Major (17 SHC)

DFT 111	Technical Drafting I	1-3-2
DFT 112	Technical Drafting II	1-3-2
DDF 211	Design Process I	1-6-4

DFT 253	CAD Data Management	2-2-3
DFT 254	Intermed Solid Model/Render	2-3-3
DFT 259	CAD Project	1-4-3
D. Other Major Hours (19 SHC)		
****CIS 110	Introduction to Computers	2-2-3
MEC 110	Intro to CAD/CAM	1-2-2
MEC 180	Engineering Materials	2-3-3
MEC 161	Manufacturing Processes I	3-0-3
MEC 161A	Manufacturing Processes I Lab	0-3-1
MEC 231	Comp-Aided Manufac I	1-4-3
MEC 130	Mechanisms	2-2-3

5th Semester (Spring)		
DFT 153	CAD III	2-3-3
DFT 253	CAD Data Management	2-2-3
DFT 254	Intermed Solid Model/Render	2-3-3
DFT 259	CAD Project	1-4-3
	Humanities/Fine Arts Elective	
	OR	
	Social/Behavioral Science Elective	<u>3-0-3</u>
		10-12-15

Total Semester Hours Credit Required for Graduation: 67

Student Success—Select one:

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1
ACA 122	College Transfer Success	1-0-1

Total Semester Hours Credit required for graduation: 67

\*Student may substitute ENG 111

\*\*Student may substitute ENG 114

\*\*\* Student may substitute PHY 121

\*\*\*\*Student may substitute CIS 111

Semester Curriculum Computer-Aided Drafting Technology Degree

1st Semester (Fall)		C-L-SHC
ACA 111	College Student Success	1-0-1
CIS 110	Introduction to Computers	2-2-3
DFT 111	Technical Drafting I	1-3-2
ENG 110	Freshman Composition	3-0-3
MEC 110	Intro to CAD/CAM	1-2-2
MEC 180	Engineering Materials	2-3-3
PHY 110	Conceptual Physics	3-0-3
PHY 110A	Conceptual Physics Lab	<u>0-2-1</u>
		13-

12-18

2nd Semester (Spring)

DFT 151	CAD I	2-3-3
MEC 161	Manufacturing Processes I	3-0-3
MEC 161A	Manufacturing Processes I Lab	0-3-1
MAT 120	Geometry and Trigonometry	2-2-3
DFT 112	Technical Drafting II	1-3-2
MEC 231	Comp-Aided Manufac I	<u>1-4-3</u>
		9-15-15

3rd Semester (Summer)

	Humanities/Fine Arts Elective	
	OR	
	Social/Behavioral Science Elective	<u>3-0-3</u>
		3-0-3

4th Semester (Fall)

DFT 152	CAD II	2-3-3
DFT 154	Intro to Solid Modeling	2-3-3
DDF 211	Design Process I	1-6-4
MEC 130	Mechanisms	2-2-3
ENG 116	Technical Report Writing	<u>3-0-3</u>
		10-14-16

\*Effective 2014 Spring

**Computer Aided Drafting Technology  
Credential: Diploma in Computer-Aided  
Drafting Technology  
D50150**

The Computer Aided Drafting Technology curriculum prepares graduates for employment as drafters or designers in a wide range of fields including mechanical and manufacturing engineering. Computer aided drafters and designers assist in the design and development of manufactured products.

This course-of-study prepares students to apply technical skills and advanced computer software and hardware to develop plans and related documentation, and manage the hardware and software of a CAD system. It includes instruction in mechanical drafting, computer-aided-drafting (CAD), creating and managing two and three-dimensional models, and linking CAD documents to other software applications and operating systems.

In addition to coursework in computer aided drafting, students will study computer applications, machining, computer-aided manufacturing (CAM), planning and problem solving, and oral and written communication.

Graduates of the curriculum will qualify for employment opportunities in the manufacturing or service sectors of engineering consulting firms and industrial design businesses.

Program Length: 5 semesters

Career Pathway Options: Associate in Applied Science in Computer-Aided Drafting Technology, Diploma in Computer-Aided Drafting Technology  
Program Sites: Lee Campus - Day Program

**Course Requirements for the Computer-Aided Drafting  
Technology Diploma**

A. General Education Courses (6 SHC)		C-L-SHC
ENG 110	Freshman Composition	3-0-3
OR		
ENG 111	Expository Writing	3-0-3
MAT 120	Geometry and Trigonometry	2-2-3
B. Technical Core (9 SHC)		
DFT 151	CAD I	2-3-3
DFT 152	CAD II	2-3-3
DFT 154	Intro to Solid Modeling	2-3-3
C. Program Major (5 SHC)		
DFT 111	Technical Drafting I	1-3-2
DFT 254	Intermed Solid Model/Render	2-3-3
D. Other Major Hours (18 SHC)		
*CIS 110	Introduction to Computers	2-2-3
DFT 153	CAD III	2-3-3
MEC 110	Introduction to CAD/CAM	1-2-2

MEC 161	Manufacturing Processes I	3-0-3
MEC 161A	Manufacturing Proc I Lab	0-3-1
DFT 112	Technical Drafting II	1-3-2
DFT 253	CAD Data Management	2-2-3

Student Success—Select one:

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1
ACA 122	College Transfer Success	1-0-1

Total Semester Hours Credit required for graduation: 38

\*Student may substitute CIS 111

**Semester Curriculum for Computer-Aided Drafting  
Technology Diploma**

1st Semester (Fall)		C-L-SHC
ACA 111	College Student Success	1-0-1
CIS 110	Introduction to Computers	2-2-3
DFT 111	Technical Drafting I	1-3-2
MAT 120	Geometry and Trigonometry	2-2-3
MEC 110	Introduction to CAD/CAM	<u>1-2-2</u>
		7-9-11

2nd Semester (Spring)		
DFT 151	CAD I	2-3-3
MEC 161	Manufacturing Processes I	3-0-3
MEC 161A	Manufacturing Proc I Lab	0-3-1
DFT 112	Technical Drafting II	<u>1-3-2</u>
		6-9-9

3rd Semester (Summer)		
ENG 110	Freshman Composition	3-0-3
OR		
ENG 111	Expository Writing	<u>3-0-3</u>
		3-0-3

4th Semester (Fall)		
DFT 152	CAD II	2-3-3
DFT 154	Intro to Solid Modeling	<u>2-3-3</u>
		4-6-6

5th Semester (Spring)		
DFT 153	CAD III	2-3-3
DFT 253	CAD Data Management	2-2-3
DFT 254	Intermed Solid Model/Render	<u>2-3-3</u>
		6-8-9

Total Semester Hours Credit Required for Graduation: 38

\*Effective 2014 Spring

**Computer Aided Drafting Technology**  
**Credential: Certificate in Computer-Aided**  
**Drafting Technology**  
**C50150**

The Computer Aided Drafting Technology curriculum prepares graduates for employment as drafters or designers in a wide range of fields including mechanical and manufacturing engineering. Computer aided drafters and designers assist in the design and development of manufactured products.

This course-of-study prepares students to apply technical skills and advanced computer software and hardware to develop plans and related documentation, and manage the hardware and software of a CAD system. It includes instruction in mechanical drafting, computer-aided-drafting (CAD), creating and managing two and three-dimensional models, and linking CAD documents to other software applications and operating systems.

Graduates of the curriculum will qualify for employment opportunities in the manufacturing or service sectors of engineering consulting firms and industrial design businesses.

Program Length: 4 semesters

Career Pathway Options: Associate in Applied Science in Computer-Aided Drafting Technology (Higher entrance standards required), Diploma Computer-Aided Drafting Technology (Higher entrance standards required), Certificate in Computer-Aided Drafting Technology  
 Program Sites: Lee Campus - Day Program

Course Requirements for the Computer-Aided Drafting  
 Technology Certificate

A. Technical Core (9 SHC)

DFT 151	CAD I	2-3-3
DFT 152	CAD II	2-3-3
DFT 154	Intro to Solid Modeling	2-3-3

C. Program Major (5 SHC)

DFT 111	Technical Drafting I	1-3-2
DFT 254	Intermed Solid Model/Render	2-3-3

D. Other Major Hours (3HC)

DFT 153	CAD III	2-3-3
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Total Semester Hours Credit required for graduation: 17

Semester Curriculum for Computer-Aided Drafting  
 Technology Certificate

1st Semester (Fall)		C-L-SHC
DFT 111	Technical Drafting I	<u>1-3-2</u>
		1-3-2

2nd Semester (Spring)		
DFT 151	CAD I	<u>2-3-3</u>
		2-3-3
3rd Semester (Fall)		
DFT 152	CAD II	2-3-3
DFT 154	Intro to Solid Modeling	<u>2-3-3</u>
		4-6-6
4th Semester (Spring)		
DFT 153	CAD III	2-3-3
DFT 254	Intermed Solid Model/Render	<u>2-3-3</u>
		4-6-6

Total Semester Hours Credit Required for Graduation: 17

\*Effective 2014 Spring

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

The Industrial Systems Technology curriculum is designed to prepare or upgrade individuals to safely service, maintain, repair and install equipment. Instruction includes theory and skill training needed for inspecting, testing, troubleshooting, and diagnosing industrial systems.

Students will learn multi-craft technical skills in blueprint reading, mechanical systems maintenance, electricity, hydraulics/pneumatics, welding, machining or fabrication, as well as various diagnostic and repair procedures.

Practical application in these industrial systems will be emphasized and additional advanced coursework may be offered.

Upon completion of this curriculum, graduates should be able to individually, or with a team, safely install, inspect, diagnose, repair and maintain industrial process and support equipment. Students will also be encouraged to develop their skills as life-long learners.

Program Length: 5 semesters

Career Pathway Options: Associate in Applied Science in Industrial Systems Technology

Program Sites: Lee Campus - Day Program

**Course Requirements for Industrial Systems Technology**

**A. General Education Courses (15/16 SHC) C-L-SHC**

*ENG 111	Expository Writing	3-0-3
	Humanities/Fine Arts Elective	3-0-3
	Social/Behavioral Science Elective	3-0-3
MAT 115	Mathematical Models	2-2-3
	Or	
PHY 121	Applied Physics I	3-2-4
ENG 116	Technical Report Writing	3-0-3

**B. Technical Core (18 SHC)**

BPR 111	Print Reading	1-2-2
ELC 112	DC/AC Electricity	3-6-5
HYD 110	Hydraulics/Pneumatics I	2-3-3
ISC 110	Workplace Safety	1-0-1
MEC 111	Machine Processes I	1-4-3
MNT 110	Introduction to Maintenance Procedures	1-3-2
WLD 112	Basic Welding Processes	1-3-2

**C. Required Subject Area (13 SHC)**

BPR 115	Electric/Fluid Power Diagrams	1-2-2
ELC 117	Motors and Controls	2-6-4
ELC 128	Introduction to PLC	2-3-3
ELC 228	PLC Applications	2-6-4

**D. Other Major Hours (30 SHC)**

AHR 120	HVACR Maintenance	1-3-2
**CIS 111	Basic PC Literacy	1-2-2
ELC 229	Applications Project	1-3-2

ELN 231	Industrial Controls	2-3-3
ELN 260	Prog. Logic Controllers	3-3-4
HYD 121	Hydraulics/Pneumatics II	1-3-2
MNT 111	Maintenance Practices	2-2-3
MNT 230	Pumps and Piping Systems	1-3-2
MNT 240	Industrial Equipment Troubleshooting	1-3-2
WLD 117	Industrial SMAW	1-4-3
WLD 121	GMAW (MIG) FCAW/Plate	2-6-4

Student Success—Select one:

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1
ACA 122	College Transfer Success	1-0-1

\*Students may substitute ENG 110.

\*\*Students may substitute CIS 110.

Total Semester Hours Credit required for graduation: 76/77

**Semester Curriculum for Industrial Systems Technology**

<b>1st Semester (Fall)</b>		<b>C-L-SHC</b>
BPR 111	Print Reading	1-2-2
CIS 111	Basic PC Literacy	1-2-2
ELC 112	DC/AC Electricity	3-6-5
	Humanities/Fine Arts Elective	3-0-3
MEC 111	Machine Processes I	1-4-3
MNT 110	Introduction to Maintenance Procedures	<u>1-3-2</u>
		10-17-17

**2nd Semester (Spring)**

ELC 128	Introduction to PLC	2-3-3
*ENG 111	Expository Writing	3-0-3
ACA 111	College Student Success	1-0-1
MAT 115	Mathematical Models	2-2-3
	Or	
PHY 121	Applied Physics I	3-2-4
WLD 112	Basic Welding Processes	1-3-2
WLD117	Industrial SMAW	<u>1-4-3</u>
		10/11-12-15/16

**3rd Semester (Summer)**

AHR 120	HVACR Maintenance	1-3-2
BPR 115	Electric/Fluid Power Diagrams	1-2-2
ISC 110	Workplace Safety	1-0-1
HYD 110	Hydraulics/Pneumatics I	2-3-3
MNT 111	Maintenance Practices	2-2-3
		7-10-11

**4th Semester (Fall)**

ELC 117	Motors and Controls	2-6-4
ELN 260	Prog. Logic Controllers	3-3-4
ENG 116	Technical Report Writing	3-0-3
HYD 121	Hydraulics/Pneumatics II	1-3-2
MNT 230	Pumps and Piping Systems	1-3-2
WLD 121	GMAW (MIG) FCAW/Plate	2-6-4
		12-21-19

**5th Semester (Spring)**

ELC 228	PLC Applications	2-6-4
ELC 229	Applications Project	1-3-2
ELN 231	Industrial Controls	2-3-3
MNT 240	Industrial Equipment Troubleshooting	1-3-2
	Social/Behavioral Science Elective	3-0-3
		9-15-14

Total Semester Hours Credit: 76/77

\*Effective 2014 Spring

## Industrial Systems Technology

### Credential: Diploma in Industrial Systems Technology

#### D50240

The Industrial Systems Technology curriculum is designed to prepare or upgrade individuals to safely service, maintain, repair and install equipment. Instruction includes theory and skill training needed for inspecting, testing, troubleshooting, and diagnosing industrial systems. Students will learn multi-craft technical skills in blueprint reading, mechanical systems maintenance, electricity, hydraulics/pneumatics, welding, machining or fabrication, as well as various diagnostic and repair procedures. Practical application in these industrial systems will be emphasized and additional advanced coursework may be offered.

Upon completion of this curriculum, graduates should be able to individually, or with a team, safely install, inspect, diagnose, repair, and maintain industrial process and support equipment. Students are encouraged to develop life-long learning skills.

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 Campus - Day Program

#### Course Requirements for Industrial Systems Technology Diploma

A. General Education Courses (9/10 SHC)		C-L-SHC
*ENG 102	Applied Communication II	3-0-3
	Humanities/Fine Arts Elective	3-0-3
*MAT 101	Applied Mathematics I	2-2-3
	Or	
PHY 121	Applied Physics I	3-2-4
B. Required Major Core Courses (18 SHC)		
BPR 111	Print Reading	1-2-2
ELC 112	DC/AC Electricity	3-6-5
HYD 110	Hydraulics/Pneumatics I	2-3-3
ISC 110	Workplace Safety	1-0-1
MEC 111	Machine Processes I	1-4-3
MNT 110	Introduction to Maintenance Procedures	1-3-2
WLD 112	Basic Welding Processes	1-3-2
C. Other Major Hours Required for Graduation (15 SHC)		
AHR 120	HVACR Maintenance	1-3-2
BPR 115	Elc Fluid Power Diagrams	1-2-2
CIS 111	Basic PC Literacy	1-2-2
ELC 128	Introduction to PLC	2-3-3
MNT 111	Maintenance Practices	2-2-3
WLD 117	Industrial SMAW	1-4-3

\*These courses are not transferable to the Associate in Applied Science Degree.

Total Semester Hours Credit required for graduation: 42/43

#### Semester Curriculum for Industrial Systems Technology Diploma

1st Semester (Fall)		C-L-SHC
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	Introduction to Maintenance Procedures	1-3-2
	Humanities/Fine Arts Elective	<u>3-0-3</u>
		10-17-17
2nd Semester (Spring)		
ELC 128	Introduction to PLC	2-3-3
*ENG 102	Applied Communication II	3-0-3
WLD 112	Basic Welding Processes	1-3-2
WLD 117	Industrial SMAW	1-4-3
*MAT 101	Applied Mathematics I	2-2-3
	OR	
PHY 121	Applied Physics I	<u>3-2-4</u>
		9/10-12-14/15
3rd Semester (Summer)		
AHR 120	HVACR Maintenance	1-3-2
BPR 115	Electric/Fluid Power Diagrams	1-2-2
ISC 110	Workplace Safety	1-0-1
HYD 110	Hydraulics/Pneumatics I	2-3-3
MNT 111	Maintenance Practice	<u>2-2-3</u>
		7-10-11

\*These courses are not transferable to the Associate in Applied Science Degree.

Total Semester Hours Credit: 42/43

\*Effective 2014 Spring

## Industrial Systems Technology/Bio-maintenance

**Credential: Associate in Applied Science**

**Degree in Industrial Systems Technology/Bio-maintenance**

**A502400B**

The Industrial Systems Technology curriculum is designed to prepare or upgrade individuals to safely service, maintain, repair and install equipment. Instruction includes theory and skill training needed for inspecting, testing, troubleshooting, and diagnosing industrial systems. Students will learn multi-craft technical skills in blueprint reading, mechanical systems maintenance, electricity, hydraulics/pneumatics, welding, machining or fabrication, as well as various diagnostic and repair procedures. Practical application in these industrial systems will be emphasized and additional advanced coursework may be offered.

Upon completion of this curriculum, graduates should be able to individually, or with a team, safely install, inspect, diagnose, repair and maintain industrial process and support equipment. Students will also be encouraged to develop their skills as life-long learners.

Program Length: 5 semesters

Career Pathway Options: Associate in Applied Science in Industrial Systems Technology

Program Sites: Lee Campus - Day Program

### Course Requirements for Industrial Systems Technology

#### A. General Education Courses (15/16 SHC) C-L-SHC

*ENG 111	Expository Writing	3-0-3
	Humanities/Fine Arts Elective	3-0-3
	Social/Behavioral Science Elective	3-0-3
MAT 115	Mathematical Models	2-2-3
	Or	
PHY 121	Applied Physics I	3-2-4
ENG 116	Technical Report Writing	3-0-3

#### B. Technical Core (18 SHC)

BPR 111	Print Reading	1-2-2
ELC 112	DC/AC Electricity	3-6-5
HYD 110	Hydraulics/Pneumatics I	2-3-3
ISC 110	Workplace Safety	1-0-1
MEC 111	Machine Processes I	1-4-3
MNT 110	Introduction to Maintenance Procedures	1-3-2
WLD 112	Basic Welding Processes	1-3-2

#### C. Required Subject Area (13 SHC)

BPR 115	Electric/Fluid Power Diagrams	1-2-2
ELC 117	Motors and Controls	2-6-4
ELC 128	Introduction to PLC	2-3-3
ELC 228	PLC Applications	2-6-4

#### D. Other Major Hours (30 SHC)

AHR 120	HVACR Maintenance	1-3-2
BPM 110	Bioprocess Practices	3-4-5
**CIS 111	Basic PC Literacy	1-2-2
ELN 231	Industrial Controls	2-3-3
ELN 260	Prog. Logic Controllers	3-3-4
ISC 278	cGMP Quality Systems	2-0-2
MNT 111	Maintenance Practices	2-2-3
MNT 230	Pumps and Piping Systems	1-3-2
MNT 240	Industrial Equipment Troubleshooting	1-3-2
MNT 270	Bioprocess Equipment Maintenance	1-3-2
MNT 280	Bioprocess Operating Systems	1-3-2

Student Success—Select one:

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1
ACA 122	College Transfer Success	1-0-1

\*Students may substitute ENG 110.

\*\*Students may substitute CIS 110.

Total Semester Hours Credit required for graduation: 76/77

### Semester Curriculum for Industrial Systems Technology

#### 1st Semester (Fall) C-L-SHC

BPR 111	Print Reading	1-2-2
CIS 111	Basic PC Literacy	1-2-2
ELC 112	DC/AC Electricity	3-6-5
	Humanities/Fine Arts Elective	3-0-3
MEC 111	Machine Processes I	1-4-3
MNT 110	Introduction to Maintenance Procedures	1-3-2
		10-17-17

#### 2nd Semester (Spring)

ACA 111	College Student Success	1-0-1
BPM 110	Bioprocess Practices	3-4-5
ELC 128	Introduction to PLC	2-3-3
*ENG 111	Expository Writing	3-0-3
MAT 115	Mathematical Models	2-2-3
	Or	
PHY 121	Applied Physics I	3-2-4
WLD 112	Basic Welding Processes	1-3-2
		12/13-12-17/18

#### 3rd Semester (Summer)

AHR 120	HVACR Maintenance	1-3-2
BPR 115	Electric/Fluid Power Diagrams	1-2-2
ISC 110	Workplace Safety	1-0-1
HYD 110	Hydraulics/Pneumatics I	2-3-3
MNT 111	Maintenance Practices	2-2-3
		7-10-11

#### 4th Semester (Fall)

ELC 117	Motors and Controls	2-6-4
ELN 260	Prog. Logic Controllers	3-3-4
ENG 116	Technical Report Writing	3-0-3
ISC 278	cGMP Quality systems	2-0-2
MNT 230	Pumps and Piping Systems	1-3-2
		11-12-15

#### 5th Semester (Spring)

ELC 228	PLC Applications	2-6-4
ELN 231	Industrial Controls	2-3-3
MNT 240	Industrial Equipment Troubleshooting	1-3-2
MNT 270	Bioprocess Equipment Maintenance	1-3-2



MNT 280	Bioprocess Operating Systems	1-3-2
	Social/Behavioral Science Elective	<u>3-0-3</u>
Total Semester Hours Credit: 76/77		10-18-16

\*Effective 2014 Spring

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

This curriculum will provide students with knowledge of electricity and electrical controls. Students will learn AC/DC electricity, pilot devices, control relays, motor starters, and electromechanical devices. 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: 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 Electrical Controls

Program Sites: Lee Campus - Evening Program

### Course Requirements for Electrical Controls Certificate

A. Required Subject Areas (5 SHC)		C-L-SHC
ELC 112	DC/AC Electricity	3-6-5

### B. Other Major Hours Required for Graduation (11/12 SHC)

ELC 117	Motors and Controls	2-6-4
ELC 128	Introduction to PLC	2-3-3
ELN 231	Industrial Controls	2-3-3
ISC 110	Workplace Safety	1-0-1

Total Semester Hours Credit required for graduation: 16

### Semester Curriculum for Electrical Controls Certificate

1st Semester (Spring)		C-L-SHC
ELC 112	DC/AC Electricity	3-6-5
ISC 110	Workplace Safety	1-0-1
		4-6-6

#### 2nd Semester (Fall)

ELC 117	Motors and Controls	2-6-4
ELC 128	Introduction to PLC	2-3-3
		4-9-7

#### 3<sup>rd</sup> Semester (Spring)

ELN 231	Industrial Controls	2-3-3
		2-3-3

Total Semester Hours Credit: 16

\*Effective 2014 Spring

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

This curriculum will provide students with knowledge of hydraulics and pneumatics. Students will learn hydraulic and pneumatic blueprint reading, how to repair valves and pumps, and how to measure and troubleshoot systems. 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 Maintenance Technology (Higher entrance standards required); Certificate in Industrial Hydraulics

Program Sites: Lee Campus - Evening Program

Course Requirements for Industrial Hydraulics Certificate

A. Required Major Core Courses (5 SHC)	C-L-SHC
HYD 110    Hydraulics/Pneumatics I	2-3-3
MNT 110    Introduction to Maintenance Procedures	1-3-2

B. Other Major Hours Required for Graduation (12 SHC)

BPR 115    Electric/Fluid Power Diagrams	1-2-2
ELC 128    Introduction to PLC	2-3-3
HYD 121    Hydraulics/Pneumatics II	1-3-2
MNT 111    Maintenance Practices	2-2-3
MNT 230    Pumps and Piping Systems	1-3-2

Total Semester Hours Credit required for graduation: 17

Semester Curriculum for Industrial Hydraulics Certificate

1st Semester (Summer)	C-L-SHC
BPR 115    Electric/Fluid Power Diagrams	1-2-2
HYD 110    Hydraulics/Pneumatics I	2-3-3
MNT 111    Maintenance Practices	2-2-3
	5-7-8
2nd Semester (Fall)	
HYD 121    Hydraulics/Pneumatics II	1-3-2
MNT 230    Pumps and Piping Systems	1-3-2
MNT 110    Introduction to Maintenance Procedures	1-3-2
	3-6-6
Spring Semester (Spring)	
ELC 128    Introduction to PLC	2-3-3
	2-3-3

Total Semester Hours Credit: 17

\*Effective 2014 Spring

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

This curriculum will provide students with 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: 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 Programmable Logic Controllers

Program Sites: Lee Campus - Evening Program

Course Requirements for Programmable Logic Controller Certificate

A. Required Subject Area Courses (5 SHC)	C-L-SHC
ELC 112    DC/AC Electricity	3-6-5

B. Other Major Hours Required for Graduation (11 SHC)

ELC 128    Introduction to PLC	2-3-3
ELC 228    PLC Applications	2-6-4
ELN 260    Prog. Logic Controllers	3-3-4
ISC 110    Workplace Safety	1-0-1

Total Semester Hours Credit required for graduation: 17

Semester Curriculum for Programmable Logic Controller Certificate

1 <sup>st</sup> semester (Spring)	C-L-SHC
ELC 128    Introduction to PLC	2-3-3
	2-3-3
2 <sup>nd</sup> Semester (Summer)	
ISC 110    Workplace Safety	1-0-1
	1-0-1
3 <sup>rd</sup> Semester (Fall)	
ELC 112    DC/AC Electricity	3-6-5
ELN 260    Prog. Logic Controllers	3-3-4
	6-9-9
4 <sup>th</sup> Semester (Spring)	
ELC 228    PLC Applications	2-6-4
	2-6-4

Total Semester Hours Credit: 17

\*Effective 2014 Spring

**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 Campus - Day Program

Course Requirements for Computer-Integrated Machining Technology with an emphasis in Tool, Die and Mold Making

A. General Education Courses (15 SHC)		C-L-SHC
ENG 110	Freshman Composition	3-0-3
	AND	
ENG 116	Technical Report Writing	3-0-3
	OR	
ENG 111	Expository Writing	3-0-3
	AND	
ENG 114	Professional Research and Reporting	3-0-3
MAT 120	Geometry and Trigonometry	2-2-3
	Humanities/Fine Arts Elective	3-0-3
	Social/Behavioral Science Elective	3-0-3

B. Required Major Core Courses (16 SHC)

BPR 111	Print Reading	1-2-2
MAC 111	Machining Technology I	2-12-6

MAC 112	Machining Technology II	2-12-6
MAC 124	CNC Milling	1-3-2

C. Other Major Hours Required for Graduation (45 SHC)

CIS 111	Basic PC Literacy	1-2-2
BPR 121	Print Reading: Mechanical	1-2-2
MAC 113	Machining Technology III	2-12-6
MAC 122	CNC Turning	1-3-2
MAC 151	Machining Calculations	1-2-2
MAC 153	Compound Angles	1-2-2
MAC 171	Measure/Material & Safety	0-2-1
MAC 224	Advanced CNC Milling	1-3-2
MAC 226	CNC EDM Machining	1-3-2
MAC 241	Jigs and Fixtures I	2-6-4
MAC 243	Die Making I	2-6-4
MAC 244	Die Making II	1-9-4
MAC 245	Mold Construction I	2-6-4
MAC 246	Mold Construction II	1-9-4
MEC 110	Introduction to CAD/CAM	1-2-2
MEC 142	Physical Metallurgy	1-2-2

Total Semester Hours Credit required for graduation: 76

Semester Curriculum for Computer Integrated Machining Technology with a Concentration in Tool, Die and Mold Making

1st Semester (Fall)		C-L-SHC
BPR 111	Print Reading	1-2-2
CIS 111	Basic PC Literacy	1-2-2
MAC 111	Machining Technology	2-12-6
MAC 151	Machining Calculations	1-2-2
MAC 171	Measure/Material & Safety	0-2-1
MEC 142	Physical Metallurgy	1-2-2
		6-22-15

2nd Semester (Spring)

BPR 121	Print Reading: Mechanical	1-2-2
ENG 110	Freshman Composition	3-0-3
	OR	
ENG 111	Expository Writing	3-0-3
MAC 112	Machining Technology II	2-12-6
MAC 124	CNC Milling	1-3-2
MAT 120	Geometry/Trigonometry	2-2-3
		9-19/21-16/17

3rd Semester (Summer)

MAC 113	Machining Technology III	2-12-6
	Humanities/Fine Arts Elective	3-0-3
		5-12-9

4th Semester (Fall)

MAC 122	CNC Turning	1-3-2
MAC 153	Compound Angles	1-2-2
MAC 241	Jigs and Fixtures I	2-6-4
MAC 245	Mold Construction I	2-6-4
ENG 116	Technical Report Writing	3-0-3
	OR	
ENG 114	Professional Research and Reporting	3-0-3
		9-17-15

5th Semester (Spring)

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	Introduction to CAD/CAM	1-2-2
		6-23-14

6th Semester (Summer)

MAC 244	Die Making II	1-9-4
	Social/Behavioral Science Elective	3-0-3
		4-9-7

Total Semester Hours Credit: 76

\*Effective 2014 Spring

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

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.

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 Campus – Day/Evening Program  
Harnett Campus – Day/Evening Program

Course Requirements for Computer-Integrated Machining  
Technology Diploma

A. General Education Courses (9 SHC)		C-L-SHC
*ENG 102	Applied Communication II	3-0-3
	OR	
ENG 110	Freshman Composition	3-0-3
	OR	
ENG 111	Expository Writing	3-0-3
*MAT 101	Applied Mathematics I	2-2-3
	OR	
MAT 120	Geometry and Trigonometry	2-2-3
	Humanities/Fine Arts Elective	3-0-3
B. Required Major Core Courses (16 SHC)		
BPR 111	Print Reading	1-2-2
MAC 111	Machining Technology I	2-12-6
MAC 112	Machining Technology II	2-12-6
MAC 124	CNC Milling	1-3-2
C. Other Major Hours Required for Graduation (15 SHC)		
BPR 121	Print Reading: Mechanical	1-2-2

CIS 111	Basic PC Literacy	1-2-2
MAC 113	Machining Technology III	2-12-6
MAC 151	Machining Calculations	1-2-2
MAC 171	Measure/Material & Safety	0-2-1
MEC 142	Physical Metallurgy	1-2-2

Total Semester Hours Credit required for graduation: 40

#### Semester Curriculum for Computer-Integrated Machining Technology Diploma

1st Semester (Fall)		C-L-SHC
BPR 111	Print Reading	1-2-2
CIS 111	Basic PC Literacy	1-2-2
MAC 111	Machining Technology	2-12-6
MAC 151	Machining Calculations	1-2-2
MAC 171	Measure/Material & Safety	0-2-1
MEC 142	Physical Metallurgy	<u>1-2-2</u>
		6-22-15

#### 2nd Semester (Spring)

BPR 121	Print Reading: Mechanical	1-2-2
*ENG 102	Applied Communication II OR	3-0-3
ENG 111	Expository Writing	3-0-3
MAC 112	Machining Technology II	2-12-6
MAC 124	CNC Milling	1-3-2
*MAT 101	Applied Mathematics I OR	2-2-3
MAT 120	Geometry and Trigonometry	<u>2-2-3</u>
		9-19-16

#### 3rd Semester (Summer)

MAC 113	Machining Technology III Humanities/Fine Arts Elective	2-12-6 <u>3-0-3</u>
		5-12-9

\*These courses are not transferable to the Associate in Applied Science Degree.

Total Semester Hours Credit: 40

\*Effective 2014 Spring

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

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.

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 Campus –Day/ Evening Program

Harnett Campus –Day/ Evening Program

#### Course Requirements for Computer-Integrated Machining Technology Certificate

A. Required Major Core Courses (10 SHC)		C-L-SHC
MAC 111	Machining Technology I	2-12-6
BPR 111	Print Reading	1-2-2
MAC 124	CNC Milling	1-3-2

#### B. Required Subject Areas (7 SHC)

BPR 121	Print Reading: Mechanical	1-2-2
MAC 171	Measure/Material & Safety	0-2-1
MEC 142	Physical Metallurgy	1-2-2
MAC 151	Machining Calculations	1-2-2

Total Semester Hours Credit required for graduation: 17

#### Semester Curriculum for Computer Integrated Machining Technology Certificate

1st Semester (Fall)		C-L-SHC
BPR 111	Print Reading	1-2-2
MAC 111	Machining Technology I	2-12-6

MAC 151	Machining Calculations	1-2-2
MAC 171	Measure/Material & Safety	0-2-1
MEC 142	Physical Metallurgy	<u>1-2-2</u>
		5-20-13
2nd Semester (Spring)		
BPR 121	Blueprint Reading: Mechanical	1-2-2
MAC 124	CNC Milling	<u>1-3-2</u>
		2-5-4

Total Semester Hours Credit: 17

\*Effective 2014 Spring

## **Telecommunications Installation and Maintenance**

### **Credential: Diploma in Telecommunications Installation and Maintenance D50380**

The Telecommunications Installation and Maintenance curriculum prepares individuals for jobs in the telecommunications industry. It provides fundamental training for new students and provides upgrade training for current employees of telecommunications companies. Coursework includes basic electricity, cable splicing, fiber optics, LAN/WAN, cable fault location and repair, central office administration, standards and codes, and other related topics. Emphasis is placed on hands-on installation and maintenance training. A graduate should be prepared to work in the telecommunications industry in outside plant operations, on central office equipment, and on business communication equipment.

Program Length: 3 semesters

Career Pathway Options: Diploma in Telecommunications Installation and Maintenance

Program Sites: North Carolina School of Telecommunications. Day and selected evening courses. Corporate and career-centered programs.

#### Course Requirements for Telecommunications Installation and Maintenance Diploma

A. General Education Courses (6 SHC)		C-L-SHC
ENG 102	Applied Communication II	3-0-3
	Humanities or Social/Behavioral Science	
	Elective	3-0-3

#### B. Required Core Courses (17 SHC)

TCT 103	Installer Level I Cabling	1-2-2
TEL 100	Telecommunications Basic Electricity	3-0-3
TEL 105	Fiber Optics: Splicing	1-2-2
TEL 106	Fiber Optics: Connectors	1-2-2
TEL 108	Comdial Key Systems	0-2-1
TEL 201	Station Installation and Repair	1-2-2
TEL 202	Cable Splicing	1-2-2
TEL 203	Cable Fault Location	0-2-1
TEL 205	Digital Central Office Administration	1-2-2

#### C. Other Major Hours (18 SHC)

*CIS 111	Basic PC Literacy	1-2-2
**MAT 101	Applied Mathematics I	2-2-3
TEL 209	ADSL Installation	0-2-1
	Business Elective	3
	Major Electives	9

#### Business Electives (Choose one course)

BUS 110	Introduction to Business	3-0-3
BUS 125	Personal Finance	3-0-3
BUS 137	Principles of Management	3-0-3
BUS 151	People Skills	3-0-3

BUS 152	Human Relations	3-0-3
BUS 230	Small Business Management	3-0-3
BUS 255	Organizational Behavior in Business	3-0-3
BUS 270	Professional Development	3-0-3
BUS 280	REAL Small Business	4-0-4

Major Elective Course Listing - Select a minimum of 9 SHC from one of the following groups:

(Telecommunications Group)

ELC 144	OTDR Operation	1-0-1
NET 113	Home Automation Systems	2-2-3
TEL 102	Pole Climbing	0-2-1
TEL 104	CATV Installation and Repair: Distribution	0-2-1
TEL 109	T-1 Span Line Maintenance	0-2-1
TEL 204	Transmission Fundamentals	2-0-2
TCT 100	Telco Safety Regulations	1-2-2
TCT 101	Vault Management	1-2-2
TCT 102	Underground Locating	1-2-2
TCT 104	Installer Level 2 Copper	1-2-2
TCT 105	Installer Level 2 Fiber	1-2-2
TCT 106	Technician Level Cabling	1-2-2

OR

(Small Home/Small Office Networking Group)

NET 125	Networking Basics	1-4-3
NET 126	Routing Basics	1-4-3
NOS 110	Operating Systems Concepts	2-3-3
NOS 130	Windows Single User	2-2-3

OR

(Networking Infrastructure Group)

NET 116	Fundamentals of Voice/Data Cable	2-2-3
NET 125	Networking Basics	1-4-3
NET 126	Routing Basics	1-4-3
NET 225	Routing and Switching I	1-4-3
NET 230	Wide Area Networking	2-2-3

\*Students may substitute CIS 110

\*\*Students may substitute MAT 140 or higher

Total Semester Hours Credit required for Graduation: 41

Semester Curriculum for Telecommunications Installation and Maintenance Diploma

1st Semester	C-L-SHC
TCT 103	Installer Level I Cabling 1-2-2
TEL 100	Telecommunication Basic Electricity 3-0-3
TEL 105	Fiber Optics: Splicing 1-2-2
TEL 106	Fiber Optics: Connectors 1-2-2
TEL 108	Comdial Key Systems 0-2-1
TEL 201	Station Installation and Repair 1-2-2
TEL 202	Cable Splicing 1-2-2
TEL 203	Cable Fault Location 0-2-1
TEL 205	Digital Central Office Administration 1-2-2
TEL 209	ADSL Installation <u>0-2-1</u>
	9-18-18

2nd Semester		
BUS	Business Elective	3
CIS 111	Basic PC Literacy	1-2-2
ENG 102	Applied Communication II	3-0-3
	Humanities or Social/Behavioral Science Elective	3-0-3
MAT 101	Applied Math I	<u>2-2-3</u>
		14
3rd Semester		
	Major Electives	9

Total Semester Hours Credit: 41

\*Effective 2014 Spring

**Telecommunications Installation and Maintenance**

**Credential: Certificate in Telecommunications Installation and Maintenance  
C50380**

TEL 205	Digital Central Office Administration	1-2-2
TEL 209	ADSL Installation	<u>0-2-1</u>
		9-18-18

Total Semester Hours Credit: 18

The Telecommunications Installation and Maintenance curriculum prepares individuals for jobs in the telecommunications industry. It provides fundamental training for new students and provides upgrade training for current employees of telecommunications companies. Coursework includes basic electricity, cable splicing, fiber optics, LAN/WAN, cable fault location and repair, central office administration, standards and codes, and other related topics. Emphasis is placed on hands-on installation and maintenance training. A graduate should be prepared to work in the telecommunications industry in outside plant operations, on central office equipment, and on business communication equipment.

Program Length: 1 semester

Career Pathway Options: Diploma in Telecommunications Installation and Maintenance (Higher entrance standards required).

Program Sites: N. C. School of Telecommunications – Day

**Course Requirements for Telecommunications Installation and Maintenance Certificate**

Required Core Courses (18 SHC)		C-L-SHC
TCT 103	Installer Level 1 Cabling	1-2-2
TEL 100	Telecommunications Basic Electricity	3-0-3
TEL 105	Fiber Optics: Splicing	1-2-2
TEL 106	Fiber Optics: Connectors	1-2-2
TEL 108	Comdial Key Systems	0-2-1
TEL 201	Station Installation and Repair	1-2-2
TEL 202	Cable Splicing	1-2-2
TEL 203	Cable Fault Location	0-2-1
TEL 205	Digital Central Office Administration	1-2-2
TEL 209	ADSL Installation	0-2-1

Total Semester Hours Credit required for graduation: 18

**Semester Curriculum for Telecommunications Installation and Maintenance Certificate**

1st Semester (Fall or Spring)		C-L-SHC
TEL 100	Telecommunications Basic Electricity	3-0-3
TEL 105	Fiber Optics: Splicing	1-2-2
TEL 106	Fiber Optics: Connectors	1-2-2
TEL 108	Comdial Key Systems	0-2-1
TCT 103	Installer Level 1 Cabling	1-2-2
TEL 201	Station Install/Repair	1-2-2
TEL 202	Cable Splicing	1-2-2
TEL 203	Cable Fault Location	0-2-1



\*Effective 2014 Spring

**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: 5 semesters

Career Pathway Options: Diploma in Welding Technology

Program Sites:

Lee Campus - Day Program

## Course Requirements for the Welding Technology Diploma

## A. General Education Courses (6/7 SHC) C-L-SHC

ENG 102	Applied Communications II	3-0-3
MAT 101	Applied Mathematics I	2-2-3
	OR	
PHY 121	Applied Physics	3-2-4

## B. Technical Core (18 SHC)

WLD 110	Cutting Processes	1-3-2
WLD 115	SMAW (Stick) Plate	2-9-5
WLD 121	GMAW (MIG) FCAW/Plate	2-6-4
WLD 131	GTAW (TIG) Plate	2-6-4
WLD 141	Symbols & Specifications	2-2-3

## C. Other Major Hours (18 SHC)

BPR 111	Print Reading	1-2-2
ISC 110	Workplace Safety	1-0-1
WLD 116	SMAW (Stick) Plate/Pipe	1-9-4
WLD 151	Fabrication I	2-6-4
WLD 262	Inspection and Testing	2-2-3
WLD 265	Automated Welding/Cutting	2-6-4

Total Semester Hours Credit required for graduation: 42/43

## Semester Curriculum for Welding Technology Diploma

1st Semester (Fall)		C-L-SHC
BPR 111	Print Reading	1-2-2
ISC 110	Workplace Safety	1-0-1
MAT 101	Applied Mathematics I	2-2-3

WLD 110	Cutting Processes	1-3-2
WLD 115	SMAW (Stick) Plate	<u>2-9-5</u>
		7-16-13
2nd Semester (Spring)		
ENG 102	Applied Communications II	3-0-3
WLD 121	GMAW (MIG) FCAW/Plate	2-6-4
WLD 131	GTAW (TIG) Plate	2-6-4
WLD 141	Symbols & Specifications	<u>2-2-3</u>
		9-14-14
3rd Semester (Summer)		
WLD 116	SMAW (Stick) Plate/Pipe	<u>1-9-4</u>
		1-9-4
4th Semester (Fall)		
WLD 151	Fabrication I	2-6-4
WLD 262	Inspection and Testing	2-2-3
WLD 265	Automated Welding/Cutting	<u>2-6-4</u>
		6-14-11

Total Semester Hours Credit Required for Graduation: 42

\*Effective 2014 Spring

**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

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

Program Sites:

Lee Campus - Day Program

Course Requirements for the Welding Technology Diploma

A. Technical Core (15 SHC)

WLD 110	Cutting Processes	1-3-2
WLD 115	SMAW (Stick) Plate	2-9-5
WLD 121	GMAW (MIG) FCAW/Plate	2-6-4
WLD 131	GTAW (TIG) Plate	2-6-4

B. Other Major Hours (3 SHC)

BPR 111	Print Reading	1-2-2
ISC 110	Workplace Safety	1-0-1

Total Semester Hours Credit required for graduation: 18

Semester Curriculum for Welding Technology Certificate

DAY

1st Semester (Fall)		C-L-SHC
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	<u>2-9-5</u>
		5-14-10

2nd Semester (Spring)

WLD 121	GMAW (MIG) FCAW/Plate	2-6-4
WLD 131	GTAW (TIG) Plate	<u>2-6-4</u>
		4-12-8

Total Semester Hours Credit Required for Graduation: 18

Semester Curriculum for Welding Technology Certificate  
 EVENING

1st Semester C-L-SHC

BPR 111	Print Reading	1-2-2
WLD 110	Cutting Processes	1-3-2
WLD 115B	SMAW (Stick) Plate	<u>0-3-1</u>
		2-8-5

2nd Semester

WLD 115A	SMAW (Stick) Plate	2-6-4
WLD 121	GMAW (MIG) FCAW/Plate	<u>2-6-4</u>
		4-12-8

3rd Semester

ISC 110	Workplace Safety	1-0-1
WLD 131	GTAW (TIG) Plate	<u>2-6-4</u>
		3-6-5

Total Semester Hours Credit Required for Graduation: 18

*Public Service Technologies*

**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 Length: 6 semesters

Career Pathway Options: Associate in Applied Science in Barbering

Program Sites: West Harnett Campus, Day and Evening; Chatham Campus, Evening; General

General Education courses may be taken on a main campus or through distance education

**Course Requirements for Associate in Applied Science in Barbering**

A. General Education (15 SHC)		C-L-SHC
ENG 111	Expository Writing	3-0-3
	Communication Elective	3-0-3
	Math/Science Elective	3-0-3
	Humanities Elective	3-0-3
	Social/Behavioral Science Elective	3-0-3

**B. Required Major Core Courses (41 SHC)**

BAR 111(A/B)	*Barbering Concepts I	4-0-4
BAR 112(A/B)	Barbering Clinic I	0-24-8
BAR 113(A/B)	Barbering Concepts II	4-0-4
BAR 114(A/B)	Barbering Clinic II	0-24-8
BAR 115(A/B)	Barbering Concepts III	4-0-4
BAR 116(A/B)	Barbering Clinic III	0-12-4
BAR 119(A/B)	Trichology	2-0-2
BAR 120(A/B)	Trichology Lab	0-21-7

**C. Other Major Hours Required for Graduation (10 SHC)**

BAR 117(A/B)	Barbering Concepts IV	2-0-2
BAR 118(A/B)	Clinic IV	0-21-7

**Student Success – Select One \*Effective 2014 Fall**

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1
ACA 122	College Transfer Success	1-0-1

\*Courses divided into A/B sections for part-time day/evening students.

Total Semester Hours Credit required for graduation: 66

**Semester Curriculum for Associate in Applied Science in Barbering**

1st Semester (Fall)		C-L-SHC
BAR 111	Barbering Concepts I	4-0-4
BAR 112	Barbering Clinic I	0-24-8
	Student Success Course	1-0-1
		5-24-13

2nd Semester (Spring)		
BAR 113	Barbering Concepts II	4-0-4
BAR 114	Barbering Clinic II	0-24-8
		4-24-12

3rd Semester (Summer)		
BAR 115	Barbering Concepts III	4-0-4
BAR 116	Barbering Clinic III	0-12-4
		4-12-8

4th Semester (Fall)		
BAR 117	Barbering Concepts IV	2-0-2
BAR 118	Barbering Clinic IV	0-21-7
ENG 111	Expository Writing	3-0-3
	***Humanities Elective	3-0-3
		8-21-15

5 <sup>th</sup> Semester (Spring)		
BAR 119	Trichology Concepts I	2-0-2
BAR 120	Trichology Lab I	0-21-7
	****Communication Elective	3-0-3
		5-21-12

6 <sup>th</sup> Semester (Summer)		
*CIS 110	Introduction to Computers	2-2-3
**Social/Behavioral Science Elective		3-0-3
		5-2-6

****Communication Elective – Choose One		3-0-3
COM 110	Intro to Communication	3-0-3
COM 120	Intro to Interpersonal Comm	3-0-3
COM 140	Intro to Intercultural Comm	3-0-3
COM 231	Public Speaking	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

\*May substitute a MAT 115, MAT 140, BIO 110, PHY 110/110A

\*\*May take any approved social/behavioral science elective

\*\*\*May take any approved humanities elective

Total Semester Hours Credit: 66

## Barbering

### Credential: Diploma in Barbering D55110

The Barbering Curriculum 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 Length: 4 semesters

Career Pathway Options: Diploma in Barbering

Program Sites: West Harnett Campus - Day and Evening  
Chatham Campus - Evening

#### Course Requirements for Barbering Diploma

A. General Education (6 SHC)	C-L-SHC
ENG 102 Applied Communication II	3-0-3
Social/Behavioral Science Elective	3-0-3

#### B. Required Major Core Courses (32 SHC)

BAR 111(A/B) *Barbering Concepts I	4-0-4
BAR 112(A/B) Barbering Clinic I	0-24-8
BAR 113(A/B) Barbering Concepts II	4-0-4
BAR 114(A/B) Barbering Clinic II	0-24-8
BAR 115(A/B) Barbering Concepts III	4-0-4
BAR 116(A/B) Barbering Clinic III	0-12-4

#### C. Other Major Hours Required for Graduation (9 SHC)

BAR 117(A/B) Barbering Concepts IV	2-0-2
BAR 118(A/B) Clinic IV	0-21-7

\*Courses divided into A/B sections for part-time day/evening students.

Total Semester Hours Credit required for graduation: 47

#### Semester Curriculum for Barbering Diploma

1st Semester (Fall)	C-L-SHC
BAR 111 Barbering Concepts I	4-0-4
BAR 112 Barbering Clinic I	0-24-8
	4-24-12
2nd Semester (Spring)	
BAR 113 Barbering Concepts II	4-0-4
BAR 114 Barbering Clinic II	0-24-8
	4-24-12
3rd Semester (Summer)	
BAR 115 Barbering Concepts III	4-0-4
BAR 116 Barbering Clinic III	0-12-4
	4-12-8

#### 4th Semester (Fall)

BAR 117 Barbering Concepts IV	2-0-2
BAR 118 Barbering Clinic IV	0-21-7
ENG 102 Applied Communication II	3-0-3
Social/Behavioral Science Elective	3-0-3
	8-21-15

Total Semester Hours Credit: 47

**Barbering****Credential: Certificate in Barbering  
C55110**

The Barbering Curriculum 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 Length: 3 semesters

Career Pathway Options: Certificate in Barbering

Program Sites: West Harnett Campus - Day and Evening

**Course Requirements for Barbering Certificate**

Required Major Core Courses (32 SHC)		C-L-SHC
BAR 111(A/B)	*Barbering Concepts I	4-0-4
BAR 112(A/B)	Barbering Clinic I	0-24-8
BAR 113(A/B)	Barbering Concepts II	4-0-4
BAR 114(A/B)	Barbering Clinic II	0-24-8
BAR 115(A/B)	Barbering Concepts III	4-0-4
BAR 116(A/B)	Barbering Clinic III	0-12-4

**Other Major Hours Required for Graduation (9 SHC)**

BAR 117(A/B)	Barbering Concepts IV	2-0-2
BAR 118(A/B)	Barbering Clinic IV	0-21-7

\*Courses divided into A/B sections for part-time day/evening students.

Total Semester Hours Credit required for graduation: 41

**Semester Curriculum for Barbering Certificate**

1st Semester (Fall)		C-L-SHC
BAR 111	Barbering Concepts I	4-0-4
BAR 112	Barbering Clinic I	0-24-8
BAR 117	Barbering Concepts IV	2-0-2
BAR 118A	Barbering Clinic IVA	0-9-3
		6-33-17
2nd Semester (Spring)		
BAR 113	Barbering Concepts II	4-0-4
BAR 114	Barbering Clinic III	0-24-8
BAR 118B	Barbering Clinic IVB	0-12-4
		4-36-16
3rd Semester (Summer)		
BAR 115	Barbering Concepts III	4-0-4
BAR 116	Barbering Clinic III	0-12-4
		4-24-12

Total Semester Hours Credit: 41

**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 units, patrol duties unit, law enforcement communication units, investigation units, practical application units, and Sheriff specific units. After successful completion of 624 training hours to include the North Carolina Criminal Justice Education and Training Standards Examination, graduates receive a curriculum certificate and are eligible to become certified law enforcement officers in the state of North Carolina.

**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 obstacle course prior to course completion.
4. Must have no felony convictions previously or class B misdemeanors within the past 5 years.
5. Must score a 65 or higher on the reading portion of the CCCC entrance exam.

Program Length: 16 weeks (day) or 7 ½ months (evening)

Career Pathway Options:

Certificate in Basic Law Enforcement Training

Program Sites:

Lee Campus - Day  
Harnett Campus - Evening  
Chatham Campus - Evening

**Course Requirements for Basic Law Enforcement Training  
Certificate**

A. Required Major Core Courses (19 SHC)		C-L-SHC
CJC 100	Basic Law Enforcement Training	9-30-19

Total Semester Hours Credit required for graduation: 19

**Semester Curriculum for Basic Law Enforcement Training  
Certificate**

1st Semester (Fall)		C-L-SHC
CJC 100	Basic Law Enforcement Training	9-30-19

Total Semester Hours Credit: 19

## 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 as skin/nail specialists, platform artists and related businesses.

Program Length: 5 semesters

Career Pathway Options: Associates in Applied Science in Cosmetology

Program Sites:

Lee Campus-Day and Evening

Harnett Campus- Day

Course Requirements for Cosmetology Degree

A. General Education (6 SHC) C-L-SHC  
 Social/Behavioral Science Elective 3-0-3  
 \*\*Communications Elective (Select 3 SHC)

ENG 111 Expository Writing 3-0-3  
 \*\*COM 110 Introduction to Communication 3-0-3

B. Required Major Core Courses (34 SHC)

COS 111(A/B)\* Cosmetology Concepts I 4-0-4  
 COS 112(A/B) Salon I 0-24-8  
 COS 113 (A/B) Cosmetology Concepts II 4-0-4  
 COS 114(A/B) Salon II 0-24-8  
 COS 115(A/B) Cosmetology Concepts III 4-0-4  
 COS 116(A/B) Salon III 0-12-4  
 COS 223(A/B) Contemp Hair Coloring 1-3-2

C. Other Major Hours Required for Graduation (16 SHC)

BUS 230 Small Business Management 3-0-3  
 COE 110 World of Work I 1-0-1  
 COS 117(A/B) Cosmetology Concepts IV 2-0-2  
 COS 118(A/B) Salon IV 0-21-7  
 COS 224 Trichology & Chemistry 1-3-2

Student Success – Select One \*Effective 2014 Fall

ACA 111 College Student Success 1-0-1  
 ACA 115 Success and Study Skills 0-2-1  
 ACA 122 College Transfer Success 1-0-1

\*Courses divided into A/B sections for part-time day/evening students.

Total Semester Hours Credit required for graduation: 65

#### 1st Semester (Fall)

\*\*COM 110 Introduction to Communication 3-0-3  
 COS 111 Cosmetology Concepts I 4-0-4  
 COS 112 Salon I 0-24-8  
 Student Success Course 1-0-1  
 8-24-16

#### 2nd Semester (Spring)

COS 113 Cosmetology Concepts II 4-0-4  
 COS 114 Salon II 0-24-8  
 COS 223 Contemp Hair Coloring 1-3-2  
 \*SOC 210 Intro to Sociology 3-0-3  
 8-27-17

#### 3rd Semester (Summer)

COS 115 Cosmetology Concepts III 4-0-4  
 COS 116 Salon III 0-12-4  
 4-12-8

#### 4th Semester (Fall)

COS 117 Cosmetology Concepts IV 2-0-2  
 COS 118 Salon IV 0-21-7  
 ENG 111 Expository Writing 3-0-3

#### 5<sup>th</sup> Semester (Spring)

BUS 230 Small Business Management 3-0-3  
 COE 110 World of Work I 3-0-3  
 CIS 110 Introduction to Computers 2-2-3  
 COS 224 Trichology & Chemistry 1-3-2  
 \*\*\*HUM 115 Critical Thinking 3-0-3  
 10-5-12

\*\*Communication Elective – Choose One 3-0-3

COM 110 Intro to Communication 3-0-3  
 COM 120 Intro to Interpersonal Comm 3-0-3  
 COM 140 Intro to Intercultural Comm 3-0-3  
 COM 231 Public Speaking 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

Social/Behavioral Science Elective 3-0-3

Total Semester Hours Credit: 65

## Cosmetology

### Credential: Diploma in Cosmetology

### D55140

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 as skin/nail specialists, platform artists and related businesses.

Program Length: 4 semesters

Career Pathway Options: Diploma in Cosmetology

Program Sites:

Lee Campus - Day and Evening

Harnett Campus - Day and Evening

Dunn Facility - Day

Course Requirements for Cosmetology Diploma

A. General Education (6 SHC) C-L-SHC

Social/Behavioral Science Elective 3-0-3

Communications Elective (Select 3 SHC)

ENG 115 Oral Communication 3-0-3

COM 110 Introduction to Communication 3-0-3

COM 120 Intro Interpersonal Communication 3-0-3

COM 140 Intro Intercultural Communication 3-0-3

COM 231 Public Speaking 3-0-3

B. Required Major Core Courses (34 SHC)

COS 111(A/B)\* Cosmetology Concepts I 4-0-4

COS 112(A/B) Salon I 0-24-8

COS 113 (A/B) Cosmetology Concepts II 4-0-4

COS 114(A/B) Salon II 0-24-8

COS 115(A/B) Cosmetology Concepts III 4-0-4

COS 116(A/B) Salon III 0-12-4

COS 117(A/B) Cosmetology Concepts IV 2-0-2

OR

COS 223(A/B) Contemp Hair Coloring 1-3-2

C. Other Major Hours Required for Graduation (7 SHC)

COS 118(A/B) Salon IV 0-21-7

\*Courses divided into A/B sections for part-time day/evening students.

Total Semester Hours Credit required for graduation: 47

### Semester Curriculum for Cosmetology Diploma

1st Semester (Fall)		C-L-SHC
COS 111	Cosmetology Concepts I	4-0-4
COS 112	Salon I	0-24-8
		4-24-12
2nd Semester (Spring)		
COS 113	Cosmetology Concepts II	4-0-4
COS 114	Salon II	0-24-8
		4-24-12
3rd Semester (Summer)		
COS 115	Cosmetology Concepts III	4-0-4
COS 116	Salon III	0-12-4
		4-12-8
4th Semester (Fall)		
COS 117	Cosmetology Concepts IV	2-0-2
	OR	
COS 223	Contemp Hair Coloring	1-3-2
COS 118	Salon IV	0-21-7
	Communication Elective	3-0-3
	Social/Behavioral Science Elective	3-0-3
		8-21-15

Total Semester Hours Credit: 47

**Cosmetology**

**Credential: Certificate in Cosmetology  
C55140**

3rd Semester (Summer)

COS 115	Cosmetology Concepts III	4-0-4
COS 116	Salon III	0-12-4
		4-12-8

Total Semester Hours Credit: 34

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 as skin/nail specialists, platform artists and related businesses.

Program Length: 4 semesters

Career Pathway Options: Certificate in Cosmetology

Program Sites:

- Lee Campus - Day and Evening
- Harnett Campus - Day and Evening
- Dunn Facility - Day

Course Requirements for Cosmetology Certificate

Required Major Core Courses (34 SHC)	C-L-SHC
COS 111(A/B)*Cosmetology Concepts I	4-0-4
COS 112(A/B)Salon I	0-24-8
COS 113 (A/B)Cosmetology Concepts II	4-0-4
COS 114(A/B)Salon II	0-24-8
COS 115(A/B)Cosmetology Concepts III	4-0-4
COS 116(A/B)Salon III	0-12-4

Other Major Hours Required for Graduation (7 SHC)

COS 223(A/B)Contemporary Color	1-3-2
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\*Courses divided into A/B sections for part-time day/evening students.

Total Semester Hours Credit required for graduation: 34

Semester Curriculum for Cosmetology Certificate

1st Semester (Fall)	C-L-SHC
COS 111 Cosmetology Concepts I	4-0-4
COS 112 Salon I	0-24-8
	4-24-12
2nd Semester (Spring)	
COS 113 Cosmetology Concepts II	4-0-4
COS 114 Salon II	0-24-8
COS 223 Contemporary Color – Selected Offerings	1-3-2
	5-27-14



**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 Length: 2 semesters  
 Career Pathway Options: Certificate in Cosmetology Instructor  
 Program Sites:  
 Lee Campus - Day and Evening  
 Harnett Campus - Day

Course Requirements for Cosmetology Instructor Certificate		
A. Required Major Core Courses (24 SHC)		C-L-SHC
COS 271	Instructor Concepts I	5-0-5
COS 272	Instructor Practicum I	0-21-7
COS 273	Instructor Concepts II	5-0-5
COS 274	Instructor Practicum II	0-21-7

Total Semester Hours Credit required for graduation: 24

Semester Curriculum for Cosmetology Instructor Certificate		
1st Semester (Fall)		
COS 271	Instructor Concepts I	5-0-5
COS 272	Instructor Practicum I	0-21-7
		5-21-12
2nd Semester (Spring)		
COS 273	Instructor Concepts II	5-0-5
COS 274	Instructor Practicum II	0-21-7
		5-21-12

Total Semester Hours Credit: 24

**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: 4 semesters  
 Career Pathway Options: Associate in Applied Science in Criminal Justice Technology  
 Program Sites:  
 Lee Campus - Day and Evening  
 Harnett Campus – Day (1st Year)

Course Requirements for Criminal Justice Technology Degree (Day)		
A. General Education Courses (15 SHC)		C-L-SHC
ENG 111	Expository Writing	3-0-3
Humanities/Fine Arts Elective – Choose One		3-0-3
ENG 113	Literature Based Research	3-0-3
ENG 114	Professional Research & Reporting	3-0-3

ENG 115	Oral Communication	3-0-3
*MAT 140	Survey of Mathematics	3-0-3
	Social/Behavioral Science Elective	3-0-3

**B. Required Major Core Courses (22 SHC)**

CJC 111	Introduction to Criminal Justice	3-0-3
CJC 112	Criminology	3-0-3
CJC 113	Juvenile Justice	3-0-3
CJC 131	Criminal Law	3-0-3
CJC 212	Ethics/Community Relations	3-0-3
CJC 221	Investigative Principles	3-2-4
CJC 231	Constitutional Law	3-0-3

**C. Other Major Hours Required for Graduation (3/4 SHC)**

CIS 110	Introduction to Computers	2-2-3
	OR	
CIS 111	Basic PC Literacy	1-2-2

**Student Success – Select One**

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1
ACA 122	College Transfer Success	1-0-1

**Major Elective Course Listing (Select a minimum of 26 SHC)**

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	Introduction 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
HSE 110	Introduction to Human Services	2-2-3
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

Total Semester Hours Credit required for graduation: 66/67

**Semester Curriculum for Criminal Justice Technology**

<b>1st Semester (Fall)</b>		C-L-SHC
CJC 111	Introduction to Criminal Justice	3-0-3
CJC 112	Criminology	3-0-3
CJC 160	Terrorism: Underlying Issues	3-0-3
CJC 231	Constitutional Law	3-0-3
	Social/Behavioral Science Elective	3-0-3
	Student Success Course	1-0-1
		16-0-16
<b>2nd Semester (Spring)</b>		
CJC 121	Law Enforcement Operations	3-0-3
CJC 131	Criminal Law	3-0-3
CJC 151	Intro to Loss Prevention	3-0-3
CJC 221	Investigative Principles	3-2-4

**CIS 110	Introduction to Computers	2-2-3
	Humanities/Fine Arts Elective	3-0-3
		17-4-19

**3rd Semester (Fall)**

CJC 113	Juvenile Justice	3-0-3
CJC 132	Court Procedure and Evidence	3-0-3
CJC 141	Corrections	3-0-3
CJC 214	Victimology	3-0-3
ENG 111	Expository Writing	3-0-3
		15-0-15

**4th Semester (Spring)**

CJC 120	Interviews/Interrogation	1-2-2
CJC 212	Ethics/Community Relations	3-0-3
CJC 213	Substance Abuse	3-0-3
CJC 225	Crisis Intervention	3-0-3
*MAT140	Survey of Mathematics	2-2-3
ENG 115	Oral Communication	3-0-3
		15-4-17

Total Semester Hours Credit: 66/67

\*Students may substitute MAT 115 (nontransferable)

\*\*Students may substitute CIS 111 (nontransferable)

**Course Requirements/Semester Curriculum for Criminal Justice Technology (Evening)**

<b>1st Semester (Fall)</b>		C-L-SHC
CJC 131	Criminal Law	3-0-3
CJC 213	Substance Abuse	3-0-3
	Student Success Course	1-0-1
		7-0-7
<b>2nd Semester (Spring)</b>		
CJC 111	Introduction to Criminal Justice	3-0-3
CJC 112	Criminology	3-0-3
ENG 111	Expository Writing	3-0-3
		9-0-9
<b>3rd Semester (Summer)</b>		
	Social/Behavioral Science Elective	3-0-3
**CIS 110	Introduction to Computers	2-2-3
		5-2-6
<b>4th Semester (Fall)</b>		
CJC 121	Law Enforcement Operations	3-0-3
CJC 132	Court Procedure and Evidence	3-0-3
CJC 212	Ethics/Community Relations	3-0-3
ENG 115	Oral Communication	3-0-3
		12-0-12
<b>5th Semester (Spring)</b>		
CJC 113	Juvenile Justice	3-0-3
CJC 160	Terrorism: Underlying Issues	3-0-3
CJC 231	Constitutional Law	3-0-3
		9-0-9
<b>6th Semester (Summer)</b>		
*MAT 140	Survey of Mathematics	2-2-3
	Humanities/Fine Arts Elective	3-0-3
		5-2-6
<b>7th Semester (Fall)</b>		
CJC 120	Interviews/Interrogation	1-2-2
CJC 214	Victimology	3-0-3

CJC 221	Investigative Principles	3-2-4 7-4-9
8th Semester (Spring)		
CJC 141	Corrections	3-0-3
CJC 151	Introduction to loss Prevention	3-0-3
CJC 225	Crisis Intervention	3-0-3 9-0-9

Total Semester Hours Credit: 66/67

NOTE: Students who have completed BLET 2000 and who enroll in the Criminal Justice Degree Program will receive credit for the following courses:

CJC 120	Interviews/Interrogations
CJC 131	Criminal Law
CJC 132	Court Procedure and Evidence
CJC 221	Investigative Principles
CJC 225	Crisis Intervention
CJC 231	Constitutional Law

NOTE: CJC 111, CJC 121, CJC 141 are university transferable.

**Criminal Justice Technology  
Credential: Associate in Applied Science  
Degree in Criminal Justice Technology –  
Latent Evidence  
A5518A**

The Latent Evidence 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: 4 semesters

Career Pathway Options: Associate in Applied Science in Criminal Justice Technology – Latent Evidence

Program Sites:

Lee Campus - Day

**Course Requirements for Criminal Justice Technology Degree**

A. General Education Courses (15 SHC)		C-L-SHC
ENG 111	Expository Writing	3-0-3
ENG 115	Oral Communication	3-0-3
	Humanities/Fine Arts Elective	3-0-3
*MAT 140	Survey of Mathematics	3-0-3
	Social/Behavioral Science Elective	3-0-3

**B. Required Major Core Courses (22 SHC)**

CJC 111	Introduction to Criminal Justice	3-0-3
CJC 112	Criminology	3-0-3
CJC 113	Juvenile Justice	3-0-3
CJC 131	Criminal Law	3-0-3
CJC 212	Ethics/Community Relations	3-0-3
CJC 221	Investigative Principles	3-2-4
CJC 231	Constitutional Law	3-0-3

**Required Concentration Courses (12SHC)**

CJC 144	Crime Scene Processing	2-3-3
CJC 146	Trace Evidence	2-3-3
CJC 245	Friction Ridge Analysis	2-3-3
CJC 246	Adv. Friction Ridge Analysis	2-3-3

**C. Other Major Hours Required for Graduation (16 SHC)**

CIS 110	Introduction to Computers	2-2-3
CJC 114	Investigative Photography	1-2-2
CJC 222	Criminalistics	3-0-3
CJC 250	Forensic Biology I	2-2-3
CJC 251	Forensic Chemistry I	3-2-4

**Student Success – Select One \*Effective 2014 Fall**

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1
ACA 122	College Transfer Success	1-0-1

Total Semester Hours Credit required for graduation: 65

\*Students may substitute BIO 110(transferable) 3-3-4

**Semester Curriculum for Criminal Justice Technology**

**1st Semester (Fall) C-L-SHC**

CJC 111	Introduction to Criminal Justice	3-0-3
CJC 112	Criminology	3-0-3
CJC 222	Criminalistics	3-0-3
CJC 231	Constitutional Law	3-0-3
	Social/Behavioral Science Elective	3-0-3
	Student Success Course	1-0-1
		16-0-16

**2nd Semester (Spring)**

CIS 110	Introduction to Computers	2-2-3
CJC 131	Criminal Law	3-0-3
CJC 146	Trace Evidence	2-3-3
CJC 221	Investigative Principles	3-2-4
	Humanities/Fine Arts Elective	3-0-3
		12-7-15

**3rd Semester (Fall)**

CJC 113	Juvenile Justice	3-0-3
CJC 144	Crime Scene Processing	2-3-3
CJC 245	Friction Ridge Analysis	2-3-3
CJC 251	Forensic Chemistry I	3-2-4
ENG 111	Expository Writing	3-0-3
		13-8-16

**4th Semester (Spring)**

CJC 114	Investigative Photography	1-2-2
CJC 212	Ethics/Community Relations	3-0-3
CJC 246	Advance Friction Ridge Analysis	2-3-3
CJC 250	Forensic Biology I	1-2-2

ENG 115	Oral Communication	3-0-3
*MAT 140	Survey of Mathematics	3-0-3
		13-7-16

Total Semester Hours Credit: 65

NOTE: Students who have completed BLET (in the year 2000 or later) and who enroll in the Criminal Justice Degree Program will receive credit for the following courses:

CJC 131	Criminal Law
CJC 221	Investigative Principles
CJC 231	Constitutional Law

NOTE: CJC 111 is university transferable.

**Culinary Arts**  
**Credential: Associate in Applied Science**  
**Degree Culinary Arts**  
**A55150**

Program Length: 4 semesters or a 2 semester Fast Track

Career Pathway Options: Associate in Applied Science  
Degree in Culinary Arts  
Program Sites: Pittsboro

Course Requirements for Credential: Associate in Applied  
Science Degree Culinary Arts A55150

**A. General Education Courses (15 SHC) C-L-SHC**

COM 120	Intro Interpersonal Com	3-0-3
ENG 111	Expository Writing	3-0-3
MAT 110	Mathematical Measurement	3-0-3
	Humanities elective	3-0-3
	Social/Behavioral Sciences	3-0-3

**B. Required Major Core Courses (30 SHC)**

CUL 110	Sanitation & Safety	2-0-2
CUL 120	Purchasing	2-0-2
CUL 135	Food & Beverage Service	2-0-2
CUL 140	Culinary Skills I	2-6-5
CUL 160	Baking I	1-4-3
CUL 170	Garde Manager I	1-4-3
CUL 240	Culinary Skills II	1-8-5
HRM 245	Human Resource Mgmt-hosp	3-0-3
NUT 110	Nutrition	3-0-3
COE 111	Co-op Experience I	0-10-1
COE 121	Work Experience II	0-10-1

**C. Other Major Hours Required for Graduation (27/28 SHC)**

CUL 130	Menu Design	2-0-2
CUL 283	Farm-To-Table	2-6-5
CUL 283A	Farm-To-Table Lab	0-2-1
CUL 112	Nutrition for Food Service	3-0-3
CUL 112A	Nutrition for Food Service Lab	0-3-1
CUL 270	Garde Manager II	1-4-3
CUL 270A	Garde Manager II Lab	0-3-1
CUL 275	Catering Cuisine	1-8-5
CIS 111	Basic PC Literacy	1-2-2
	Social/Behavioral Sciences	3-0-3

Student Success—Select one:

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1
ACA 122	College Transfer Success	1-0-1

\*Elective course listing (select one course)

AGR 139	Intro to Sustainable Ag	3-0-3
AGR 265	Organic Crop Prod:Spring	2-2-3
AGR 266	Organic Crop Prod:Fall	2-2-3
ACC 115	College Accounting	3-2-4

BUS 110	Introduction to Business	3-0-3
BUS 280	REAL Small Business	4-0-4
MAT 140	Survey of Mathematics	3-0-3

Total Semester Hours Credit Required for Graduation: 72/73

**1st Semester (Fall)**

CUL 110	Sanitation & Safety	2-0-2
CUL 140	Culinary Skills I	2-6-5
CUL 240	Culinary Skills II	1-8-5
ENG 111	Expository Writing	3-0-3
MAT 110	Mathematical Measurement	3-0-3
NUT 110	Nutrition	3-0-3
	Student Success Course	1-0-1
		15-14-22

**2nd Semester (Spring)**

CUL 112	Nutrition for Food Service	3-0-3
CUL 112A	Nutrition for Food Service Lab	0-3-1
CUL 130	Menu Design	2-0-2
CUL 170	Garde Manager I	1-4-3
CUL 283	Farm-To-Table	2-6-5
CUL 283A	Farm-To-Table Lab	0-2-1
	Humanities elective	3-0-3
		11-15-18

**3rd Semester (Fall )**

CIS 111	Basic PC Literacy	1-2-2
CUL 120	Purchasing	2-0-2
CUL 135	Food & Beverage Service	2-0-2
CUL 160	Baking I	1-4-3
COE 111	Co-op Experience I	0-10-1
COM 120	Intro Interpersonal Com	3-0-3
	-OR-	
ENG 114	Prof Research & Reporting	3-0-3
	Social/Behavioral Sciences	3-0-3
		12-16-16

**4th Semester (Spring )**

CUL 270	Garde Manager II	1-4-3
CUL 270A	Garde Manager II Lab	0-3-1
CUL 275	Catering Cuisine	1-8-5
HRM 245	Human Resource Mgmt-hosp	3-0-3
COE 121	Work Experience II	0-10-1
	*Elective Course Listing	2/4-0/2-3/4
		7/9-25/27-16/17

Total Semester Hours Credit: 72/73

**Early Childhood Associate**

**Credential: Associate in Applied Science**

**Degree in Early Childhood Associate**

**A55220**

This curriculum prepares individuals to work with all children from infancy through 8 years of age in diverse learning environments. Students will combine learned theories with practice in actual settings with young children under the supervision of qualified teachers. Coursework includes childhood growth and development of all young children, physical/nutritional needs of children, care and guidance of children, and communication skills with parents and children. Students will foster the cognitive/language, physical/motor, social/emotional and creative development of young children.

Graduates are prepared to plan and implement developmentally appropriate programs in early childhood settings. Employment opportunities include child development and childcare programs, preschools, public and private schools, recreational centers, Head Start Programs, and school age programs.

Program Length: 5 semesters

Career Pathway Options: Associate in Applied Science

Degree in Early Childhood Associate

Program Sites:

Chatham Campus – Selected Evening Courses

Harnett Campus – Selected Evening Courses

Lee Campus - Day, Selected Evening Courses

Distance - Select Courses

**Course Requirements for Early Childhood Associate Degree**

**A. General Education Courses (15 SHC) C-L-SHC**

ENG 111	Expository Writing	3-0-3
*MAT 140	Survey of Mathematics	3-0-3
	Humanities/Fine Arts Elective	3-0-3
	Social/Behavioral Science Elective	3-0-3
	Communication Elective	3-0-3
COM 231	Public Speaking	3-0-3
ENG 112	Argument-Based Research	3-0-3
ENG 113	Literature-Based Research	3-0-3
ENG 114	Professional Research & Reporting	3-0-3
ENG 115	Oral Communication	3-0-3
ENG 116	Technical Report Writing	3-0-3

**B. Required Major Core Courses (35 SHC)**

EDU 119	Introduction to Early Childhood Education	4-0-4
EDU 131	Children, Family Community	3-0-3
EDU 144	Child Development I	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 221	Children with Exceptional Needs	3-0-3
EDU 271	Educational Technology	2-2-3
EDU 280	Language and Literacy Experiences	3-0-3

EDU 284 Early Childhood Capstone Prac 1-9-4

\* Students may substitute MAT 115 or PHY 121 (nontransferable).

**C. Other Required Major Hours (15 SHC)**

CIS 110	Introduction to Computers	2-2-3
	Or	
CIS 111	Basic PC Literacy	1-2-2
EDU 216	Foundations of Education	4-0-4
EDU 234	Infants, Toddlers, Twos	3-0-3
EDU 252	Math and Science Activities	3-0-3
EDU 259	Curriculum Planning	3-0-3

**Early Childhood Electives**

EDU 114	Intro to Family Childcare	3-0-3
EDU 261	Early Childhood Administration I	3-0-3
EDU 262	Early Childhood Administration II	3-0-3
EDU 287	Leadership/Early Childhood	3-0-3
HEA 112	First Aid & CPR	1-2-2

**Student Success - Select One**

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-2
ACA 122	College Transfer Success	1-0-1

Total Semester Hours Credit Required for Graduation: 65

**Semester Curriculum for Early Childhood Associate Degree**

<b>1st Semester (Fall)</b>		<b>C-L-SHC</b>
CIS 110	Introduction to Computers	2-2-3
	Or	
CIS 111	Basic PC Literacy	1-2-2
EDU 119	Introduction to Early Childhood Education	4-0-4
EDU 144	Child Development I	3-0-3
EDU 131	Child, Family, & Community	3-0-3
ENG 111	Expository Writing	3-0-3
	Student Success Course	1-0-1
		<b>15-2-16</b>
<b>2nd Semester (Spring)</b>		
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
	Communications Elective	3-0-3
		<b>15-0-15</b>
<b>3rd Semester (Summer)</b>		
EDU 221	Children with Exceptionalities	3-0-3
	Humanities/Fine Arts Elective	3-0-3
		<b>6-0-6</b>
<b>4th Semester (Fall)</b>		
EDU 234	Infants, Toddlers, Twos	3-0-3
EDU 252	Math and Science Activities	3-0-3
EDU 280	Literacy Experiences	3-0-3
	Social/Behavioral Science Elective	3-0-3
*MAT 140	Survey of Mathematics	3-0-3
		<b>15-10-15</b>

5th Semester (Spring)		
EDU 284	Early Childhood Capstone Prac	1-9-4
EDU 259	Curriculum Planning	3-0-3
EDU 271	Educational Technology	2-2-3
	Early Childhood Elective	3-0-3
		9-9-13

Total Semester Hours Credit: 65

\* Students may substitute MAT 115 or PHY 121 (nontransferable).

## Early Childhood Credential: Early Childhood Diploma D55220

This diploma program 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:

Chatham Campus – Select Day Courses, Selected Evening Courses

Harnett Campus - Day, Selected Evening Courses

Lee Campus – Day, Selected Evening Courses

Selected Online Courses

Course Requirements for Child Care Worker Diploma

A. General Education Courses (6 SHC)		C-L-SHC
ENG 111	Expository Writing	3-0-3
	Social/Behavioral Science Elective	3-0-3

B. Required Major Core Courses (29 SHC)

EDU 119	Introduction to Early Childhood Education	4-0-4
EDU 131	Children, Family and Community	3-0-3
EDU 144	Child Development I	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 221	Children with Exceptionalities	3-0-3
EDU 284	Early Childhood Capstone Prac	1-9-4

C. Other Required Major Hours (12/13 SHC)

CIS 110	Introduction to Computers	2-2-3
Or		
CIS 111	Basic PC Literacy	1-2-2
EDU 252	Math and Science Activities	3-0-3
EDU 259	Curriculum Planning	3-0-3
EDU 271	Educational Technology	2-2-3

Student Success – Select One

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-2
ACA 122	College Transfer Success	1-0-1

Total Semester Hours Credit required for graduation: 47

Semester Curriculum for Child Care Worker Diploma

1st Semester (Fall)		C-L-SHC
CIS 110	Introduction to Computers	2-2-3
	Or	
CIS 111	Basic PC Literacy	1-2-2
EDU 119	Introduction to Early Childhood Education	4-0-4
EDU 131	Child, Family, & Community	3-0-3
EDU 144	Child Development I	3-0-3
	Social/Behavioral Science Elective	3-0-3
	Student Success Course	1-0-1
		15-2-16
2nd Semester (Spring)		
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	Expository Writing	3-0-3
		15-2-15
3rd Semester (Summer)		
EDU 221	Children with Exceptionalities	3-0-3
4th Semester (Fall)		
EDU 284	Early Childhood Capstone Prac	1-9-4
EDU 252	Math and Science Activities	3-0-3
EDU 259	Curriculum Planning	3-0-3
EDU 271	Educational Technology	2-2-3
		9-11-13
Total Semester Hours Credit: 47		

**Early Childhood  
Credential: Early Childhood Administration  
Certificate  
C55220AD**

This certificate program is designed for individuals pursuing an administration position in childcare. Specific emphases include an introduction to child development, child guidance, health and nutrition, safety, program management, 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 Associate (Higher entrance standards required); Early Childhood Diploma (Higher entrance standards required); Early Childhood Administration Certificate

Program Sites:

- Lee Campus - Evening
- Harnett Campus - Evening
- Chatham Campus –Evening
- Distance

Course Requirements for Early Childhood Administration Certificate

A. Required Major Core Courses (16 SHC)		C-L-SHC
EDU 119	Intro to Early Child Education	4-0-4
EDU 146	Child Guidance	3-0-3
EDU 153	Health, Safety and Nutrition	3-0-3
EDU 261	Administration I	3-0-3
EDU 262	Administration II	3-0-3

Total Semester Hours Credit required for graduation: 16

Semester Curriculum for Early Childhood Administration

1st Semester (Fall)		C-L-SHC
EDU 119	Intro to Early Child Education	4-0-4
EDU 153	Health, Safety and Nutrition	3-0-3
EDU 261	Administration I	3-0-3
2nd Semester (Spring)		
EDU 146	Child Guidance	3-0-3
EDU 262	Administration II	3-0-3

Total Semester Hours Credit: 16



**Early Childhood  
Credential: Family Home & Early Childcare  
Certificate  
C55220FH**

2nd Semester (Spring)		
EDU 146	Child Guidance	3-0-3
EDU 153	Health, Safety, and Nutrition	3-0-3
	Elective	3-0-3
		9-0-9

Total Semester Hours Credit: 18

This certificate program is designed for 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 emphases 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 a 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 Associate (Higher entrance standards required); Early Childhood Diploma (Higher entrance standards required); Child Care Worker Certificate

Program Sites:

Lee Campus - Day and Evening  
Harnett Campus - Day and Evening  
Chatham Campus – Day and Evening  
Siler City Campus - Evening  
Distance

Course Requirements for Child Care Worker Certificate

A. Required Major Core Courses (9 SHC)		C-L-SHC
EDU 144	Child Development I	3-0-3
EDU 146	Child Guidance	3-0-3
EDU 153	Health, Safety and Nutrition	3-0-3

B. Elective Course Listing (Select a minimum of 9 SHC)

EDU 114	Intro to Family Childcare	3-0-3
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
EDU 151	Creative Activities	3-0-3
EDU 234	Infants, Toddlers, and Twos	3-0-3
EDU 252	Math and Science Activities	3-0-3
EDU 280	Literacy Experiences	3-0-3

Total Semester Hours Credit required for graduation: 18

Semester Curriculum for Child Care Worker Certificate

1st Semester (Fall)		C-L-SHC
EDU 144	Child Development I	3-0-3
	Elective	3-0-3
	Elective	3-0-3
		9-0-9

## Early Childhood Associate

### Credential: Infant/Toddler Care Certificate C55290

The curriculum prepares individuals to work with children from infancy to three years of age in diverse learning environments. Students will combine learned theories, competency-based knowledge, and practice in actual settings with young children under the supervision of qualified teachers. 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 Associate (Higher entrance standards required); Early Childhood Diploma (Higher entrance standards required); Infant/Toddler Care Certificate  
Program Sites:

Lee Campus – Day and Evening  
Harnett Campus - Day and Evening  
Chatham Campus – Day and Evening  
Siler City Campus - Evening  
Distance

#### Course Requirements for Infant /Toddler Care Certificate

A. Required Major Core Courses (16 SHC)		C-L-SHC
EDU 119	Introduction to Early Childhood Education	4-0-4
EDU 131	Child, Family and Community	3-0-3
EDU 144	Child Development I	3-0-3
EDU 153	Health, Safety and Nutrition	3-0-3
EDU 234	Infant, Toddlers, and Twos	3-0-3

Total Semester Hours Credit required for graduation: 16

## Esthetics

### Credential: Certificate in Esthetics C55230

The Esthetics curriculum is designed to provide competency-based knowledge, scientific/artistic principles and hands-on fundamentals associated with the esthetics industry. 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 by a certified Esthetician. Graduates are trained in a variety of competencies including: facials, hair removal, massage therapy, exfoliation, microderm abrasion, hot wax treatments and customized skin care programs.

Graduates should be prepared to take the North Carolina Cosmetology State Board Licensing Exam and upon passing be licensed and qualified for employment in beauty and cosmetic/skin care salons, as platform artists, in dermatological clinics and in related businesses.

Program Length: 1 or 2 semesters

Career Pathway Options: Certificate in Esthetics  
Program Sites:

Lee Campus – Day and Evening

#### Course Requirements for Esthetics Certificate

A. Required Major Core Courses (16 SHC)		C-L-SHC
COS 119	Esthetics Concepts I	2-0-2
COS 120	Esthetics Salon	0-18-6
COS 125	Esthetics Concepts II	2-0-2
COS 126	Esthetics Salon II	0-18-6

Total Semester Hours Credit required for graduation: 16

#### Two Semester Curriculum for Esthetics Certificate

1st Semester		C-L-SHC
COS 119	Esthetics Concepts I	2-0-2
COS 120	Esthetics Salon I	0-18-6
		2-18-8
2nd Semester		
COS 125	Esthetics Concepts II	2-0-2
COS 126	Esthetics Salon II	0-18-6
		2-18-8

#### One Semester Curriculum for Esthetics Certificate

1st Semester		C-L-SHC
COS 119	Esthetics Concepts I	2-0-2
COS 120	Esthetics Salon I	0-18-6
COS 125	Esthetics Concepts II	2-0-2
COS 126	Esthetics Salon II	0-18-6
		2-18-8

Total Semester Hours Credit: 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 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 esthetics instructors in public or private education and business.

Program Length: 2 semesters  
 Career Pathway Options: Certificate in Esthetics Instructor  
 Program Sites:  
 Lee Campus - Day and Evening

**Course Requirements for Esthetics Instructor Certificate**

A. Required Major Core Courses (22 SHC)		C-L-SHC
COS 253	Esthetics Instructor Concepts I	6-15-11
COS 254	Esthetics Instructor Concepts II	6-15-11

Total Semester Hours Credit required for graduation: 22

**Semester Curriculum for Esthetics Instructor Certificate**

1st Semester (Fall)		C-L-SHC
COS 253	Esthetics Instructor Concepts I	6-15-11
		6-15-11

2nd Semester (Spring)		6-15-11
COS 254	Esthetics Instructor Concepts II	6-15-11

Total Semester Hours Credit: 22

**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: 5 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.

**Course Requirements for Library and Information Technology Degree**

A. General Education Courses (15 SHC)		C-L-SHC
ENG 111	Expository Writing	3-0-3
ENG 114	Professional Research and Reporting	3-0-3
	Humanities/Fine Arts Elective	3-0-3
*MAT 140	Survey of Mathematics	3-0-3
	Social/Behavioral Science Elective	3-0-3

**B. Required Major Core Courses (27 SHC)**

CIS 110	Introduction to Computers	2-2-3
LIB 110	Introduction to Libraries	3-0-3
LIB 111	Library Information Resources and Services	2-2-3
LIB 112	Library Collection Development and Acquisition	2-2-3
LIB 113	Library Cataloging and Classification	2-2-3
LIB 114	Library Public Service Operation	2-2-3
LIB 210	Electronic Library Databases	2-2-3
LIB 211	Library Program Development	3-0-3
WEB 110	Internet/Web Fundamentals	2-2-3

**C. Other Major Hours Required (26 SHC)**

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CTS 130	Spreadsheet	2-2-3
CTS 135	Integrated Software Introduction	2-4-4
DBA 110	Database Concepts	2-3-3
NET 115	Telecommunication Fundamentals	1-2-2
COE 111	Co-op Work Experience I	0-10-1
	Library Elective	3-0-3
	Major Elective	6-0-6

Library Elective (3 SHC)

LIB 212	Library Services/Special Needs	3-0-3
LIB 214	Library Services for Children	3-0-3

Student Success – Select One \*Effective 2014 Fall

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1
ACA 122	College Transfer Success	1-0-1

Major Elective Course Listing (Select 6 SHC)

ACC 120	Principles 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/Special Needs	3-0-3
LIB 213	Cataloging Non-print Materials	2-2-3
LIB 214	Library Services for 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

Total Semester Hours Credit: 65

Semester Curriculum for Library and Information

Technology Degree

1st Semester (Fall)		C-L-SHC
CIS 110	Introduction to Computers	2-2-3
ENG 111	Expository Writing	3-0-3
LIB 110	Introduction to Libraries	3-0-3
LIB 111	Library Information Resources and Services	2-2-3
LIB 113	Library Cataloging and Classification	2-2-3
	Student Success Course	1-0-1
		12-8-16

2nd Semester (Spring)

LIB 112	Library Collection Development and Acquisition	2-2-3
LIB 114	Library Public Service Operation	2-2-3
	Major Elective	3-0-3
	Social/Behavioral Science Elective	3-0-3
WEB 110	Internet/Web Fundamentals	2-2-3
		12-6-15

3rd Semester Fall

CTS 135	Integrated Software Introduction	2-4-4
DBA 110	Database Concepts	2-3-3
LIB 211	Library Program Development	3-0-3
LIB 214	Library Services for Children	3-0-3
*MAT 140	Survey of Mathematics	3-0-3

Major Elective 3-0-3  
15-9-19

4th Semester Spring

COE 111	Co-op Work Experience	0-10-1
CTS 130	Spreadsheet	2-2-3
ENG 114	Professional Research and Reporting	3-0-3
LIB 210	Electronic Library Databases	2-2-3
NET 115	Telecommunication Fundamentals	1-2-2
	Humanities/Fine Arts Elective	3-0-3
		11-16-15

\* Students may substitute MAT 115 (nontransferable).

Total Semester Hours Credit (SHC): 65

## 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.

### Course Requirements for the Library and Information Technology Diploma

A. General Education Courses (6 SHC)		C-L-SHC
ENG 111	Expository Writing	3-0-3
	Social/Behavioral Science Elective	3-0-3

B. Required Major Core Courses (21 SHC)		
CIS 110	Introduction to Computers	2-2-3
LIB 110	Introduction to Libraries	3-0-3
LIB 111	Library Information Resources and Serv.	2-2-3
LIB 112	Library Collection Devel. and Acquisition	2-2-3
LIB 113	Library Cataloging and Classification	2-2-3
LIB 114	Library Public Service Operation	2-2-3
WEB 110	Internet/Web Fundamentals	2-2-3

C. Other Major Hours Required (10 SHC)		
DBA 110	Database Concepts	2-3-3
NET 115	Telecommunication Fundamentals	1-2-2
COE 111	Co-op Work Experience	0-10-1

### Library Elective (3 SHC)

LIB 212	Library Services/Special Needs	3-0-3
	-OR-	
LIB 214	Library Services/Children, or	3-0-3

### Student Success – Select One \*Effective 2014 Fall

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1
ACA 122	College Transfer Success	1-0-1

Total Hours Required for Diploma: 37

### Semester Curriculum for Library and Information Technology Diploma

1st Semester (Fall)		C-L-SHC
CIS 110	Introduction to Computers	2-2-3
DBA 110	Database Concepts	2-3-3
LIB 110	Introduction to Libraries	3-0-3
LIB 111	Library Information Resources and Serv.	2-2-3
LIB 113	Library Cataloging and Classification	2-2-3
LIB 212	Library Services for Special Needs	3-0-3
	OR	
LIB 214	Library Services for Children	3-0-3
	Student Success Course	1-0-1
		15-9-19
2nd Semester (Spring)		
COE 111	Co-op Work Experience	0-10-1
ENG 111	Expository Writing	3-0-3
LIB 112	Library Collection Devel. and Acquisition	2-2-3
LIB 114	Library Public Service Operation	2-2-3
NET 115	Telecommunication Fundamentals	1-2-2
	Social/Behavioral Science Elective	3-0-3
WEB 110	Internet/Web Fundamentals	2-2-3
		13-18-18

Total Hours Required for Diploma: 37

**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

**Course Requirements for Library Cataloging Certificate**

Required Major Courses (12 SHC):		C-L-SHC
LIB 112	Library Collection Devel. and Acquisition	2-2-3
LIB 113	Lib. Cataloging and Classification	2-2-3
LIB 213	Cataloging Non-print Materials	2-2-3
WEB 110	Internet/Web Fundamentals	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

**Course Requirements for Library Programs Certificate**

Required Major Courses (12 SHC):		C-L-SHC
LIB 211	Library Program Development	3-0-3
LIB 212	Library Services for Special Needs	3-0-3
LIB 214	Library Services for Children	3-0-3
WEB 110	Internet/Web Fundamentals	2-2-3

Total Semester Hours Credit Required for Graduation: 12

**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

Course Requirements for Library Public Services Certificate

Required Major Courses (12 SHC):		C-L-SHC
LIB 111	Library Information Resources and Serv.	2-2-3
LIB 114	Library Public Services Operation	2-2-3
LIB 210	Electronic Library Databases	2-2-3
WEB 110	Internet/Web Fundamentals	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

Course Requirements for Library Technical Services Certificate

Required Major Courses (18 SHC):		C-L-SHC
LIB 111	Lib. Info. Resources/Svcs.	2-2-3
LIB 112	Library Collection Devel. and Acquisition	2-2-3
LIB 113	Library Cataloging and Classification	2-2-3
LIB 210	Electronic Library Databases	2-2-3
LIB 213	Cataloging Non-print Materials	2-2-3
WEB 110	Internet/Web Fundamentals	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

Course Requirements for Library Basics Certificate:

Required Major Courses (12 (SHC))		C-L-SHC
LIB 110	Introduction to Libraries	3-0-3
LIB 111	Library Info./Resources	2-2-3
LIB 112	Library Collection Devel./Acquisition	2-2-3
LIB 114	Library Public Services Operations	2-2-3

Total Semester Hours Required for Credit: 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 emphases 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

Course Requirements for Library Management Certificate

Required Major Courses (18 SHC): C-L-SHC	
LIB 110	Introduction to Libraries 3-0-3
LIB 112	Library Collection Devel. and Acquisition 2-2-3
LIB 114	Library Public Services Operations 2-2-3
LIB 215	Library Management 3-0-3
BUS 153	Human Resource Management 3-0-3
MKT 223	Customer Service 3-0-3

Total Semester Hours Credit Required for Graduation: 18



## School-Age Education: Associate in Applied Science Degree in School-Age Education A55440

This curriculum prepares individuals to work with school-age children in diverse learning environments. Students will combine learned theories with practice in actual settings with young children under the supervision of qualified teachers. Coursework includes childhood growth and development, physical/nutritional needs of children, care and guidance of children, and communication skills with parents and children. Students will foster the cognitive/language, physical/motor, social/emotional, and creative development of young children.

Graduates are prepared to plan and implement developmentally appropriate programs in school-age settings. Employment opportunities include child development programs, preschools, public and private schools, recreational centers, Head Start Programs, and school-age programs.

Program Length: 5 semesters

Career Pathway Options: Associate in Applied Science Degree in School-Age Education

Program Sites:

Lee Campus - Day, Selected Evening Courses

Distance - Select Courses

Course Requirements for Early Childhood

Associate/Teacher Associate Degree

A. General Education Courses (15 SHC) C-L-SHC

ENG 111 Expository Writing 3-0-3

\*MAT 140 Survey of Mathematics 3-0-3

Humanities/Fine Arts Elective 3-0-3

Social/Behavioral Science Elective 3-0-3

Communication Elective 3-0-3

COM 231 Public Speaking 3-0-3

ENG 112 Argument-Based Research 3-0-3

ENG 113 Literature-Based Research 3-0-3

ENG 114 Professional Research & Reporting 3-0-3

ENG 115 Oral Communication 3-0-3

ENG 116 Technical Report Writing 3-0-3

B. Required Major Core Courses (27 SHC)

EDU 118 Principles and Practices of Inst. Assistant 3-0-3

EDU 131 Children, Family and Community 3-0-3

EDU 144 Child Development I 3-0-3

EDU 145 Child Development II 3-0-3

EDU 163 Classroom Management & Instruction 3-0-3

EDU 221 Children with Exceptional 3-0-3

EDU 271 Educational Technology 2-2-3

EDU 285 Internship Experience School-age 1-9-4

EDU 289 Adv. Issues/School-Age 2-0-2

\* Students may substitute MAT 115 or PHY 121 (nontransferable).

C. Other Required Major Hours (23 SHC)

CIS 110 Introduction to Computers 2-2-3

Or

CIS 111 Basic PC Literacy 1-2-2

EDU 146 Child Guidance 3-0-3

EDU 153 Health, Safety, and Nutrition 3-0-3

EDU 243 Learning Theory 3-0-3

EDU 257 Instructional Strategies/Math 3-0-3

EDU 258 Instructional Strategies/Science 3-0-3

EDU 275 Effective Teacher Training 2-0-2

EDU 281 Instructional Strategies/Reading & Writing 3-0-3

School-Age Elective

EDU 275 Effective Teacher Training 2-0-2

EDU 235 School-Age Development 3-0-3

EDU 216 Foundations of Education 4-0-4

Student Success – Select One

ACA 111 College Student Success 1-0-1

ACA 115 Success and Study Skills 0-2-1

ACA 122 College Transfer Success 1-0-1

Total Semester Hours Credit Required for Graduation: 65

Semester Curriculum for School-Age Education Associate Degree

1st Semester (Fall) C-L-SHC

CIS 110 Introduction to Computers 2-2-3

Or

CIS 111 Basic PC Literacy 1-2-2

EDU 131 Child, Family, & Community 3-0-3

EDU 144 Child Development I 3-0-3

EDU 163 Classroom Management & Instruction 3-0-3

ENG 111 Expository Writing 3-0-3

Student Success Course 1-0-1

14/15-4-15/16

2nd Semester (Spring)

EDU 118 Principles and Practices of Inst. Assistant 3-0-3

EDU 145 Child Development II 3-0-3

EDU 146 Child Guidance 3-0-3

EDU 153 Health, Safety, and Nutrition 3-0-3

Communications Elective 3-0-3

15-0-15

3rd Semester (Summer)

EDU 221 Children with Exceptionalities 3-0-3

Humanities/Fine Arts Elective 3-0-3

6-0-6

4th Semester (Fall)

EDU 257 Instructional Strategies/Math 3-0-3

EDU 258 Instructional Strategies/Science 3-0-3

EDU 281 Instructional Strategies/Reading & Writing 3-0-3

Social/Behavioral Science Elective 3-0-3

\*MAT 140 Survey of Mathematics 3-0-3

15-0-15

5th Semester (Spring)

EDU 243 Learning Theory 3-0-3

EDU 271 Educational Technology 2-2-3

<i>2013-2015 College Catalog – Central Carolina Community College</i>		
EDU 285	Internship Experience School Age	1-9-4
EDU 289	Adv. Issues/School-Age	2-0-2
School-Age Elective		3-0-3
		11-11-15

\* Students may substitute MAT 115 or PHY 121 (nontransferable).

Total Semester Hours Credit: 65

## ***Transport Systems Technologies***

\*Effective 2014 Spring

### **Automotive Restoration Technology Credential: Diploma in Automotive Restoration Technology D6014000**

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 typically from year models 1900 - 1970. 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: Lee Campus - Day Program

#### Course Requirements for Automotive Restoration Technology Diploma

A. General Education Courses (6 SHC)		C-L-SHC
ENG 102	Applied Communication II	3-0-3
MAT 101	Applied Mathematics I	2-2-3

#### B. Technical Core Courses (5 SHC)

TRN 110	Intro to Transport Tech	1-2-2
TRN 180	Basic Welding for Transp	1-4-3

#### C. Program Major Courses (13 SHC)

ARS 112	Auto Restoration Research	3-0-3
ARS 113	Automotive Upholstery	2-2-4
ARS 114	Restoration Skills I	2-2-4
ARS 117	Automotive Engines	1-3-2

#### D. Other Major Hours (19 SHC)

ARS 118	Wood and Metal Restoration	2-2-3
ARS 131	Chassis and Drive Trains	2-3-3
AUB 111	Painting and Refinishing I	2-6-4
AUB 112	Painting and Refinishing II	2-6-4
TRN 120	Basic Transp Electricity	4-3-5

#### Other Required Hours (3)

AUB 121	Non-Structural Damage I	1-4-3
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Total Semester Hours Credit required for graduation: 46

Semester Curriculum for Automotive Restoration  
Technology Diploma

## 1st Semester (Fall)

ARS 112	Auto Restoration Research	C-L-SHC	3-0-3
ARS 117	Automotive Engines		1-3-2
AUB 111	Painting and Refinishing I		2-6-4
AUB 121	Non-Structural Damage I		1-4-3
TRN 110	Intro to Transport Tech		1-2-2
TRN 120	Basic Transp Electricity		<u>4-3-5</u>

12-18-19

## 2nd Semester (Spring)

ARS 113	Automotive Upholstery		2-4-4
ARS 114	Restoration Skills I		2-2-4
ARS 118	Wood and Metal Restoration		2-2-3
ARS 131	Chassis and Drive Trains		2-3-3
AUB 112	Painting and Refinishing II		2-6-4
ENG 102	Applied Communication II		<u>3-0-3</u>

13-17-21

## 3rd Semester (Summer)

MAT 101	Applied Mathematics I		2-2-3
TRN 180	Basic Welding for Transp		<u>1-4-3</u>

3-6-6

Total Semester Hours Credit (SHC): 46

\*Effective 2014 Spring

**Automotive Restoration Technology  
Credential: Certificate in Automotive  
Restoration Technology  
C6014000**

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 typically from year models 1900 - 1970. 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: 2 semesters

Career Pathway Options: Diploma in Automotive Restoration Technology (Higher entrance standards required).

Program Sites: Lee Campus - Day Program

Course Requirements for Automotive Restoration  
Technology Certificate

## A. Technical Core Courses (2 SHC)

TRN 110	Intro to Transport Tech	1-2-2
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## B Program Major Courses (13 SHC)

AUB 111	Painting and Refinishing I	2-6-4
AUB 112	Painting and Refinishing II	2-6-4
TRN 120	Basic Transp Electricity	4-3-5

Total Semester Hours Credit required for graduation: 15

Semester Curriculum for Automotive Restoration  
Technology Certificate1<sup>st</sup> Semester

AUB 111	Painting and Refinishing I	2-6-4
TRN 110	Intro to Transport Tech	1-2-2
TRN 120	Basic Transp Electricity	<u>4-3-5</u>

7-11-11

2<sup>nd</sup> Semester

AUB 112	Painting and Refinishing II	<u>2-6-4</u>
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2-6-4

Total Semester Hours Credit required for graduation: 15

\*Effective 2014 Spring

## Automotive Systems Technology

**Credential: Associate in Applied Science**

**Degree in Automotive Systems Technology**

**A60160**

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, engine performance, engine repair, suspension and steering, automatic and manual transmissions and drive trains, 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 Campus - Day Program

### Course Requirements for Automotive Systems Technology Degree

#### A. General Education Courses (15/16 SHC) C-L-SHC

ENG 110	Freshman Composition	3-0-3
	OR	
ENG 111	Expository Writing	3-0-3
ENG 114	Professional Research and Reporting	3-0-3
	OR	
ENG 116	Technical Report Writing	3-0-3
	Humanities/Fine Arts Elective	3-0-3
MAT 115	Mathematical Models	2-2-3
	Or	
PHY 121	Applied Physics I	3-2-4
	Social/Behavioral Science Elective	3-0-3

#### B. Technical Core Courses (9 SHC)

TRN 110	Intro to Transport Tech	1-2-2
TRN 120	Basic Transp Electricity	4-3-5
TRN 140	Transp Climate Control	1-2-2

#### C. Program Major Courses (12 SHC)

AUT 141	Suspension and Steering Systems	2-3-3
AUT 151	Brake Systems	2-3-3
AUT 181	Engine Performance I	2-3-3
AUT 221	Auto Transm/Transaxles	2-3-3

#### D. Other Major Hours Required for Graduation (37 SHC)

CIS 111	Basic PC Literacy	1-2-2
AUT 114	Safety and Emissions	1-2-2
AUT 114A	Safety and Emissions Lab	0-2-1
AUT 116	Engine Repair	2-3-3
AUT 116A	Engine Repair Lab	0-3-1
AUT 141A	Suspension and Steering Lab	0-3-1

AUT 151A	Brake Systems Lab	0-3-1
AUT 163	Adv Automotive Electricity	2-3-3
AUT 163A	Adv Automotive Electricity Lab	0-3-1
AUT 181A	Engine Performance Lab	0-3-1
AUT 183	Engine Performance II	2-6-4
AUT 221A	Auto Transm/Transaxles Lab	0-3-1
AUT 231	Manual Trans/Axles/Drtrains	2-3-3
AUT 231A	Manual Trans/Axles/Drtrains Lab	0-3-1
AUT 281	Advanced Engine Performance	2-2-3
TRN 130	Intro to Sustainable Transp	2-2-3
TRN 140 A	Transp Climate Control Lab	1-2-2
TRN 145	Adv Automotive Electronics	2-3-3

Student Success—Select one:

ACA 111	College Student Success	1-0-1
ACA 115	Success and Study Skills	0-2-1
ACA 122	College Transfer Success	1-0-1

Total Semester Hours Credit required for graduation: 73/74 SHC

### Semester Curriculum for Automotive Systems Technology Degree

#### 1st Semester (Fall) C-L-SHC

ACA 111	College Student Success	1-0-1
AUT 181	Engine Performance I	2-3-3
AUT 181A	Engine Performance Lab	0-3-1
CIS 111	Basic PC Literacy	1-2-2
PHY 121	Applied Physics I	3-2-4
TRN 110	Intro to Transport Tech	1-2-2
TRN 120	Basic Transp Electricity	4-3-5
		12-15-18

#### 2nd Semester (Spring)

AUT 141	Suspension and Steering Systems	2-3-3
AUT 141A	Suspension and Steering Lab	0-3-1
AUT 151	Brake Systems	2-3-3
AUT 151A	Brake Systems Lab	0-3-1
AUT 163	Adv Automotive Electricity	2-3-3
AUT 163A	Adv Automotive Electricity Lab	0-3-1
ENG 110	Freshman Composition	3-0-3
		9-18-15

#### 3rd 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 140 A	Transp Climate Control Lab	1-2-2
		5-14-11

#### 4th Semester (Fall)

AUT 116	Engine Repair	2-3-3
AUT 116A	Engine Repair Lab	0-3-1
AUT 231	Manual Trans/Axles/Drtrains	2-3-3
AUT 231A	Manual Trans/Axles/Drtrains Lab	0-3-1
ENG 116	Technical Report Writing	3-0-3
TRN 130	Intro to Sustainable Transp	2-2-3

5th Semester (Spring)		9-14-14
AUT 221	Auto Transm/Transaxles	2-3-3
AUT 221A	Auto Transm/Transaxles Lab	0-3-1
	Social/Behavioral Science Elective	3-0-3
	Humanities/Fine Arts Elective	3-0-3
AUT 281	Advanced Engine Performance	2-2-3
TRN 145	Adv Automotive Electronics	2-3-3
		12-11-16

Total Semester Hours Credit: 74

\*Effective 2014 Spring

## **Automotive Systems Technology**

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

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, engine performance, engine repair, suspension and steering, automatic and manual transmissions and drive trains, and heating and air condition systems. 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: 3 semesters

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

Program Sites: Lee Campus - Day Program

#### Course Requirements for Automotive Systems Technology Diploma

A. General Education Courses (6 SHC)		C-L-SHC
ENG 102	Applied Communication II	3-0-3
MAT 101	Applied Math I	2-2-3
B. Technical Core Courses (7 SHC)		
TRN 110	Intro to Transport Tech	1-2-2
TRN 120	Basic Transp Electricity	4-3-5
C. Program Major Courses (12 SHC)		
AUT 141	Suspension and Steering Systems	2-3-3
AUT 151	Brake Systems	2-3-3
AUT 163	Adv Automotive Electricity	2-3-3
AUT 181	Engine Performance I	2-3-3
D. Other Major Hours required for graduation (17 SHC)		
AUT 114	Safety and Emissions	1-2-2
AUT 114A	Safety and Emissions Lab	0-2-1
AUT 141A	Suspension and Steering Lab	0-3-1
AUT 151A	Brake Systems Lab	0-3-1
AUT 163A	Adv Automotive Electricity Lab	0-3-1
AUT 181A	Engine Performance Lab	0-3-1
AUT 183	Engine Performance II	2-6-4
CIS 111	Basic PC Literacy	1-2-2
TRN 140	Transp Climate Control	1-2-2
TRN 140 A	Transp Climate Control Lab	1-2-2

Total Semester Hours Credit required for graduation: 42

2013-2015 College Catalog – Central Carolina Community College  
Semester Curriculum for Automotive Systems Technology  
Diploma

1st Semester (Fall)		C-L-SHC
AUT 181	Engine Performance I	2-3-3
AUT 181A	Engine Performance Lab	0-3-1
CIS 111	Basic PC Literacy	1-2-2
MAT 101	Applied Math I	2-2-3
TRN 110	Intro to Transport Tech	1-2-2
TRN 120	Basic Transp Electricity	<u>4-3-5</u>
		10-15-16

2nd Semester (Spring)		
AUT 141	Suspension and Steering Systems	2-3-3
AUT 141A	Suspension and Steering Lab	0-3-1
AUT 151	Brake Systems	2-3-3
AUT 151A	Brake Systems Lab	0-3-1
AUT 163	Adv Automotive Electricity	2-3-3
AUT 163A	Adv Automotive Electricity Lab	0-3-1
ENG 102	Applied Communication II	<u>3-0-3</u>
		9-18-15

3rd 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 140 A	Transp Climate Control Lab	<u>1-2-2</u>
		5-14-11

Total Semester Hours Credit: 42

\*Effective 2014 Spring

**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, engine performance, engine repair, suspension and steering, automatic and manual transmissions and drive trains, and heating and air condition systems. 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

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 Campus - Day Program

Course Requirements for Automotive Systems Technology Certificate

A. Technical Core Courses (5 SHC)

TRN 120	Basic Transp Electricity	4-3-5
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B Program Major Courses (12 SHC)

AUT 151	Brake Systems	2-3-3
AUT 151A	Brake Systems 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

Total Semester Hours Credit required for graduation: 17

Semester Curriculum for Automotive Systems Technology Certificate

1st Semester (Fall)		C-L-SHC
AUT 181	Engine Performance I	2-3-3
AUT 181A	Engine Performance Lab	0-3-1
TRN 120	Basic Transp Electricity	<u>4-3-5</u>
		6-9-9

2nd Semester (Spring)		
AUT 151	Brake Systems	2-3-3
AUT 151A	Brake Systems Lab	0-3-1
AUT 163	Adv Automotive Electricity	2-3-3
AUT 163A	Adv Automotive Electricity Lab	<u>0-3-1</u>
		4-12-8

Total Semester Hours Credit required for graduation: 17

\*Effective 2014 Spring

**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

Career Pathway Options: Diploma in Motorcycle Mechanics

Program Sites: Lee Campus - Day Program

## Course Requirements for Motorcycle Mechanics Diploma

## A. General Education Courses (6 SHC)

C-L-SHC

ENG 102	Applied Communication II	3-0-3
MAT 101	Applied Math I	2-2-3

## B. Technical Core Courses (7 SHC)

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

## C. Program Major Courses (15 SHC)

MCM 111	Motorcycle Mechanics	3-8-7
MCM 114	Motorcycle Fuel Systems	2-6-5
MCM 115	Motorcycle Chassis	1-6-3

## D. Other Major Hours (20 SHC)

MCM 117	Motorcycle Dyno Tuning I	1-4-3
MCM 217	Motorcycle DynoTuning II	1-4-3
TRN 120A	Basic Transp Electricity Lab	0-3-1
TRN 180	Basic Welding for Transp	1-4-3
MCM 122	Motorcycle Engines	2-9-5
MEC 111	Machine Processes I	1-4-3
CIS 111	Basic PC Literacy	1-2-2

Total Semester Hours Credit required for graduation: 48

## Semester Curriculum for Motorcycle Mechanics Diploma

## 1st Semester (Fall)

C-L-SHC

TRN 110	Intro to Transport Tech	1-2-2
CIS 111	Basic PC Literacy	1-2-2
MCM 111	Motorcycle Mechanics	3-8-7
MCM 115	Motorcycle Chassis	1-6-3
MAT 101	Applied Math I	<u>2-2-3</u>
		8-20-17

## 2nd Semester (Spring)

TRN 120	Basic Transp Electricity	4-3-5
TRN 120A	Basic Transp Electricity Lab	0-3-1
MCM 122	Motorcycle Engines	2-9-5
MCM 117	Motorcycle Dyno Tuning I	1-4-3
MEC 111	Machine Processes I	1-4-3
ENG 102	Applied Communication II	<u>3-0-3</u>
		11-23-20

## 3rd Semester (Summer)

MCM 217	Motorcycle DynoTuning II	1-4-3
MCM 114	Motorcycle Fuel Systems	2-6-5
TRN 180	Basic Welding for Transp	<u>1-4-3</u>
		4-14-11

Total Semester Hours Credit: 48

\*Effective 2014 Spring

## Motorcycle Mechanics

**Credential: Certificate in Motorcycle Mechanics**

**C60260**

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 certificate 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: 2 semesters

Career Pathway Options: Diploma in Motorcycle Mechanics (Higher entrance standards required), Certificate in Motorcycle Mechanics

Program Sites: Lee Campus - Day and Evening Program

### Course Requirements for Motorcycle Mechanics Certificate

#### A. Technical Core Courses (7 SHC)

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

#### B Program Major Courses (9 SHC)

TRN 120A	Basic Transp Electricity Lab	0-3-1
MCM 122	Motorcycle Engines	2-9-5
MCM 115	Motorcycle Chassis	1-6-3

Total Semester Hours Credit required for graduation: 16

### Semester Curriculum for Motorcycle Mechanics Certificate

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

TRN 110	Intro to Transport Tech	1-2-2
MCM 115	Motorcycle Chassis	<u>1-6-3</u> 2-8-5

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

TRN 120	Basic Transp Electricity	4-3-5
TRN 120A	Basic Transp Electricity Lab	0-3-1
MCM 122	Motorcycle Engines	<u>2-9-5</u> 6-15-11

Total Semester Hours Credit required for graduation: 16

## Programs at Harnett Correctional Institution (HCI)

### Public Service Technologies

#### Barbering

**Credential: Certificate in Barbering C55110P0**

The Barbering Curriculum is designed to provide competency- based 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 phase 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.

Entrance Standards: See General Admission Standards in catalog

Academic Standards: See General Academic Standards in catalog

Program Length: 3 semesters

Career Pathway Option: Certificate in Barbering

Program Site: Harnett Correctional Institution - Day Program

### Course Requirements for Barbering Certificate

#### A. Required Major Core Courses (32 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

#### B. Other Major Hours Required for Graduation (9 SHC)

		C-L-SHC
BAR 117	Barbering Concepts IV	2-0-2
BAR 118	Barbering Clinic IV	0-21-7

Total Semester Hours Credit Required for Graduation: 41

### Semester Curriculum for Barbering Certificate

#### 1st Semester (Fall)

		C-L-SHC
BAR 111	Barbering Concepts I	4-0-4
BAR 112	Barbering Clinic I	0-24-8
BAR 117	Barbering Concepts IV	2-0-2
BAR 118A	Barbering Clinic IV	0-9-3



2nd Semester (Spring)	6-33-17
BAR 113 Barbering Concepts II	C-L-SHC 4-0-4
BAR 114 Barbering Clinic II	0-24-8
BAR 118B Barbering Clinic IV	0-12-4
	4-36-16
3rd Semester (Summer)	
BAR 115 Barbering Concepts III	C-L-SHC 4-0-4
BAR 116 Barbering Clinic III	0-12-4
	4-12-8
Total Semester Hours Credit: 41	

**Foodservice Technology**

**Credential: Diploma in Foodservice Technology  
D55250PO**

**Certificate in Foodservice Technology  
C55250P0**

The Foodservice Technology curriculum is designed to introduce students to the foodservice industry and prepare them for entry-level positions. Courses include sanitation and safety, basic and advanced foodservice skills, baking, menu planning, and cost control. Graduates should qualify for employment as line cooks, prep cooks, or bakers in foodservice settings.

Entrance Standards: See General Admission Standards in catalog

Academic Standards: See General Academic Standards in catalog

Program Length: 2 semesters

Career Pathway Options: Diploma in Foodservice Technology; Certificate in Foodservice Technology

Program Site: Harnett Correctional Institution - Day Program

Course Requirements for Foodservice Technology Diploma  
A. General Education Courses (6 SHC)

	C-L-SHC
ENG 102 Applied Communication II	3-0-3
MAT 101 Applied Mathematics	2-2-3

B. Required Major Core Courses (17 SHC)

	C-L-SHC
FST 100 Introduction to Foodservice	3-0-3
FST 101 Introduction to Baking	1-4-3
FST 102 Basic Foodservice Skills	4-8-8
FST 103 Safety and Sanitation	2-2-3

C. Other Major Hours Required for Graduation (18 SHC)

	C-L-SHC
CIS 111 Basic PC Literacy	1-2-2
FST 105 Menu Planning	4-2-5
FST 106 Advanced Foodservice Skills	2-6-5
FST 107 Advanced Baking	1-4-3
FST 108 Cost Control	2-2-3

Total Semester Hours Credit Required for Graduation: 41

Semester Curriculum for Foodservice Technology Diploma  
1st Semester (Fall)

	C-L-SHC
FST 100 Introduction to Foodservice	3-0-3
FST 101 Introduction to Baking	1-4-3
FST 102 Basic Foodservice Skills	4-8-8
FST 103 Safety and Sanitation	2-2-3

\*MAT 101 Applied Mathematics I 2-2-3  
12-16-20

\* Not required for certificate student.  
Student may exit with a certificate.

2nd Semester (Spring)

	C-L-SHC
CIS 111 Basic PC Literacy	1-2-2
ENG 102 Applied Communication II	3-0-3
FST 105 Menu Planning	4-2-5
FST 106 Advanced Foodservice Skills	2-6-5
FST 107 Advanced Baking	1-4-3
FST 108 Cost Control	2-2-3
	13-16-21

Total Semester Hours Credit for Foodservice Technology

Diploma : 41

Total Semester Hours Credit for Foodservice Technology

Certificate : 17

# COURSE DESCRIPTIONS 2013 - 2015





## COURSE DESCRIPTIONS

**C – The number of class hours per week**

**L – The number of laboratory hours per week**

**CI – The number of clinical hours per week**

**SHC – Semester Hour Credit received for the course**

### ACADEMIC RELATED

#### ACA 090 Study Skills

**C-L-SHC**  
**3-0-3**

This course is intended for those who placed into credit-level coursework but who are not maintaining satisfactory academic progress toward meeting program goals. Topics include study skills, note taking, learning styles and strategies, test taking, goal-setting, and self-assessment skills. Upon completion, students should be able to manage their learning experiences to successfully meet educational goals.

#### ACA 111 College Student Success

**1-0-1**

This course introduces the college's physical, academic, and social environment and promotes the personal development essential for success. Topics include campus facilities and resources; policies, procedures, and programs; study skills; and life management issues such as health, self-esteem, motivation, goal-setting, diversity, and communication. Upon completion, students should be able to function effectively within the college environment to meet their educational objectives.

#### ACA 115 Success and Study Skills

**0-2-1**

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

#### ACA 118 College Study Skills

**1-2-2**

This course covers skills and strategies designed to improve study behaviors. Topics include time management, note taking, test taking, memory techniques, active reading strategies, critical thinking, communication skills, learning styles, and other strategies for effective learning. Upon completion, students should be able to apply appropriate study strategies and techniques to the development of an effective study plan.

#### ACA 122 College Transfer Success

**1-0-1**

*Prerequisite: None*

*Corequisite: None*

This course provides information and strategies necessary to develop clear academic and professional goals beyond the community college experience. Topics include the CAA, college culture, career exploration, gathering information on senior institutions, strategic planning, critical thinking, and

communications skills for a successful academic transition. Upon completion, students should be able to develop an academic plan to transition successfully to senior institutions. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

### ACCOUNTING

#### ACC 115 College Accounting

**C-L-SHC**  
**3-2-4**

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 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 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 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 1-2-2**

*Prerequisite: 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 150 Acct Software Appl 1-2-2**

*Prerequisite: ACC 115 or ACC 120*

This course introduces microcomputer applications related to the 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**

*Local Prerequisites: ACC 120 and 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**

**C-L-SHC**

**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 112 Agri Records & Accounting 2-2-3**

This course covers principles involved in establishing, maintaining, and analyzing livestock and farm records. Topics include computerized livestock and farm records, net worth statements, and income and cash flow statements. Upon completion, students should be able to develop a production record keeping system, calculate performance efficiencies, and establish production goals.

**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.

**AGR 139 Intro to Sustainable Ag 3-0-3**

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.

#### Competencies

#### Student Learning Outcomes

1. Identify the biological properties of soil.
2. Describe sustainable land care practices and how they impact soil quality.
3. Select and apply fertilizers according to sustainable practices.

#### **AGR 212 Farm Business Management 3-0-3**

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 3-0-3**

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 220 Ag Mechanization 2-2-3**

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 2-2-3**

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 265 Organic Crop Prod: Spring 2-2-3**

This course includes a study of spring organic crop production practices, including vegetables, cut flowers, and culinary and medicinal herbs. Topics include variety selection, production methods, and record keeping procedures for certification. Upon completion, students should be able to demonstrate a knowledge of organic crop production appropriate for the spring season.

#### **AGR 266 Organic Crop Prod: Fall 2-2-3**

The course includes a study of spring organic crop production practices, including vegetables, cut flowers, and culinary and medicinal herbs. Topics include variety selection, production methods, and record keeping

procedures for certification. Upon completion, students should be able to demonstrate a knowledge of organic crop production appropriate for the fall season.

#### **AGR 268 Adv Organic Crop Prod 2-6-4**

*Prerequisites: AGR 265 or AGR 266*

This course provides students with structured practical experience in managing the complexities of organic crop 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.

#### **AGR 293 Selected Topics in Sustainable Agriculture 3-0-3**

This course provides an opportunity to explore areas of current interest in Sustainable Agriculture. Emphasis is placed on subject matter appropriate to this discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

## **AIR CONDITIONING, HEATING, AND REFRIGERATION**

**C-L-SHC**

#### **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 160 Refrigerant Certification 1-0-1**

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.

## **ALTERNATIVE ENERGY TECHNOLOGY**

**C-L-SHC**

#### **ALT 110 Biofuels I 3-0-3**

*Prerequisite: None*

*Corequisite: None*

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 Tech 2-2-3**

*Prerequisite: None*

*Corequisite: None*

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

**ALT 210 Biofuels II 3-0-3**

*Prerequisite: ALT 110*

*Corequisites: None*

This course provides an in-depth study of commercial biofuels production and various methods for manufacturing biofuels on a large scale. Topics include advanced production technologies, feedstock selection and pretreatment, quality control, energy balance, and biofuels business models. Upon completion, students should possess a practical knowledge of commercial biofuels production and facility operation.

**ALT 211 Biofuels Analytics 2-4-4**

*Prerequisite: ALT 110 AND CHM 131 or CHM 151*

*Corequisites: None*

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 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.

**ANIMAL SCIENCE**

**C-L-SHC**

**ANS 110 Animal Science 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.

**Competencies**

**Student Learning Outcomes**

1. Describe the importance of animal production and explain the major issues related to the production of livestock on an international, national, and state level.
2. Explain the relationship of science and animal production through the studies of biotechnology, technology, genetics, physiology, nutrition, and health.
3. Describe the basic physiology and terminology of the animal industries.
4. Describe the production (including sustainable production) methodologies of the swine, beef, dairy, sheep and horse industries.
5. Recognize the requirements of production animals, and the benefits of proper care, nutrition, genetics, and environment to the animal's productivity levels.

**ANS 111 Sustainable Livestock Mgt 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. Topics included are appropriate breed selection, nutrition and living requirements for livestock such as goats, hogs, sheep, poultry, and bees. Upon completion, student should recognize appropriate breeds for their farm needs and demonstrate knowledge of small-scale livestock production.

**ANTHROPOLOGY**

**C-L-SHC**

**ANT 210 General Anthropology 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 Intro 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

2-4-4

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 replace the seats, headliners, door panels, and other components in the interior of vehicles.

### ARS 114 Restoration Skills I

2-4-4

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.

Corequisites: Take One Set

Set 1: ARS-113, ARS-117, ARS-131 and TRN 120

Set 2: ARS-113, ARS-117, ARS-131 and TRN 120

### 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.

### ARS 131 Chassis and Drive Trains

2-3-3

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

C-L-SHC  
3-0-3

This course introduces the origins and historical development of art. Emphasis is placed on the relationship of design principles to various art forms including but not limited to sculpture, painting, and architecture. Upon completion, students should be able to identify and analyze a variety of artistic styles, periods, and media. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

### ART 114 Art History Survey I

3-0-3

This course covers the development of art forms from ancient times to the Renaissance. Emphasis is placed on content, terminology, design, and style. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of human social development. This course has been approved for transfer under the CAA and ICAA as a general education 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 general education 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.

### ART 121 Design I

0-6-3

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.

**ART 122 Design II 0-6-3**

*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 0-6-3**

This course introduces the language of drawing and the use of various drawing materials. Emphasis is placed on drawing techniques, media, and graphic principles. Upon completion, students should be able to demonstrate competence in the use of graphic form and various drawing processes. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

**ART 132 Drawing II 0-6-3**

*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 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**

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 0-6-3**

*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 0-6-3**

This course introduces the language of painting and the use of various painting materials. Emphasis is placed on the understanding and use of various painting techniques, media, and color principles. Upon completion, students should be able to demonstrate competence in the use of creative processes directed toward the development of expressive form. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

**ART 241 Painting II 0-6-3**

*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 0-6-3**

This course provides an exploration of the creative and technical methods of sculpture with focus on the traditional processes. Emphasis is placed on developing basic skills as they pertain to three-dimensional expression in various media. Upon completion, students should be able to show competence in 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 0-6-3**

*Prerequisites: ART 281*

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 283 Ceramics I 0-6-3**

This course provides an introduction to three-dimensional design principles using the medium of clay. Emphasis is placed on fundamentals of forming, surface design, glaze application, and firing. Upon completion, students should be able to demonstrate skills in slab and coil construction,

simple wheel forms, glaze technique, and creative expression. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

**ART 284 Ceramics II 0-6-3**

*Prerequisites: ART 283*

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.

**ART 285 Ceramics III 0-6-3**

*Prerequisites: ART 284*

This course provides the opportunity for advanced self-determined work in sculptural and functional ceramics. Emphasis is placed on developing the technical awareness of clay bodies, slips, engobes, and firing procedures necessary to fulfill the student's artistic goals. Upon completion, students should be able to demonstrate a knowledge of materials and techniques necessary to successfully create original projects in the clay medium. This course covers the important elements of designing and producing utilitarian pottery such as bowls, mugs, plates, casseroles, stemware, and bottles. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

**ART 286 Ceramics IV 0-6-3**

*Prerequisites: Art 285*

This course provides the opportunity for self-determined work in sculptural and functional ceramics. Emphasis is placed on developing the technical awareness of glaze materials, glaze formulation, and firing techniques necessary to fulfill the student's artistic goals. Upon completion, students should be able to demonstrate knowledge of materials and techniques necessary to successfully create original projects in the clay medium. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

**ART 288 Studio 0-6-3**

This course provides the opportunity for advanced self-determined work beyond the limits of regular studio course sequences. Emphasis is placed on creative self-expression and in-depth exploration of techniques and materials. Upon completion, students should be able to create original projects specific to media, materials, and techniques. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

## ASTRONOMY

**C-L-SHC**

**AST 111 Descriptive Astronomy 3-0-3**

*Corequisite: AST 111A*

This course introduces an overall view of modern astronomy. Topics include an overview of the solar system, the sun, stars, galaxies, and the larger universe. Upon completion, students should be able to demonstrate an understanding of the universe around them. This course has been approved for transfer under the CAA and ICAA as a general education course in Natural Science.

**AST 111A Descriptive Astronomy Lab 0-2-1**

*Corequisite: AST 111*

This course is a laboratory to accompany AST 111. Emphasis is placed on laboratory experiences which enhance the materials presented in AST 111 and which provide practical experience. Upon completion, students should be able to demonstrate an understanding of the universe around them. This course has been approved for transfer under the CAA and ICAA as a general education course in Natural Science.

## AUTOMOTIVE BODY REPAIR

**C-L-SHC**

**AUB 111 Painting and Refinishing I 2-6-4**

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 2-6-4**

*Prerequisite: 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 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.

**AUTOMOTIVE**

- C-L-SHC**
- AUT 114 Safety and Emissions** **1-2-2**  
 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** **0-2-1**  
*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 failures resulting from North Carolina State Emissions inspection.
- AUT 116 Engine Repair** **2-3-3**  
 This course covers the theory, construction, inspection, diagnosis, and repair of internal combustion engines and related systems. Topics include fundamental operating principles of engines and diagnosis, inspection, adjustment, and repair of automotive engines using appropriate service information. Upon completion, students should be able to perform basic diagnosis, measurement and repair of automotive engines using appropriate tools, equipment, procedures, and service information.
- AUT 116A Engine Repair Lab** **0-3-1**  
*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 141 Suspension & Steering Sys** **2-3-3**  
 This course covers principles of operation, types, and diagnosis/repair of suspension and steering systems to include steering geometry. Topics include manual and power steering systems and standard and electronically controlled suspension and steering systems. Upon completion, students should be able to service and repair steering and suspension components, check and adjust alignment angles, repair tires, and balance wheels.
- AUT 141A Suspension & Steering Lab** **0-3-1**  
*Corequisite: AUT 141*  
 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** **2-3-3**  
 This course covers principles of operation and types, diagnosis, service, and repair of brake systems. Topics include drum and disc brakes involving hydraulic, vacuum boost, hydra-boost, electrically powered boost, and anti-lock and parking brake systems. Upon completion, students should be able to diagnose, service, and repair various automotive braking systems.
- AUT 151A Brake Systems Lab** **0-3-1**  
*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 163 Adv Auto Electricity** **2-3-3**  
*Prerequisite: 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 Adv Auto 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 I** **2-3-3**  
 This course covers the introduction, theory of operation, and basic diagnostic procedures required to restore engine performance to vehicles equipped with complex engine control systems. Topics include an overview of engine operation, ignition components and systems, fuel delivery, injection components and systems, and emission control devices. Upon completion, students should be able to

describe operation and diagnose/repair basic ignition, fuel, and emission-related driveability problems using appropriate test equipment/service information.

**AUT 181A Engine Performance 1 Lab 0-3-1**

*Corequisite: AUT 181*

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 2-6-4**

*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 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 Auto Transm/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 Auto Transm/Transax 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 Man Trans/Axles/Drtrains 2-3-3**

This course covers the operation, diagnosis, and repair of manual transmissions/transaxles, clutches, driveshafts, axles, and final drives. Topics include theory of torque, power flow, and manual drive train 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 231A Man Trans/Ax/Drtrains Lab 0-3-1**

*Corequisite: 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 283 Advanced Automotive Electronics 2-2-3**

*Prerequisite: AUT 161*

This course covers advanced electronic systems on automobiles. Topics include microcontrollers, on-board communications, telematics, hybrid systems, navigation, collision avoidance, and electronic accessories. Upon completion, students should be able to diagnose electronic systems using appropriate service information, procedures, and equipment and remove/replace/reprogram controllers, sensors, and actuators.

**BARBERING**

**C-L-SHC**

**BAR 111 Barbering Concepts I 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 0-24-8**

*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.

**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 4-0-4**

*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 116 Barbering Clinic III 0-12-4**

*Corequisite: 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 2-0-2**

*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.

**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 Concepts I 2-0-2**

This course introduces basic principles associated with the study of the hair and scalp including environmental and genetic impacts on hair health. Emphasis is placed on the impact of healthcare and wellness as it relates to hair loss. Upon completion, students should be able to demonstrate an understanding of basic terminology and principles associated with trichology healthcare and wellness.

**BAR 120 Trichology Lab I 0-21-7**

This course provides practical training emphasizing the use of a triscope to study the hair scalp. Emphasis is placed on healthcare and wellness topics that will train students to assist those that deal with hair loss issues. Upon completion, students should be able to safely and competently apply trichology healthcare and wellness concepts in the shop setting.

**BIOLOGY**

**C-L-SHC**

**BIO 090 Foundations of Biology 3-2-4**

*Corequisite: RED 090 or appropriate placement test scores*

This course introduces basic biological concepts. Topics include basic biochemistry, cell structure and function, interrelationships among organisms, scientific methodology, and other related topics. Upon completion, students should be able to demonstrate preparedness for college-level biology courses.

**BIO 094 Concepts of Human Biology 3-2-4**

*Corequisite: RED 090 or appropriate placement test scores*

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 2-2-3**

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. This is a diploma-level course.

**BIO 110 Principles of Biology 3-3-4**

This course provides a survey of fundamental biological principles for non-science majors. Emphasis is placed on basic chemistry, cell biology, metabolism, genetics, taxonomy, evolution, ecology, diversity, and other related topics. Upon completion, students should be able to demonstrate increased knowledge and better understanding of biology as it applies to everyday life. Under the CAA and ICAA, this course satisfies the general education Natural Science requirement for the AA and AFA degrees. It does not satisfy the general education Natural Science requirement for the AS degree.

**BIO 111 General Biology I 3-3-4**

This course introduces the principles and concepts of biology. Emphasis is placed on basic biological chemistry, cell structure and function, metabolism and energy transformation, genetics, evolution, classification, and other related topics. Upon completion, students should be able to demonstrate understanding of life at the molecular and cellular levels. This course has been approved for transfer under the CAA and ICAA as a general education course in Natural Science.

- BIO 112 General Biology II** 3-3-4  
*Prerequisite: BIO 111*  
 This course is a continuation of BIO 111. Emphasis is placed on organisms, biodiversity, plant and animal systems, ecology, and other related topics. Upon completion, students should be able to demonstrate comprehension of life at the organismal and ecological levels. This course has been approved for transfer under the CAA and ICAA as a general education course in Natural Science.
- BIO 120 Introductory Botany** 3-3-4  
*Prerequisite: Take one: BIO 110 or BIO 111*  
 This course provides an introduction to the classification, relationships, structure, and function of plants. Topics include reproduction and development of seed and non-seed plants, levels of organization, form and function of systems, and a survey of the major taxa. Upon completion, students should be able to demonstrate comprehension of plant form and function, including selected taxa of both seed and non-seed plants. This course has been approved for transfer under the CAA and ICAA as a general education course in Natural Science.
- BIO 130 Introductory Zoology** 3-3-4  
*Prerequisite: Take one: BIO 110 or BIO 111*  
 This course provides an introduction to the classification, relationships, structure, and function of major animal phyla. Emphasis is placed on levels of organization, reproduction and development, comparative systems, and a survey of selected phyla. Upon completion, students should be able to demonstrate comprehension of animal form and function, including comparative systems of selected groups. This course has been approved for transfer under the CAA and ICAA as a general education course in Natural Science.
- 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 Science.
- 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 Science.
- BIO 143 Field Biology Minicourse** 1-2-2  
 This course introduces the biological and physical components of a field environment. Emphasis is placed on a local field environment with extended field trips to other areas. Upon completion, students should be able to demonstrate an understanding of the biological and physical components of the specific biological environment.
- BIO 150 Genetics in Human Affairs** 3-0-3  
*Prerequisites: 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.
- BIO 155 Nutrition** 3-0-3  
 This course covers the biochemistry of foods and nutrients with consideration of the physiological effects of specialized diets for specific biological needs. Topics include cultural, religious, and economic factors that influence a person's acceptance of food, as well as nutrient requirements of the various life stages. Upon completion, students should be able to identify the functions and sources of nutrients, the mechanisms of digestion, and the nutritional requirements of all age groups.
- BIO 163 Basic Anatomy and Physiology** 4-2-5  
 This course provides a basic study of the structure and function of the human body. Topics include a basic study of the body systems as well as an introduction to homeostasis, cells, tissues, nutrition, acid-base balance, and electrolytes. Upon completion, students should be able to demonstrate a basic understanding of the fundamental principles of anatomy and physiology and their interrelationships. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.
- BIO 165 Anatomy and Physiology I** 3-3-4  
*Prerequisite: Take one: BIO 090, BIO 094, or BIO 110, or by permission of instructor*  
 This course is the first of a two-course sequence which provides a comprehensive study of the anatomy and physiology of the human body. Topics include the structure, function, and interrelationship of organ systems with emphasis on the processes which maintain homeostasis. 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 166 Anatomy and Physiology II** 3-3-4  
*Prerequisite: BIO 165*  
 This course is the second in a two-course sequence which provides a comprehensive study of the anatomy and

physiology of the human body. Topics include the structure, function, and interrelationship of organ systems with emphasis on the processes which maintain homeostasis. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and the interrelationships of all body systems. 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: Take one: BIO 090, BIO 094, or BIO 110, or by permission of instructor*

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 169 Anatomy and Physiology II 3-3-4**

*Prerequisite: 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 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 176 Advanced General Microbiology 1-2-2**

*Prerequisite: BIO 175*

This course is a continuation of BIO 175. Emphasis is placed on microbial metabolism, genetics, and environmental and food microbiology. Upon completion, students should be able to identify unknown microbes and demonstrate an understanding of the fundamentals of molecular biology and microbial ecology. This course has

been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

**BIO 180 Biological Chemistry 2-2-3**

*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 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 265 Cell Biology 3-3-4**

*Prerequisites: BIO 11, BIO 275 or BIO 280*

This course provides an in-depth study of cellular organization and communication, biochemical cell processes, and cellular growth, replication and death. Topics include organelle structure and function, nucleic acid and protein synthesis, gene organization and regulation, cell signaling mechanisms, bioenergetics, cell motility and apoptosis. Upon completion, students should be able to demonstrate knowledge of cell structure and function and lab skills including microscopy, cell culture, and molecular biology techniques.

**BIO 271 Pathophysiology 3-0-3**

*Prerequisite: Take one: BIO 163, BIO 166, or BIO 169*

This course provides an in-depth study of human pathological processes and their effects on homeostasis. Emphasis is placed on interrelationships among organ systems in deviations from homeostasis. Upon completion, students should be able to demonstrate a detailed knowledge of pathophysiology. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

**BIO 275 Microbiology 3-3-4**

*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.



**BIO 280 Biotechnology 2-3-3**

*Prerequisite: Take one: BIO 111, CHM 131, or CHM 151*

This course provides experience in selected laboratory procedures. Topics include proper laboratory techniques in biology and chemistry. Upon completion, students should be able to identify laboratory techniques and instrumentation in basic biotechnology. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

**BIOPROCESS MANUFACTURING****BPM 110 Bioprocess Practices 3-4-5**

C-L-SHC

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: 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 Bioprocessing 3-4-5**

*Prerequisite: BPM 111*

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**

*Prerequisites: 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 Blueprint Reading 1-2-2**

C-L-SHC

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.

## Competencies

## Student Learning Outcomes

1. Interpret symbols, abbreviations, and line types.
2. Identify and describe types of projection and use of views.
3. Draw freehand sketches.
4. Calculate measurements of features.
5. Identify and interpret dimensioning and tolerancing.

**BPR 115 Electric/Fluid Power Diagrams 1-2-2**

This course covers sketching of detail and assembly drawings and reading of hydraulic, pneumatic, electrical, mechanical, and piping schematics. Emphasis is placed on interpretation and communication skills utilizing sketches, symbols, diagrams, and other related topics. Upon completion, students should be able to read, demonstrate an understanding of, and draw sketches and schematics commonly used in industry.

**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 Blueprint Reading-Construction 1-2-2**

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.

## Competencies

## Student Learning Outcomes

## Student Learning Outcomes

1. Identify the different symbols and line types in a set of working drawings.
2. Correctly measure lines to a specific scale using an architectural or engineering scale.
3. Demonstrate proficiency in interpreting construction prints in the form of floor plans, elevations, details, schedules, and specifications.
4. Convert fractional dimensions to decimal dimensions and decimal dimensions to fractional dimensions.
5. Describe and explain the difference between working drawings and construction drawings.

**BROADCAST PRODUCTION****BPT 110 Intro to Broadcasting 3-0-3**

C-L-SHC

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 3-0-3**

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 2-3-3**

*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 2-6-4**

*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 0-6-2**

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 231 Video/TV Production I 2-6-4**

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 2-6-4***Prerequisite: BPT 231*

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.

**BPT 235 TV Performance I 0-6-2**

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 0-6-2***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 250 Institutional Video 2-3-3**

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****C-L-SHC****BUS 110 Introduction to Business 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. This course is also available through +the Virtual Learning Community (VLC).

**BUS 115 Business Law I 3-0-3**

This course introduces the ethics and legal framework of business. Emphasis is placed on contracts, negotiable instruments, Uniform Commercial Code, and the working of the court systems. Upon completion, students should be able to apply ethical issues and laws covered to selected business decision-making situations. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

**BUS 125 Personal Finance 3-0-3**

This course provides a study of individual and family financial decisions. Emphasis is placed on building useful skills in buying, managing finances, increasing resources, and coping with current economic conditions. Upon completion, students should be able to develop a personal financial plan.

**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 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**

*Prerequisite: MAT 115, MAT 140, or MAT 161*

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 230 Small Business Management 3-0-3**

This course introduces the challenges of entrepreneurship including the startup and operation of a small business. Topics include market research techniques, feasibility studies, site analysis, financing alternatives, and managerial decision-making. Upon completion, students should be able to develop a small business plan.

**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 Recruit Select and Per Plan 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 257 Testing and Assessment 3-0-3**

This course presents the tools and techniques human resource managers use for selection, advancement, research, and evaluation. Emphasis is placed on using valid and reliable testing methods, attitude surveys, performance appraisal instruments, and decision-making tools. Upon completion, students should be able to use the methods covered in the course to collect and analyze information for management decision-making.

**BUS 258 Compensation and Benefits 3-0-3**

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 basic compensation system to attract, motivate, and retain employees.

**BUS 259 HRM Applications 3-0-3**

*Prerequisites: BUS 217, BUS 234, BUS 256, and BUS 258*  
This course provides students in the Human Resources 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 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 workplace.

**BUS 261 Diversity in Mgmt 3-0-3**

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.

**COMPUTER ENGINEERING TECHNOLOGY****C-L-SHC  
2-3-3****CET 111 Computer Upgrade/Repair I**

This course covers repairing, servicing, and upgrading computers and peripherals in preparation for industry certification. Topics include CPU/memory/bus identification, disk subsystems, hardware/software installation/configuration, common device drivers, data recovery, system maintenance, and other related topics. Upon completion, students should be able to safely repair and/or upgrade computer systems to perform within specifications.

**CET 211 Computer Upgrade/Repair II 2-3-3***Local Prerequisite: CET 111*

This course covers concepts of repair service and upgrade of computers and peripherals in preparation for industry certification. Topics may include resolving resource conflicts and system bus specifications, configuration and troubleshooting peripherals, operating system configuration and optimization, and other related topics. Upon completion, students should be able to identify and resolve system conflicts and optimize system performance.

**CET 222 Computer Architecture 2-0-2**

This course introduces the organization and design philosophy of computer systems with respect to resource management, throughput, and operating system interaction. Topics include instruction sets, registers, data types, memory management, virtual memory, cache, storage management, multi-processing, and pipelining. Upon completion, students should be able to evaluate system hardware and resources for installation and configuration purposes.

**CHEMISTRY****C-LSHC****CHM 090 Chemistry Concepts 4-0-4**

This course provides a non-laboratory based introduction to basic concepts of chemistry. Topics include measurements, matter, energy, atomic theory, bonding, molecular structure, nomenclature, balancing equations, stoichiometry, solutions, acids and bases, gases, and basic organic chemistry. Upon completion, students should be able to understand and apply basic chemical concepts necessary for success in college-level science courses.

**CHM 130 General, Organic and Biochemistry 3-0-3***Corequisite: 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 and 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. Also included are EMR, spectrophotometry, extraction, safety, and feed analysis. This course has been

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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: CHM 131 and CHM 131A or 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. Additional topics are spectrophotometer, extraction, MSDS, and a project. 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 3-3-4**

*Prerequisite: MAT 080*

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. Additional topics include laboratory and chemical safety rules, electromagnetic spectrum, spectrometer, and chromatography. This course has been approved for transfer under the CAA and ICAA as a general education course in Natural Science.

**CHM 152 General Chemistry II 3-3-4**

*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. The spectrophotometer, pH meters, solids, liquids, and properties of solutions are covered. This course has been approved for transfer under the CAA and ICAA as a general education course in Natural Science.

**CHM 251 Organic Chemistry I 3-3-4**

*Prerequisite: CHM 152*

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. Additional topics covered are chromatography and safety.

This course has been approved for transfer under the CAA and ICAA a premajor and/or elective course requirement.

**CHM 252 Organic Chemistry II 3-3-4**

*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.

**CHINESE**

**C-L-SHC**

**CHI 111 Elementary Chinese I 3-0-3**

This course introduces the fundamental elements of the Chinese language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Chinese and demonstrate cultural awareness. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

**CHI 112 Elementary Chinese II 3-0-3**

*Prerequisite: CHI 111*

This course includes the basic fundamentals of the Chinese language within a cultural context of the Chinese people and its history. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Chinese and demonstrate further cultural awareness. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

**CHI 181 Chinese Lab I 0-2-1**

This course provides an opportunity to enhance acquisition of the fundamental elements of the Chinese language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of various supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Chinese and demonstrate cultural awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement premajor and/or elective requirement.

**CHI 182 Chinese Lab II 0-2-1***Prerequisite: CHI 181*

This course provides an opportunity to enhance acquisition of the fundamental elements of the Chinese language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of various supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Chinese and demonstrate cultural awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement premajor and/or elective requirement.

**CHI 211 Intermediate Chinese I 3-0-3***Prerequisite: CHI 112*

This course includes communicative competencies in speaking, listening comprehension, reading, and writing at an intermediate level with attention to cultural awareness. Emphasis is placed on intermediate skills in speaking, reading, writing, and comprehension of spoken language. Upon completion, students should demonstrate simple conversations and distinguish an appropriate range of Chinese characters, as well as read simple expressions in modern standard Chinese. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

**CHI 212 Intermediate Chinese II 3-0-3**

This course provides continuation of communicative competence in speaking, listening comprehension, reading and writing at an intermediate level with attention to cultural awareness. Emphasis is placed on intermediate skills in speaking, reading, writing, and comprehension of spoken language. Upon completion, students should demonstrate simple conversations and distinguish a broad range of Chinese characters, as well as read expressions in modern standard Chinese. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

**COMPUTER INFORMATION SYSTEMS****CIS 110 Introduction to Computers C-L-SHC 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 to satisfy the Comprehensive Articulation Agreement general education core requirement in natural science/mathematics (Quantitative Option).*

**CIS 111 Basic PC Literacy 1-2-2**

This course provides an overview of computer concepts. Emphasis is placed on the use of personal computers and

software applications for personal and fundamental workplace use. Upon completion, students should be able to demonstrate basic personal computer skills.

**CIS 115 Introduction to Programming and Logic 2-3-3**

*Prerequisites: Take One Set: Set 1: DMA-010, DMA-020, DMA-030, and DMA-040, Set 2: MAT-060\* and MAT-070, Set 3: MAT-060\* and MAT-080, Set 4: MAT-060\* and MAT-090, Set 5: MAT-095, Set 6: MAT-120, Set 7: MAT-121, Set 8: MAT-161, Set 9: MAT-171, Set 10: MAT-175*

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 to satisfy the Comprehensive Articulation Agreement general education core requirement in natural science/mathematics (Quantitative Option).*

**CRIMINAL JUSTICE****CJC 100 Basic Law Enforcement Trn C-L-SHC 9-30-19**

This course covers the basic skills and knowledge needed for entry-level employment as a law enforcement officer in North Carolina. Topics are divided into general units of study: legal, patrol duties, law enforcement communications, investigations, practical application, and sheriff-specific. Upon successful completion, the student will be able to demonstrate competence in the topics and areas required for the state comprehensive certification examination.

**CJC 111 Intro 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.

**CJC 113 Juvenile Justice 3-0-3**

This course covers the juvenile justice system and related juvenile issues. Topics include an overview of the juvenile

justice system, treatment and prevention programs, special areas and laws unique to juveniles, and other related topics.

Upon completion, students should be able to identify/discuss juvenile court structure/procedures, function and jurisdiction of juvenile agencies, processing/detention of juveniles, and case disposition.

**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.

**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 212 Ethics & Comm 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.

**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 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 3-0-3**

This course covers the functions of the forensic laboratory and its relationship to successful criminal investigations and prosecutions. Topics include advanced crime scene processing, investigative techniques, current forensic technologies, and other related topics. Upon completion,

students should be able to identify and collect relevant evidence at simulated crime scenes and request appropriate laboratory analysis of submitted evidence.

**CJC 225 Crisis Intervention 3-0-3**

This course introduces critical incident intervention and management techniques as they apply to operational criminal justice practitioners. Emphasis is placed on the victim/offender situation as well as job-related high stress, dangerous, or problem solving citizen contacts. Upon completion, students should be able to provide insightful analysis of emotional, violent, drug-induced, and other critical and/or stressful incidents that require field analysis and/or resolution.

**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 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**

Prerequisite: CJC 245

Corequisite: None

This course introduces the theories and processes of advanced friction ridge analysis. Topics include evaluation of friction ridges, chart preparation, comparative analysis for valued determination rendering proper identification, chemical enhancement, and AFIS preparation and usage. Upon completion, students must show an understanding of proper procedures for friction ridge analysis through written testing and practical exercises.

**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.

## COOPERATIVE EDUCATION

### COE 110 World of Work C-L-W-SHC 1-0-1

This course covers basic knowledge necessary for gaining and maintaining employment. Topics include job search skills, work ethic, meeting employer expectations, workplace safety, and human relations. Upon completion, students should be able to successfully make the transition from school to work.

### COE 111 Co-op Work Experience I 0-10-1

*Local Prerequisite: Approval of Instructor or Department Chairperson*

This course provides work experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

### COE 112 Co-op Work Experience I 0-20-2

This course provides work experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

### COE 115 Work Experience Seminar I 1-0-1

*Corequisites: COE 111, COE 112, COE 113, or COE 114*  
This course may accompany COE 111, COE 112, COE 113, or COE 114. Students will present their work experience and evaluate work opportunities afforded by the co-op.

### COE 121 Co-op Work Experience II 0-10-1

*Local Prerequisite: Approval of Instructor or Department Chairperson*  
This course provides work experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

### COE 122 Co-op Work Experience II 0-20-2

*Local Prerequisite: Approval of Instructor or Department Chairperson*

This course provides work experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating

classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

## COMMUNICATION

### COM 110 Introduction to Communication C-L-SHC 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 Humanities/Fine Arts.

### COM 120 Introduction 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 general education course in Humanities/Fine Arts.

### COM 130 Nonverbal Communication 3-0-3

*Prerequisite: 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 231 Public Speaking 3-0-3

This course provides instruction and experience in preparation and delivery of speeches within a public setting and group discussion. Emphasis is placed on research, preparation, delivery, and evaluation of informative, persuasive, and special occasion public speaking. Upon completion, students should be able to prepare and deliver well-organized speeches and participate in group discussion with appropriate audiovisual support. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

**COSMETOLOGY****COS 111 Cosmetology Concepts I****C-L-SHC****4-0-4***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****0-24-8***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****4-0-4***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****0-24-8***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****4-0-4***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***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 Cosmetology Concepts IV****2-0-2***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***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 119 Esthetics Concepts I****2-0-2**

This course covers the concepts of esthetics. Topics include orientation, anatomy, physiology, hygiene, sterilization, first aid, chemistry, basic dermatology, and professional ethics. Upon completion, students should be able to demonstrate an understanding of the concepts of esthetics and meet course requirements.

**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 125 Esthetics Concepts II****2-0-2**

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.

**COS 126 Esthetics Salon II****0-18-6**

This course provides experience in a simulated esthetics setting. Topics include machine facials, aromatherapy, massage therapy, electricity, and apparatus. Upon completion, students should be able to demonstrate competence in program requirements and the areas covered on the Cosmetology Licensing Examination for Esthetics.

**COS 223 Contemp Hair Coloring****1-3-2***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 1-3-2**

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 Instr Concepts I 6-15-11**

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.

**COS 254 Esthetics Instr Concepts II 6-15-11**

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**

*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**

*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.

**COS 273 Instructor Concepts II 5-0-5**

*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 0-21-7**

*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.

## COMPUTER SCIENCE

C-L-SHC

**CSC 134 C++ Programming 2-3-3**

This course introduces computer programming using the C++ programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test and debug at a beginning level. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major 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 to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

**CSC 151 JAVA Programming 2-3-3**

This course introduces computer programming using the JAVA programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

*Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

## CONSTRUCTION TECHNOLOGY

### CST 111 Construction I C-L-SHC 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 3-3-4

*Prerequisites: 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 150 Building Science 2-2-3

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.

## COMPUTER TECH INTEGRATION

### CTI 110 Web, Pgm, & Db Foundation C-L-SHC 2-2-3

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.

## COMPUTER INFORMATION TECHNOLOGY

### CTS 115 Information Systems Business Concept C-L-SHC 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 to satisfy the Comprehensive*

### CTS 120 Hardware/Software Support 2-3-3

*Local Prerequisite: CIS 110 or CIS 111*

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

*Prerequisite: CIS 110 or CIS 111 or OST 137*

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

*Prerequisite: CIS 110 or CIS 111*

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

*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 1-4-3**

*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**

**C-L-SHC**

**CUL 110 Sanitation & Safety 2-0-2**

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 3-0-3**

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 Fdsv Lab 0-3-1**

*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 2-0-2**

This course covers purchasing for hotels and restaurants. Emphasis is placed on procurement, yield tests, inventory control, specification, planning, forecasting, market trends, terminology, cost controls, pricing, and foodservice ethics. Upon completion, students should be able to apply effective purchasing techniques based on the end-use of the product.

**CUL 130 Menu Design 2-0-2**

This course introduces menu design and its relationship to foodservice operations. Topics include layout, marketing, concept development, dietary concerns, product utilization, target consumers and trends. Upon completion, students should be able to design, create and produce menus for a variety of foodservice settings.

**CUL 135 Food & Beverage Service 2-0-2**

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 2-6-5**

*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 160 Baking I 1-4-3**

*Corequisite: CUL 110*

This course covers basic ingredients, techniques, weights and measures, baking terminology and formula calculations. Topics include yeast/chemically leavened products, laminated 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.

**CUL 170 Garde Manger I 1-4-3**

*Corequisites: 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: CUL 110 and CUL 140*

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 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** 0-3-1

*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** 2-6-5

*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** 0-2-1

*Prerequisites: CUL 110 and CUL 140*

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.

## DATABASE MANAGEMENT TECHNOLOGY

C-L-SHC

**DBA 110 Database Concepts** 2-3-3

This course introduces database design and creation using a DBMS product. Emphasis is placed on data dictionaries, normalization, data integrity, data modeling, and creation of simple tables, queries, reports, and forms. Upon completion, students should be able to design and implement normalized database structures by creating simple database tables, queries, reports, and forms.

**DBA 120 Database Programming I** 2-2-3

This course is designed to develop SQL programming proficiency. Emphasis is placed on data definition, data manipulation, and data control statements as well as on report generation. Upon completion, students should be able to write programs that create, update, and produce reports.

## DESIGN DRAFTING

### DDF 211 Design Process I

C-L-SHC

1-6-4

*Local Prerequisite: DFT 152*

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.

## DENTAL

### DEN 100 Basic Orofacial Anatomy

C-L-CI-SHC

2-0-0-2

This course provides a basic introduction to the structures of the head, neck, and oral cavity. Topics include tooth morphology, head and neck anatomy, histology, and embryology. Upon completion, students should be able to demonstrate knowledge of normal structures and development and how they relate to the practice of dental assisting. This is a diploma-level course.

### DEN 101 Preclinical Procedures

4-6-0-7

This course provides instruction in procedures for the clinical dental assistant as specified by the North Carolina Dental Practice Act. Emphasis is placed on orientation to the profession, infection control techniques, instruments, related expanded functions, and diagnostic, operative, and specialty procedures. Upon completion, students should be able to demonstrate proficiency in clinical dental assisting procedures. This is a diploma-level course.

### DEN 102 Dental Materials

3-4-0-5

This course provides instruction in identification, properties, evaluation of quality, principles, and procedures related to manipulation and storage of operative and specialty dental materials. Emphasis is placed on the understanding and safe application of materials used in the dental office and laboratory. Upon completion, students should be able to demonstrate proficiency in the laboratory and clinical application of routinely used dental materials. This is a diploma-level course.

### 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. This is a diploma-level course.

### 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. This is a diploma-level course.

### 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. This is a diploma-level course.

### DEN 106 Clinical Practice I

1-0-12-5

*Prerequisite: 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. This is a diploma-level course.

### DEN 107 Clinical Practice II

1-0-12-5

*Prerequisite: DEN 106*

This course is designed to increase the level of proficiency in assisting in a clinical setting. Emphasis is placed on the application of principles and procedures of four-handed dentistry and laboratory and clinical support functions. Upon completion, students should be able to combine theoretical and ethical principles necessary to perform entry-level skills, including functions delegable to a DA II. This is a diploma-level course.

### DEN 110 Orofacial Anatomy

2-2-0-3

This course introduces the structures of the head, neck, and oral cavity. Topics include tooth morphology, head and neck anatomy, histology, and embryology. Upon completion, students should be able to relate the identification of normal structures and development to the practice of dental assisting and dental hygiene.

### 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 120 Dental Hygiene Preclinic Lecture 2-0-0-2**

*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**

This course introduces basic principles of nutrition with emphasis on nutritional requirements and their application to individual patient needs. Topics include the study of the food pyramid, nutrient functions, Recommended Daily Allowances, and related psychological principles. Upon completion, students should be able to recommend and counsel individuals on their food intake as related to their dental health.

**DEN 124 Periodontology 2-0-0-2**

*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 131 Dental Hygiene Clinic I 0-0-9-3**

*Prerequisite: DEN 121*

*Corequisites: 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 140 Dental Hygiene Theory II 1-0-0-1**

*Prerequisites: DEN 130*

*Corequisite: DEN 141*

This course provides a continuation of the development, theory, and practice of patient care. Topics include modification of treatment for special needs patients, advanced radiographic interpretation, and ergonomics. Upon completion, students should be able to differentiate necessary treatment modifications, effective ergonomic principles, and radiographic abnormalities.

**DEN 141 Dental Hygiene Clinic II 0-0-6-2**

*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 provides a continuation in developing the theories and practices of patient care. Topics include periodontal debridement, pain control, subgingival irrigation, air polishing, and case presentations. Upon completion, students should be able to demonstrate knowledge of methods of treatment and management of periodontally compromised patients.

**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 Procedures 1-3-0-2**

*Prerequisite:* 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 and completion of a case presentation. Upon completion, students should be able to demonstrate knowledge of various disciplines of dentistry and principles of case presentations.

**DEN 231 Dental Hygiene Clinic IV 0-0-12-4**

*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 2-0-3-3**

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

C-L-SHC

**DFT 111 Technical Drafting I 1-3-2**

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 112 Technical Drafting II 1-3-2**

*Prerequisites:* DFT 111

This course provides for advanced drafting practices and procedures. Topics include detailed working drawings, hardware, fits and tolerances, assembly and sub-assembly, geometric dimensioning and tolerancing, intersections, and developments. Upon completion, students should be able to produce detailed working drawings.

**DFT 151 CAD I 2-3-3**

*Local Prerequisite:* DFT 111 or Instructor Approval

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 2-3-3**

*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 2-3-3**

*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.

**DFT 154 Introduction to Solid Modeling 2-3-3***Local Prerequisite: DFT 111*

This course is an introduction to basic three-dimensional solid 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 should be able to use design techniques to create, edit, render, and generate a multi view drawing.

**DFT 253 CAD Data Management 2-2-3***Prerequisite: DFT 151*

This course covers engineering document management techniques. Topics include efficient control of engineering 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.

**DFT 254 Intermed Solid Model/Render 2-3-3***Prerequisites: DFT 154*

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.

**DFT 259 CAD Project 1-4-3***Local Prerequisite: DDF 211 and DFT 154*

This course is a capstone course experience for programs with a focus in computer-aided design. Emphasis is placed on the 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 spreadsheets.

**DEVELOPMENTAL MATHEMATICS****C-L-SHC****DMA 010 Operations With Integers 0.75-0.50-1***Prerequisites: None**Corequisites: None*

This course provides a conceptual study of integers and integer operations. Topics include integers, absolute value, exponents, square roots, perimeter and area of basic geometric figures, Pythagorean theorem, and use of the correct order of operations. Upon completion, students should be able to demonstrate an understanding of pertinent concepts and principles and apply this knowledge in the evaluation of expressions.

**DMA 020 Fractions and Decimals 0.75-0.50-1***Prerequisites: DMA 010 or appropriate placement test scores**Corequisites: None*

This course provides a conceptual study of the relationship between fractions and decimals and covers related problems. Topics include application of operations and solving contextual application problems, including determining the circumference and area of circles with the concept of pi. Upon completion, students should be able to demonstrate an understanding of the connections between fractions and decimals.

**DMA 030 Propor/Ratio/Rate/Percent 0.75-0.50-1***Prerequisites: DMA-010 and DMA-020 or appropriate placement test scores**Corequisites: None*

This course provides a conceptual study of the problems that are represented by rates, ratios, percent, and proportions. Topics include rates, ratios, percent, proportion, conversion of English and metric units, and applications of the geometry of similar triangles. Upon completion, students should be able to use their understanding to solve conceptual application problems.

**DMA 040 Express/Lin Equat/Inequal 0.75-0.50-1***Prerequisites: Take one set:**Set 1: DMA 010, DMA 020, and DMA 030,**Set 2: MAT 060**or appropriate placement test scores**Corequisites: None*

This course provides a conceptual study of problems involving linear expressions, equations, and inequalities. Emphasis is placed on solving contextual application problems. Upon completion, students should be able to distinguish between simplifying expressions and solving equations and apply this knowledge to problems involving linear expressions, equations, and inequalities.

**DMA 050 Graphs/Equations of Lines 0.75-0.50-1***Prerequisites: Take one set:**Set 1: DMA 010, DMA 020, DMA 030, and DMA 040,**Set 2: DMA 040 and MAT 060**or appropriate placement test scores**Corequisites: None*

This course provides a conceptual study of problems involving graphic and algebraic representations of lines. Topics include slope, equations of lines, interpretation of basic graphs, and linear modeling. Upon completion, students should be able to solve contextual application problems and represent real-world situations as linear equations in two variables.

**DMA 060 Polynomial/Quadratic Appl 0.75-0.50-1***Prerequisites: Take one set:**Set 1: DMA 010, DMA 020, DMA 030, DMA 040, and DMA 050,**Set 2: DMA 040, DMA 050, and MAT 060**Set 3: MAT 060 and MAT 070**or appropriate placement test scores**Corequisites: None*

This course provides a conceptual study of problems involving graphic and algebraic representations of

quadratics. Topics include basic polynomial operations, factoring polynomials, and solving polynomial equations by means of factoring. Upon completion, students should be able to find algebraic solutions to contextual problems with quadratic applications.

**DMA 070 Rational Express/Equation 0.75-0.50-1**

*Prerequisites: Take one set:*

*Set 1: DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, and DMA 060,*

*Set 2: DMA 040, DMA 050, DMA 060 and MAT 060*

*Set 3: DMA 060, MAT 060, and MAT 070,*

*Set 4: DMA 010, DMA 020, DMA 030, DMA 060, and MAT 070 or appropriate placement test scores*

*Corequisites: None*

This course provides a conceptual study of problems involving graphic and algebraic representations of rational equations. Topics include simplifying and performing operations with rational expressions and equations, understanding the domain, and determining the reasonableness of an answer. Upon completion, students should be able to find algebraic solutions to contextual problems with rational applications.

**DMA 080 Radical Express/Equations 0.75-0.50-1**

*Prerequisites: Take one set:*

*Set 1: DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 060, and DMA 070*

*Set 2: DMA 060, DMA 070, MAT 060, and MAT 070*

*Set 3: DMA 040, DMA 050, DMA 060, DMA 070 and MAT 060*

*Set 4: DMA 010, DMA 020, DMA 030, DMA 060, DMA 070 and MAT 070*

*or appropriate placement test scores*

*Corequisites: None*

This course provides a conceptual study of the manipulation of radicals and the application of radical equations to real-world problems. Topics include simplifying and performing operations with radical expressions and rational exponents, solving equations, and determining the reasonableness of an answer. Upon completion, students should be able to find algebraic solutions to contextual problems with radical applications.

**DRAMA/THEATRE**

**C-L-SHC**

**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 and to recognize the contributions of various theatre artists. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

**DRA 112 Literature of the Theatre 3-0-3**

This course provides a survey of dramatic works from the classical Greek through the present. Emphasis is placed on

the language of drama, critical theory, and background as well as on play reading and analysis. Upon completion, students should be able to articulate, orally and in writing, their appreciation and understanding of dramatic works. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

**DRA 120 Voice for Performance 3-0-3**

This course provides guided practice in the proper production of speech for the theatre. Emphasis is placed on improving speech, including breathing, articulation, pronunciation, and other vocal variables. Upon completion, students should be able to demonstrate effective theatrical speech. This course has been approved for transfer under the CAA and ICAA a premajor and/or elective course requirement.

**DRA 124 Readers Theatre 3-0-3**

This course provides a theoretical and applied introduction to the medium of readers theatre. Emphasis is placed on the group performance considerations posed by various genres of literature. Basics of acting are introduced as needed for performance. Upon completion, students should be able to adapt and present a literary script following the conventions of readers theatre. This course has been approved for transfer under the CAA and ICAA a premajor and/or elective course requirement.

**DRA 130 Acting I 0-6-3**

This course provides an applied study of the actor's craft. Topics include role analysis, training the voice, and body concentration, discipline, and self-evaluation. Upon completion, students should be able to explore their creativity in an acting ensemble. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

**DRA 131 Acting II 0-6-3**

*Prerequisites: DRA 130*

This course provides additional hands-on practice in the actor's craft. Emphasis is placed on further analysis, characterization, growth, and training for acting competence. Upon completion, students should be able to explore their creativity in an acting ensemble. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

**DRA 140 Stagecraft I 0-6-3**

This course introduces the theory and basic construction of stage scenery and properties. Topics include stage carpentry, scene painting, stage electrics, properties, and backstage organization. Upon completion, students should be able to pursue vocational and avocational roles in technical theatre. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

- DRA 141 Stagecraft II** 0-6-3  
*Prerequisites:* DRA 140  
 This course provides additional hands-on practice in the elements of stagecraft. Emphasis is placed on the design and implementation of the arts and crafts of technical theatre. Upon completion, students should be able to pursue vocational or avocational roles in technical theatre. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.
- DRA 145 Stage Make-Up** 1-2-2  
 This course covers the research, design, selection of materials, and application of stage make-up, prosthetics, wigs, and hairpieces. Emphasis is placed on the development of techniques, style, and presentation of the finished make-up. Upon completion, students should be able to create and apply make-up, prosthetics, and hairpieces. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.
- DRA 170 Play Production I** 0-9-3  
 This course provides an applied laboratory study of the processes involved in the production of a play. Topics include fundamental practices, principles, and techniques associated with producing plays of various periods and styles. Upon completion, students should be able to participate in an assigned position with a college theatre production. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.
- DRA 171 Play Production II** 0-9-3  
*Prerequisite:* DRA 170  
 This course provides an applied laboratory study of the processes involved in the production of a play. Topics include fundamental practices, principles, and techniques associated with producing plays of various periods and styles. Upon completion, students should be able to participate in an assigned position with a college theatre production. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.
- DRA 211 Theatre History I** 3-0-3  
 This course covers the development of theatre from its origin to the closing of the British theatre in 1642. Topics include the history, aesthetics, and representative dramatic literature of the period. Upon completion, students should be able to trace the evolution of theatre and recognize the styles and types of world drama. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.
- DRA 260 Directing** 0-6-3  
*Prerequisites:* DRA 130  
*Corequisites:* DRA 140  
 This course provides an analysis and application of the techniques of theatrical directing. Topics include script selection, analysis, casting, rehearsal planning, blocking, stage business, tempo, and technical considerations. Upon completion, students should be able to plan, execute, and critically discuss a student-directed production. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.
- DRA 270 Play Production III** 0-9-3  
*Prerequisites:* DRA 171  
 This course provides an applied laboratory study of the processes involved in the production of a play. Topics include fundamental practices, principles, and techniques associated with producing plays of various periods and styles. Upon completion, students should be able to participate in an assigned position with a college theatre production. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.
- DRA 271 Play Production IV** 0-9-3  
*Prerequisites:* DRA 270  
 This course provides an applied laboratory study of the processes involved in the production of a play. Topics include fundamental practices, principles, and techniques associated with producing plays of various periods and styles. Upon completion, students should be able to participate in an assigned position with a college theatre production. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.
- Developmental Reading/English** C-L-SHC
- DRE 096 Integrated Reading and Writing** 2.5-1.0-3  
*Prerequisites:* None  
*Corequisites:* None  
 This course is designed to develop proficiency in specific integrated and contextualized reading and writing skills and strategies. Topics include reading and writing processes, critical thinking strategies, and recognition and composition of well-developed, coherent, and unified texts; these topics are primarily taught at the introductory level using texts primarily in a Lexile (TM) range of 960 to 1115. Upon completion, students should be able to apply those skills toward understanding a variety of academic and career-related texts and composing effective paragraphs. Please note: (TM) represents registered trademark.
- DRE 097 Integrated Reading Writing II** 2.5-1.0-3  
*Prerequisites:* DRE 96 or appropriate placement test scores  
*Corequisites:* None  
 This course is designed to develop proficiency in integrated and contextualized reading and writing skills and strategies. Topics include reading and writing processes, critical thinking strategies, and recognition and composition of well-developed, coherent, and unified texts; except where noted, these topics are taught at a reinforcement level using texts primarily in a Lexile (TM) range of 1070 to 1220. Upon completion, students should be able to demonstrate

and apply those skills toward understanding a variety of complex academic and career texts and composing essays incorporating relevant, valid evidence. Please note: (TM) represents registered trademark.

**DRE 098 Integrated Reading Writing III 2.5-1.0-3**

*Prerequisites: DRE 097 or appropriate placement test scores*  
*Corequisites: None*

This course is designed to develop proficiency in integrated and contextualized reading and writing skills and strategies. Topics include reading and writing processes, critical thinking strategies, and recognition and composition of well-developed, coherent, and unified texts; these topics are taught using texts primarily in the Lexile (TM) range of 1185 to 1385. Upon completion, students should be able to apply those skills toward understanding a variety of texts at the career and college ready level and toward composing a documented essay. Note: (TM) represents registered trademark.

**DRE 099 Integrated Reading Writing III 2.5-1.0-3**

*Prerequisites: DRE 097 or appropriate placement test scores*  
*Corequisites: ENG 111*

This course is designed to develop proficiency in integrated and contextualized reading and writing skills and strategies by complementing, supporting and reinforcing material covered in ENG 111. Topics include reading and writing processes, critical thinking strategies, and recognition and composition of well-developed, coherent, and unified texts; except where noted, these topics are taught using texts primarily in the Lexile (TM) range of 1185 to 1385. Upon completion, students should be able to apply those skills toward understanding a variety of texts at the career and college ready level and toward composing a documented essay. Note: (TM) represents registered trademark.

## ECONOMICS

**ECO 151 Survey of Economics C-L-SHC 3-0-3**

This course introduces basic concepts of micro- and macroeconomics. Topics include supply and demand, optimizing economic behavior, prices and wages, money, interest rates, banking system, unemployment, inflation, taxes, government spending, and international trade. Upon completion, students should be able to explain alternative solutions for economic problems faced by private and government sectors. This course has been approved for transfer under the CAA and ICAA as a general education course in Social/Behavioral Sciences.

**ECO 251 Prin of Microeconomics 3-0-3**

This course introduces economic analysis of individual, business, and industry choices in the market economy. Topics include the price mechanism, supply and demand, optimizing economic behavior, costs and revenue, market

structures, factor markets, income distribution, market failure, and government intervention. Upon completion, students should be able to identify and evaluate consumer and business alternatives in order to efficiently achieve economic objectives. This course has been approved for transfer under the CAA and ICAA as a general education course in Social/Behavioral Sciences.

**ECO 252 Prin 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 general education course in Social/Behavioral Sciences.

## EDUCATION

**EDU 118 Principles & Practices of Inst. Asst. C-L-SHC 3-0-3**

*Corequisite: Take DRE 097*

This course covers the instructional assistant's role in the educational system. Topics include history of education, professional responsibilities and ethics, cultural diversity, communication skills, and identification of the optimal learning environment. Upon completion, students should be able to describe the supporting role of the instructional assistant, demonstrate positive communication skills, and discuss educational philosophy.

**EDU 119 Intro to Early Childhood Educ 4-0-4**

This course covers the foundations of the education profession, the diverse educational settings for young children, professionalism and planning developmentally appropriate programs for all children. Topics include historical foundations, program types, career options, professionalism and creating inclusive environments and curriculum responsive to the needs of all children and families. Upon completion, students should be able to design career plans and develop schedules, environments and activity plans appropriate for all children.

**EDU 131 Child, Family, & Community 3-0-3**

*Corequisite: Take DRE 097*

This course covers the development of partnerships between culturally and linguistically diverse families, children, schools and communities. Emphasis is placed on developing skills and identifying benefits for establishing, supporting, and maintaining respectful, collaborative relationships between diverse families, programs/schools, and

community agencies/resources. Upon completion, students should be able to explain appropriate relationships between families, educators, and professionals that enhance development and educational experiences of all children.

**EDU 144 Child Development I** 3-0-3

*Corequisite: DRE 097*

This course includes the theories of child development, needs, milestones, and factors that influence development, from conception through approximately 36 months. Emphasis is placed on developmental sequences in physical/motor, emotional/social, cognitive, and language domains and the impact of multiple influences on development and learning. Upon completion, students should be able to compare/contrast typical/atypical developmental characteristics, explain environmental factors that impact development, and identify strategies for enhancing development. This course has been approved for transfer under the CAA as a premajor and/or elective course requirement.

**EDU 145 Child Development II** 3-0-3

*Corequisite: DRE 097*

This course includes the theories of child development, needs, milestones, and factors that influence development, from preschool through middle childhood. Emphasis is placed on developmental sequences in physical/motor, emotional/social, cognitive, and language domains and the impact of multiple influences on development and learning. Upon completion, students should be able to compare/contrast typical/atypical developmental characteristics, explain environmental factors that impact development, and identify strategies for enhancing development. This course has been approved for transfer under the CAA as a premajor and/or elective course requirement.

**EDU 146 Child Guidance** 3-0-3

*Prerequisite: DRE 097*

This course introduces principles and practical techniques including the design of learning environments for providing developmentally appropriate guidance for all children, including those at risk. Emphasis is placed on observation skills, cultural influences, underlying causes of behavior, appropriate expectations, development of self control and the role of communication and guidance. Upon completion, students should be able to demonstrate direct/indirect strategies for preventing problem behaviors, teaching appropriate/acceptable behaviors, negotiation, setting limits and recognizing at risk behaviors. This course has been approved for transfer under the CAA as a premajor and/or elective course requirement.

**EDU 151 Creative Activities** 3-0-3

*Corequisite: DRE 097*

This course covers planning, creation, and adaptation of developmentally supportive learning environments with attention to curriculum, interactions, teaching practices, and learning materials. Emphasis is placed on creating and adapting integrated, meaningful, challenging, and engaging developmentally supportive learning experiences in art, music, movement and dramatics for all children. Upon completion, students should be able to create, adapt, implement and evaluate developmentally supportive learning materials, experiences, and environments.

**EDU 153 Health, Safety, and Nutrition** 3-0-3

*Corequisite: DRE 097*

This course covers promoting and maintaining the health and well-being of all children. Topics include health and nutritional guidelines, common childhood illnesses, maintaining safe and healthy learning environments, recognition and reporting of abuse and neglect and state regulations. Upon completion, students should be able to demonstrate knowledge of health, safety, and nutritional needs, safe learning environments, and adhere to state regulations.

**EDU 163 Classroom Mgt and Instruct** 3-0-3

*Prerequisite: DRE 097*

This course covers management and instructional techniques with school-age populations. Topics include classroom management and organization, teaching strategies, individual student differences and learning styles, and developmentally appropriate classroom guidance techniques. Upon completion, students should be able to utilize developmentally appropriate behavior management and instructional strategies that enhance the teaching/learning process and promote students' academic success.

**EDU 216 Foundations of Education** 3-0-3

*Prerequisite: DRE 098*

This course introduces the American educational system and the teaching profession. Topics include historical and philosophical foundations of education, contemporary educational, structural, legal, and financial issues, and experiences in public school classrooms. Upon completion, students should be able to relate classroom observations to the roles of teachers and schools and the process of teacher education. This course has been approved for transfer under the CAA as a premajor and/or elective course requirement.

**EDU 221 Children with Exceptional** 3-0-3

*Prerequisite: EDU 144 and EDU 145 or PSY 244 and PSY 245*  
*Corequisite: DRE 098*

This course introduces children with exceptionalities, their families, support services, inclusive/diverse settings, and educational/family plans based on the

foundations of child development. Emphasis is placed on the characteristics of exceptionalities, observation and assessment of children, strategies for adapting the learning environment, and identification of community resources. Upon completion, students should be able to recognize diverse abilities, describe the referral process, and depict collaboration with families/professionals to plan/implement, and promote best practice. This course has been approved for transfer under the CAA and the ICAA as a premajor and/or elective course requirement at select institutions

**EDU 234 Infants, Toddlers, & Twos 3-0-3**

*Prerequisite: EDU 119*

*Corequisite: DRE 098*

This course focuses on practical applications that support the healthy development of very young children by applying principles of quality inclusive early care and education. Emphasis is placed on recognizing the interrelated factors that impact children's development through planning, evaluating and adapting quality environments, including activities and adult/child interactions. Upon completion, students should be able to demonstrate the ability to engage in respectful, responsive care that meets the unique needs of individual children/families.

**EDU 235 School-Age Development and Program 2-0-2**

*Prerequisite: DRE 098*

This course includes developmentally appropriate practices in group settings for school-age children. Emphasis is placed on principles of development, environmental planning, and positive guidance techniques. Upon completion, students should be able to discuss developmental principles for all children ages five to twelve and plan and implement developmentally-appropriate activities.

**EDU 243 Learning Theory 3-0-3**

*Corequisite: DRE 098*

This course provides lateral entry teachers an introduction to learning theory, various styles of learning, and motivational factors involved in the learning process. Emphasis is placed on the development of cognitive skills using the eight types of intelligence and applying these to practical classroom situations. Upon completion, students should be able to describe theories and styles of learning and discuss the relationship between different types of intelligence to learning motivation.

**EDU 252 Math and Sci Activities 3-0-3**

*Corequisites: DRE 098*

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 257 Instructional Strategies/Math 2-2-3**

*Prerequisites: DMA 010, DMA 020, DMA 030, DMA 040*

*Corequisite: DRE 098*

This course covers concepts, activities, methods, and materials for teaching mathematics in elementary through middle school grades. Topics include individual instruction, developmental skill building, manipulatives, problem solving, critical thinking and numerical concepts. Upon completion, students should be able to assess, plan, implement and evaluate developmentally appropriate math experiences relating to the NC Standard Course of Study.

**EDU 258 Instructional Strategies/Science 2-2-3**

*Corequisite: DRE 098*

This course covers objectives, content, materials, and instructional approaches to natural sciences for elementary through middle grades. Topics include classroom and laboratory science experiences, research/study techniques, and critical thinking. Upon completion, students should be able to assess/plan/implement/evaluate developmentally appropriate learning experiences in science as related to the North Carolina Standard Course of Study.

**EDU 259 Curriculum Planning 3-0-3**

*Prerequisite: EDU 119*

*Corequisite: DRE 098*

This course is designed to focus on curriculum planning for three to five year olds. Topics include philosophy, curriculum models, indoor and outdoor environments, scheduling, authentic assessment, and planning developmentally appropriate experiences. Upon completion, students should be able to evaluate children's development, critique curriculum, plan for individual and group needs, and assess and create quality environments.

**EDU 261 Early Childhood Admin I 3-0-3**

*Corequisites: EDU 119 & DRE 098*

This course introduces principles of basic programming and staffing, budgeting/financial management and marketing and rules and regulations of diverse early childhood programs. Topics include program structure and philosophy, standards of NC child care programs, finance, funding resources, and staff and organizational management. Upon completion, students should be able to develop components of program/personnel handbooks, a program budget, and demonstrate knowledge of fundamental marketing strategies and NC standards.



- EDU 262 Early Childhood Admin II** 3-0-3  
*Prerequisite:* EDU 261  
*Corequisites:* EDU 119& DRE 098  
 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 271 Educational Technology** 2-2-3  
*Corequisites:* DRE 098  
*Local Prerequisites:* CIS 110 or CIS 111  
 This course introduces the use of technology to enhance teaching and learning in all educational settings. Topics include technology concepts, instructional strategies, materials, and adaptive technology for children with exceptionalities, facilitation of assessment/evaluation, and ethical issues surrounding the use of technology. Upon completion, students should be able to apply technology enhanced instructional strategies, use a variety of technology resources, and demonstrate appropriate technology skills in educational environments.
- EDU 275 Effective Teacher Training** 2-0-2  
*Corequisite:* DRE 098  
 This course provides specialized training using an experienced-based approach to learning. Topics include instructional preparation and presentation, student interaction, time management, learning expectations, evaluation, and curriculum principles and planning. Upon completion, students should be able to prepare and present a six-step lesson plan and demonstrate ways to improve students' time on-task.
- EDU 280 Language and Literacy** 3-0-3  
*Corequisite:* DRE 098  
 This course is designed to expand students' understanding of children's language and literacy development and provides strategies for enhancing language/literacy experiences in an enriched environment. Topics include selection of diverse literature and interactive media, the integration of literacy concepts throughout the curriculum, appropriate observations/assessments and inclusive practices. Upon completion, students should be able to select, plan, implement and evaluate developmentally appropriate and diverse language/literacy experiences.
- EDU 281 Instructional Strategies/Read&Write** 2-2-3  
*Corequisite:* DRE 098  
 This course covers concepts, resources, and methods for teaching reading and writing to elementary through middle-grade children. Topics include the importance of literacy, learning styles, skills assessment, various reading and writing approaches and instructional strategies. Upon completion, students should be able to assess, plan, implement and evaluate school-age literacy experiences as related to the North Carolina Standard Course of Study.
- 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  
*Corequisites:* DRE 098  
 This course is designed to allow students to apply skills in a three star (minimum) or NAEYC accredited or equivalent, quality early childhood environment. Emphasis is placed on designing, implementing and evaluating developmentally appropriate activities and environments for all children; supporting/involving families; and modeling reflective and professional practices. Upon completion, students should be able to demonstrate developmentally appropriate plans/assessments, appropriate guidance techniques and ethical/professional behaviors as indicated by assignments and onsite faculty visits.
- EDU 285 INTERNSHIP EXP SCHOOL AGE** 1-9-4  
*Prerequisites:* Take One Set:  
 Set 1: EDU 144, EDU 145, EDU 118, EDU 163  
 Set 2: PSY 244, PSY 245, EDU 118, EDU 163  
 Set 3: PSY 244, EDU 145, EDU 118, EDU 163  
 Set 4: EDU 144, PSY 245, EDU 118, EDU 163  
 Set 5: PSY 244, PSY 245, EDU 216, EDU 163  
 Set 6: EDU 144, EDU 145, EDU 216, EDU 163  
 Set 7: EDU 144, PSY 245, EDU 216, EDU 163  
 Set 8: PSY 244, EDU 216, EDU 163  
*Corequisites:* DRE 098  
 This course is designed to allow students to apply skills in a quality public or private school environment. Emphasis is placed on designing, implementing and evaluating developmentally appropriate activities and environments for all children; supporting/involving families; and modeling reflective and professional practices. Upon completion, students should be able to demonstrate developmentally appropriate lesson plans/assessments, appropriate guidance techniques, ethical/professional behaviors as indicated by assignments and onsite faculty visits.

**EDU 287 Leadership Early Child Education 3-0-3**

*Prerequisites: Take One Set:*

Set 1: EDU 119, EDU 131, EDU 144, EDU 145

Set 2: EDU 119, EDU 131, PSY 244, PSY 245

This course is designed to facilitate and guide the development of early childhood professionals preparing for leadership roles in improving community early childhood services. Topics include principles of social change, characteristics of effective leaders, techniques of action research, childcare funding mechanisms, quality initiatives, and key issues in early care. Upon completion, students should be able to identify key issues; develop strategic plans; establish relationships with community leaders; and identify opportunities and barriers for advocacy.

**EDU 289 Adv. Issues/School Age 2-0-2**

*Corequisites: DRE 098*

This course covers advanced topics and issues that relate to school-age programs. Emphasis is placed on current advocacy issues, emerging technology, professional growth, ethics, and organizations for providers/teachers working with school-age populations. Upon completion, students should be able to list, discuss, and explain advanced current topics and issues surrounding school-aged populations.

## 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.

**EGR 220 Engineering Statics 3-0-3**

This course introduces the concepts of engineering based on forces in equilibrium. Topics include concentrated forces, distributed forces, forces due to friction, and inertia as they apply to machines, structures, and systems. Upon completion, students should be able to solve problems which require the ability to analyze systems of forces in

static equilibrium.

**EGR 285 Design Project 0-4-2**

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.

## ELECTRICITY

C-L-SHC

**ELC 111 Introduction to Electricity 2-2-3**

This course introduces the fundamental concepts of electricity and test equipment to non-electrical/electronics majors. Topics include basic DC and AC principles (voltage, resistance, current, impedance); components (resistors, inductors, and capacitors); power; and operation of test equipment. Upon completion, students should be able to construct and analyze simple DC and AC circuits using electrical test equipment.

**ELC 112 DC/AC Electricity 3-6-5**

This course introduces the fundamental concepts of and computations related to DC/AC electricity. Emphasis is placed on DC/AC circuits, components, operation of test equipment; and other related topics. Upon completion, students should be able to construct, verify, and analyze simple DC/AC circuits.

Competencies

Student Learning Outcomes

1. Demonstrate safe practices and procedures with tools, materials, and industry accepted test equipment covered in the course.
2. Demonstrate appropriate use of test equipment, evaluate circuit performance and apply appropriate troubleshooting techniques to electrical circuits.
3. Construct and analyze series, parallel and combinations circuits using appropriate components.
4. Use appropriate laws and formulas to perform circuit calculations.
5. Interpret electrical schematics.
6. Describe the characteristics of various power sources.

**ELC 113 Basic Wiring I 2-6-4**

This course introduces the care/usage of tools and materials used in electrical installations and the requirements of the National Electrical Code. Topics include NEC, electrical safety, and electrical blueprint reading; planning, layout, and installation of electrical distribution equipment; lighting; overcurrent protection; conductors; branch circuits; and conduits. Upon completion, students should be able to properly install conduits, wiring, and electrical distribution equipment associated with basic electrical installations.

Competencies

Student Learning Outcomes

1. Identify and demonstrate safe practices and procedures with tools, materials and industry accepted test equipment covered in the course.
2. Demonstrate appropriate use of test equipment, evaluate circuit performance and apply appropriate troubleshooting techniques to residential electrical circuits.
3. Draw, plan and interpret electrical plans and symbols used in residential applications
4. Identify, size, and install wiring and electrical distribution equipment and devices associated with residential electrical installations in accordance with the National Electrical Code.
5. Recognize and demonstrate appropriate use of tools and materials that are used in residential wiring.

**ELC 114 Basic Wiring II** **2-6-4**

*Local Prerequisites: ELC 113*

This course provides additional 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.

Competencies

Student Learning Outcomes

1. Identify and demonstrate safe practices and procedures with tools, materials and industry accepted test equipment covered in the course.
2. Demonstrate appropriate use of test equipment, evaluate circuit performance and apply appropriate troubleshooting techniques to commercial electrical circuits.
3. Draw, plan, and interpret electrical plans and symbols used in commercial applications.
4. Identify, size, and install wiring and electrical distribution equipment and devices associated with commercial electrical installations in accordance with the National Electrical Code.
5. Recognize and demonstrate appropriate use of tools and materials that are used in commercial wiring.

**ELC 117 Motors and Controls** **2-6-4**

*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.

Competencies

Student Learning Outcomes

1. Demonstrate safe practices and procedures with tools, materials and industry accepted test equipment covered in the course.
2. Demonstrate appropriate use of test equipment, evaluate circuit performance and apply appropriate troubleshooting

techniques to control circuits.

3. Interpret and use ladder and wiring diagrams, symbols, and schematics.
4. Demonstrate and describe the use of relays, contactors, motor starters and pilot devices in electrical control circuits.
5. Describe principles and operations related to electrical control circuits.
6. Describe the concepts of rotating electrical machinery.

**ELC 127 Software for Technicians** **1-3-2**

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** **2-3-3**

This course introduces the programmable logic controller (PLC) and its associated applications. Topics include ladder logic diagrams, input/output modules, power supplies, surge protection, selection/installation of controllers, and interfacing of controllers with equipment. Upon completion, students should be able to install PLC systems and create simple programs.

Competencies

Student Learning Outcomes

1. Identify and demonstrate safe practices and procedures with tools, materials and industry accepted test equipment covered in the course.
2. List and describe the hardware components used in PLC systems.
3. Utilize numbering systems as applied to PLCs.
4. Demonstrate and describe the use of various PLC instruction sets.
5. Create various simple PLC programs using the appropriate instruction set.
6. Apply appropriate troubleshooting methods to PLCs.

**ELC 131 DC/AC Circuit Analysis** **4-3-5**

*Local Corequisites: MAT 121 or MAT 161*

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.

Competencies

Student Learning Outcomes

1. Identify and describe the operation of components used in DC/AC circuits.
2. Apply math formulas and circuit theorems in the analyses of DC/AC Circuits.
3. Locate and select DC/AC devices using component specifications based on circuit requirements.
4. Construct series, parallel and combination circuits.

5. Select and demonstrate the use of appropriate test equipment to analyze circuit operation.
6. Using appropriate troubleshooting techniques evaluate circuit performance applying suitable repair methods.
7. Identify and demonstrate safe workplace practices.

**ELC 131A Circuit Analysis I Lab 0-3-1**

*Corequisites: 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 144 OTDR Operation 1-0-1**

This course covers the use of the Optical Time Domain Reflectometer (OTDR), principles of operations, typical displays, and signature interpretations. Topics include cable acceptance testing, splice loss testing, reflection, troubleshooting line breaks, and usage of the OTDR for fiber optics maintenance and restoration. Upon completion, students should be able to test for attenuation bandwidth and cable length, identify backscatter, connector loss, cable breaks, and perform acceptance testing.

**ELC 220 Photovoltaic Sys Tech 2-6-4**

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 213 Instrumentation 3-2-4**

*Local Prerequisite: 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 228 PLC Applications 2-6-4**

*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 1-3-2**

*Local Prerequisite: 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**

**C-L-SHC**

**ELN 110 Survey of Electronics 2-2-3**

This course introduces fundamental electrical and electronic concepts for non-electronic majors. Emphasis is placed on terminology and devices used in basic electronic and digital applications. Upon completion, students should be able to demonstrate a grasp of the fundamentals of modern electronic circuits.

**ELN 131 Semiconductor Applications 3-3-4**

*Local Corequisites: 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.

**Competencies**

**Student Learning Outcomes**

1. Identify and describe operation of semiconductor devices.
2. Analyze where and how analog components are used.
3. Locate and select analog devices using component specifications based on circuit requirements.
4. Construct operational circuits using analog devices.
5. Select and demonstrate the use of appropriate test equipment to analyze circuit operation.
6. Using appropriate troubleshooting techniques evaluate circuit performance applying suitable repair methods.
7. Identify and demonstrate safe workplace practices.

**ELN 132 Linear IC Applications 3-3-4**

*Local Prerequisite: ELN 131 or ELC 140*

This course introduces the characteristics and applications of linear integrated circuits. Topics include op-amp circuits, waveform generators, active filters, IC voltage regulators, and other related topics. Upon completion, students should be able to construct, analyze, verify, and troubleshoot linear

integrated circuits using appropriate techniques and test equipment.

**ELN 133 Digital Electronics 3-3-4**

This course covers combinational and sequential logic circuits. Topics include number systems, Boolean algebra, logic families, medium scale integration (MSI) and large scale integration (LSI) circuits, analog to digital (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.

Competencies

Student Learning Outcomes

1. Identify and describe the operation of digital electronic devices and circuits.
2. Analyze where and how digital electronics circuits are used.
3. Locate and select digital electronic devices using component specifications based on circuit requirements.
4. Construct operational circuits using digital devices.
5. Select and demonstrate the use of appropriate test equipment to analyze circuit operation.
6. Using appropriate troubleshooting techniques evaluate circuit performance applying suitable repair methods.
7. Identify and demonstrate safe workplace practices.

**ELN 231 Industrial Controls 2-3-3**

*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: 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 3-2-4**

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 131 and either 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*

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 either ELN 132 or ELN 140*

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.

## ENGLISH

**C-L-SHC**

**ENG 090 Composition Strategies 3-0-3**

*Prerequisites: ENG 080 or ENG 085 or appropriate placement test scores*

*Corequisites: ENG 090A*

This course provides practice in the writing process and stresses effective paragraphs. Emphasis is placed on learning and applying the conventions of standard written English in developing paragraphs within the essay. Upon completion, students should be able to compose a variety of paragraphs and a unified, coherent essay. This course satisfies the developmental writing requirement for ENG 111.

**ENG 090A Composition Strategies Laboratory 0-2-1**

*Prerequisite:* ENG 080 or ENG 085 or appropriate placement test score

*Corequisites:* ENG 090

This writing lab is designed to practice the skills introduced in ENG 090. Emphasis is placed on learning and applying the conventions of standard written English in developing paragraphs within the essay. Upon completion, students should be able to compose a variety of paragraphs and a unified, coherent essay.

**ENG 102 Applied Communications II 3-0-3**

*Prerequisites:* RED 080 and ENG 090 or appropriate placement test scores

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. The computer is used as a writing and design tool for this course. This is a diploma-level course.

**ENG 110 Freshman Composition 3-0-3**

*Prerequisites:* ENG 090 and RED 080 or appropriate placement test scores

*Corequisites:* None

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 111 Expository Writing 3-0-3**

*Prerequisites:* Take one set: RED 090 and ENG 090, ENG 095, or appropriate placement test scores.

This course is the required first course in a series of two designed to develop the ability to produce clear expository prose. Emphasis is placed on the writing process including audience analysis, topic selection, thesis support and development, editing, and revision. Upon completion, students should be able to produce unified, coherent, well-developed essays using standard written English. This course has been approved for transfer under the CAA and ICAA as a general education course in English Composition.

**ENG 112 Argument-Based Research 3-0-3**

*Prerequisite:* ENG 111

This course, the second in a series of two, introduces research techniques, documentation styles, and argumentative strategies. Emphasis is placed on historical developments and their impact on the modern world through religion, politics, economics, and social developments. Upon completion, students should be able to compare and contrast western and non-western cultures. This course has been approved for transfer under the CAA and ICAA as a general education course in English Composition.

**ENG 113 Literature-Based Research 3-0-3**

*Prerequisite:* ENG 111

This course, the second in a series of two, expands the concepts developed in ENG 111 by focusing on writing that involves literature-based research and documentation. Emphasis is placed on critical reading and thinking and the analysis and interpretation of prose, poetry, and drama: plot, characterization, theme, cultural context, etc. Upon completion, students should be able to construct mechanically-sound, documented essays and research papers that analyze and respond to literary works. Students should be able to respond to literature orally in class discussions and in small group and individual presentations. This course has been approved for transfer under the CAA and ICAA as a general education 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. The computer is used as a writing and design tool for this course. This course has been approved for transfer under the CAA and ICAA as a general education course in English Composition.

**ENG 115 Oral Communication 3-0-3**

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.

**ENG 116 Technical Report Writing 3-0-3**

*Prerequisite:* Take one: 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 125 Creative Writing I 3-0-3**

*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 3-0-3**

*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**

*Prerequisite: Take one: 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 general education course in Humanities/Fine Arts.

**ENG 232 American Literature II 3-0-3**

*Prerequisite: Take one: 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 general education course in Humanities/Fine Arts.

**ENG 233 Major American Writers 3-0-3**

*Prerequisite: Take one: ENG 112, ENG 113, or ENG 114*

This course provides an intensive study of the works of several major American authors. Emphasis is placed on American history, culture, and the literary merits. Upon completion, students should be able to interpret, analyze, and evaluate the works studied. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

**ENG 241 British Literature I 3-0-3**

*Prerequisite: Take one: 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 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: Take one: 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 general education course in Humanities/Fine Arts.

**ENG 243 Major British Writers 3-0-3**

*Prerequisite: Take one: ENG 112, ENG 113, or ENG 114*

This course provides an intensive study of the works of several major British authors. Emphasis is placed on British history, culture, and the literary merits. Upon completion, students should be able to interpret, analyze, and evaluate the works studied. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

**ENG 261 World Literature I 3-0-3**

*Prerequisite: Take one: ENG 112, ENG 113, or ENG 114*

This course introduces selected works from the Pacific, Asia, Africa, Europe, and the Americas from their literary beginnings through the seventeenth century. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to selected works. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

**ENG 262: World Literature II 3-0-3**

*Prerequisite: Take one: ENG 112, ENG 113, or ENG 114*

This course introduces selected works from the Pacific, Asia, Africa, Europe, and the Americas from the eighteenth century to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to selected works. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

**ENG 273 African-American Literature 3-0-3**

*Prerequisite: Take one: ENG 112, ENG 113, or ENG 114*

This course provides a survey of the development of African-American literature from its beginnings to the present. Emphasis is placed on historical and cultural context, themes, literary traditions, and backgrounds of the authors. Upon completion, students should be able to interpret, analyze, and respond to selected texts. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

**ENVIRONMENTAL****ENV 110 Environmental Science** **C-L-SHC** **3-0-3**

This course covers the environmental problems facing society today. Topics include population, natural resources, air and water pollution, and waste disposal problems. Upon completion, students should be able to demonstrate insight into the role the individual plays in shaping the environment.

**FRENCH****FRE 111 Elementary French I** **C-L-SHC** **3-0-3**

This course introduces the fundamental elements of the French language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written French and demonstrate cultural awareness. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

**FRE 112 Elementary French II** **3-0-3**

*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 and ICAA as a general education course in Humanities/Fine Arts.

**FRE 211 Intermediate French I** **3-0-3**

*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 and ICAA as a general education course in Humanities/Fine Arts.

**FRE 212 Intermediate French II** **3-0-3**

*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 and ICAA as a general education course in Humanities/Fine Arts.

**FOOD SERVICE****FST 100 Introduction to Foodservice Industry** **C-L-SHC** **3-0-3**

This course is designed to develop an understanding of the foodservice industry and its career paths. Emphasis is placed on employability skills and attitudes relating to career goals. Upon completion, students should be able to identify job opportunities, job requirements, and career paths in the foodservice industry. This course is restricted to the Foodservice Technology program and is approvable for offering only at designated Department of Correction facilities.

**FST 101 Introduction to Baking** **1-4-3**

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 designated Department of Correction facilities.

**FST 102 Basic Foodservice Skills** **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 Safety and Sanitation** **2-2-3**

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 approvable for offering only at designated Department of Correction facilities.

**FST 105 Menu Planning** **4-2-5**

This course introduces the principles and functions of menu management for general and special populations. Emphasis is placed on building menus with regard to nutritional considerations and dietary needs. Upon completion, students should be able to develop and prepare menus to be used in a variety of dining settings. This course is restricted to the Foodservice Technology program and is approvable for offering only at designated Department of Correction facilities.



**FST 106    Advanced Foodservice Skills                    2-6-5**

This course is designed to increase the student's level of proficiency in theory and application of foodservice skills in commercial kitchens. Emphasis is placed on the preparation and presentation of hot and cold foods. Upon completion, students should be able to plan, execute, and successfully serve entrees with complementary side items. This course is restricted to the Foodservice Technology program and is approvable for offering only at designated Department of Correction facilities.

**FST 107    Advanced Baking    1-4-3**

This course provides advanced skills and techniques for preparing baked goods. Emphasis is placed on specialty breads, classical deserts, pastries, and decorative finishing. Upon completion, students should be able to produce and plate a variety of quality-baked items. This course is restricted to the Foodservice Technology program and is approvable for offering only at designated Department of Correction facilities.

**FST 108    Cost Control    2-2-3**

This course covers the control of primary costs in foodservice establishments. Topics include purchasing, receiving, storing, issuing, production, revenue, and inventory control with emphasis on food service software. Upon completion, students should be able to apply the necessary knowledge and skills required to manage primary costs for a foodservice establishment. This course is restricted to the Foodservice Technology program and is approvable for offering only at designated Department of Correction facilities.

**GEOLOGY****C-L-SHC****GEL 111    Introductory Geology    3-2-4**

This course introduces basic landforms and geological processes. Topics include rocks, minerals, volcanoes, fluvial processes, geological history, plate tectonics, glaciers, and coastal dynamics. Upon completion, students should be able to describe basic geological processes that shape the earth. This course has been approved for transfer under the CAA and ICAA as a general education course in Natural Science.

**GEL 113    Historical Geology    3-2-4**

*Prerequisite: Take one: 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 Science.

**GEL 230    Environmental Geology    3-2-4**

*Prerequisite: Take one: 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 Science.

**GEOGRAPHY****C-L-SHC****GEO 111    World Regional Geography    3-0-3**

This course introduces the regional concept, which emphasizes the spatial association of people and their environment. Emphasis is placed on the physical, cultural, and economic systems that interact to produce the distinct regions of the earth. Upon completion, students should be able to describe variations in physical and cultural features of a region and demonstrate an understanding of their functional relationships. This course has been approved for transfer under the CAA and ICAA as a general education course in Social/Behavioral Sciences.

**HEALTHCARE BUSINESS INFORMATICS****HBI 110    Issues and Trends in HBI    3-0-3**

This course is a survey of current and emerging technology applications and data standards in the healthcare industry. Topics include the history, implementation, use, management, and impact of information technology in healthcare settings. Upon completion, students should have an understanding of the current trends and issues in healthcare informatics.

**HBI 113    Survey of Med Insurance    3-0-3**

This course is a survey of the healthcare insurance system. Emphasis is placed on the foundation necessary for understanding the healthcare delivery system, terminology and practices of healthcare insurance, and provider reimbursement. Upon completion, students should have an understanding of healthcare insurance and how outcomes are addressed through healthcare informatics.

**HBI 250    Data Mgmt and Utilization    2-2-3**

This course covers the management and usage of data in healthcare settings according to current practices in healthcare informatics. Topics include data warehousing, data integrity, data security, data mining, and report generating in healthcare settings. Upon completion, students should be able to demonstrate an understanding of using healthcare data to support reporting and decision making in healthcare settings.

**HEALTH****HEA 110 Personal Health/Wellness** **C-L-SHC****3-0-3**

This course provides an introduction to basic personal health and wellness. Emphasis is placed on current health issues such as nutrition, mental health, and fitness. Upon completion, students should be able to demonstrate an understanding of the factors necessary to the maintenance of health and wellness. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective requirement.

**HEA 112 First Aid & CPR** **1-2-2**

This course introduces the basics of emergency first aid treatment. Topics include rescue breathing, CPR, first aid for choking and bleeding, and other first aid procedures. Upon completion, students should be able to demonstrate skills in providing emergency care for the sick and injured until medical help can be obtained.

**HISTORY****HIS 111 World Civilizations I** **C-L-SHC****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 general education course in Social/Behavioral Sciences.

**HIS 112 World Civilizations II** **3-0-3**

This course introduces world history from the early modern era to the present. Topics include the cultures of Africa, Europe, India, China, Japan, and the Americas. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in modern world civilizations. This course has been approved for transfer under the CAA and ICAA as a general education course in Social/Behavioral Sciences.

**HIS 115 Introduction to Global History** **3-0-3***Prerequisite: None**Corequisite: None*

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 121 Western Civilization I** **3-0-3**

This course introduces western civilization from pre-history to the early modern era. Topics include ancient Greece, Rome, and Christian institutions of the Middle Ages and the emergence of national monarchies in western Europe. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in early western civilization. This course has been approved for transfer under the CAA and ICAA as a general education course in Social/Behavioral Sciences.

**HIS 122 Western Civilization II** **3-0-3**

This course introduces western civilization from the early modern era to the present. Topics include the religious wars, the Industrial Revolution, World Wars I and II, and the Cold War. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in modern western civilization. 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** **3-0-3**

This course is a survey of American history from pre-history through the Civil War era. Topics include the migrations to the Americas, the colonial and revolutionary periods, the development of the Republic, and the Civil War. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in early American history. This course has been approved for transfer under the CAA and ICAA as a general education course in Social/Behavioral Sciences.

**HIS 132 American History II** **3-0-3**

This course is a survey of American history from the Civil War era to the present. Topics include industrialization, immigration, the Great Depression, the major American wars, the Cold War, and social conflict. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in American history since the Civil War. This course has been approved for transfer under the CAA and ICAA as a general education course in Social/Behavioral Sciences.

**HIS 151 Hispanic Civilization** **3-0-3**

This course surveys the cultural history of Spain and its impact on the New World. Topics include Spanish and Latin American culture, literature, religion, and the arts. Upon completion, students should be able to analyze the cultural history of Spain and Latin America. This course has been approved to satisfy the Comprehensive Articulation premajor and/or elective requirement.

**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**

*Prerequisite: None*

*Corequisite: None*

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 requirement.

**HIS 226 The Civil War 3-0-3**

*Prerequisite: None*

*Corequisite: None*

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 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.

## HEALTHCARE MANAGEMENT

**HMT 110 Intro to Healthcare Mgt 3-0-3**

C-L-SHC

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**

*Prerequisites: 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.

**HMT 211 Long-Term Care Admin 3-0-3**

*Prerequisite: HMT 110*

This course introduces the administration of long-term care facilities and services. Emphasis is placed on nursing home care, home health care, hospice, skilled nursing facilities, and other long-term care services. Upon completion, students should be able to administer state and national standards and regulations as they apply to long-term care.

**HMT 212 Mgt of Healthcare Org 3-0-3**

*Prerequisite: HMT 110*

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 121*

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

C-L-SHC

**HOR 130 Greenhouse Design 3-0-3**

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 2-2-3**

This course is a study of sexual and asexual reproduction of plants. Emphasis is placed on seed propagation, grafting, stem and root propagation, micro-propagation, and other propagation techniques. Upon completion, students should be able to successfully propagate ornamental plants.

**HOTEL & RESTAURANT MANGEMANT**

**HRM 245 Human Resource Mgmt-Hosp** **C-L-SHC**  
3-0-3  
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.

**HUMAN SERVICES**

**HSE 110 Introduction to Human Services** **C-L-SHC**  
2-2-3  
This 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**  
*Prerequisite: Enrollment in the HSE program*  
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 able to perform the basic interviewing skills needed to function in the helping relationship.

**HSE 125 Counseling** **2-2-3**  
*Prerequisite: PSY 150*  
This course covers the major approaches to psychotherapy and counseling, including theory, characteristics, and techniques. Emphasis is placed on facilitation of 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**  
*Prerequisite: Successful completion of 12 SHC in the HSE program*  
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** **3-0-3**  
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.

**HUMANITIES**

**HUM 110 Technology and Society** **C-L-SHC**  
3-0-3  
This course considers technological change from historical, artistic, and philosophical perspectives and its effect on human needs and concerns. Emphasis is placed on the causes and consequences of technological change. Upon completion, students should be able to critically evaluate the implications of technology. 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** **3-0-3**  
*Prerequisites: Take one set: ENG 095 or RED 090 and ENG 090*  
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 2-2-3**

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 180 International Cultural Exploration 2-3-3**

This course provides a framework for students to visit, examine, and analyze a country/region outside the United States to learn about the place and people. Emphasis is placed on the distinctive cultural characteristics of a country or region. Upon completion, students should be able to identify similarities/differences, analyze causes/effects, and clearly articulate the impact of one or more cultural elements. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

**HUM 220 Human Values and Meaning 3-0-3**

*Prerequisite: ENG 111*

This course presents some major dimensions of human experience as reflected in art, music, literature, philosophy, and history. Topics include the search for identity, the quest for knowledge, the need for love, the individual and society, and the meaning of life. Upon completion, students should be able to recognize interdisciplinary connections and distinguish between open and closed questions and between narrative and scientific models of understanding. 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 3-0-3**

*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.

**HYDRAULICS****C-L-SHC****HYD 110 Hydraulics/Pneumatics I 2-3-3**

This course introduces the basic components and functions of hydraulic and pneumatic systems. Topics include standard symbols, pumps, control valves, control assemblies, actuators, FRL, maintenance procedures, and switching and control devices. Upon completion, students should be able to understand the operation of a fluid power system, including design, application, and troubleshooting.

Competencies

Student Learning Outcomes

1. Identify and demonstrate safe practices and procedures with tools, materials and industry accepted test equipment covered in the course.
2. Demonstrate appropriate use of test equipment, evaluate circuit performance and apply appropriate troubleshooting techniques to fluid power systems.
3. Identify components of fluid power systems using symbols and schematics.
4. Assemble a fluid power system.
5. Calculate and demonstrate the basic physics of fluid mechanics.

**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.

**INTERNATIONAL BUSINESS****C-L-SHC****INT 110 International Business 3-0-3**

This course provides an overview of the environment, concepts, and basic differences involved in international business. Topics include forms of foreign involvement, international trade theory, governmental influences on trade and strategies, international organizations, multinational corporations, personnel management, and international marketing. Upon completion, students should be able to describe the foundation of international business.

**INDUSTRIAL SCIENCE****C-L-SHC****ISC 110 Workplace Safety 1-0-1**

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 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 131 Quality Management 3-0-3**

This course provides a study and analysis of the aspects and implications of quality management that lead to customer satisfaction through continuous quality improvement. Topics include Total Quality Management, ISO 9000, organizing for quality, supplier/vendor relationships, and the role of leadership in quality management. Upon completion, students should be able to demonstrate an understanding of quality management concepts and techniques.

**ISC 175 QA Fundamentals 1-0-1**

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 3-0-3**

*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 Quality 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 279 Auditing for cGMP 2-2-3**

This course provides basic knowledge in internal audit planning, implementation, and reporting utilizing cGMP as the standard. Topics include auditing basics and types, phases of the audit process, regulatory requirements,

auditing tools, auditor qualifications and skills, and behaviors while being audited. Upon completion, students should be able to identify the components of an audit program, develop a plan based on cGMP standards, and demonstrate reporting techniques.

**ISC 280 Validation Fundamentals 1-2-2**

This course covers the fundamental concepts and 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**

**C-L-SHC**

**LEO 111 Lasers and Applications 1-3-2**

*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 5-6-7**

*Prerequisites: LEO 111, ELN 132, and 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 3-3-4**

*Corequisite: LEO 111*

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 optical computers. Upon completion, students should be able to describe and analyze the critical issues attendant to a variety of photonics applications.

**LEO 221 PC Interface 3-3-4**

*Prerequisite: ELN 133*

This course covers the interaction of hardware and software in PC-based control systems. Topics include programming, I/O circuits, A/D and D/A converters, communications, and other related applications. Upon completion, students should be able to construct, program, verify, analyze, and troubleshoot both hardware and software for a basic PC-interface.

**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.

**LEO 223 Fiber Optics 3-3-4***Prerequisites: ELN 132 and ELN 133*

This course covers the principles of fiber optics, particularly as a communications transmission medium. Topics include digital communications systems, optical fibers, cables, splices, connectors, optical transmitters and receivers, installation techniques, component testing, and system testing. Upon completion, students should be able to splice and connectorize a fiber, make measurements of fiber optic systems, and test and troubleshoot fiber optic components and systems.

**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 the 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 170 Administrative Law 2-0-2**

This course covers the scope, authority, and regulatory operations of various federal, state, and local administrative agencies. Topics include social security, worker's compensation, unemployment, zoning, and other related topics. Upon completion, students should be able to research sources of administrative law, investigate, and assist in representation of clients before administrative agencies.

**LEX 180 Case Analysis & Reasoning 1-2-2***Corequisite: 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 211 Real Property II 1-4-3**

*Prerequisite: 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 220 Corporate Law 2-0-2**

This course covers the legal aspects of forming, operating, and maintaining a business. Emphasis is placed on the business corporation with additional coverage of sole proprietorships and partnerships. Upon completion, students should be able to draft basic partnership and corporate documents and file these documents as required.

**LEX 240 Family Law 3-0-3**

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.

**LEX 260 Bankruptcy & Collections 3-0-3**

This course provides an overview of the laws of bankruptcy and the rights of creditors and debtors. Topics include bankruptcy procedures and estate management, attachment, claim and delivery, repossession, foreclosure, collection, garnishment, and post-judgment collection procedure. Upon completion, students should be able to prepare and file bankruptcy forms, collection letters, statutory liens, and collection of judgments.

**LEX 271 Law Office Writing 1-2-2**

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 2-0-2**

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**

**C-L-SHC**

**LIB 110 Introduction to Libraries 3-0-3**

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.

**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. 2-2-3**

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 114 Lib. Public Serv. Oper. 2-2-3**

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.

**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. 2-2-3**

*Prerequisite: 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****C-L-SHC****MAC 111 Machining Technology I 2-12-6**

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**

*Local Prerequisite: MAC 111*

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.

**MAC 113 Machining Technology III 2-12-6**

*Local Prerequisite: MAC 112*

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 1-3-2**

This course introduces the manual programming, setup, and operation of CNC machining centers. Topics include programming formats, control functions, program editing, part production, and inspection. Upon completion, students should be able to manufacture simple parts using CNC machining centers.

**MAC 151 Machining Calculations 1-2-2**

This course introduces basic calculations as they relate to machining occupations. Emphasis is placed on basic calculations and their applications in the machine shop. Upon completion, students should be able to perform basic shop calculations.

**MAC 153 Compound Angles 1-2-2**

*Local Prerequisite: MAT 120*

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 set up and develop compound angles on parts using problem-solving techniques. *This course is a unique concentration requirement of the Tool, Die, and Mold Making concentration in the Machining Technology program.*

**MAC 171 Measure/Material & Safety 0-2-1**

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.

**MAC 241 Jigs and Fixtures I 2-6-4**

*Local Prerequisite: MAC 112*

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.

**MAC 243 Die Making I 2-6-4**

*Local Prerequisite: MAC 112*

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 1-9-4**

*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. *This course is a unique concentration requirement of the Tool, Die, and Mold Making concentration in the Machining Technology program.*

**MAC 245 Mold Construction I 2-6-4**

*Local Prerequisite: MAC 112*

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. *This course is a unique concentration requirement of the Tool, Die, and Mold Making concentration in the Machining Technology program.*

**MASONRY**

**C-L-SHC**

**MAS 110 Masonry I**

**5-15-10**

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**

**5-15-10**

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** 6-6-8

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

### C-L-SHC

**MAT 101 Applied Mathematics I** 2-2-3

*Prerequisite: Take One Set: Set 1: DMA 010, DMA 020, and DMA 030 Set 2: MAT 060 Set 3: MAT 070 Set 4: MAT 080 Set 5: MAT 090 Set 6: MAT 095*

This course is a comprehensive review of arithmetic with basic algebra designed to meet the needs of certificate and diploma programs. Topics include arithmetic and geometric skills used in measurement, ratio and proportion, exponents and roots, applications of percent, linear equations, formulas, and statistics. Upon completion, students should be able to solve practical problems in their specific areas of study. This course is intended for certificate and diploma programs.

**MAT 110 Mathematical Measurement** 2-2-3

*Prerequisite: Take one set: Set 1: DMA 010, DMA 020, and DMA 030 Set 2: MAT 060\* and MAT 070 Set 3: MAT 060\* and MAT 080 Set 4: MAT 060\* and MAT 090 Set 5: MAT 095 Set 6: MAT 120 Set 7: MAT 121 Set 8: MAT 161 Set 9: MAT 171 Set 10: MAT 175*

This course provides an activity-based approach to utilizing, interpreting, and communicating data in a variety of measurement systems. Topics include accuracy, precision, conversion, and estimation within metric, apothecary, and avoirdupois systems; ratio and proportion; measures of central tendency and dispersion; and charting of data. Upon completion, students should be able to apply proper techniques to gathering, recording, manipulating, analyzing, and communicating data.

**MAT 115 Mathematical Models** 2-2-3

*Prerequisite: Take one set: Set 1: DMA 010, DMA 020, DMA 030, DMA 040, and DMA 050 Set 1: MAT 060\* and MAT 070 Set 2: MAT 060\* and MAT 080 Set 3: MAT 060\* and MAT 090 Set 4: MAT 095 Set 5: MAT 120 Set 6: MAT 121 Set 7: MAT 161 Set 8: MAT 171 Set 9: MAT 175*

This course develops the ability to utilize mathematical skills and technology to solve problems at a level found in non-mathematics intensive programs. Topics include applications to percent, ratio and proportion, formulas, statistics, function notation, linear functions and their groups, probability, sampling techniques, scatter plots, and modeling. Upon completion, students should be able to solve practical problems, reason and communicate with mathematics, and work confidently, collaboratively, and independently.

**MAT 120 Geometry and Trigonometry** 2-2-3

*Prerequisites: Take one set: Set 1: DMA 010, DMA 020, DMA 030, and DMA 040 Set 2: MAT 060\* and MAT 070 Set 3: MAT 060\* and MAT 080 Set 4: MAT 060\* and MAT 090 Set 5: MAT 095 Set 6: MAT 121 Set 7: MAT 161 Set 8: MAT 171 Set 9: MAT 175*

This course introduces the concepts of plane trigonometry and geometry with emphasis on applications to problem solving. Topics include the basic definitions and properties of plane and solid geometry, area and volume, right triangle trigonometry, and oblique triangles. Upon completion, students should be able to solve applied problems both independently and collaboratively using technology.

**MAT 121 Algebra/Trigonometry I** 2-2-3

*Prerequisite: Take one set: Set 1: DMA 010, DMA 020, DMA 030, DMA 040, and DMA 050 Set 2: MAT 060\* and MAT 070 Set 3: MAT 060\* and MAT 080 Set 4: MAT 060\* and MAT 090 Set 5: 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 simplification, evaluation, and solving of algebraic and radical functions; complex numbers; right triangle trigonometry; systems of equations; and the use of technology. Upon completion, students should be able to demonstrate an understanding of the use of mathematics and technology to solve problems and analyze and communicate results.

**MAT 122 Algebra/Trigonometry II** 2-2-3

*Prerequisite: Take one: MAT 121, MAT 161, MAT 171, or MAT 175*

This course extends the concepts covered in MAT 121 to include additional topics in algebra, function analysis, and trigonometry. Topics include exponential and logarithmic functions, translation and scaling of functions, Sine Law, Cosine Law, vectors and statistics. Upon completion, students should be able to demonstrate an understanding of the use of technology to solve problems and to analyze and communicate results.

**MAT 140 Survey of Mathematics 3-0-3**

*Prerequisite:* Take one set: **Set 1:** DMA 010, DMA 020, DMA 030, and DMA 040 **Set 1:** MAT 060\* and MAT 070 **Set 2:** MAT 060\* and MAT 080 **Set 3:** MAT 060\* and MAT 090 **Set 4:** MAT 095 **Set 5:** MAT 120 **Set 6:** MAT 121 **Set 7:** MAT 161 **Set 8:** MAT 171 **Set 9:** MAT 175

This course provides an introduction in a non-technical setting to selected topics in mathematics. Topics may include, but are not limited to, sets, logic, probability, statistics, matrices, mathematical systems, geometry, topology, mathematics of finance, and modeling. Upon completion, students should be able to understand a variety of mathematical applications, think logically, and be able to work collaboratively and independently. Under the CAA and ICAA, this course satisfies the general education Mathematics requirement for the AA and AFA degrees. It does not satisfy the general education Mathematics requirement for the AS degree.

**MAT 151 Statistics I 3-0-3**

*Prerequisite:* Take one set: **Set 1:** DMA-010, DMA-020, DMA-030, DMA-040, and DMA-050 **Set 2:** MAT-060\* and MAT-080 **Set 3:** MAT 060\* and MAT 090 **Set 4:** MAT 095 **Set 5:** MAT 120 **Set 6:** MAT 121 **Set 7:** MAT 140 **Set 8:** MAT 161 **Set 9:** MAT 171 **Set 10:** MAT 175

This course provides a project-based approach to the study of basic probability, descriptive and inferential statistics, and decision-making. Emphasis is placed on measures of central tendency and dispersion, correlation, regression, discrete and continuous probability distributions, quality control, population parameter estimation, and hypothesis testing. Upon completion, students should be able to describe important characteristics of a set of data and draw inferences about a population from sample data. This course has been approved for transfer under the CAA and ICAA as a general education course in Mathematics (Quantitative).

**MAT 161 College Algebra 3-0-3**

*Prerequisite:* Take one set: **Set 1:** DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 060, DMA 070, and DMA 080 **Set 2:** MAT 060\* and MAT 080 **Set 3:** MAT 060\* and MAT 090 **Set 4:** MAT 095

This course provides an integrated technological approach to algebraic topics used in problem solving. Emphasis is placed on applications involving equations and inequalities; polynomial, rational, exponential, and logarithmic functions; and graphing and data analysis/modeling. Upon completion, students should be able to choose an appropriate model to fit a data set and use the model for analysis and prediction. Under the CAA and ICAA, this course satisfies the general education Mathematics requirement for the AA and AFA degrees. It does not satisfy the general education Mathematics requirement for the AS degree.

**MAT 162 College Trigonometry 3-0-3**

*Prerequisite:* MAT 161

This course provides an integrated technological approach to trigonometric applications used in problem solving.

Emphasis is placed on applications involving trigonometric ratios, right triangles, oblique triangles, trigonometric functions, graphing, vectors, and complex numbers. Upon completion, students should be able to apply the above principles of trigonometry to problem solving and communication. Under the CAA and ICAA, this course satisfies the general education Mathematics requirement for the AA and AFA degrees. It does not satisfy the general education Mathematics requirement for the AS degree.

**MAT 171 Precalculus Algebra 3-0-3**

*Prerequisite:* Take one set: **Set 1:** DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 060, DMA 070, DMA 080 **Set 2:** MAT 060\* and MAT 080 **Set 3:** MAT 060\* and MAT 090 **Set 4:** MAT 095 **Set 5:** MAT 161

This is the first of two courses designed to emphasize topics, which are fundamental to the study of calculus. Emphasis is placed on equations and inequalities, functions (linear, polynomial, rational), systems of equations and inequalities, and parametric equations. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and predictions. This course has been approved for transfer under the CAA and ICAA as a general education course in Mathematics.

**MAT 172 Precalculus Trigonometry 3-0-3**

*Prerequisite:* MAT 171

This is the second of two courses designed to emphasize topics which are fundamental to the study of calculus. Emphasis is placed on properties and applications of transcendental functions and their graphs, right and oblique triangle trigonometry, conic sections, vectors, and polar coordinates. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and prediction. This course has been approved for transfer under the CAA and ICAA as a general education course in Mathematics.

**MAT 175 Precalculus 4-0-4**

*Prerequisite:* MAT 161

This course provides an intense study of the topics which are fundamental to the study of calculus. Emphasis is placed on functions and their graphs with special attention to polynomial, rational, exponential, logarithmic and trigonometric functions, and analytic trigonometry. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and prediction. This course has been approved for transfer under the CAA and ICAA as a general education course in Mathematics.

**MAT 210 Logic 3-0-3**

*Prerequisite:* Take one: MAT 161, MAT 171, or MAT 175

This course introduces the concept of deductive logic with emphasis on the use of formal logic in analysis. Topics include traditional logic, propositional logic, and determination of validity including truth tables, Venn diagrams, and translational exercises. Upon completion, students should be able to analyze data based on formal

logic or ordinary language discourse. This course has been approved for transfer under the CAA and ICAA as a general education course in Mathematics.

**MAT 263 Brief Calculus 3-0-3**

*Prerequisite: MAT 161, MAT 171, or MAT 175*

This course is designed for students needing one semester of calculus. Topics include functions, graphing, differentiation, and integration with emphasis on applications drawn from business, economics, 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 general education course in Mathematics.

**MAT 271 Calculus I 3-2-4**

*Prerequisite: Take one: MAT 172 or MAT 175*

This course covers in-depth the differential calculus portion of a three-course calculus sequence. Topics include limits, continuity, derivatives, and integrals of algebraic and transcendental functions of one variable with applications. Upon completion, students should be able to apply differentiation and integration techniques to algebraic and transcendental functions. This course has been approved for transfer under the CAA and ICAA as a general education course in Mathematics.

**MAT 272 Calculus II 3-2-4**

*Prerequisite: MAT 271*

This course provides a rigorous treatment of integration and is the second calculus course in a three-course sequence. Topics include applications of definite integrals, techniques of integration, indeterminate forms, improper integrals, infinite series, conic sections, parametric equations, polar coordinates, and differential equations. Upon completion, students should be able to use integration and approximation techniques to solve application problems. This course has been approved for transfer under the CAA and ICAA as a general education course in Mathematics.

**MAT 273 Calculus III 3-2-4**

*Prerequisite: MAT 272*

This course covers the calculus of several variables and is the third calculus course in a three-course sequence. Topics include functions of several variables, partial derivatives, multiple integrals, solid analytical geometry, vector-valued functions, and line and surface integrals. Upon completion, students should be able to solve problems involving vectors and functions of several variables. This course has been approved for transfer under the CAA and ICAA as a general education course in Mathematics.

**MAT 280 Linear Algebra 3-0-3**

*Prerequisite: MAT 271*

This course provides a study of linear algebra topics with emphasis on the development of both abstract concepts and applications. Topics include vectors, systems of equations,

matrices, determinants, vector spaces, linear transformations in two or three dimensions, eigenvectors, eigenvalues, diagonalization, and orthogonality. Upon completion, students should be able to demonstrate both an understanding of theoretical concepts and appropriate use of linear algebra models to solve application problems. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

**MAT 285 Differential Equations 3-0-3**

*Prerequisite: MAT 272*

This course provides an introduction to ordinary differential equations with an emphasis on applications. Topics include first-order, linear higher-order, and systems of differential equations; numerical methods; series solutions; eigenvalues and eigenvectors; Laplace transforms; and Fourier series. Upon completion, students should be able to use differential equations to model physical phenomena, solve the equations, and use the solutions to analyze the phenomena. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

## MOTORCYCLE MECHANICS

**C-L-SHC**

**MCM 111 Motorcycle Mechanics 3-8-7**

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 Motor Chassis 1-6-3**

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 1-4-3**

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 completions, 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**

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 1-4-3**

*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 completions, 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**

**MEC 110 Introduction to CAD/CAM 1-2-2**

This course introduces CAD/CAM. Emphasis is placed on transferring part geometry from CAD to CAM for the development of a CNC-ready program. Upon completion, students should be able to use CAD/CAM software to produce a CNC program.

**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 130 Mechanisms 2-2-3**

This course introduces the purpose and action of various mechanical devices. Topics include cams, cables, gear trains, differentials, screws, belts, pulleys, shafts, levers, lubricants, and other devices. Upon completion, students should be able to analyze, maintain, and troubleshoot the components of mechanical systems.

**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.

**MEC 161 Manufacturing Processes I 3-0-3**

This course provides the fundamental principles of value-added processing of materials into usable forms for the customer. Topics include material properties and traditional and non-traditional manufacturing processes. Upon completion, students should be able to specify appropriate manufacturing processing for common engineering materials.

**Competencies**

**Student Learning Outcomes**

1. Distinguish various primary metal working processes.
2. Compare and contrast various welding processes.
3. Compare and contrast various material finishing
4. Compare and contrast testing techniques.

**MEC 161A Manufacturing Proc I Lab 0-3-1**

*Corequisites: MEC 161*

This course is a laboratory for MEC 161. Emphasis is placed on experiences that enhance the materials presented in MEC 161. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in MEC 161.

**MEC 180 Engineering Materials 2-3-3**

This course introduces the physical and mechanical properties of materials. Topics include materials testing, pre- and post-manufacturing processes, and material selection of ferrous and non-ferrous metals, plastics, composites, and non-conventional materials. Upon completion, students should be able to utilize basic material property tests and select appropriate materials for applications.

**Competencies**

**Student Learning Outcomes**

1. Identify and explain the physical and mechanical properties of ferrous metals.
2. Identify and explain the physical and mechanical properties of non-ferrous metals.
3. Identify and explain the physical and mechanical properties of plastics, composites, ceramics, engineered wood materials.
4. Evaluate the effects heat treatments have on various materials.
5. Describe and/or conduct the physical procedures required to test these properties to compare and contrast them.
6. Summarize the use of engineering materials and the impact in the industry.

**MEC 231 Computer-Aided Manufacturing I 1-4-3**

*Prerequisite: MEC 110*

This course introduces computer-aided design/manufacturing (CAD/CAM) applications and concepts. Topics include software, programming, data transfer and verification, and equipment setup. Upon completion, students should be able to produce parts using CAD/CAM applications.

**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 Introduction to Anatomy and Physiology 3-2-0-4**

*Prerequisites: Take one set: RED 090 and ENG 090, ENG 095, or appropriate placement test scores.*

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.

**MED 118 Medical Law and Ethics 2-0-0-2**

*Prerequisites: Take one set: RED 090 and ENG 090, ENG 095, or appropriate placement test scores.*

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.

**MED 130 Administrative Office Procedures I 1-2-0-2**

*Prerequisites: Enrollment in the Medical Assisting program or permission of instructor; MAT 060*

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.

**MED 131 Administrative Office Procedures II 1-2-0-2**

*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**

*Prerequisites: Enrollment in the Medical Assisting program; CIS 111, MAT 110, MED 110, MED 116, MED 118, MED 121, MED 130*

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**

*Prerequisites: Enrollment in the Medical Assisting program; CIS 111, MAT 110, MED 110, MED 116, MED 118, MED 121, MED 130*

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.

**MED 230 Administrative Office Procedures III 1-2-0-2**

*Prerequisites: MED 131, MED 134, MED 260 or CMA certification, BIO 163, ENG 111, PSY 110, and CIS 111*

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.

**MED 232 Medical Insurance Coding 1-3-0-2**

*Prerequisites: MED 122 and MED 131*

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 260 Clinical Externship 0-0-15-5**

*Prerequisites: Enrollment in the Medical Assisting program; Adult, Infant, and Child CPR Certification for Health Care Providers; CIS 111, MAT 110, MED 110, MED 116, MED 118, MED 122, MED 130, ENG 110 or ENG 111, MED 140, MED 150, and PSY 110*

*Corequisite: 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. The student will not receive any monetary compensation for this externship.

**MED 264 Medical Assisting Overview 2-0-0-2**

*Prerequisite: MED 134, MED 260 or CMA certification, BIO 163, ENG 111, PSY 110, and CIS 111*

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 2-2-0-3**

*Prerequisites: MED 260 or CMA certification, BIO 163, ENG 111, PSY 110, and CIS 111, or special permission of instructor*

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.

**MED 272 Drug Therapy 3-0-0-3**

*Prerequisite: MED 260 or CMA certification, BIO 163, ENG 111, PSY 110, and CIS 111, or special permission of instructor*

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 3-0-0-3**

*Prerequisites: MED 134, MED 260 or CMA certification, BIO 163, ENG 111, PSY 110, and CIS 111, or special permission of instructor*

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**

*Prerequisites: MED 134, MED 260 or CMA certification, BIO 163, ENG 111, PSY 110, and CIS 111, or special permission of instructor*

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

**C-L-SHC**

**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.

**MKT 123 Fundamentals of Selling 3-0-3**

This course is designed to emphasize the necessity of selling skills in a modern business environment. Emphasis is placed on sales techniques involved in various types of selling situations. Upon completion, students should be able to demonstrate an understanding of the techniques covered.

**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 3-0-3**

This course stresses the importance of customer relations in the business world. Emphasis is placed on learning how to respond to complex customer requirements and to efficiently handle stressful situations. Upon completion, students should be able to demonstrate the ability to handle customer relations.



**MKT 232 Social Media Marketing 3-2-4**

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 Introduction 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.

## Competencies

## Student Learning Outcomes

- Identify and demonstrate safe practices and procedures with tools, materials and industry accepted test equipment covered in the course.
- Identify and demonstrate use of hand tools.
- Identify grades of bolts and fasteners and demonstrate proper tightening techniques
- Describe the operation of and assemble mechanical power transmissions and systems.
- Identify bearings, seals, gaskets, and packing material and demonstrate appropriate assembly techniques.
- Perform preventative and predictive maintenance and mechanical troubleshooting.

**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.

**MNT 270 Bioprocess Equipment Maintenance 1-3-2***Prerequisite: MNT 110*

This course covers the equipment used in a bioprocess manufacturing facility and the techniques used to maintain and troubleshoot it. Topics include types of equipment, the role of equipment in the bioprocess manufacturing facility, troubleshooting bioprocess equipment, and the role of a bioprocess maintenance technician. Upon completion, students should be able to maintain and troubleshoot bioprocess equipment in a biotechnology manufacturing facility using work techniques appropriate for the biotechnology industry.

**MNT 280 Bioprocess Operating System 1-3-2***Prerequisite: ELC 128*

This course covers the specific SCADA (Supervisory Control and Data Acquisition) software used to operate bioprocess equipment in a modern biotechnology manufacturing facility. Topics include the operation, configuration, applications, and problem solving of standard bioprocess control software. Upon completion, students should be able to safely utilize bioprocess control software when required in the maintenance and operation of bioprocess equipment.

**MUSIC****C-L-SHC****MUS 110 Music Appreciation 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 general education 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 general education course in Humanities/Fine Arts.

## NURSING ASSISTANT

### **NAS 101 Nursing Assistant I** **C-L-SHC** **3-4-6**

This course introduces basic nursing skills required to provide personal care for patients, residents, or clients in a health care setting. Topics include communications, safety, patients' rights, personal care, vital signs, elimination, nutrition, emergencies, rehabilitation, and mental health. Upon completion, students should be able to demonstrate skills necessary to qualify as Nursing Assistant I with the North Carolina Nurse Aide I Registry.

### **NAS 102 Nursing Assistant II** **3-2-6**

This course provides training in selected advanced nursing assistant procedures. Emphasis is placed on sterile techniques, respiratory procedures, catheterizations, wound and trach care, irrigations, and ostomy care. Upon completion, students should be able to demonstrate skills necessary to qualify as a Nursing Assistant II with the North Carolina Board of Nursing.

### **NAS 103 Home Health Care** **2-0-2**

This course covers basic health issues that affect clients in the home setting. Emphasis is placed on home safety, recognizing significant changes in the client's condition, family dynamics, and use of home health care equipment. Upon completion, students should be able to identify care for clients at home.

## NETWORKING TECHNOLOGY

### **NET 110 Networking Concepts** **C-L-SHC** **2-2-3**

This course introduces students to the networking field. Topics include network terminology and protocols, local-area networks, wide-area networks, OSI model, cabling, router programming, Ethernet, IP addressing, and network standards. Upon completion, students should be able to perform tasks related to networking mathematics, terminology, and models, media, Ethernet, subnetting, and TCP/IP Protocols.

### **NET 113 Home Automaton Systems** **2-2-3**

This course covers the design, installation, testing, troubleshooting, and customer service of a fully automated home. Emphasis is placed on a structured wiring system that integrates the home phone, TV, home theater, audio, video, computer network, lighting, security systems, and automation systems into a pre-wired, remote controlled system. Upon completion, students should be able to design, install, and maintain home automation systems.

### **NET 115 Telecommunication Fundamentals** **1-2-2**

This course covers the fundamentals of the electronic transfer of information for those who have not received credit for NET 110. Topics include terminal emulation software usage, file transfer methods, PC-based

fax/modem/voice-mail operations, accessing and navigating the Internet, and bulletin boards. Upon completion, students should be able to access and use online services and the Internet, send and receive email, and perform other basic telecommunication operations.

### **NET 116 Fundamentals of Voice/Data Cable** **2-2-3**

*Prerequisite: CIS 110 or CIS 111 or CTS 125*

This introductory course to Voice and Data Cabling focuses on cabling issues related to data and voice connections. Topics include skills in design documentation, determining cabling equipment, pulling, mounting and managing cable, selecting wiring closets, terminating cable, installing jacks, and testing cable. Upon completion, students should be able to understand of the industry, media and cabling, physical and logical networks, and signal transmission.

### **NET 125 Networking Basics** **1-4-3**

This course introduces the networking field. Emphasis is placed on network terminology and protocols, local-area networks, wide-area networks, OSI model, cabling, router programming, Ethernet, IP addressing, and network standards. Upon completion, students should be able to perform tasks related to networking mathematics, terminology, and models, media, Ethernet, subnetting, and TCP/IP Protocols.

### **NET 126 Routing Basics** **1-4-3**

*Prerequisite: NET 125*

This course focuses on initial router configuration, router software management, routing protocol configuration, TCP/IP, and access control lists (ACLs). Emphasis will be placed on the fundamentals of router configuration, managing router software, routing protocol, and access lists. Upon completion, students should have an understanding of routers and their role in WANs, router configuration, routing protocols, TCP/IP, troubleshooting, and ACLs.

### **NET 225 Routing and Switching I** **1-4-3**

*Prerequisite: NET 126*

This course focuses on advanced IP addressing techniques, intermediate routing protocols, command-line interface configuration of switches, Ethernet switching, VLANs, STP, and VTP. Emphasis will be placed on application and demonstration of skills acquired in prerequisite courses. Upon completion, students should be able to perform tasks related to VLSM, routing protocols, switching concepts and configuration, STP, VLANs, and VTP.

### **NET 226 Routing and Switching II** **1-4-3**

*Prerequisite: NET 225*

This course introduces WAN theory and design, WAN technology, PPP, Frame Relay, ISDN, and additional case studies. Topics include network congestion problems, TCP/IP transport and network layer protocols, advanced routing and switching configuration, ISDN protocols, PPP encapsulation operations on a router. Upon completion, students should be able to provide solutions for network

routing problems, identify ISDN protocols, and describe the Spanning Tree protocol.

**NET 230 Wide Area Networking 2-2-3**

*Prerequisite: NET 110 or NET 125*

This course is designed to introduce significant aspects of network interconnectivity. Topics include LAN-to-LAN, LAN-to-host, LAN-to-WAN connectivity, Internet connections, and voice-video-data transmission. Upon completion, students should be able to demonstrate an understanding of wide-area networking.

**NET 289 Networking Project 1-4-3**

*Corequisite: NET 226*

This course provides an opportunity to complete a significant networking project from the design phase through implementation with minimal instructor support. Emphasis is placed on project definition, documentation, installation, testing, presentation, and training. Upon completion, students should be able to complete a project from the definition phase through implementation.

**NETWORKING OPERATING SYSTEM**

**C-L-SHC**

**NOS 110 Operating System Concepts 2-3-3**

This course introduces students to a broad range of operating system concepts, including installation and maintenance. Emphasis is placed on operating system concepts, management, maintenance, and resources required. Upon completion of this course, students will have an understanding of OS concepts, installation, management, maintenance, using a variety of operating systems.

**NOS 120 Linux/UNIX Single User 2-2-3**

*Prerequisite: NOS 110 or CET 211*

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 2-2-3**

*Prerequisite: NOS 110 or CET 211*

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**

*Prerequisite: NOS 120*

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**

*Prerequisite: NOS 130*

This course covers the installation and administration of a Windows Server network operating system. Topics include managing and maintaining physical and logical devices, access to resources, the server environment, managing users, computers, and groups, and managing/implementing disaster recovery. Upon completion, students should be able to manage and maintain a Windows Server environment.

**NURSING**

**C-L-CI-SHC**

**NUR 101 Practical Nursing I 7-6-6-11**

*Prerequisite: Admission to the Practical Nursing program*  
*Corequisites: BIO 165 and PSY 110*

This course introduces concepts as related to the practical nurse's caregiver and discipline-specific roles. Emphasis is placed on the nursing process, legal/ethical/professional issues, wellness/illness patterns, and basic nursing skills. Upon completion, students should be able to demonstrate beginning understanding of nursing process to promote/maintain/restore optimum health for diverse clients throughout the life span. Theoretical concepts are augmented by laboratory and clinical experiences. This is a diploma-level course.

**NUR 102 Practical Nursing II 8-0-12-12**

**NUR 102A Practical Nursing II (6)-(0)-(6)-(8)**

**NUR 102B Practical Nursing II (2)-(0)-(6)-(4)**

*Prerequisites: BIO 165, PSY 110, and NUR 101*

*Corequisites: BIO 166*

This course includes more advanced concepts as related to the practical nurse's caregiver and discipline-specific roles. Emphasis is placed on the nursing process, delegation, cost effectiveness, legal/ethical/professional issues, and wellness/illness patterns. Upon completion, students should be able to begin participating in the nursing process to promote/maintain/restore optimum health for diverse clients throughout the life span. Theoretical concepts are augmented by clinical experiences focusing on adult clients with alterations in functional health patterns. This is a diploma-level course.

**NUR 103 Practical Nursing III 6-0-12-10**

*Prerequisites: BIO 166 and NUR 102*

This course focuses on use of nursing/related concepts by practical nurses as providers of care/members of discipline in collaboration with health team members. Emphasis is placed on the nursing process, wellness/illness patterns, entry-level issues, accountability, advocacy, professional development, evolving technology, and changing health care delivery systems. Upon completion, students should be able to use the nursing process to promote/maintain/restore optimum health for diverse clients throughout the life span. Theoretical concepts are augmented by clinical experiences focusing on the child-bearing and child-rearing family. This is a diploma-level course.

**NUR 105 LPN Refresher 8-6-6-12**

*Prerequisite: Admission to the LPN Refresher Certificate program*

This refresher course is designed to provide a review for the previously licensed practical nurse whose license has lapsed. Emphasis is placed on common medical-surgical conditions and nursing interventions, including mental health principles, pharmacological concepts, and safe clinical practice. Upon completion, students will be eligible to apply for reinstatement of licensure.

**NUR 110 Nursing I 5-3-6-8**

*Prerequisite: Admission to the Associate Degree program*

*Corequisites: BIO 165, PSY 150, ENG 111, and ACA 115*

This course introduces concepts basic to beginning nursing practice. Emphasis is placed on introducing the nurse's role as provider of care, manager of care, and member of the discipline of nursing. Upon completion, students should be able to demonstrate beginning competence in caring for individuals with common alterations in health.

**NUR 111 Introduction to Health Concepts 4-6-6-8**

*Prerequisites: Admission to the Associate Degree program*

*Corequisites: BIO 165, PSY 150, ENG 111, and ACA 115*

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 3-0-6-5**

*Prerequisites: NUR 111, NUR 113, BIO 165, PSY 150, ENG 111, and ACA 115*

*Corequisites: BIO 166 and PSY 241*

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 3-0-6-5**

*Prerequisites: NUR 111, BIO 165, PSY 150, ENG 111, and ACA 115*

*Corequisites: BIO 166, PSY 241, and NUR 112*

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 114 Holistic Health Concepts 3-0-6-5**

*Prerequisites: NUR 111, NUR 112, NUR 113, NUR 211, BIO 165, PSY 150, ENG 111, ACA 115, BIO 166, PSY 241, and CIS 111*

*Corequisites: ENG Elective, SOC 210 and NUR 212*

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 211 Health Care Concepts 3-0-6-5**

*Prerequisites: NUR 111, NUR 112, NUR 113, BIO 165, PSY 150, ENG 111, ACA 115, BIO 166, and PSY 241*

*Corequisites: CIS 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, 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 212 Health System Concepts 3-0-6-5**

*Prerequisites: NUR 111, NUR 112, NUR 113, NUR 114, NUR 211, BIO 165, PSY 150, ENG 111, ACA 115, BIO 166, PSY 241, and CIS 111*

*Corequisites: ENG Elective and SOC 210*

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 213 Complex Health Concepts 4-3-15-10**

*Prerequisites:* NUR 111, NUR 112, NUR 113, NUR 114, NUR 211, NUR 212, BIO 166, PSY 150, CYSG 311, ACA 115, BIO 166, PSY 241, CIS 111, SO  
*Corequisites:* Humanities/Fine Arts Elective

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.

**NUTRITION****NUT 110 Nutrition C-L-SHC 3-0-3**

This course covers basic principals 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.

**OPERATIONS MANAGEMENT****OMT 218 Dev Team Performance C-L-SHC 3-0-3**

This course provides a foundation for enhancing team effectiveness and performance. Topics include clarification of team responsibilities, techniques for keeping the team on course, being a team player, and playing a vital role in team decisions. Upon completion, students should be able to understand the advantage of teamwork in a workplace environment and understand their role in being an effective team member.

**OFFICE ADMINISTRATION****OST 131 Keyboarding C-L-SHC 1-2-2**

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 132 Keyboard Skill Building C-L-SHC 1-2-2**

*Local Prerequisite:* OST 131

This course is designed to increase speed and improve accuracy in keyboarding. Emphasis is placed on diagnostic tests to identify accuracy and speed deficiencies followed by corrective drills. Upon completion, students should be able to keyboard rhythmically with greater accuracy and speed.

**OST 134 Text Entry & Formatting 2-2-3**

This course is designed to provide the skills needed to increase speed, improve accuracy, and format documents. Topics include letters, memos, tables, and business reports. Upon completion, students should be able to produce documents and key timed writings at speeds commensurate with employability.

**OST 135 Adv Text Entry & Format 3-2-4**

*Prerequisite:* OST 134

This course is designed to incorporate computer application skills in the generation of office documents. Emphasis is placed on advanced document production. Upon completion, students should be able to make independent decisions regarding planning, style, and method of presentation.

**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 Software Applications 2-2-3**

*Local Prerequisite:* OST 131

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.

**OST 138 Advanced Software Appl 2-2-3**

*Prerequisite:* OST 137 or CIS 111 or CIS 110

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.

**OST 141 Med Terms I-Med Office 3-0-3**

This course uses a language-structure approach to present the terminology and vocabulary that will be encountered in medical office settings. Topics include word parts that relate to systemic components, conditions, pathology, and disorder remediation in approximately one-half of the systems of the human body. Upon completion, students should be able to relate words to systems, pluralize, define, pronounce, and construct sentences with the included terms.

**OST 142 Medical Terms II-Med Office 3-0-3**

*Prerequisite:* 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 Coding Billing & Insurance 3-0-3**

*Local Prerequisite/Corequisite: OST 141*

This course introduces fundamentals of medical coding, billing, and insurance. Emphasis is placed on the medical billing cycle to include third-party payers, coding concepts, and form preparation. Upon completion, students should be able to explain the life cycle of and accurately complete a medical insurance claim.

**OST 149 Med Legal Issues 3-0-3**

This course introduces the complex legal, moral, and ethical issues involved in providing health care services. Emphasis is placed on the legal requirements of medical practices; the relationship of physician, patient, and office personnel; professional liabilities; and medical practice liability. Upon completion, students should be able to demonstrate a working knowledge of current medical law and accepted ethical behavior.

**OST 164 Text Editing Applications 3-0-3**

This course provides a comprehensive study of editing skills needed in the workplace. Emphasis is placed on grammar, punctuation, sentence structure, proofreading, and editing. Upon completion, students should be able to use reference materials to compose and edit text.

**OST 181 Into to Office Systems 2-2-3**

This course introduces the skills and abilities needed in today's office. Topics include effectively interacting with co-workers and the public, processing simple financial and informational documents, and performing functions typical of today's offices. Upon completion, students should be able to display skills and decision-making abilities essential for functioning in the total office context.

**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 2-2-3**

*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/Information Proc 2-2-3**

*Prerequisite: OST 136*

This course develops proficiency in the utilization of advanced word/information processing functions. Emphasis is placed on advanced word processing features. Upon completion, students should be able to produce a variety of complex business documents.

**OST 241 Med Ofc Transcription I 1-2-2**

*Prerequisite: MED 121 or OST 141*

This course introduces machine transcription techniques as applied to medical documents. Emphasis is placed on accurate transcription, proofreading, and use of reference materials as well as vocabulary building. Upon completion, students should be able to prepare accurate and usable transcripts of voice recordings in the covered specialties.

**OST 242 Med Ofc Transcription II 1-2-2**

*Prerequisite: OST 241*

This course continues building machine transcription techniques as applied to medical documents. Emphasis is placed on accurate transcription and text editing, efficient use of reference materials, increasing transcription speed and accuracy, and improving understanding of medical terminology. Upon completion, students should be able to display competency in accurately transcribing medical documents.

**OST 243 Med Office Simulation 2-2-3**

This course introduces medical systems used to process information in the automated office. Topics include traditional and electronic information resources, storing and retrieving information, and the billing cycle. Upon completion, students should be able to use the computer accurately to schedule, bill, update, and make corrections.

**OST 248 Diagnostic Coding 1-2-2**

*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 281 Emerg Issues in the Med Ofc 3-0-3**

This course provides a comprehensive discussion of topics familiar to the health care setting. Topics include emerging issues in the health care setting. Upon completion, students should be able to demonstrate an understanding of current medical office procedures and treatments.

**OST 285 Adv Emerg Issues in Medical Ofc 3-0-3**

*Prerequisites: OST 281*

This course provides an advanced comprehensive discussion of topics familiar to the health care setting. Topics include advanced emerging issues in the health care setting such as homeostatis, pharmacology, laboratory and pathology tests, and new surgical procedures. Upon completion, students

should be able to demonstrate an understanding of advanced medical procedures and treatments.

**OST 286 Professional Development 3-0-3**

This course covers the personal competencies and qualities needed to project a professional image in the office. Topics include interpersonal skills, health lifestyles, appearance, attitude, personal and professional growth, multicultural awareness, and professional etiquette. Upon completion, students should be able to demonstrate these attributes in the classroom, office, and society.

**OST 289 Administrative Office Mgt. 2-2-3**

*Prerequisites: OST 164 and either OST 134 or OST 136*

This course is designed to be a capstone course for the office professional and provides a working knowledge of modern office procedures. Emphasis is placed on scheduling, telephone procedures, travel arrangements, event planning, office design, and ergonomics. Upon completion, students should be able to adapt in an office environment.

**PROCESS CONTROL INSTRUMENTATION**

**PCI 170 DAQ and Control 3-3-4**

*Local Prerequisite: ELN 132*

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 1-2-2**

This course is designed to investigate and apply the basic concepts and principles of lifetime physical fitness and other health-related factors. Emphasis is placed on wellness through the study of nutrition, weight control, stress management, and consumer facts on exercise and fitness. Upon completion, students should be able to plan a personal, lifelong fitness program based on individual needs, abilities, and interests. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

**PED 113 Aerobics I 0-3-1**

This course introduces a program of cardiovascular fitness involving continuous, rhythmic exercise. Emphasis is placed on developing cardiovascular efficiency, strength, and flexibility and on safety precautions. Upon completion, students should be able to select and implement a rhythmic aerobic exercise program. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

**PED 114 Aerobics II 0-3-1**

This course provides a continuation of a program of cardiovascular fitness involving rhythmic exercise. Emphasis is placed on a wide variety of aerobic activities which include cardiovascular efficiency, strength, and flexibility. Upon completion, students should be able to participate in and design a rhythmic aerobic exercise routine. 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 0-3-1**

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 116 Step Aerobics II 0-3-1**

*Prerequisite: PED 115*

This course provides a continuation of step aerobics. Emphasis is placed on a wide variety of choreographed step patterns; cardiovascular fitness; and upper body, abdominal, and floor exercises. Upon completion students should be able to participate in and design a step aerobics routine. 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 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.

**PED 118 Weight Training II 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 121 Walk, Jog, Run 0-3-1**

This course covers the basic concepts involved in safely and effectively improving cardiovascular fitness. Emphasis is placed on walking, jogging, or running as a means of achieving fitness. Upon completion, students should be able to understand and appreciate the benefits derived from these activities. 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**

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 0-2-1**

This course emphasizes the fundamentals of tennis. Topics include basic strokes, rules, etiquette, and court play. Upon completion, students should be able to play recreational tennis. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

**PED 139 Bowling-Beginning 0-2-1**

This course introduces the fundamentals of bowling. Emphasis is placed on ball selection, grips, stance, and delivery along with rules and etiquette. Upon completion, students should be able to participate in recreational bowling. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

**PED 143 Volleyball-Beginning 0-2-1**

This course covers the fundamentals of volleyball. Emphasis is placed on the basics of serving, passing, setting, spiking, blocking, and the rules and etiquette of volleyball. Upon completion, students should be able to participate in recreational volleyball. 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 148 Softball 0-2-1**

This course introduces the fundamental skills and rules of softball. Emphasis is placed on proper techniques and strategies for playing softball. Upon completion, students should be able to participate in recreational softball. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

**PED 149 Flag Football 0-2-1**

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 152 Swimming-Beginning 0-2-1**

This course is designed for non-swimmers and beginners. Emphasis is placed on developing confidence in the water, learning water safety, acquiring skills in floating, and learning elementary strokes. Upon completion, students should be able to demonstrate safety skills and be able to tread water, back float, and use the crawl stroke for 20 yards. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

**PED 155 Water Aerobics 0-3-1**

This course introduces rhythmic aerobic activities performed in water. Emphasis is placed on increasing cardiovascular fitness levels, muscular strength, muscular endurance, and flexibility. Upon completion, students should be able to participate in an individually-paced exercise program. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

**PED 160 Canoeing-Basic 0-2-1**

*Prerequisite: PED 152*

This course provides basic instruction for the beginning canoeist. Emphasis is placed on safe and correct handling of the canoe and rescue skills. Upon completion, students should be able to demonstrate basic canoeing, safe-handling, and self-rescue skills. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

**PED 219 Disc Golf 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 210 History of Philosophy** **C-L-SHC**  
**3-0-3***Prerequisite: ENG 111*

This course introduces fundamental philosophical issues through an historical perspective. Emphasis is placed on such figures as Plato, Aristotle, Lao-Tzu, Confucius, Augustine, Aquinas, Descartes, Locke, Kant, Wollstonecraft, Nietzsche, and Sartre. Upon completion, students should be able to identify and distinguish among the key positions of the philosophers studied. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

**PHI 215 Philosophical Issues** **3-0-3***Prerequisite: ENG 111*

This course introduces fundamental issues in philosophy considering the views of classical and contemporary philosophers. Emphasis is placed on knowledge and belief, appearance and reality, determinism and free will, faith and reason, and justice and inequality. Upon completion, students should be able to identify, analyze, and critique the philosophical components of an issue. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

**PHI 230 Introduction to Logic** **3-0-3***Prerequisite: ENG 111*

This course introduces basic concepts and techniques for distinguishing between good and bad reasoning. Emphasis is placed on deduction, induction, validity, soundness, syllogisms, truth functions, predicate logic, analogical inference, common fallacies, and scientific methods. Upon completion, students should be able to analyze arguments, distinguish between deductive and inductive arguments, test validity, and appraise inductive reasoning. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

**PHI 240 Introduction to Ethics** **3-0-3***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 utilitarianism, rule-based ethics, existentialism, relativism versus objectivism, and egoism. Upon completion, students should be able to apply various ethical theories to individual moral issues such as euthanasia, abortion, crime and punishment, and justice. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

**PHYSICAL SCIENCE****PHS 110 Survey of Physical Science** **C-L-SHC**  
**3-2-4**

This course introduces the physical environment with emphasis on the laws and physical concepts that impact the world and universe. Topics include astronomy, geology, meteorology, general chemistry, and general physics. Upon

completion, students should be able to describe the forces and composition of the earth and universe.

**PHYSICS****PHY 110 Conceptual Physics** **C-L-SHC**  
**3-0-3***Corequisite: 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 general education course in Natural Science.

**PHY 110A Conceptual Physics Laboratory** **0-2-1***Corequisite: 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 general education course in Natural Science.

**PHY 121 Applied Physics I** **3-2-4***Prerequisite: MAT 060 or appropriate placement test scores.*

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** **3-2-4***Prerequisite: Take one: MAT 121, MAT 161, MAT 171, or MAT 175*

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 133 Physics-Sound and Light** **3-2-4***Prerequisite: 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 3-2-4**

*Prerequisite: Take one: MAT 161, MAT 171, or MAT 175*

This course uses algebra/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 general education course in Natural Science.

**PHY 152 College Physics II 3-2-4**

*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 general education course in Natural Science.

**PHY 251 General Physics I 3-3-4**

*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 general education course in Natural Science.

**PHY 252 General Physics II 3-3-4**

*Prerequisites: MAT 272 and PHY 251*

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 general education course in Natural Science.

**POLITICAL SCIENCE**

**C-L-SHC**

**POL 120 American Government 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 general education course in Social/Behavioral Sciences.

**POL 130 State and Local Government 3-0-3**

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 general education course in Social/Behavioral Sciences.

**POL 210 Comparative Government 3-0-3**

This course provides a cross-national perspective on the government and politics of contemporary nations such as Great Britain, France, Germany, and Russia. Topics include each country's historical uniqueness, key institutions, attitudes and ideologies, patterns of interaction, and current political problems. Upon completion, students should be able to identify and compare various nations' governmental structures, processes, ideologies, and capacity to resolve major problems. This course has been approved for transfer under the CAA and ICAA as a general education course in Social/Behavioral Sciences.

**POL 220 International Relations 3-0-3**

This course provides a study of the effects of ideologies, trade, armaments, and alliances on relations among nation-states. Emphasis is placed on regional and global cooperation and conflict, economic development, trade, non-governmental organizations, and international institutions such as the World Court and UN. Upon completion, students should be able to identify and discuss major international relationships, institutions, and problems. This course has been approved for transfer under the CAA and ICAA as a general education course in Social/Behavioral Sciences.

**PSYCHOLOGY****C-L-SHC****PSY 101 Applied Psychology 3-0-3**

This course introduces the basic principles of psychology as they apply to daily life. Topics include perception, emotions, motivation, adjustment, behavior management, communication, and related topics that promote growth and development on the job and in one's personal life. Upon completion, students should be able to apply the principles learned in this class to everyday living. This course is intended for certificate and diploma programs.

**PSY 102 Human Relations 2-0-2**

This course covers the skills necessary to handle human relationships effectively. Topics include self-understanding, interpersonal communication, group dynamics, leadership skills, diversity, time and stress management, and conflict resolution with emphasis on work relationships. Upon completion, students should be able to demonstrate improved personal and interpersonal effectiveness. This course is intended for certificate and diploma programs.

**PSY 110 Life Span Development 3-0-3**

This course provides an introduction to the study of human growth and development. Emphasis is placed on the physical, cognitive, and psychosocial aspects of development from conception to death. Upon completion, students should be able to demonstrate knowledge of development across the life span and apply this knowledge to their specific field of study.

**PSY 115 Stress Management 2-0-2**

This course covers stressors and techniques for stress management. Topics include anger, assertiveness, adaptation to change, conflict, coping skills, identification of stressors, time management, and the physiology of stress and burnout. Upon completion, students should be able to demonstrate an understanding of the effective management of stress.

**PSY 118 Interpersonal Psychology 3-0-3**

This course introduces the basic principles of psychology as they relate to personal and professional development. Emphasis is placed on personality traits, communication/leadership styles, effective problem solving, and cultural diversity as they apply to personal and work environments. Upon completion, students should be able to demonstrate an understanding of these principles of psychology as they apply to personal and professional development.

**PSY 150 General Psychology 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 general education course in Social/Behavioral Sciences.

**PSY 234 Organizational Psychology 3-0-3***Prerequisite: PSY 150*

This course introduces the field of industrial and organizational psychology. Topics include employee motivation, organizational structure, leadership, selection and training, conflict resolution, communication, job satisfaction, and other related influences on performance. Upon completion, students should be able to demonstrate a basic understanding of organizational dynamics and behaviors in the workplace.

**PSY 237 Social Psychology 3-0-3***Prerequisite: Take one: PSY 150 or SOC 210*

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.

**PSY 241 Developmental Psychology 3-0-3***Prerequisite: PSY 150*

This course is a study of human growth and development. Emphasis is placed on major theories and perspectives as they relate to the physical, cognitive, and psychosocial aspects of development from conception to death. Upon completion, students should be able to demonstrate knowledge of development across the life span. This course has been approved for transfer under the CAA and ICAA as a general education course in Social/Behavioral Sciences.

**PSY 246 Adolescent Psychology 3-0-3***Prerequisite: 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 general education course in Social/Behavioral Sciences.

**PSY 281 Abnormal Psychology 3-0-3***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.

## READING

### **RED 080 Introduction to College Reading** **C-L-SHC** **3-2-4**

*Prerequisite: RED 070 or ENG 075 or appropriate placement test scores*

This course introduces effective reading and inferential thinking skills in preparation for RED 090. Emphasis is placed on vocabulary, comprehension, and reading strategies. Upon completion, students should be able to determine main ideas and supporting details, recognize basic patterns of organization, draw conclusions, and understand vocabulary in context. This course does not satisfy the developmental reading prerequisite for ENG 111.

### **RED 090 Improved College Reading** **3-2-4**

*Prerequisite: RED 080 or ENG 085 or appropriate placement test scores*

This course is designed to improve reading and critical thinking skills. Topics include vocabulary enhancement; extracting implied meaning; analyzing author's purpose, tone, and style; and drawing conclusions and responding to written material. Upon completion, students should be able to comprehend and analyze college-level reading material. This course satisfies the developmental reading prerequisite for ENG 111.

## 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.

### **REL 212 Introduction to New Testament** **3-0-3**

This course is a survey of the literature of first-century

Christianity with readings from the gospels, Acts, and the Pauline and pastoral letters. Topics include the literary structure, audience, and religious perspective of the writings, as well as the historical and cultural context of the early Christian community. Upon completion, students should be able to use the tools of critical analysis to read and understand New Testament literature. 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.

## INFORMATION SYSTEMS SECURITY

### **SEC 110 Security Concepts** **C-L-SHC** **3-0-3**

This course introduces the concepts and issues related to securing information systems and the development of policies to implement information security controls. Topics include the historical view of networking and security, security issues, trends, security resources, and the role of policy, people, and processes in information security. Upon completion, students should be able to identify information security risks, create an information security policy, and identify processes to implement and enforce policy.

### **SEC 160 Security Administration I** **2-2-3**

*Prerequisites: SEC 110 and NET 110 or NET 125*

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.

## SELECTED TOPICS

### **SEL 293 Selected Topics in \_\_\_\_\_** **C-L-SHC** **3-9-3**

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on the subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

**SOCIOLOGY****SOC 210 Introduction to Sociology** **C-L-SHC**  
**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 general education course in Social/Behavioral Sciences.

**SOC 213 Sociology of the Family** **3-0-3**

This course covers the institution of the family and other intimate relationships. Emphasis is placed on mate selection, gender roles, sexuality, communication, power and conflict, parenthood, diverse lifestyles, divorce and remarriage, and economic issues. Upon completion, students should be able to analyze the family as a social institution and the social forces which influence its development and change. 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** **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**

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.

**SOC 240 Social Psychology** **3-0-3**

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.

**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 112 Elementary Spanish II** **3-0-3**

*Prerequisite: 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 121 Spanish Language and Culture** **3-0-3**

This course is designed to provide an understanding of everyday Spanish language and to promote cultural awareness. Emphasis is placed on providing a balanced foundation in listening, speaking, reading, writing, and understanding Hispanic languages and cultures. Upon completion, students should be able to communicate in elementary Spanish, to research and experience various cultural resources, and to function in a multicultural society.

**SPA 141 Culture and Civilization** **3-0-3**

*Prerequisite: None*

*Corequisite: None*

This course provides an opportunity to explore issues related to the Hispanic world. Topics include historical and current events, geography, and customs. Upon completion, students should be able to identify and discuss selected topics and cultural differences related to the Hispanic world. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

**SPA 151 Hispanic Literature 3-0-3**

*Prerequisites: ENG 111*

*Corequisites: None*

This course includes selected readings by Hispanic writers. Topics include fictional and non-fictional works by representative authors from a variety of genres and literary periods. Upon completion, students should be able to analyze and discuss selected texts within relevant cultural and historical contexts. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

**SPA 161 Cultural Immersion 2-3-3**

*Prerequisite: SPA 111*

This course explores Hispanic culture through intensive study taking place on campus and during a field experience in a host country or area. Topics include an overview of linguistic, historical, geographical, sociopolitical, economic, and/or artistic concerns of the area visited. Upon completion, students should be able to exhibit first-hand knowledge of issues pertinent to the host area and demonstrate understanding of cultural differences. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

**SPA 211 Intermediate Spanish I 3-0-3**

*Prerequisite: 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 3-0-3**

*Prerequisite: SPA 211*

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.

**SPA 221 Spanish Conversation 3-0-3**

*Prerequisite: SPA 212*

*Corequisite: None*

This course provides an opportunity for intensive communication in spoken Spanish. Emphasis is placed on vocabulary acquisition and interactive communication through the discussion of media materials and authentic texts. Upon completion, students should be able to discuss selected topics, express ideas and opinions clearly, and engage in formal and informal conversations. This course has been approved for transfer under the CAA and ICAA as

a premajor and/or elective course requirement.

**SPA 231 Reading and Composition 3-0-3**

*Prerequisite: SPA 212*

*Corequisite: None*

This course provides an opportunity for intensive reading and composition in Spanish. Emphasis is placed on the use of literary and cultural materials to enhance and expand reading and writing skills. Upon completion, students should be able to demonstrate in writing an in-depth understanding of assigned readings. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

**SUSTAINABILITY TECHNOLOGIES**

**C-L-SHC**

**SST 110 Intro to Sustainability 3-0-3**

This course introduces sustainability issues and individual contributions toward environmental sustainability. Topics include management processes needed to maximize renewable/nonrenewable energy resources, economics of 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.

Competencies  
Student Learning Outcomes

1. Demonstrate an understanding of the concepts of high performance green buildings and sustainability.
2. Identify current green building rating systems (i.e. LEED, NAHB).
3. Identify the energy efficiency methods that should be considered in a building design and/or construction project.
4. Select appropriate "green" materials for a building project.
5. Identify Indoor Environmental Quality factors to be considered in a construction project.
6. Identify water management strategies in a construction project.

**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.

## TELEPHONY

**C-L-SHC**

**TCT 100 Telco Safety Regulations 1-2-2**

This course covers Occupational Safety and Health Administration (OSHA) and similar safety regulations and their specific application in the telecommunications industry. Emphasis is placed on applying safe working standards, acquiring permits, and working with low and high voltage electricity in confined spaces. Upon completion, students should be able to research and apply appropriate safety regulations applicable to the telecommunications industry.

**TCT 101 Vault Management 1-2-2**

This course covers locating, inspecting, managing, and maintaining a safe working environment in a telecommunications vault. Emphasis is placed on safety, ingress, egress, potential hazardous atmosphere or material engulfment, tool utilization, installation, removal, and splicing or bonding of communication media. Upon completion, students should be able to safely identify, inspect, enter, perform work in, and exit a telecommunications vault.

**TCT 102 Underground Locating 1-2-2**

This course covers underground utilities locating to include telephony, community access television (CATV), gas, power, water and sewer. Emphasis is placed on locating and properly marking underground utilities in accordance with state One-Call legislation. Upon completion, students should be able to locate, identify, and protect underground utilities.

**TCT 103 Installer Level 1 Cabling 1-2-2**

This course covers structured premises cabling for the beginning level installer. Emphasis is placed on Installer Level 1 knowledge of standards and codes for the telecommunications industry and properly structured premises cabling techniques. Upon completion, students should be prepared to take the Building Industry Consulting Service International (BICSI) Installer Level 1 certification examination and install premises cabling systems.

**TCT 104 Installer Level 2 Copper 1-2-2**

This course introduces the foundation for copper-based structured cabling system installation for intermediate installers. Emphasis is placed on copper transmission principles, installation, termination, testing, retrofitting, pathways and spaces, grounding, bonding and protection, fire stopping, and life safety. Upon completion, students should be prepared to take the Building Industry Consulting Service International (BICSI) ITS Installer 2, Copper examination.

**TCT 105 Installer Level 2 Fiber 1-2-2**

This course introduces the foundation for fiber-based structured cabling system installation for intermediate installers. Emphasis is placed on fiber transmission principles, installation, termination, testing, retrofitting, pathways and spaces, grounding, bonding and protection, fire stopping, life safety, and field coordination. Upon completion, students should be prepared to take the Building Industry Consulting Service International (BICSI) ITS Installer 2, Optical Fiber examination.

**TCT 106 Technician Level Cabling 1-2-2**

This course covers structured premises cabling at the technician level. Emphasis is placed on technician level knowledge of standards and codes for the telecommunications industry and properly structured premises cabling techniques. Upon completion, students should be prepared to take the Building Industry Consulting Service International (BICSI) technician level certification examination and install premises cabling systems.

**TEL 100 Telecommunications Basic Electricity 3-0-3**

This course covers DC and AC theory with specific emphasis on the specialized needs of telecommunications personnel. Emphasis is placed on electron theory, conductors, insulators, Ohm's Law, capacitance, and inductance as it relates to small gauge, twisted-pair copper wire. Upon completion, students should be able to

understand trouble symptoms and correct faults on the telephone physical plant network.

**TEL 102 Pole Climbing 0-2-1**

This course covers basic skills in pole climbing and working aloft. Emphasis is placed on safety, climbing techniques, maintenance of climbing gear, working aloft, and potential hazards. Upon completion, students should be able to safely climb and work aloft.

**TEL 104 CATV I and R: Distribution 0-2-1**

This course provides training in the fundamentals of the CATV distribution system, including home and business installations. Emphasis is placed on plant construction, subscriber terminal installation, cabling, wiring, separation and clearance, proper grounding procedures, and safety. Upon completion, students should be able to install, test, and correct faults on the CATV distribution system, including home and business installations.

**TEL 105 Fiber Optics Splicing 1-2-2**

This course covers splicing and maintaining aerial or buried, single mode, loose tube buffered fiber optic cable. Emphasis is placed on hands-on cleaving, fusion and mechanical splicing. Upon completion, students should be able to splice, test, and locate faults using an OTDR and an OLTS to return fibers to service.

**TEL 106 Fiber Optics Connectors 1-2-2**

This course covers installing and maintaining fiber optic cables, connectors, and patch panels in local area networks. Emphasis is placed on installing and testing connectors including ST, SC, and SFF using anaerobic, crimp and Hotmelt, and then testing using an OLTS. Upon completion, students should be able to install and test connectors and patch cords.

**TEL 108 Comdial Key Systems 0-2-1**

This course covers programming and maintaining Comdial 616X and 816X Key Systems. Emphasis is placed on programming new systems and moves and changes in working systems. Upon completion, students should be able to install new systems, complete the initial programming, and perform routine moves and changes.

**TEL 109 T-1 Span Line Maintenance 0-2-1**

This course provides training in design, construction, turn-up testing, troubleshooting, and maintenance of T-1 span lines. Emphasis is placed on method of transmission, troubleshooting, testing, and repair of T-1 span lines. Upon completion, students should be able to install, test, and repair T-1 span lines.

**TEL 201 Station I and R 1-2-2**

This course covers the fundamentals of trouble-free telephone installation from aerial and buried cable in homes and businesses. Emphasis is placed on drop-wire attachments, station protection, and wire runs, as well as methods for testing and checking stations for customer

satisfaction. Upon completion, students should be able to correctly install, test, and repair telephone stations and wiring up to entry into the cable plant.

**TEL 202 Cable Splicing 1-2-2**

This course covers the cable color-code, splicing methods, and closures used throughout the telephone industry. Emphasis is placed on cable color-code, engineering drawings, proper splicing methods, and cable closures. Upon completion, students should be able to perform the basic functions of a cable splicer and meet telephone industry standards.

**TEL 203 Cable Fault Location 0-2-1**

This course covers identifying fault types and using test equipment to locate the faults in aerial and underground cable. Emphasis is placed on identifying fault types and correct uses of various types of test equipment to precisely locate the fault. Upon completion, students should be able to identify fault type, properly use test equipment, and locate the fault within inches.

**TEL 204 Transmission Fundamentals 2-0-2**

This course covers the basic concepts of point-to-point voice and data transmission in both inside and outside telecommunications plant facilities. Topics include test equipment, impedance matching, line characteristics, loading, impedance compensation, bridge taps, tie trunks, echo, singing point, and via net loss. Upon completion, students should be able to maintain facilities to provide fault-free voice and data transmission within the telecommunications network.

**TEL 205 Digital CO Administration 1-2-2**

This course covers data modifications in DMS-10 digital central office switches from remote or on-site locations. Emphasis is placed on normal day-to-day data modification procedures to support customer-originated service orders, including any required hardware changes. Upon completion, students should be able to successfully perform any software or hardware modifications involved in normal daily operations of the DMS-10 digital switch.

**TEL 209 ADSL Installation 0-2-1**

This course provides the hands-on skills necessary for installing and troubleshooting digital subscriber lines (DSL). Topics include DSL technology, services and operation, network wiring, cable pair specifications, computer configuration for DSL operation, and Golite technology. Upon completion, students should be able to install, test, and repair DSL services.



**TRANSPORTATION TECHNOLOGY****C-L-SHC  
1-2-2****TRN 110 Intro to Transport Tech**

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.

## Competencies

## Student Learning Outcomes

1. Demonstrate work place safety and hazardous waste disposal per OSHA and EPA guidelines that apply to relevant transportation industry work.
2. Given a vehicle or piece of equipment, students will be able to identify it and locate relevant service information in one or more industry-standard databases.
3. Demonstrate proficiency hoisting transportation vehicles through use of lifts and floor jacks.
4. Complete service repair orders with appropriate information: customer contact information; VIN; cause, concern, correction.
5. Identify and communicate about basic systems and terms associated with the transportation industry.
6. Distinguish between different transportation systems terms and components either on a written exercise or in a lab environment.
7. Demonstrate proper use and care of related transportation industry tools and equipment.
8. Correctly identify or describe government regulations associated with the transportation industry.

**TRN 120 Basic Transp Electricity****4-3-5**

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.

## Competencies

## Student Learning Outcomes

1. Demonstrate work place safety related to transportation electrical systems.
2. Interpret and apply wiring diagram information on a transportation vehicle electrical system.
3. Demonstrate the proper use of electrical diagnostic test equipment.
4. Use Ohm's law to calculate the value of any of the following given the values of the remaining variables:  
\* Voltage (V)  
\* Resistance (R)  
\* Amperage (A)

5. Given a transportation vehicle with a fault in the battery, starting, and charging system, students will be able to perform successful diagnosis and repairs.

6. Demonstrate the ability to obtain appropriate service information on electrical circuit construction.

**TRN 120A Basic Transp Electricity****0-3-1***Corequisites: 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.

## Competencies

## Student Learning Outcomes

1. Measure current with a digital multi-meter at various points on an electrical circuit in a transportation vehicle.
2. Measure voltage drops with a digital multi-meter at various points in an electrical circuit on a transportation vehicle.
3. Measure the resistance of various electrical components with a digital multi-meter to determine if resistance meets the required specifications as indicated by relevant information.
4. Given a transportation vehicle with a fault in the battery, perform a battery load test using recommended lab equipment.
5. Given a transportation vehicle with a fault in the charging system, perform a charging system test using recommended lab equipment.
6. Given a transportation vehicle with a fault in the starter motor system, perform starter / cranking system test using the recommended lab equipment.
7. Given a wiring diagram and appropriate service information, properly repair electrical / electronic circuits found on transportation vehicles.

**TRN 130 Intro to Sustainable Transp****2-2-3**

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.

## Competencies

## Student Learning Outcomes

1. Identify alternative fuels used in transportation industry to reduce the dependency on fossil fuels.
2. Describe appropriate safety practices used when servicing and repairing Hybrid Electric Vehicles (HEVs).
3. Correctly identify or describe how each alternative fuel is delivered and used in modern transportation vehicles and

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equipment.

4. Identify diagnostic procedures and repairs associated with alternative fueled transportation vehicles and equipment.
5. Describe the similarities and differences between various types of Hybrid Electric Vehicle (HEV) power systems found in modern transportation and equipment.
6. Identify emerging fuel sources for the transportation industry that are currently in development and describe their characteristics.

**TRN 140 Transp Climate Control 1-2-2**

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.

Competencies

Student Learning Outcomes

1. In a lab setting, demonstrate work place safety per OSHA and EPA guidelines that apply to relevant climate control systems found on transportation vehicles and equipment.
2. Given a transportation vehicle or related equipment with a fault to the climate control system, diagnose and repair the climate control system using the recommended lab equipment as outlined by the related service information.
3. Using the recommended equipment as outlined by the EPA, identify and perform the proper recovery and recycling procedures for any refrigerant in a transportation vehicle or related equipment.
4. Describe the operation of the heating, ventilation and air condition systems.
5. Describe the use of climate control testing equipment to aid diagnosis of the systems.
6. Describe the use of appropriate service information and capacity charts.
7. Describe the EPA regulations that govern the proper use of refrigerants in a transportation vehicle or related equipment.

**TRN 140A Transp Climate Cont Lab 1-2-2**

*Corequisites: 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.

Competencies

Student Learning Outcomes

1. Given a transportation vehicle or related equipment with a fault in the A/C system, diagnose and repair the system using the recommended lab equipment and service

information.

2. Utilize proper equipment to identify a given A/C refrigerant type and the purity of the A/C refrigerant for the transportation industry.
3. Given a transportation vehicle or equipment with an A/C system, determine the recommended refrigerant oil and capacity levels as prescribed from related service information.
4. Given a transportation vehicle or equipment with an A/C system, use the recommended equipment to properly reclaim, recycle, evacuate and recharge the entire refrigerant system.
5. Given a Heating Ventilation and Air Conditioning (HVAC) system, properly drain, flush and refill the entire anti-freeze coolant system.
6. Given a Heating Ventilation and Air Conditioning (HVAC) system, evaluate the anti-freeze coolant condition and perform a systems test as recommended by service information for a transportation vehicle or equipment.
7. Diagnose and repair a transportation vehicle or equipment with a fault in a protection device for the given A/C system.
8. Given an A/C system, remove and inspect system components and seals for damage which may cause the system to leak refrigerant.
9. Given a faulty climate control system, diagnose temperature control problems.

**TRN 145 Adv Transp Electronics 2-3-3***Prerequisites: 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.

**Competencies****Student Learning Outcomes**

1. Given a transportation vehicle or related equipment, diagnose and repair a failure in the lighting, gauges, and accessory circuits by using the recommended lab or test equipment as outlined by the related service information.
2. Correctly describe the processes involved in electrical system diagnosis on modern transportation vehicles or equipment.
3. Given a transportation vehicle or equipment, diagnose and repair a fault in the controller area network (CAN) system by using the recommended lab or test equipment as outlined by the related service information.
4. In a lab setting, demonstrate the proper use of electrical diagnostic equipment that apply to transportation vehicles and equipment.
5. Given a transportation vehicle or equipment, diagnose and repair a fault in the electronic control system by using the recommended lab or test equipment as outlined by the related service information.
6. Demonstrate appropriate diagnostic procedures for sensors, controllers, and circuits by using the recommended test equipment as outlined by service information.
7. Correctly identify or describe complex transportation vehicle systems such as, collision avoidance, high intensity headlamps, navigation, and communication systems.
8. Given a transportation vehicle or equipment, replace or reprogram an electronic system controller as outlined by the related service information.

**TRN 180 Basic Welding for Transp 1-4-3**

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 operations and safety procedures according to industry standard.

**Competencies****Student Learning Outcomes**

1. Describe and list the proper fundamentals, processes and equipment, materials and metallurgy associated with

welding of similar and dissimilar metals in transportation systems and equipment.

2. Identify and describe safety and health practices associated with the welding of similar and dissimilar metals in transportation systems and equipment.
3. In a lab setting, demonstrate the ability to successfully weld similar and dissimilar metals in transportation systems and equipment.
4. Select and list the proper inspection methods associated with the welding of similar and dissimilar metals in transportation systems and equipment.
5. In a lab setting, demonstrate proper setup and operational procedures associated with the welding of similar and dissimilar metals in transportation systems and equipment.
6. Describe and list the cutting techniques used with the various tools and methods associated with transportation systems and equipment.

**VETERINARY MEDICAL TECHNOLOGY****C-L-SHC****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 Introduction 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**

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 123 Veterinary Parasitology 2-3-3**

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 126 Veterinary Diseases II 1-3-2**

*Prerequisite: 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*

*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 133 Veterinary Clinical Practice I 2-3-3**

*Corequisite: 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.

**VET 137 Veterinary Office Practices 1-2-2**

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.

**VET 211 Veterinary Laboratory Techniques II 2-3-3**

*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.

**VET 213 Veterinary Clinical Practice II 1-9-4**

*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 1-9-4***Prerequisite: 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.

**VET 215 Veterinary Pharmacology 3-0-3***Prerequisites: CHM 130 and CHM 130A or CHM 151**Corequisite: 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.

**WEB TECHNOLOGIES****WEB 110 Internet/Web Fundamentals****C-L-SHC****2-2-3**

This course introduces World Wide Web Consortium (W3C) standard markup language and services of the Internet. Topics include creating web pages, search engines, FTP, and other related topics. Upon completion, students should be able to deploy a hand-coded website created with

markup language, and effectively use and understand the function of search engines.

**WEB 140 Web Development Tools 2-2-3**

This course provides an introduction to web development software suites. Topics include the creation of web sites and applets using web development software. Upon completion, students should be able to create entire web sites and supporting applets.

**WEB 151 Mobile Application Dev I 2-2-3**

This course introduces students to programming technologies, design and development related to mobile applications. Topics include accessing device capabilities, industry standards, operating systems, and programming for mobile applications using an OS Software Development Kit (SDK). Upon completion, students should be able to create basic applications for mobile devices.

**WEB 214 Social Media 2-2-3**

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****C-L-SHC****WLD 110 Cutting Processes****1-3-2**

This course introduces oxy-fuel and plasma-arc cutting systems. Topics include safety, proper equipment setup, and operation of oxy-fuel and plasma-arc cutting equipment with emphasis on straight line, curve and bevel cutting. Upon completion, students should be able to oxy-fuel and plasma-arc cut metals of varying thickness.

Competencies

Student Learning Outcomes

1. Identify the parts and functions of an oxy-acetylene cutting torch.
2. Identify the parts and functions of various cutting equipment.
3. List the safety practices of using oxy-fuel, plasma-arc, and other cutting equipment.
4. Set-up and adjust cutting equipment.
5. Use an oxy-acetylene outfit, plasma cutting equipment, and other equipment to:
  - a. Cut a straight marked line on various thickness steel plate.
  - b. Cut various shapes out of carbon steel plate.
  - c. Cut carbon steel plate to a bevel and pipe.

**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.

Competencies

Student Learning Outcomes

1. Demonstrate SMAW electrode classification in compliance with AWS codes.
2. Perform a groove weld according to AWS D1.1.
3. Demonstrate safe and proper SMAW equipment setup, operation, and shut-down practices in accordance to manufacturer's recommendations.

**WLD 116 SMAW (Stick) Plate/Pipe 1-9-4**

*Prerequisite: 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 1-4-3**

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.

Competencies

Student Learning Outcomes

1. Demonstrate the use of GMAW electrode classification in compliance with AWS code for the selection of electrodes.
2. Demonstrate the use of FCAW electrode classification in compliance with AWS code for the selection of electrodes.
3. Perform a Fillet weld in accordance with AWS code.
4. Perform a groove weld in accordance with AWS code.
5. Demonstrate safe and proper GMAW equipment setup, operation, and shut-down practices in accordance to manufacturer's recommendations.

**WLD 131 GTAW (TIG) Plate 2-6-4**

This course introduces the gas tungsten arc (TIG) welding process. Topics include correct selection of tungsten, polarity, gas, and proper filler rod with emphasis placed on safety, equipment setup, and welding techniques. Upon completion, students should be able to perform GTAW fillet and groove welds with various electrodes and filler materials.

Competencies

Student Learning Outcomes

1. Demonstrate the use of GTAW electrode classification in compliance with AWS for the selection of electrodes.
2. Perform a groove weld in accordance with AWS code.
3. Perform a Fillet weld in accordance with AWS code.
4. Demonstrate safe equipment setup, operation, and shut-down practices according to manufacturer's recommendations.

**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.

Competencies

Student Learning Outcomes

1. Identify and read welding symbols.
2. Identify and explain various lines, notes, and specifications on a blueprint.
3. Identify the different types of lines on a blueprint.
4. Interpret destructive testing symbols and their methods.
5. Interpret non-destructive testing symbols and their methods.
6. Develop a working sketch.
7. Create a bill of materials from a blueprint.

**WLD 151 Fabrication I 2-6-4**

*Prerequisites: WLD 110, WLD 115, WLD 116, and WLD 131*

This course introduces the basic principles of fabrication. Emphasis is placed on safety, measurement, layout techniques, and the use of fabrication tools and equipment. Upon completion, students should be able to perform layout activities and operate various fabrication and material handling equipment.

**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.





# CCCC BOARD OF TRUSTEES AND PERSONNEL 2013 - 2015







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Appointed by the Governor

*\*Current as of July 1, 2013*

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B.A., History/Anthropology, University of North Carolina at Greensboro

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A.A.S., Criminal Justice-Protective, Central Carolina CC

### **Brown, Virginia**

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M.A.Ed. Community College Education, Western Carolina University

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Certificate, Telephone Technician, Central Carolina CC

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M.A., Mathematics, Appalachian State University

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M.S., Vocational Education, East Carolina University

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B.B.A., Business Administration, Campbell University

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- Harrington, Terry**  
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*Administrative Assistant*

A.A., Central Carolina CC

Diploma, Cosmetology, Central Carolina CC

**Wood, Barbara H.**

*Library Assistant*

Diploma, General Office, Central Carolina CC

**Wood, Cristian**

*Distance Education Advisor & Success Coach*

B.S., Business Administration, University of North Carolina at Pembroke

**Wood, Michael**

*Maintenance Supervisor*

Diploma, Industrial Plant Maintenance, Central Carolina CC

**Yarborough, Melanie R.**

*Receptionist*

## FULL-TIME FACULTY

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*ESL Instructor*

B.A., English, University of North at Greensboro

**Arnold, Deborah**

*Cosmetology*

North Carolina Cosmetology License

North Carolina Cosmetology Instructor License

**Ashe, Phillip**

*Art Instructor*

M.F.A., Studio Arts, University of North Carolina at Greensboro

B.F.A., Sculpture, East Carolina University

B.F.A., Art Education, East Carolina University

**Baker, Anthony**

*Telecommunications*

Certified Fiber Optic Technician, Central Carolina CC

BICSI Installer I, Central Carolina CC

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*Department Chair, Allied Health Sciences*

B.S., Dental Hygiene, St. Petersburg College

A.A.S., Dental Hygiene, St. Petersburg College

A.A.S., Dental Assisting, Community College of the Air Force - Air University

**Barnes, Robert**

*History*

M.A., Liberal Studies, University of North Carolina at Wilmington

**Beam, Leigh B.**

*Department Chair, Social Science and Wellness*

M.A., Sociology, North Carolina State University

B.A., Sociology and Education, North Carolina State University

A.A., Peace College

**Beasley, Gary B.**

*Lasers and Optics*

M.S., Industrial Technology, East Carolina University

B.S., Electrical Engineering, North Carolina State University

A.A.S., Electronics Engineering Technology, Fayetteville Technical CC

**Bell, Charles W.**

*Industrial Systems/Welding*

A.A.S., General Occupational Technology (Welding), Central Carolina CC

Certificate, Hobart School of Welding Technology

**Biggs, Richard**

*Computer Information Technology*

B.S., Professional Aeronautics, Embry-Riddle University

M.A., Computer Resources & Information, Webster University

**Blair, Linda L.**

*Nursing*

B.S.N., University of Virginia

**Bland, Ellen J.**

*Drama and Communications*

M.A., Speech, Marshall University

B.A., Oral Communications/English, Marshall University

**Boahn, Constance**

*Networking*



**Bonds, Richard**

*Food Services Technology*  
Food Services Specialist, U.S. Army

**Boyd, Sue**

*Early Childhood*  
M.Ed., Counseling and Guidance Services, Clemson University  
B.S., Social Science, Campbell University  
Further Study in Early Childhood Education, University of North Carolina at Greensboro

**Brown, Jessica L.**

*Biology*  
M.S., Pharmacy, University of Florida  
M.S., Animal Physiology, Clemson University  
B.S., Animal Science, North Carolina State University

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*Department Chair Developmental Studies – Mathematics*  
M.B.A., Campbell University  
B.S., Computer Studies, University of Maryland

**Brown, Nicole**

*HRD Instructor*  
B.A., Speech Communications, Pennsylvania State University

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D.V.M., Veterinary Medicine, North Carolina State University

**Burke, Mary**

*Computer Information Technology*

**Buxens, Maria**

*Spanish*  
M.A., Roman Languages & Hispanic Literature, University of North Carolina at Chapel Hill  
B.A., Spanish, University of North Carolina at Asheville

**Byington, Scott**

*Department Chair, Math and Science/Biology*  
M.S., Biology, West Virginia University  
B.S., Biology, James Madison University

**Campbell, Barbara**

*Nursing*  
B.S., Nursing, University of North Carolina at Greensboro

**Carver, Anne W.**

*Early Childhood*  
M.Ed., Special Education, University of North Carolina at Chapel Hill  
B.S., Early Childhood Education, Fayetteville State University

**Castonguay, Sandra K**

*Electronics*  
A.A.S., Electronics Engineering, Central Carolina CC

**Champion, Debra**

*Developmental Mathematics*  
M.Ed., Math Education, Widener University

**Choi, Walter**

*Computer Information Technology*  
M.S., Computer Science, Polytechnic Institute of New York  
B.S., Computer Engineering, Polytechnic Institute of New York

**Ciliberto, Craig**

*Automotive*  
A.A.S., Automotive Systems, Central Carolina CC  
Certified ASE Master Technician

**Clayton, George T.**

*Business Technologies, Lead*  
M.A., Personnel Administration, Central Michigan University  
B.A., English, Fairmont State

**Cole, William Bennett**

*Engineering*  
A.A.S., Mechanical Engineering, Central Carolina CC

**Colvin-King, Vadrin**

*Sociology*  
M.A., Sociology, Fayetteville State University  
B.A., Speech, Fayetteville State University

**Daniels, Robert L.**

*Small Engine Repair*  
Diploma, Small Engine and Repair, Foley-Belsaw Institute

**Davis, Rosita L.**

*Adult High School Lead Instructor*  
B.A., History, Greensboro College

**Davis-Johnson, Anne C.**

*Medical Assisting*  
A.A.S., Medical Assisting, Central Carolina CC  
AAMA Certified Medical Assistant

**Delafield, John**

*Sustainability Technologies*  
M.A., International Development, North Carolina State University  
B.A., History, University of North Carolina at Chapel Hill

**Dowe, Reginald**

*Barbering*  
N.C. Barber License  
N.C. Instructor License

**Eckley, Peter**

*Automotive Technology*

**Edwards, William J.**

*Adult Education Math Instructor*  
B. S., Conservation, North Carolina State University  
A.A., Liberal Arts, Sandhills Community College

**Emmons, Perry R.**

*Telecommunications*  
Diploma, Electronics Technology, United Electronics Institute  
Certificate, Telecommunications, Central Carolina CC

**Ettefagh, Jean S.**

*Esthetics, Lead*  
North Carolina Cosmetology License  
North Carolina Cosmetology Instructor License

**Eubanks, James W.**

*Automotive Restoration*

**Ewers, Garrick Anthony**

*Food Service Technology*

**Falero, Benjamin**

*Mathematics*  
M.S., Secondary Math Education, College of Staten Island, The City University of New York

**Fann, Michael J**

*Business Administration*  
M.B.A., Western Carolina University

**Farley, Kathy P**

*Nursing*  
B.S., Nursing, Indiana Wesleyan

**Fenner, Janice**

*Department Chair/Cosmetology*  
Diploma, Cosmetology, James Sprunt CC  
North Carolina Cosmetology Instructor License  
North Carolina Cosmetology License

**Flannery, James Joseph**

*Engineering*  
M.S., Electrical Engineering, North Eastern University

**Flatley, David**

*Humanities*  
M.A., English, East Carolina University  
B.A., English, East Carolina University

**Fogarty, Melissa L.**

*Lead Instructor – Medical Assisting*  
A.A.S., Medical Assisting, Central Carolina CC  
AAMA Certified Medical Assistant  
AMT Registered Medical Assistant and AMT Certified  
Allied Health Instructor  
AAMA CMA American Association of Medical Assistants

**Foster, Danette W.**

*Developmental Studies – Reading*  
M.Ed., Reading Education, University of North Carolina at Greensboro  
B.T., Business Technologies, Appalachian State University  
A.A.S., Business Administration, Central Carolina CC

**Freeman, William M.**

*Department Chair – Media Technologies*  
B.F.A., Technical Theatre and Design, University of North Carolina at Greensboro  
A.G.E., Central Carolina CC

**Fritz, Frederick R.**

*Mathematics*  
M.S., Mathematics, Western Carolina University  
B.A., Pure Mathematics, University of North Carolina at Asheville

**Frye, Johnny R.**

*Automotive Systems*  
A.A.S., Automotive Systems, Surry CC  
A.A.S., AC/Heat/Refrigeration, Surry CC

**Gaster, Mary Ann Y.**

*Nursing*  
M.S.N., Concentration in Nursing Education, University of North Carolina at Greensboro  
M.Ed., North Carolina State University, B.S.N., University of North Carolina at Chapel Hill

**Godbey, Tina S.**

*Veterinary Medical Technology*  
A.A.S., Veterinary Medical Technology, Central Carolina CC

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B.S., Criminal Justice, Fayetteville State University

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M.A.C., Accounting, North Carolina State University  
B.S., Business Administration, University of North Carolina at Chapel Hill

**Granger, Roxann**

*Basic Skills*  
M.A., Christian Education, Campbell University  
B.A., Religion, Campbell University

**Green, Anita L.**

*Adult High School Lead Instructor*  
B.A., Human Services, Psychology, Elon University

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*Accounting*  
Master in Accounting, North Carolina State University

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*Humanities, Lead*  
M.A., English, North Carolina State University  
B.A., Psychology, Appalachian State University

**Hallman, Ukie**

*Developmental Studies – Mathematics*  
M.S., Information Systems, Strayer University  
B.B.A., Computer Information Systems, Campbell University

**Hamm, Gregory**

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A.A.S., Culinary Arts, Johnson & Wales University

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Ph.D., Chemistry, University of Virginia

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B.A., Elementary Education, University of North Carolina at Greensboro

**Harris, Crystel**

*Psychology*  
M.S., Psychology, Walden University  
B.S., Human Environmental Science, East Carolina University

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*Department Chair – Early Childhood*  
M.Ed., Early Childhood Intervention and Family Support, University of North Carolina at Chapel Hill  
B.S., Human Development & Family Studies, University of North Carolina at Greensboro  
A.A.S., Early Childhood, Central Carolina CC  
North Carolina Advanced Birth-Kindergarten License

**Hartman, David**

*English*  
M.A., English, University of Southern Florida  
B.A., Literature, Eckerd College

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*Computer Information Technology*  
M.S., Electronics & Computer Technology, North Carolina A & T State University  
B.S., Business, Florida State University

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*Cosmetology*  
North Carolina Cosmetology License  
North Carolina Cosmetology Instructor License

**Hewett, Joy**

*English*  
M.A., English, University of North Carolina at Wilmington  
M.S., Recreation Administration, University of North Carolina at Chapel Hill  
B.S., English, University of North Carolina at Chapel Hill

**Hickman, Charles**

*Masonry*

**Hollingsworth, Edwardo D.**

*Cosmetology*  
North Carolina Cosmetology License  
North Carolina Cosmetology Instructor License

**Howington, Allen**

*Department Chair, Industrial Systems Technology*  
A.A.S., Electronic Engineering, Central Carolina CC  
A.A.S., Mechatronics, Central Carolina CC

- Jackson, John C.**  
*Machining*  
 A.A.S., Machining Technology – Tool & Die, Central Carolina CC  
 B.S., Business Management, Liberty University  
 M.B.A., Business Administration, Liberty University
- Jenkins, Pamela**  
*Department Chair, Nursing*  
 M.S., Nursing, Virginia Commonwealth University
- Johnson, Jennifer J.**  
*Computer Information Technology*  
 M.A.Ed., Instructional Technology, East Carolina University  
 B.S., Communications, East Carolina University
- Johnson, Kenneth**  
*Basic Skills*  
 B.S., Physical Education, North Carolina A&T State University
- Kannarr, Diane S.**  
*Co-op Coordinator/Business and Marketing Instructor*  
 M.B.A., Pepperdine University  
 B.S., Business, University of Southern California  
 A.A., Fashion Merchandising, Brooks College
- Keith, Jacqueline**  
*Nursing*  
 M.S., Nursing, Concentration Nursing Education, Walden University
- Keller, Brenda**  
*Developmental Math*  
 B.S., English, Appalachian State University
- Kennedy, Amy**  
*Biology*  
 Ph.D., Biomedical Science, Auburn University  
 B.S., Animal and Dairy Science, North Carolina State University
- King, Elizabeth**  
*Compensatory Education Instructor*  
 B.S., Elementary Education, King College
- King, Loria**  
*Basic Skills Lead Instructor*  
 MA, Instruction, Central Michigan University  
 B.S., Child Development, East Carolina University
- Knight, Lisa A.**  
*Physics/Geology*  
 M.A., Teaching, University of North Carolina at Chapel Hill  
 B.S., Science Teaching, University of North Carolina at Chapel Hill
- Kohanowich, Robin M.**  
*Sustainable Agriculture*  
 M.S., Ag/Extension, North Carolina State University  
 B.S., Plant Science, Clemson University
- Kolosky, Kimberly**  
*Barbering*  
 NC Barber License  
 NC Instructor License
- Lauffer, Laura**  
*Sustainability*  
 M.A., International Development, North Carolina State University
- Loftis, Jonathan S.**  
*Animal Facilities Manager*  
 B.A.S. Veterinary Technology, St. Petersburg College  
 A.A.S., Veterinary Medical Technology, Central Carolina CC
- Love, Richard A.**  
*Paralegal Technology*  
 J.D., Campbell University  
 B.A., History, University of North Carolina at Chapel Hill
- Lyles, Kassandra L.**  
*Broadcast Production*  
 B.S., Communication, Emphasis: Radio/Video/Photo, Bradley University
- Lympany, Steven S.**  
*Department Chair – Engineering and Computer Information Technologies*
- M.A., Liberal Studies, North Carolina State University**  
 B.S., Electronics Engineering, Virginia Polytechnic Institute
- Malenick, David**  
*Psychology*  
 M.S., Psychology, Radford University
- Mann, Charles L.**  
*Automotive Systems*  
 A.A.S., Automotive Systems, Central Carolina CC  
 Diploma, Automotive, Central Carolina CC  
 Certified ASE Master Technician
- McCrimmon, Markita**  
*Criminal Justice, Lead*  
 M.S., Criminal Justice, Troy State University  
 B.S.A.S., Social Science, Winston-Salem State University  
 A.A.S., Criminal Justice, Central Carolina CC
- McElreath, Thadd A**  
*Physical Education*  
 M.S., Health, Phys. Ed & Recreation, Emporia State University
- McIver, Latasha T.**  
*Developmental Studies – Reading*  
 M.A., Education University of North Carolina, Pembroke  
 B.A., Psychology & Sociology, North Carolina Central University
- McKoy, Rachon**  
*Barbering*  
 N.C. Barber License  
 N.C. Instructor License
- McLamb, Ronald J.**  
*Broadcast Production*  
 B.A., Mass Communications, Campbell University
- McMahan, Andrew**  
*Department Chair, Sustainability Technologies*  
 B.A., Environmental Policy, Appalachian University
- Mercer, Edward**  
*Basic Skills*  
 B.S., Social Studies Education, Bob Jones University
- Michael, Kim**  
*Cosmetology*  
 North Carolina Cosmetology Instructor License  
 North Carolina Cosmetology License
- Miller, Terrence B.**  
*Biology, Lead*  
 Ph.D., Microbiology, North Carolina State University  
 B.S., Biology, Akron University
- Million, Mitchell J.**  
*Basic Skills, Lead*  
 B. A., Spanish, Guilford College
- Mills, Arlen**  
*Veterinary Technology*  
 DVM, University of Missouri

**Murray, Mike**

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**Newkirk, Della**

*Compensatory Education Lead Instructor*

B.S., Mathematics, Campbell University

**Nooney, Kevin**

*Mathematics*

M.A.Ed., Adult Education, East Carolina University

B.S., Manufacturing Engineering, National University

B.B.A., Operations Management National University

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*Engineering*

M.S., Computer Science, Florida Inst. of Technology

**Overcash, Kimberly A.**

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M.A., English, North Carolina State University

B.A. English, University of North Carolina at Chapel Hill

**Owen-Bogan, Karen**

*Developmental Studies – English/Academic Related*

M.A., Education, Fayetteville State University

B.A., Language Arts, University of North Carolina at  
Wilmington

**Ozmeral, Kaan W**

*Mathematics*

M.S., Mathematics, North Carolina Central University

**Page, Summerlin**

*English*

M.A., English, North Carolina State University

**Papageorgiou, George D.**

*Business Administration*

M.B.A., Marketing/Operations Management, Wichita State  
University

B.A., Economics/Physics, Cornell College

**Poindexter, Susan H.**

*Biology*

B.A., Biology, University of North Carolina at Chapel Hill

A.S., Central Carolina CC

**Powell, Michelle R.**

*Developmental Studies – Mathematics*

M.Ed., Adult and Community College Education, North  
Carolina State University

B.S., Rehabilitation Education, Eastern Kentucky University  
Graduate Certificate, Adult and Community College

Education, North Carolina State University

Further study in Mathematics, Portland State University

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*Department Chair, Justice Studies & Director of Basic Law  
Enforcement Training*

**J.D., University of North Carolina at Chapel Hill**

B.A., Philosophy, University of North Carolina at  
Greensboro

**Powell, Rodney**

*Chemistry*

Doctorate of Philosophy in Chemical Oceanography, Florida  
State University

**Prince-Dukes, Ruth**

*Basic Skills*

M.S., Adult Education, North Carolina A&T State  
University

B.S., Social Service, North Carolina A&T State University

**Quick, Tammie L.**

*Adult High School Instructor*

B.A., English, Meredith College

**Rainforth, Lori A.**

*Veterinary Medical Technology*

M.S., Veterinary Science, University of Nebraska

B.S., Animal Science, University of Nebraska

A.A.S., Animal Health Technology, Eastern Wyoming

**Ray, Glenda F.**

*Cosmetology*

A.A.S., Drafting & Design, Central Carolina CC

North Carolina Cosmetology Instructor License

North Carolina Cosmetology License

**Riddle, Pamela**

*Office Administration*

B.B.A., Campbell University

**Robinson, Joseph**

*Bioprocess, Lead*

M.S., Exercise Science, Appalachian State University

M.S., Physiology, University of North Carolina at Chapel  
Hill

B.S., Wildlife Biology, NC State University

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*Psychology*

M.A., Clinical Psychology, Appalachian State University

B.A., Psychology/Art, University of North Carolina at  
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**Sharpe, Bobby**

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A.A.S., Electronic Engineering, Sandhills CC

**Shearin, Glenn A.**

*Machining*

J.D., Wake Forest University

B.A., Business Management, North Carolina State  
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A.A.S., Machining Technology, Fayetteville Technical CC

Apprenticeship, U.S. and N.C. Departments of Labor

Certificate, Tool and Die Maker

NIMS Certified

**Shepard, Emily H.**

*Computer Information Technology*

M.S., Industrial Management, New Jersey Institute of  
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B.S., Computer Information Management, University of  
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B.S., Entomology, University of Maryland

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*Preschool*

A.A.S., Early Childhood, Central Carolina CC

Diploma, Child Care, Central Carolina CC

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*History*

M.Ed., Social Studies Education, Campbell University

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M.A., English, North Carolina State University  
B.A., English, Catawba College

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B.S., Nursing, University of North Carolina at Wilmington

**Taylor, Edward L.**

*Carpentry*  
Vocational Teaching Certificate

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Diploma, Tool & Die, Central Carolina CC  
Apprenticeship Certificate Tool & Die Maker  
NIMS Certified

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A.A.S., Medical Assisting, Central Carolina CC  
AAMA Certified Medical Assistant

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*Motorcycle Mechanics*  
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B.A., Public Administration/Criminal Justice, Shaw  
University

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*Lead, Library and Information Technology*  
Master's, Library Science, University of North Carolina at  
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**Warner, William**

*Telecommunications*  
A.S. Electronic Engineering, Central Carolina TC

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*English*  
M.A., English, Appalachian State University  
B.A., Philosophy & Religion, Appalachian State University

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*Director, Dental Hygiene*  
M.Ed., Adult and Community College Education, North  
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B.S., Zoology, North Carolina State University  
A.A.S., Dental Hygiene, Fayetteville Technical CC

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*Nursing*  
B.S., Nursing, Fayetteville State University

**White, Tiffanie**

*Dental Hygiene*  
B.S., Dental Hygiene, University of North Carolina at  
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*Developmental Studies - Reading*  
M.S., English, University Tennessee-Knoxville  
B.S., Education, Tennessee Temple University  
Further Study in Early Childhood Education, University of  
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*Biology*  
Ph.D., Cell Biology, New York University

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M.S., Business Education, University of Tennessee at  
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B.S., Business Education, University of North Carolina at  
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**Womack, Wesley**

*Industrial Systems Technology*  
A.A.S., Industrial Systems, Central Carolina CC  
A.S., Central Carolina CC

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*Dental Hygiene*  
M.S., Dental Hygiene, University of North Carolina at  
Chapel Hill  
Registered Dental Hygienist, NC State Board of Dental  
Examiners

**Wright, Derrick**

*Computer Information Technology*  
M.S., Technology Management, Mercer University  
B.S. Computer Technology, University of New Haven

**Ziebart, Jason**

*English*  
M.A., English, North Carolina State University  
B.S., Multidisciplinary Studies, East Carolina University

**Zurbach, Janet L.**

*Spanish*  
M.A., Liberal Arts, Temple University  
B.A., Liberal Arts, Temple University

## **PART-TIME FACULTY** **(highest applicable credentials listed)**

**Abraham, Terrance T**

*Broadcasting*

B.S., Major: Mass Communications, Methodist University

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*Early Childhood*

M.Ed., University of North Carolina at Chapel Hill

**Almond, Amy L**

*Mathematics*

M.Ed., Mathematics, Campbell University

**Angle, Tracy**

*Drama*

M.Phil. in Irish Theatre Studies, Trinity College Dublin

**Athavale, Ramchandra**

*Academic Related*

B.S., Electrical Engineering, University of New Orleans

**Barefoot, Pam**

*Cosmetology*

N.C. Cosmetology License

N.C. Instructor License

**Barrett, Tina**

*Cosmetology*

N.C. Cosmetology License

N.C. Instructor License

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*Early Childhood*

Master of School Administration, University of NC at Chapel Hill

Licensed Teacher in Preschool, Universidad Nacional University

**Bidwell, Robert**

*Criminal Justice*

M.S., Criminal Forensic Science, George Washington University

**Bish, Margaret**

*Business Administration/Marketing*

M.B.A., Montreat University

**Broadway, Ann R**

*Marketing*

M.B.A., Montreat University

**Brooker, Deborah**

*Cosmetology*

NC Cosmetology License

NC Instructor License

**Browne, Beverly**

*Early Childhood*

M.Ed., Elementary Education, North Carolina Central University

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*Physical Education*

M.A., Physical Education, Exercise & Sport Science, University of North Carolina at Chapel Hill

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N.C. Cosmetology License

N.C. Instructor License

**Byrd, Ronald**

*Music*

M.M., University of North Carolina at Greensboro

**Caddick, Melissa A**

*Criminal Justice*

Bachelor in Applied Science, Campbell University

**Caldwell, Brian**

*Religion*

M.A., Christian Education, Campbell University

B.A., English, University of North Carolina at Wilmington

**Carter, Amanda B**

*Computer Information*

M.S., Vocational Education-Information Technologies, East Carolina University

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*Paralegal*

A.A.S., Paralegal Technology, Central Carolina CC

**Clark, Gerald V**

*Electrical*

A.A.S., General Occupational Technology, Central Carolina CC

**Clayton, Joanne**

*Social/Behavioral Science*

M.A. Sociology, Virginia Tech

**Coggins, Lou**

*Computer Information Technology*

B.S., Technology, Appalachian State University

**Cotten, Peggy J**

*Office Systems Technology*

A.A.S., Medical Office Administration, Central Carolina CC

**Cotton, Martisla**

*Cosmetology*

N.C. Cosmetology License

N.C. Instructor License

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Juris Doctorate, New England School of Law

**Dalton, Thomas**

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M.F.A., University of South Carolina

**Davey, Francis M**

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M.A., Communication Arts, University of West Florida

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*Cosmetology*

N.C. Cosmetology License

N.C. Instructor License

**Derose-Peckman, Christine M**

*Sustainable Agriculture*

B.S., Animal Science, University of Delaware

**Disbrow, Debbie**

*Business*

M.B.A., Davenport University

**Dombkeiwicz, Ray**

*Business*

M. Business Administration, Pfeiffer University

**Dorman, Kelly**

*Criminal Justice*

A.A. Criminal Justice, University of Phoenix

**Douglas, Melissa C**

*Developmental Reading*

M.Ed., Reading Education, University of North Carolina at Pembroke

**Dvorak, Debra**

*Computer Information Technology*

M.S., Industrial Technology, East Carolina University

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*Barbering*  
 N.C. Barbering Licensure  
 N.C. Instructor Licensure
- Ebbighausen, Jane B**  
*Biology*  
 DVM Veterinary Medicine, North Carolina State University
- Eylers, John P**  
*Biology*  
 Ph.D., Zoology, Duke University
- Farmer, Lydia A**  
*Office Systems*  
 A.A.S., Medical Office Administration, Central Carolina CC
- Feemster, Michi D**  
*Cosmetology*  
 N.C. Cosmetology License  
 N.C. Instructor License
- Fowler, Brenda S**  
*Accounting*  
 M.S., Accounting, University of North Carolina at Greensboro
- Freeman, Gary**  
*Art*  
 M.A., Art, East Carolina University
- Gannon, Jeff**  
*Humanities*  
 Master of Fine Arts, Studio Arts. University of North Carolina-Greensboro
- Gelb, Greg**  
*Music*  
 M.M., North Carolina School of the Arts  
 BS, Criminal Justice, Western Carolina University
- George, Mary C**  
*Dental*  
 B.S., Dental Hygiene, West Virginia University  
 Registered Dental Hygienist, North Carolina State Board of Dental Examiners
- Gray, Tonya M**  
*Human Services*  
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