## 2011-2013

Central Carolina Community College College Catalog

# 2011-2013 College Catalog 

## Campus Locations

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

CCCC is an Equal Opportunity College


## Table of Contents

Welcome to CCCC ..... 1
College Mission, Vision, \& Values ..... 1
CCCC is an Equal Opportunity College ..... 1
College Overview and History ..... 1
Programs ..... 2
Facilities ..... 2
Lee County ..... 2
Harnett County ..... 2
Chatham County ..... 2
Founding ..... 2
Accreditations ..... 3
Student Services Department ..... 3
Visitors ..... 3
Intellectual Property Rights/Ownership ..... 3
Admissions ..... 4
General Information ..... 4
Home-schooled Applicants ..... 4
General Admissions Standards and Procedures ..... 4
Communicable Diseases ..... 5
Dual/Concurrent Enrollment for High School Students ..... 5
International Students ..... 5
Special Credit Student(s) ..... 5
Counseling ..... 5
Testing ..... 5
Career Counseling/Services ..... 5
Residence Status for Tuition Payment ..... 6
Expenses ..... 6
Business Office. ..... 6
Tuition ..... 6
Refund Policy - Tuition ..... 6
Bookstores ..... 6
Special Apparel and Equipment ..... 7
Student Insurance ..... 7
Malpractice Insurance ..... 7
Breakage Fee ..... 7
Student Fee ..... 7
Computer Use and Technology Fee ..... 7
Distance Education Fee ..... 7
Graduation Fee ..... 7
Student Housing ..... 7
Vehicle Registration ..... 8
Policy on Student Publications ..... 8
Policy on Solicitation and Fund Raising ..... 8
Financial Assistance ..... 8
Financial Aid Eligibility Requirements ..... 8
Financial Aid Application Procedure ..... 8
Financial Aid Award Procedure ..... 8
Types of Financial Aid ..... 8
Other Financial Assistance ..... 9
Scholarships/Endowments ..... 9
Academic Information ..... 9
Transfer to Four-Year Institutions ..... 10
Associate in Applied Science Degree (A.A.S.) Transfer ..... 10
Orientation ..... 10
Registration ..... 10
Course Load ..... 10
Double Major ..... 10
Distance Education ..... 10
Distance Education Online and Multi-format ..... 11
Distance Education Hybrid Courses ..... 11
Distance Education Orientations ..... 11
Auditing Courses ..... 11
Course Substitution ..... 11
Independent Study ..... 11
Academic Advisors. ..... 11
Alternative Credit ..... 11
Amount of Alternative Credit Allowed ..... 11
Resident Credit ..... 12
Transfer Credit from Another Institution ..... 12
Advanced Placement (AP), CLEP, DANTES ..... 12
Credit by Examination ..... 12
Credit by Experience ..... 12
Prerequisites/Corequisites ..... 13
Time Provisions for Completing a Curriculum Program ..... 13
Grading System ..... 14
How to Compute the Grade Point Average (GPA) ..... 14
Example of Computing Grade Point Average ..... 14
General Academic Standards ..... 14
General Education Competencies ..... 15
President's/Dean's List Eligibility ..... 15
Highest Academic Award. ..... 15
Academic Probation Policy ..... 15
Academic Suspension Policy ..... 15
A Special Notice to Financial Aid Recipients and Eligible Veterans or Their Dependents ..... 16
Repeating a Course ..... 16
Removal of Incomplete ..... 16
Withdrawal ..... 16
Readmission. ..... 16
Transcript Policy ..... 17
Electronic Transcript Policy (E-transcripts) ..... 17
Acceptance of Electronic Transcripts for Admission Purposes. ..... 17
Graduation ..... 17
Conduct and Student Due Process ..... 17
Attendance ..... 17
Dropping Students from Class Roll. ..... 18
Student Rights, Responsibilities, and Judicial Procedures ..... 18
I. Preamble ..... 18
II. Student Rights ..... 18
III. Student Code of Conduct ..... 19
IV. Disciplinary Procedures. ..... 20
V. Sanctions ..... 21
VI. Student Grievance Procedure ..... 22
VII. Appeals Procedure-Sanctions or Disciplinary Actions. ..... 22
VIII. Appeals Procedure-Academic Appeal. ..... 23
Campus Sex Crimes Prevention Act Information ..... 23
Family Education Rights and Privacy Act ..... 23
Drug and Alcohol Prevention ..... 24
Veterans' Information ..... 25
Standards of Progress, Attendance, and Conduct. ..... 25
I. Unsatisfactory Progress ..... 25
II. Attendance Requirements ..... 25
Serviceman's Opportunity College (SOC) ..... 25
Student Activities ..... 25
Student Centers ..... 26
Alumni. ..... 26
Ambassador Scholarship Program ..... 26
Student Government Association (SGA) ..... 26

1. SGA Student Planner/Handbook ..... 26
2. Activity Days ..... 26
3. Athletics ..... 26
4. Dances/Social Events ..... 27
5. Special Events ..... 27
6. Other Activities ..... 27
7. SGA Voting Rules ..... 27
8. Who's Who ..... 27
9. Phi Theta Kappa Honor Society. ..... 27
10. Additional Clubs ..... 27
Library Services ..... 27
Library Resources ..... 28
Developmental Studies Program ..... 28
Academic Assistance Center ..... 28
The Instructional Program ..... 28
Continuing Education ..... 29
College \& Career Readiness ..... 29
11. Adult Basic Education ..... 29
12. High School Completion Programs ..... 29
13. Compensatory Education ..... 29
14. English as a Second Language (ESL)/English Literacy ..... 30
Small Business Centers ..... 30
Industrial Services \& Customized Training ..... 30
Workforce Development Services ..... 30
2011 Performance Funding Measures Report ..... 30
Central Carolina Community College Meets All Measures ..... 30
Progress of Basic Skills Students ..... 31
Passing Rates on Licensure \& Certification Examinations ..... 31
Performance of College Transfer Students ..... 31
Passing Rates of Students in Developmental Courses. ..... 31
Success Rate of Developmental Students in Subsequent College-Level Courses ..... 32
Satisfaction of Completers and Non-completers ..... 32
Curriculum Student Retention, Graduation, and Transfer ..... 32
Client Satisfaction with Customized Training ..... 32
CCCC Performance Measures Summary ..... 33
Inclement Weather Policy ..... 35
Special Populations Services ..... 35
Documentation Requirements ..... 36
Academic Standards ..... 36
Available Services ..... 36
Campus Security ..... 36
Agriculture and Natural Resources ..... 45
Sustainable Agriculture Degree ..... 45
Agricultural Sustainability Certificate ..... 46
Sustainable Livestock Systems Certificate. ..... 46
Sustainable Vegetable Production Certificate ..... 47
Allied Health Technologies ..... 47
Associate Degree Nursing ..... 47
Dental Assisting Diploma ..... 52
Dental Hygiene Degree ..... 55
Human Services Technology Degree ..... 58
Licensed Practical Nurse Refresher Certificate ..... 59
Medical Assisting Degree. ..... 60
Medical Assisting Diploma ..... 62
Practical Nursing Diploma ..... 63
Veterinary Medical Technology Degree ..... 67
Arts and Sciences (College Transfer) ..... 67
Associate in Arts Degree (AA) ..... 68
Diploma of Transfer Readiness ..... 71
Associate in Science Degree (AS) ..... 72
Diploma of Transfer Readiness ..... 75
Biological and Chemical Technologies ..... 75
Alternative Energy Technology: Biofuels ..... 75
Alternative Energy: Biofuels ..... 77
Business Technologies ..... 77
Accounting Degree ..... 77
Accounting Diploma ..... 79
Income Tax Preparer Certificate. ..... 80
Payroll Accounting Certificate ..... 80
Small Business Financial Advisor I Certificate ..... 81
Small Business Financial Advisor II Certificate ..... 81
Business Administration Degree ..... 82
Business Management Diploma ..... 83
Manager Trainee Certificate ..... 84
Entrepreneur Certificate ..... 85
Computer Information Technology Degree ..... 87
Computer Information Technology Diploma ..... 88
Computer Information Technology/HBI Degree ..... 87
Database Programming Certificate ..... 89
Software Specialist Certificate ..... 89
IC3 - Internet and Computing Core Certificate ..... 95
Computer Hardware/Troubleshooting Repair Certificate ..... 90
Human Resources ..... 91
Human Resources Management Diploma ..... 92
Human Resources Management Certificate ..... 93
Medical Office Administration Degree ..... 94
Insurance Coding ..... 95
Medical Transcription Certificate ..... 95
Networking Technology ..... 96
Networking Technology Diploma ..... 97
Network Infrastructure Certificate (Cisco) ..... 98
Network Security Certificate ..... 99
Wireless Networking Certificate ..... 100
Small Office / Home Office Certificate (SOHO) ..... 100
Voice Over IP Certificate ..... 101
Office Administration Degree ..... 101
Office Administration Diploma ..... 102
Information and Word Processing Certificate ..... 103
Receptionist Certificate ..... 104
Operations Management Degree ..... 104
Operations Management Diploma ..... 106
Operations Management Certificate ..... 107
Business Operations Certificate ..... 107
Paralegal Technology Degree. ..... 108
Paralegal Technology Diploma ..... 109
Commercial and Artistic Production Technologies ..... 110
Broadcasting Production Technology Degree ..... 110
Radio Broadcasting Diploma ..... 110
Television Broadcasting Diploma ..... 112
Professional Arts and Crafts: Sculpture Degree ..... 113
Professional Arts and Crafts: Sculpture Diploma ..... 114
Professional Arts and Crafts: Ceramics Diploma ..... 114
Professional Arts and Crafts: Ceramics Certificate ..... 116
Professional Arts and Crafts: Metal Sculpture Certificate ..... 116
Engineering Technologies ..... 117
Computer Engineering Technology Degree ..... 117
Electronics Engineering Technology Degree ..... 118
Electronics Engineering Technology Certificate. ..... 119
Laser and Photonics Technology Degree ..... 120
Mechanical Engineering Technology Degree ..... 121
Mechanical Engineering Technology Diploma ..... 122
Computer Aided Drafting Certificate ..... 123
Computer Aided Manufacturing Certificate ..... 123
Sustainability Technologies ..... 124
Sustainability Technologies - Green Building ..... 126
Renewable Energy ..... 126
Industrial Technologies. ..... 127
Bioprocess Technology Degree ..... 127
Bioprocess Certificate ..... 128
Bioprocess Technology/BioQuality Degree ..... 129
Bioprocess Technology/BioQuality Certificate ..... 130
Industrial Systems Technology Degree ..... 130
Industrial Systems Technology Diploma ..... 132
Industrial Systems Technology / Bio-maintenance Degree ..... 133
Electrical Controls Certificate ..... 134
Industrial Hydraulics Certificate ..... 134
Programmable Logic Controller Certificate ..... 135
Welding Certificate ..... 135
Machining Technology Diploma ..... 136
Machining Technology Certificate ..... 137
Machining Technology Tool, Die and Mold Making Degree 137
Telecommunications Installation and Maintenance Diploma 138Telecommunications Installation and MaintenanceCertificate139
Public Service Technologies ..... 140
Barbering Diploma ..... 140
Barbering Certificate
Basic Law Enforcement Training Certificate ..... 142
Cosmetology Diploma. ..... 142
Cosmetology Certificate ..... 142
Cosmetology Instructor Certificate ..... 144
Criminal Justice Technology Degree ..... 145
Criminal Justice Technology Degree - Latent Evidence
Degree ..... 147
Early Childhood Associate Degree ..... 148
Early Childhood Diploma ..... 150
Early Childhood Administration ..... 151
Family Home \& Early Childhood ..... 151
Infant/Toddler Care Certificate ..... 152
Esthetics Certificate ..... 152
Esthetics Instructor Certificate ..... 153
Library and Information Technology Degree ..... 153
Library and Information Technology Diploma ..... 155
Library Cataloging Certificate ..... 156
Library Programs Certificate ..... 156
Library Public Services Certificate ..... 157
Library Technical Services Certificate ..... 157
Library Basics Certificate ..... 158
School Age Education ..... 158
Transport Systems Technologies ..... 159
Automotive Restoration Technology Diploma ..... 159
Automotive Restoration Technology Certificate ..... 160
Automotive Systems Technology Degree ..... 161
Automotive Systems Technology Diploma ..... 162
Automotive Systems Technology Certificate. ..... 163
Motorcycle Mechanics Diploma ..... 164
Motorcycle Mechanics Certificate. ..... 165
Programs at Harnett Correctional Institution ..... 165
Public Service Technologies ..... 165
Barbering Certificate ..... 165
Foodservice Technology Diploma. ..... 166
Foodservice Technology Certificate. ..... 166
Course Descriptions ..... 170
Board Of Trustees ..... 251
Administrative Staff. ..... 251
Staff. ..... 253
Full-Time Faculty ..... 257
Part-Time Faculty ..... 263
Index ..... 271


## 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 created 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.

The statements in this publication are not to be regarded as an irrevocable contract between the college and the student. The college reserves the right to change any provisions or requirements at any time. The terms "he" and "his" are used in this publication to represent both the masculine and feminine genders.

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.

## College Overview and History

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.

Central Carolina Community College, a public twoyear college, is a member of the NC Community College System. Members of the faculty are highly trained, qualified instructors with many years of experience in their chosen craft or profession. They teach at the college because they enjoy the close working relationship with students in small classes and the excitement of seeing students learn, achieve, and go on to further success.

Each member of the administrative and teaching staff meets the standards of the North Carolina State Board of Community Colleges, the Southern Association of Colleges and Schools, and other agencies that accredit individual programs. Although established primarily for North Carolina residents, the college accepts students from other states.

## Programs

Central Carolina Community College offers Associate in 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.

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.

The college's Lee County Campus is home to Lee Early College, an innovative partnership with Lee County Public 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.

## Facilities

## Lee County

Central Carolina Community College's Lee County Campus is located on a 104-acre site at 1100-1105 Kelly Drive in Sanford. It has 251,000 square feet of classroom, shop, and laboratory space, as well as a large library.

The Dennis A. Wicker Civic Center, 1801 Nash St., Sanford, is a part of, and is located on, the Lee County Campus. The facility includes: (1) a large exhibition hall with a stage that can be divided into four meeting areas, (2) a 200-fixed-seat capacity auditorium with an elevated floor and a stage, and (3) four conference/classrooms, which are available for use by the community.

The college's other Lee County facilities are the North Carolina School of Telecommunications, located in the Lee County Industrial Park, 5910 Clyde Rhyne Road, Sanford; the 116-acre Emergency Services Training Center, 3000 Airport Road, Sanford; and the Lifelong Learning Center at W.B. Wicker, 900 S. Vance St., Sanford.

## Harnett County

Central Carolina Community College's Harnett County Campus is located on 26 acres at 1075 Cornelius Harnett Blvd. (U.S. Highway 421 East), between Lillington and Buies Creek. This campus has 76,000 square feet of building space for classrooms, labs, and offices, plus a full-service library and an Academic Assistance Center.

The West Harnett Center is located at 145 Olive Drive in the Western Harnett Industrial Park. It houses Barbering, English as a Second Language, GED, Weatherization, and Sustainable Agriculture classes. It also provides workforce training for businesses in the park.

Triangle South Enterprise Center, 600 Magnolia Ave., Dunn, is a joint venture of the college, Dunn Area

Committee of 100, and Harnett County. It provides space for classes and serves as a small business incubator and the college's Harnett County Small Business Center.

The college also operates the Dunn School of Cosmetology, 1733 W. Cumberland St, and the Lillington Adult Education Center, 695 Shawtown Rd.

## Chatham County

Central Carolina Community College's Chatham County Campus is located on 42 acres at 764 West St. in Pittsboro. The campus has 59,000 square feet of floor space for classrooms, shops, offices, and laboratories.

The campus is the primary location for the college's sustainability programs: Sustainable Agriculture, Alternative Energy Technology: Biofuels, Sustainability Technologies: Green Building and Renewable Energy, Ecotourism, and Natural Chef Culinary Arts. These programs are housed in the Sustainable Technologies Center, a building built to LEED standards which showcases the latest in green building technologies.

The campus has a CCCC Preschool which serves as a lab school for the college's Early Childhood Education program. Other curriculum programs at the campus include Associate in Arts and Associate in Science (university transfer), practical nursing, and medical assisting.

The college's Chatham County Small Business Center is located at this campus. A 24,000-square-foot joint CCCCChatham Community Library serves both college students and faculty and the community. The campus also houses a JobLink Career Center, providing career counseling and job placement assistance to students and the community.

The college's Professional Arts and Crafts: Sculpture program is housed in a 4,100 -square-foot facility at 138 North Chatham Ave. in Siler City at the NC Arts Incubator. Students and college faculty hold regular exhibits in its gallery.

The college's Siler City Center is located in the Central Carolina Business Campus at 400A Progress Blvd. This new LEED Gold certified building houses 24,500 square feet of classroom, office, medical and vocational lab space.

## Founding

The college's history started with community leaders who set a goal to create an institution that would meet the educational needs of the area's people, businesses, and industries. Their vision has been fulfilled as the institution has grown from an industrial center to a fully accredited community college serving three counties.

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. The Center became a part of the North Carolina Department of Community Colleges in 1963. In 1965, the North Carolina State Board of Education and the Advisory Budget Commission authorized elevation to "technical institute" status with authority to award Associate of Applied Science degrees.

In 1979, the General Assembly passed a bill to permit
technical institutes to change their names to "technical college." The Board of Trustees, with the approval of the Lee County Board of Commissioners, voted unanimously to change the name from Central Carolina Technical Institute to Central Carolina Technical College, effective July 1, 1979.

The 1987 session of the General Assembly authorized all local institutions to change their names to "community college." The Board of Trustees voted unanimously to change the name to Central Carolina Community College. The county commissioners approved the decision and the official date for the name change was January 1, 1988.

In response to state legislation, the North Carolina Community College System switched from a quarter to a semester schedule, completed a comprehensive transfer agreement with the University of North Carolina, and developed a common library of courses. The new semester system was implemented during the summer of 1997.

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. Come join us!

## Accreditations

Central Carolina Community College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award associate degrees, diplomas, and certificates. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30333-4097 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 programs are approved by various accrediting or licensing agencies:

- The Automotive Systems Technology program is certified by the National Automotive Technicians Education Foundation (NATEF).
- 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 Nursing Education program is 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 are Monday through Thursday, 7:30 a.m. to 9:00 p.m., and Friday, 7:30 a.m. to 3:30 p.m.

## 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 Affairs 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 Affairs, 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 Central Carolina Community College without regard to race, sex, color, creed, age, disability, religion, or national origin. Under administrative code 23 NCAC 02C.301(a) students may be admitted as an 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. Exceptions to these admissions policies, including the U.S. Department of Education Ability to Benefit provision for non-high school graduates, may be determined after a conference between the applicant and the vice president of Student Support Services.

## 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 Stateestablished 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 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
- Criminal Justice
- Dental Assisting
- Dental Hygiene
- Licensed Practical Nurse Refresher
- Medical Assisting
- Motorcycle Mechanics
- Paralegal Technology Diploma
- Practical Nursing
- Veterinary Medical Technology


## 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 Affairs. 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.

## Dual/Concurrent Enrollment for High School Students

Under certain conditions, North Carolina public, private, and home-schooled high school students who are 16 years of age may enroll tuition-free in courses at Central Carolina Community College while enrolled in high school. Dual/Concurrent enrollment students will follow the college schedule. Students can obtain "Petition for Dual/Concurrent Enrollment" forms from the guidance counselor at their school. Earned certificates, diplomas, or degrees may be awarded after high school graduation, receipt of final high school transcript, and upon written request.

## 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 Development Services administers placement testing to students enrolled in a curriculum program or to special credit students interested in taking English, mathematics, or other courses that require a prerequisite/corequisite. The test is used to assess a student's ability in four areas: reading comprehension, sentence skills, arithmetic, and elementary algebra. Students who do not achieve the minimum placement test scores may be advised to enroll in developmental courses prior to being placed in appropriate levels of instruction. Placement test scores expire after five years. 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.

## Career Counseling/Services

Career counseling is available through the Career Center in Student Development 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 Affairs or the registrar as to whether or not the applicant qualifies forin-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 Affairs 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. The North Carolina General Assembly approved the current tuition rate during its 2010 session.

The following semester tuition rates are effective July 1,2010:

## In-State <br> Out-of-State

\$ 3,976.00
16 semester hours
\$ $56.50 \quad \$ 248.50$
Part-time students per semester hour
NOTE: Persons 65 years of age or over are exempt from tuition fees up to six credit hours per semester. Tuition rates are subject to change pending action by the North Carolina General Assembly.

## 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 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. 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.

## 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 via distance education. Only hybrid and lab co-requisite courses are exempt from this fee.

## 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 should park in the white-lined parking 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 Affairs 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 though 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 Affairs. 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 Affairs and the college president.

## Financial Assistance

Financial aid is money or the opportunity to earn money to help pay for a student's educational expenses. Assistance may be awarded in the form of a grant, scholarship, loan, part-time employment, or a combination of these. Financial assistance is usually awarded on the basis of financial need, which is the difference between the
cost of attending school and what the student and the student's family can afford to pay toward the educational expenses.

## 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:

1. Be a U.S. citizen or eligible non-citizen.
2. Be registered with Selective Service (if required).
3. Be working toward a degree, diploma, or certificate.
4. Be making satisfactory academic progress.
5. Not owe a refund on a Federal grant or be in default on a Federal educational loan.
6. Have financial need.

## NOTE:

1. Federal student loans must be repaid.
2. Students going to school less than half-time may be eligible for Federal Pell Grants and some other Federal student aid programs.
3. Conviction of drug distribution or possession may make a student ineligible.

## Financial Aid Application Procedure

To apply for the Federal Pell Grant, Federal Supplemental Educational Opportunity Grant, North Carolina Student Incentive Grant, Federal Work-Study, and scholarships, a student should secure and complete a Free Application for Federal Student Aid (FAFSA) from the high school guidance counselor or from the Financial Aid Officer at CCCC, and mail it to the Federal Student Aid Programs. Students can visit the FAFSA website at 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 Procedure

Awards are made throughout the year by order that financial aid files are complete including all admissions requirements being met, a valid FAFSA received by the college, any requested documents received by the Financial Aid Office, and a corrected FAFSA received back from the Department of Education if applicable. Please refer to the calendar within the Student Handbook or on the Financial Aid Office's web page at www.cccc.edu/financialaid for priority filing dates for each semester.

## Types of Financial Aid

The types of financial aid available at Central Carolina Community College are as follows:

## 1. Federal Pell Grant

The Federal Pell Grant is a federally funded program that provides awards to eligible students. Awards may range
from $\$ 227$ to $\$ 5,550$ per year (amount subject to change each year). Any undergraduate student is eligible to apply for a Federal Pell Grant. All students must apply for this grant in order to be considered for other aid administered by the Financial Aid Office. Pell awards depend upon the cost of education and the student's financial need as determined by the FAFSA submitted to the United States Department of Education.

## 2. Federal Supplemental Educational Opportunity Grant

The Federal Supplemental Educational Opportunity Grant is a federally funded program that provides grants for students with exceptional financial need (with priority given to Pell Grant recipients). The grants may range from $\$ 100$ to $\$ 1,000$ per year, but may not exceed one-half of the total financial assistance awarded to the student.

## 3. Federal Work-Study Program

The Federal Work-Study Program provides part-time jobs to students who demonstrate financial need. The work-study jobs are awarded in the same manner that other aid awards are made. The jobs are usually on campus during the year. Students may work up to 20 hours per week depending on the amount of work-study funds they have been approved to earn during the academic year. Students must complete a time sheet and turn it in at the Financial Aid Office on the 10th of each month. Students are paid at least minimum wage and receive a paycheck on the last day of the next month for the previous month worked. semester).

## 4. North Carolina Community College Grant

The North Carolina Community College Grant is a need-based grant established by the N.C. General Assembly to provide funds to help meet the educational cost of N.C. residents attending a community college. Awards range from $\$ 37$ to $\$ 950$ per year (amounts subject to change each year).

## 5. North Carolina Education Lottery Scholarship

The North Carolina Education Lottery Scholarship was created by the 2005 General Assembly to provide financial assistance to needy students. Students must be a North Carolina resident and be enrolled at least half-time (at least 6 hours per semester). Awards range from $\$ 100$ to $\$ 2,800$ (amounts subject to change each year).

## 6. Non-Institutional Loans

Non-institutional loans are available through private lenders. The Financial Aid Office can provide more information.

## Other Financial Assistance

The following types of aid are not administered through the college Financial Aid Office, but are forms of financial assistance:

Qualified veterans and wives/children of veterans may be admitted and approved to receive educational benefits, providing they meet requirements established by the Veterans Administration. The college is approved for the training of veterans under Public Law 16 of the 78th Congress and under Public Law 550 of the 82nd Congress, and Chapter 34, Title 38, United States Code. Refer to the Veterans Information section of this handbook for additional information.

## 2. Veterans and War Orphans Grants

These are available to the immediate family of war veterans whose deaths or permanent disabilities were service connected and to POWs or MIAs classified as such for a minimum of ninety days. For more information, contact: Division of Veterans Affairs, P.O. Drawer 26202, Raleigh, NC 27611.

## 3. The Tuition Assistance Program

This program is available to provide tuition assistance for active duty service members and for members of the North Carolina National Guard. The application is available at guard units and the Office of the Adjutant General, P.O. Drawer 26268, Raleigh, NC 27611 . Active duty service personnel can obtain an application at their post education center.

## 4. Vocational Rehabilitation

This is available to certain students with mental, physical, or emotional handicaps that limit their employment opportunities. For more information, contact the Vocational Rehabilitation Office in the area or write: Department of Human Resources, Division of Vocational Rehabilitation Services, Raleigh, NC 27611.

## 5. Job Training Partnership Act (JTPA)

Funds are available to qualified students through the Employment Security Commission or other sponsoring agencies. Students should contact the coordinator of special programs for more information.

## 6. Child Care Grants

These grants are available to qualified students for child care assistance. For more information, contact the coordinator of Special Programs.

## 7. Scholarships/Endowments

For a complete list of scholarships and endowments, see the Financial Aid Office. Many scholarships and endowments are available through the CCCC Foundation. Scholarship lists are available on the college website at www.cccc.edu/financialaid or www.cccc.edu/foundation.

## ACADEMIC INFORMATION

Central Carolina Community College offers Associate
in 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 program conducted by members of the administration, the Student Services Department, the faculty, and the Student Government Association. The purpose of orientation is to acquaint students with the administrative personnel, faculty, student leaders, and available services. The regulations, policies, and privileges of the college as set forth in the catalog are discussed and interpreted.

## 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 paydate. 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 1619 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 vice president of Academic Affairs or vice president of Student Affairs.

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 vice president of Academic Affairs. 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, multi-format, and hybrid. 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 and Multi-format

Online and multi-format courses use the World Wide Web, e-mail, and other Internet resources to provide opportunities for meaningful student-to-faculty and student-to-student interaction comparable to the traditional college classroom. Additional resources such as CD-ROM, textbooks, and other printed materials are common requirements. Students must have access to a reliable personal computer (home, office, or college campus) capable of providing graphical access to the Web as well as appropriate software. Online courses have LN1, LN2, LN3, etc. section numbers, and multi-format courses are identified by LM1, LM2, LM3, etc. section numbers. These courses are not self-paced; students follow 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.

## Distance Education Hybrid Courses

Hybrid courses blend traditional class meetings with the World Wide Web, e-mail, and other Internet resources to provide opportunities for student-faculty and student-to-student interaction in person as well as online. Requirements typically include regular class meetings, access to a reliable personal computer (home, office, or college campus) capable of providing graphical access to the Web as well as appropriate software. Hybrid courses are denoted by $\mathrm{LJ} 1, \mathrm{LJ} 2$, LJ3, etc. section numbers. A course-specific orientation is held the first day of class.

## Distance Education Orientations

All online and multi-format students must complete a course-specific orientation designed to enhance their course performance. Hybrid courses typically require on-campus orientations while online and multi-format orientation delivery methods may vary.

Complete information about course offerings, requirements, and guidelines can be found on the Distance Education webpage at 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 vice president of Academic Affairs.
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 academic advisors upon enrollment. The role of the advisor is to serve as the primary contact with the student for his total academic activities while enrolled at CCCC. The student is expected to confer periodically with his advisor (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.


## 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 vice president of Academic Affairs.
- 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 vice president of Academic Affairs.
- 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 vice president of Academic Affairs. 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 vice president of instruction/chief academic officer.
- 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 vice president of instruction/chief academic officer.

| Letter Grade | Meaning | Quality Points <br> (Per Credit Hr.) |
| :--- | :--- | :---: |
| A (94-100) | Excellent |  |
| B (86-93) | Above Average | 4 |
| C (78-85) | Average | 3 |
| D (70-77) | Below Average | 2 |
| F (69 \& under) | Failure | 1 |
| 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 applicale | 0 |
| EL | Learning by Experience | 0 |
|  |  | 0 |

## 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.

The instructors will not post end-of-term course grades without the written permission of the students.

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

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

## Example of Computing Grade Point Average

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

| Course <br> Earned | Credit <br> Hrs | Grade |  | QPs |
| :--- | :---: | :---: | :---: | :---: |
| ENG 111 | 3 | $\mathrm{C}(2)$ | $3 \times 2=$ | 6 |
| BIO 163 | 5 | $\mathrm{~A}(4)$ | $5 \times 4=$ | 20 |
| PSY 150 | 3 | $\mathrm{~B}(3)$ | $3 \times 3=$ | 9 |
| SOC 210 | 3 | $\mathrm{D}(1)$ | $3 \times 1=$ | 3 |
| BUS 110 | 3 | $\mathrm{~F}(0)$ | $3 \times 0=$ | 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 enrolled for $12+$ semester credit hours and/or who are seeking a diploma or degree will be required to enroll in and successfully complete ACA 090 College Study Skills. 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. 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.
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 probation may be extended for one term. During this probation extension term, the student will be required to enroll in and successfully complete ACA 090. This extension of probation must be approved by the department chairperson of the new curriculum and by the vice president of Student Affairs. 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.

## General Education Competencies

The college is committed to teaching and learning excellence. Every degree program includes a minimum of fifteen semester hours credit of general education as prescribed by the North Carolina Community College System Curriculum Standards, and CCCC believes that every degree graduate should successfully master general education competencies regardless of the degree discipline. The general education competencies developed by the college represent the academic proficiencies believed necessary for graduates to be successful and productive employees as well as successful community citizens. In support of the college mission, CCCC graduates will be able to demonstrate:

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

## 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. Probation students, who are enrolled for $12+$ semester credit hours and/or who are seeking a diploma or degree, 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.

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.

## 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.

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 Affairs. 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 probation may be extended for one term. During this probation extension term, the student will be required to
enroll in and successfully complete ACA 090. This extension of probation must be approved by the department chairperson of the new curriculum and by the vice president of Student Affairs. Failure to obtain at least a 2.0 GPA during the subsequent term will result in academic suspension for one term.

## A Special Notice to Financial Aid Recipients and Eligible Veterans or Their Dependents

Financial Aid Recipients must maintain a grade point average (GPA) of 2.0 each semester and complete $67 \%$ of all courses enrolled each semester to remain eligible for Financial Aid. Students whose GPA falls below 2.0 or fail to complete $67 \%$ of their courses for any given term will be placed on "Financial Aid Warning" for the following term in which they are enrolled. If a student's GPA is less than 2.0 for the "Warning" term, then financial aid benefits will be terminated. Termination will continue and remain in effect until such time as the student demonstrates satisfactory academic progress. A grade of "W" will count as a grade of " $F$ " in the computation of the student's grade point average.

Students receiving Veterans Administration (VA) Education Benefits must also 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 2.0, VA education benefits will be terminated. Benefits cannot be reinstated until such time as the student regains satisfactory academic progress standing. Withdrawal from a class which results in a grade of "W" may result in an overpayment of benefits by the VA and require that the student pay the VA the amount of the tuition for that class. Withdrawal from a class which results in a reduction of "training time" may also reduce the amount of monthly VA education benefits the student is entitled to. Students who withdraw from a class are personally responsible for "promptly" notifying the Veterans Services Office at Central Carolina Community College of that withdrawal.

## 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.

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 Affairs.

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 Affairs has granted approval.

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

## Transcript Policy

Starting in April 2011, all curriculum students and alumni may request one free transcript per six month period from the Registrar's Office on the Sanford campus. The free transcript must be requested in person and retrieved from the Registrar's Office by the student. Neither the request nor the free transcript can be mailed or faxed.

Students who request more than one transcript within the six month period will be required to pay a $\$ 3.50$ fee for each transcript. All transcript requests and payments must be made online through a secure website link on www.cccc.edu. Central Carolina Community College is unable to accept cash or credit card payments in person or over the phone for transcripts. All transcript fees are collected by a third party agency (AVOW systems) that provides the transcript management and certification system for transcripts. All students must digitally sign a FERPA waiver before the transcript is released.

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 Development 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 vice president of Academic Affairs. The official to whom the appeal is made may reverse the withdrawal. The decision of the vice president of Academic Affairs 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).


## 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 Affairs 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) working days after the postmarked date of the grade. Students must follow the student appeal process outlined under Section VI. Student Grievance Procedure and Section VIII. Appeals Procedure-Academic 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 CCCC'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 libelous material is prohibited.
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.

1. 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 with the rear of the vehicle exposed so that the parking permit is 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 collegelevied 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 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 emits an audible sound, 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.

## 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 Affairs 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 Affairs 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 Affairs is responsible for implementing student discipline procedures. (Throughout this code, VP of Student Affairs refers to the vice president of Student Affairs).
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 Affairs against any student or student organization for violations of college regulations. The individual(s) making the charge must notify the VP of Student Affairs 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 Affairs 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 Affairs 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 Affairs 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 Affairs or where the student refuses to cooperate, the VP of Student Affairs 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 Affairs' 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 Affairs 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.

1. 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 an academic appeal, the student must follow the steps outlined in the academic appeals form as indicated in VIII. Appeals Procedure- Academic Appeal. In extreme cases such as alleged sexual harassment, the student may go directly to the VP of Student Affairs or any other college official with whom the student feels comfortable.
2. If the grievance 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 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 Affairs may request a hearing before the Judicial Committee. This request must be submitted in writing to the VP of Student Affairs within six (6) working days after the receipt of the VP of Student Service's decision. The VP of Student Affairs 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 Service's investigation.
a. Committee Composition: Membership of the Judicial Committee shall be composed of the following:

1. Three faculty or staff members appointed by the vice president of Academic Affairs 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
5. Procedural Responsibilities of the VP of Student Affairs 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 Affairs 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 Affairs 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 Affairs, 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 VII. A. 5.) 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 Council).
(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 Affairs 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 Affairs 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 Affairs, 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-Academic Appeal

a. Procedure

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 academic appeals form. The student then submits the completed form to the faculty member.
2. The faculty member will review 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 faculty
member records information related to the decision on the form and reports this information to the student. Based on the faculty member's decision, the student indicates on the form whether the issue is "resolved" or "unresolved".
3. If the student feels that the issue is unresolved, then the student has the right to appeal the faculty member's decision to the appropriate supervising Department Chair. If, after completing step three, 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.

If the issue is still unresolved, the student may continue the appeal process based on the time frames and sequence specified on the Academic Affairs Appeal form.

## 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) 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 Education Rights and Privacy Act

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; and
- 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, 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
- 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

* Department of Education as retrieved on 09/24/2008
www.ed.gov/policy/gen/guid/fpco/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 statue 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 Affairs 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

1-800-447-1800

- Carolina Behavioral Care 910-295-6007
- Sandhills Center/Lee 919-774-6521
- High Point Behavioral Health 1-800-525-9375
- Sandhills Center/Harnett 910-893-2118
- Alamance Regional Medical Center 1-800-522-9418
Full texts of all applicable laws and college policies are available in the office of the vice president of Student Affairs.


## 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 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. The centers are open the following hours:

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.

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) 718-7426 or (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.

## 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 Voting Rules

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 college commencement exercises by a special designation on their diplomas and special regalia worn with their graduation robes.

## 10. Additional Clubs

- Broadcast Club
- C4G (gaming club)
- Paralegal Club
- Phi Beta Lambda
- Rotaract Club (service club)
- Sculpture Guild
- Sustainability Club
- Vet Med Association

Clubs may be added as students' interests evolve. 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.

## Library Services

The CCCC Libraries consist of the Lee County (Sanford) campus library, the Harnett County (Lillington) campus library, 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 Pittsboro 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: 7:30 a.m. to 9:00 p.m. Monday through Thursday; 7:30 a.m. to $3: 30$ p.m. Friday

## Harnett County (Lillington campus)

Phone: (910) 814-8843
Hours: 7:30 a.m. to 8:00 p.m. Monday through Thursday; 7:30 a.m. to $3: 30$ p.m. Friday

Chatham Community Library (Pittsboro campus) Phone: (919) 545-8084
Hours: 9:00 a.m. to 6:00 p.m. Monday, Wednesday, Friday; 9:00 a.m. to 8:00 p.m. Tuesday, Thursday;
10:00 a.m. to 2:00 p.m. Saturday
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. However, 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, 180 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.

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 some 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 45 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. 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 $10 \notin$ per page.

## 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.

## Academic Assistance Center

An Academic Assistance Center is available for students who request additional assistance with their academic studies. Services include free student tutoring, special testing, a listening laboratory, and an open computer lab. The Center is located in the Miriello Building on the Harnett Campus, developmental studies on the Chatham Campus, and in the Academic Assistance Center on the Lee Campus.

## 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 preemployment, 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 or lab environment. These courses may be offered "on site" or at one of the college's three campuses. Course content can be tailored to meet a particular company's needs. A group of at least 10 people is required.

Public Service Education programs provide courses to meet the training needs of area law enforcement, emergency services, and fire departments.

## 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 that he has attained the basic skills of the high school graduate without having attended four years of regular high school. The GED includes a test in each of the five general areas of learning: writing skills, social studies, science, reading skills, and mathematics. 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 one of the 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. A $\$ 7.50$ fee is required for the GED testing.
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. 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.

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

English as a Second Language is a program of instruction designed to help adults who are limited English proficient achieve some level of competence in speaking, reading, listening, and writing the English language. 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 threecounty service area to provide resources and support to small businesses.

## Industrial Services $\boldsymbol{\&}$ 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, 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 grants and training are provided to businesses
within the four-county local workforce area to include Chatham, Harnett, Lee, and Sampson counties. The purpose of the program is to help established North Carolina businesses provide training and education for current workers, which may result in improved employee productivity, reduced employee turnover and increased business competitiveness. The specific objectives of the IWDP include upgrading employee skill, increasing employee wages, providing training in portable skills and contributing to business retention and competitiveness.

## 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, customercentered 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


## 2011 Performance Funding Measures Report

## Central Carolina Community College Meets All Measures

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.

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.

For the 2011 reporting year, CCCC met all eight Performance Funding Measures, but did not qualify for Exceptional Institutional Performance. (See No. 2 below.)

The full NCCCS Critical Success Factors Report can be accessed at
http://www.nccommunitycolleges.edu/Publications/docs/Pu blications/csf2011.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 predetermined goal, and the percentage of students completing the level entered and advancing to a higher level. Data Year: 2009-2010

Performance Standard - 75\% for the composite measure
NCCCS Performance - 81\%
CCCC Performance - $77 \%$

## 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: 2009-2010

## 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 - 86\% aggregate institutional passing rate

CCCC Performance - 83\% aggregate institutional passing rate

CCCC did not meet the EIP level of performance on this measure because two categories with at least 10 test takers had a passing rate less than $70 \%$.

## 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: $87 \%$ for 2009-10.

NCCCS Performance - 87\% (2008-2009 NCCCS Students)

CCCC Performance - $87 \%$ (2008-2009 CCCC Students)

CCCC Associate Degree Performance - 93\%
CCCC 24+ Hours Cohort Performance - 83\%
CCCC met the Exceptional Institutional Performance level on this measure.

## 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: 2009-2010

Performance Standard - 75\%

NCCCS Performance - 78\%
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 $-88 \%$ 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: 2009-2010

## Performance Standard

$90 \%$ of the combined respondents will report being "very satisfied" or "satisfied" with the overall quality of the college.

NCCCS Performance $98 \%$ 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 - 96\% (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 - $68 \%$
CCCC Performance - $66 \%$

## 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: 2009-2010

## 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 customized training was excellent or very good.

CCCC Performance - $97 \%$ Responded excellent or very good

## CCCC Performance Measures Summary

|  | Measure | 2006* | 2007* | 2008 | 2009 | 2010 | 2011 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | Progress of Basic Skills Students | Met <br> Standard | Met <br> Standard | Met <br> Standard | Met <br> Standard | Met <br> Standard | Met <br> Standard |
| 2. | Passing Rates on Licensure | Met Standard | Met Standard | Met <br> Standard | Met <br> Standard | Met <br> Standard | Met <br> Standard |
| 3. | Goal Completion: Completers | Met <br> Standard | Met <br> Standard | **N/A | **N/A | **N/A | **N/A |
| 4. | Employment Status of Graduates | Met <br> Standard | Met <br> Standard | **N/A | **N/A | **N/A | **N/A |
| 5. | Performance of College Transfer Students |  | Met Standard | Met <br> Standard | Met <br> Standard | Met <br> Standard | Met <br> Standard |
| 6. | Passing Rates of Developmental Students | Met <br> Standard | Met <br> Standard | Met <br> Standard | Met <br> Standard | Met <br> Standard | Met <br> Standard |


| 7. | Success Rates of Developmental Students in Subsequent CollegeLevel Courses | Met <br> Standard | Met Standard | Met <br> Standard | Met <br> Standard | Met <br> Standard | Met <br> Standard |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8. | Satisfaction of Completers / Non-completers | Met <br> Standard | Met <br> Standard | Met <br> Standard | Met <br> Standard | Met <br> Standard | Met <br> Standard |
| 9. | Student Retention and Graduation | Met Standard | Met Standard | ***Met <br> Standard | ***Met <br> Standard | ***Met <br> Standard | ***Met <br> Standard |
| 10. | Employer Satisfaction with Graduates | Met Standard | Met Standard | **N/A | **N/A | **N/A | **N/A |
| 11. | Client Satisfaction with Customized Training | Met Standard | Met Standard | Met <br> Standard | Met <br> Standard | Met <br> Standard | Met <br> Standard |
| 12. | Program Unduplicated Headcount Enrollment | Met Standard | Met Standard | **N/A | **N/A | **N/A | **N/A |

*Superior Rating achieved by meeting or exceeding five of six core measures. (Criteria for Exceptional Institutional
Performance changed for 2008.)
**N/A: Measure is no longer one of the Performance Funding Measures.
***Measure has been changed to "Student Retention, Graduation, and Transfer."

## 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.

## 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.)
a. 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.

Students are asked not to 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 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, please contact the coordinator in the Special Populations Office 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. Its number is (919) 7187512.
- 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.


## Curriculum Listing

| Code | Program | Page |
| :---: | :---: | :---: |
| Agriculture and Natural Resources |  |  |
| A1541000 | Sustainable Agriculture | 45 |
|  | Degree |  |
| C1541010 | Agricultural Sustainability | 46 |
|  | Certificate |  |
| C1541020 | Sustainable Livestock | 46 |
|  | Systems Certificate |  |
| C1541030 | Sustainable Vegetable | 47 |
|  | Production Certificate |  |
| Allied Health Technologies |  |  |
| A4511000 | Associate Degree Nursing | 47 |
| D4524000 | Dental Assisting Diploma | 52 |
| A4526000 | Dental Hygiene Degree | 55 |
| A4538000 | Human Services | 58 |
|  | Technology Degree |  |
| C4539000 | Licensed Practical Nurse | 59 |
|  | Refresher Certificate |  |
| A4540000 | Medical Assisting Degree | . 60 |
| D4540000 | Medical Assisting Diploma | . 62 |
| D4566000 | Practical Nursing Diploma | . 63 |
| A4578000 | Veterinary Medical | . 67 |
|  | Technology Degree |  |
| Arts and Sciences (College Transfer) |  |  |
| A1010000 | Associate in Arts Degree | ... 68 |
| D1010000 | Diploma of Transfer | 71 |
|  | Readiness |  |
| A1040000 | Associate in Science | ... 72 |
|  | Degree (AS) |  |
| D1040000 | Diploma of Transfer | ... 75 |
|  | Readiness |  |
| Biological and Chemical Technologies |  |  |
| A2013000 | Alternative Energy | ... 75 |
|  | Technology: Biofuels |  |
| C2013000 | Alternative Energy: | ... 77 |
|  | Biofuels |  |
| Business Technologies |  |  |
| A2510000 | Accounting Degree | .... 77 |
| D2510000 | Accounting Diploma | . 79 |
| C25100T0 | Income Tax Preparer | 80 |
|  | Certificate |  |
| C25100P0 | Payroll Accounting | .... 80 |
|  | Certificate |  |
| C25100S 1 | Small Business Financial | . 81 |
|  | Advisor I Certificate |  |
| C25100S2 | Small Business Financial | ........................ 81 |
|  | Advisor II Certificate |  |
| A2512000 | Business Administration | .. 82 |
|  | Degree |  |


| D25120M0 | Business Management Diploma | . 83 |
| :---: | :---: | :---: |
| C25120M0 | Manager Trainee | ....................... 84 |
|  | Certificate |  |
| C25120E0 | Entrepreneur Certificate | 85 |
| A2526000 | Computer Information | 87 |
|  | Technology Degree |  |
| A 25260 HBI | Computer Information | 87 |
|  | Technology/HBI Degree |  |
| D2526000 | Computer Information | 88 |
|  | Technology Diploma |  |
| C25260DP | Database Programming | 89 |
|  | Certificate |  |
| C25260SS | Software Specialist | 89 |
|  | Certificate |  |
| C25260IC | IC3 - Internet and | ... 95 |
|  | Computing Core |  |
|  | Certificate |  |
| C25260HT | Computer Hardware/ | 90 |
|  | Troubleshooting Repair |  |
|  | Certificate |  |
| A2512C00 | Human Resources | 91 |
| D2512C00 | Human Resources | 92 |
|  | Management Diploma |  |
| C2512C00 | Human Resources | .... 93 |
|  | Management Certificate |  |
| A2531000 | Medical Office | 94 |
|  | Administration Degree |  |
| C25310IC | Insurance Coding | 95 |
| C25310T0 | Medical Transcription | .. 95 |
|  | Certificate |  |
| A 2534000 | Networking Technology | 96 |
| D2534000 | Networking Technology | 97 |
|  | Diploma |  |
| C25340NI | Network Infrastructure | 98 |
|  | Certificate (Cisco) |  |
| C25340SE | Network Security | ..... 99 |
|  | Certificate |  |
| C25340WN | Wireless Networking | ... 100 |
|  | Certificate |  |
| C25340SH | Small Office / Home | 100 |
|  | Office Certificate (SOHO) |  |
| C25340TL | Voice Over IP Certificate | . 101 |
| A2537000 | Office Administration | . 101 |
|  | Degree |  |
| D2537000 | Office Administration | ... 102 |
|  | Diploma |  |
| C25370W0 | Information and Word | .... 103 |
|  | Processing Certificate |  |
| C25370R0 | Receptionist Certificate | ... 104 |
| A2512G00 | Operations Management | . 104 |
|  | Degree |  |
| D2512G00 | Operations Management | ...................... 106 |
|  | Diploma |  |
| C2512G00 | Operations Management | ...................... 107 |
|  | Certificate |  |
| C2512G01 | Business Operations | ...................... 107 |
|  | Certificate |  |


| A2538000 | Paralegal Technology | ........................ 108 |
| :--- | :--- | :--- |
| Degree |  |  |
| D2538000 | Paralegal Technology |  |
|  | Diploma |  | ........................ 109


| C50440QA | Bioprocess | ........ 130 |
| :---: | :---: | :---: |
|  | Technology/BioQuality |  |
|  | Certificate |  |
| A5024000 | Industrial Systems | ...................... 130 |
|  | Technology Degree |  |
| D5024000 | Industrial Systems | ...................... 132 |
|  | Technology Diploma |  |
| A502400B | Industrial Systems | ...................... 133 |
|  | Technology / Biomaintenance Degree |  |
| C5024010 | Electrical Controls | . 134 |
|  | Certificate |  |
| C5024020 | Industrial Hydraulics | ... 134 |
|  | Certificate |  |
| C5024030 | Programmable Logic | .... 135 |
|  | Controller Certificate |  |
| C5024040 | Welding Certificate | 135 |
| D5030000 | Machining Technology | 136 |
|  | Diploma |  |
| C5030000 | Machining Technology | ...................... 137 |
|  | Certificate |  |
| A5030A00 | Machining Technology | . 137 |
|  | Tool, Die and Mold |  |
|  | Making Degree |  |
| D5038000 | Telecommunications | ... 138 |
|  | Installation and |  |
|  | Maintenance Diploma |  |
| C5038000 | Telecommunications | .... 139 |
|  | Installation and |  |
|  | Maintenance Certificate |  |
| Public Service Technologies |  |  |
| D5511000 | Barbering Diploma | ...................... 140 |
| C5511000 | Barbering Certificate |  |
| C5512000 | Basic Law Enforcement | ... 142 |
|  | Training Certificate |  |
| D5514000 | Cosmetology Diploma | ... 159 |
| C5514000 | Cosmetology Certificate | ... 142 |
| C5516000 | Cosmetology Instructor | ...................... 144 |
|  | Certificate |  |
| A5518000 | Criminal Justice | ...................... 145 |
|  | Technology Degree |  |
| A5518A00 | Criminal Justice | ...................... 147 |
|  | Technology Degree - |  |
|  | Latent Evidence Degree |  |
| A5522000 | Early Childhood Associate | ... 148 |
|  | Degree |  |
| D5522000 | Early Childhood Diploma | .. 150 |
| C55220AD | Early Childhood | .. 151 |
|  | Administration |  |
| C55220FH | Family Home \& Early | ...................... 151 |
|  | Childhood |  |
| C5529000 | Infant/Toddler Care | ...................... 152 |
|  | Certificate |  |
| C5523000 | Esthetics Certificate | ...................... 152 |
| C5527000 | Esthetics Instructor | ...................... 153 |
|  | Certificate |  |


| A5531000 | Library and Information <br> Technology Degree <br> Library and Information <br> Technology Diploma <br> Library Cataloging <br> Certificate | $\ldots \ldots . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ~$ |
| :--- | :--- | :--- | 153

## Approved Humanities/Fine Arts Electives \& Social/Behavioral Science Electives

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

C-L-SHC
3-0-3
ART 111
ART 114
ART 115
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
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 | $3-0-3$ |

## 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 |  |
| SOC 240 | Social Psychology |  |
|  |  | 3 |

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## 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
A. General Education Courses (16 SHC) $\quad$ C-L-SHC
C. Other Major Hours Required ( 32 SHC )

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
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

Total Semester Hours Credit Required for Graduation: 67

| Semester Curriculum for Sustainable Agriculture AssociateDegree |  |  |
| :---: | :---: | :---: |
| 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 |
|  |  | 13-7-16 |
| 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 |
| ENG 111A | Expository Writing Lab | 0-2-1 |
|  | Humanities/Fine Arts Elective | 3-0-3 |
|  |  | 13-6-16 |
| 3rd Semester (Summer) |  |  |
| COE 111 | Co-op Work Experience I | 0-10-1 |
| 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 |
|  | 14/15-6/8-18 |  |
| 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 |
|  |  | 15-2-16 |

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
$\begin{array}{llr}\text { Course Requirements for Agriculture Sustainability } \\ \text { Certificate } & \\ \text { AGR 121 } & \text { Biological Pest Management } & 3-0-3 \\ \text { AGR 139 } & \text { Introduction to Sustainable Agriculture } & 3-0-3 \\ \text { AGR 170 } & \text { Soil Science } & 2-2-3 \\ \text { AGR 265/6 } & \text { Organic Crop Production (Spring or Fall) } & 2-2-3 \\ \text { AGR 293 } & \text { Selected Topics in Sustainable Agriculture } & 3-0-3 \\ \text { AGR 265/6 } & \text { Organic Crop Production (Spring or Fall) } & 2-2-3 \\ & \text { OR } & \\ \text { ANS 111 } & \text { Sustainable Livestock Management } & 2-2-3\end{array}$
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
2nd Semester (Spring)
AGR 121 Biological Pest Management 3-0-3
AGR 265/6 Organic Crop Production (Spring or Fall) 2-2-3 OR
ANS 111 Sustainable Livestock Management 2-2-3
AGR 293 Selected Topics in Sustainable Agriculture 3-0-3 8-2-9

## 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 smallscale, 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

Total Semester Hours Credit: 18

## 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 | $2-2-3$ |

Total Semester Hours Credit: 18

## Allied Health Technologies

## Associate Degree Nursing <br> 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.
2. 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.
3. 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.
4. 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.
5. A complete Nursing Program Application must be submitted by the spring deadline.
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.

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.
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.
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
for Associate Degree Nursing: 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 CHM 090, Chemistry Concepts; or CHM 130/130A, General Organic and Biochemistry, or CHM 131/CHM 131A, Introduction to Chemistry; or CHM 151, General Chemistry I; and MAT 070, Introductory Algebra; or MAT 080, Intermediate Algebra; or MAT 110, Mathematical Measurements; or MAT 115, Mathematical Models; or MAT 140, Survey of Mathematics; or MAT 161, College Algebra; and CIS 110, Introduction to Computers; or CIS 111, Basic PC Literacy. b) Pre-requisite Biology for Associate Degree Nursing: 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 BIO 090, Foundations of Biology; or BIO 094, Concepts of Biology; or BIO 110, Principles of Biology; or 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 prerequisite 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 requirements.
d) CPT algebra score of 55 or ACT score of 18 or SAT mathematics score of 450 or completion of developmental algebra 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 student may take the test only three times in a three year period for acceptance consideration. The applicant will be referred for remediation assistance based upon a low TEAS composite score and/or sub-scores. The time frame between each retesting attempt will be based upon successful completion of required remediation, college placement tests, developmental courses, and pre-requisite courses.
c) Licensed practical nurses who apply for advanced standing will be granted three testing opportunities to meet the Associate Degree program TEAS scores.
d) TEAS test scores are valid for three years.
e) Applicants must meet the minimal TEAS Composite

Score of 70 for the associate degree nursing program. (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) ADNI: Provide proof of successful completion of an approved North Carolina Nursing Assistant I program and active listing on the North Carolina Health and Human Services 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.
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) $C P R / A E D$ 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 111/111A Expository Writing/Lab 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. 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 (Licensed Practical Nurses)

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 GAP 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 GAP/STEP subscore 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 GAP/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 GAP/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.
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)
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 5 years prior to entry, re-admission, or transfer must be repeated.
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 program. This letter must be sent from the previous nursing department chairperson. CCCC's nursing chairperson 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.

## IV. Requirements after Acceptance:

1. Mandatory Acceptance Session: When notified of acceptance, applicants must attend a mandatory acceptance session with the nursing department chairperson 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.
3. 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 courses required by the nursing curriculum.
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 (21 SHC) C-L-Cl-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
ENG 111A Expository Writing Lab 0-2-0-1

| ENG 112 | Argument Based Research <br> OR | $3-0-0-3$ |
| :--- | :--- | ---: |
| ENG 113 | Literature Based Research <br> OR | $3-0-0-3$ |
| 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 (9 SHC) |  |  |
| :--- | :--- | ---: |
| BIO 166 | Anatomy \& Physiology II | $3-3-0-4$ |
| CIS 111 | Basic PC Literacy | $1-2-0-2$ |
| PSY 241 | Developmental Psychology | $3-0-0-3$ |

Total Semester Hours Credit Required for Graduation: 73
Semester Curriculum for Associate Degree Nursing

| 1st Semester (Fall) | C-L-Cl-SHC |  |
| :--- | :--- | ---: |
| ACA 115 | Success and Study Skills | $0-2-0-1$ |
| BIO 165 | Anatomy \& Physiology I | $3-3-0-4$ |
| ENG 111 | Expository Writing | $3-0-0-3$ |
| ENG 111A | Expository Writing Lab | $0-2-0-1$ |
| NUR 111 | Introduction to Health Concepts | $4-6-6-8$ |
| PSY 150 | General Psychology | $3-0-0-3$ |
|  |  | $13-13-6-20$ |
| 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) | $3-0-0-3$ |  |
| ENG | English Elective | $3-0-6-5$ |
| NUR 114 | Holistic Health Concepts | $3-0-6-5$ |
| NUR 212 | Health System Concepts | $3-0-0-3$ |
| SOC 210 | Introduction to Sociology | $12-0-12-16$ |
|  |  |  |
| 5th Semester (Spring) | $3-0-0-3$ |  |
| HUM | Humanities/Fine Arts Elective | $4-3-15-10$ |
| NUR 213 | Complex Health Concepts | $7-3-15-13$ |
|  |  |  |

Total Semester Hours Credit: 73

## 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.
5-3-6-8
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.se

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:
Dental assisting program is a limited enrollment curriculum and program applicants are accepted based upon selective admission process. Admission criteria for 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 admission 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 and 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. 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.
CPT Algebra score of 55 or ACT score of 18 or SAT verbal score of 450 or completion of developmental algebra 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.

HOBET (Health Occupations Basic Entrance Test) All required college placement tests or developmental courses must be successfully completed before the applicant may attempt the Health Occupation Basic Entrance Test (HOBET). There is a fee required to take the Health Occupations Basic Entrance Test (HOBET).

The HOBET will be administered on scheduled testing dates at student's expense. Each applicant may take the exam twice. Only one retest is allowed after a 6-month waiting period with documented remediation. Remediation options are as follows: developmental courses, college credit courses, and/or continuing education courses or other strategies related to the subject areas. Applicants must meet the minimal scores of 45 on the Essential Math and the Comprehensive Reading Skills of the HOBET are required.

Pre-requisite Biology, Math and Computer Literacy Applicants must have completed or be in the process of completing, high school biology, two units of math (one unit being Algebra I), and computer literacy with a grade "C" or better on each course.
$\mathrm{BIO}=$ any course with a BIO prefix will meet the requirement for Biology if not taken in high school Math = any course with a MAT prefix will meet the requirement for Math
Meet appropriate requirements for Computer Skills. Computer proficiency may be satisfied by completion of a high school computer course OR completion of a college
level computer course.
Proof of registration for these courses (if currently in progress) or official transcripts for completed courses must be submitted by application deadline. The GED math subtest will count as one unit of math for those who submit GED scores.

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 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 maintained while in 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
$\begin{array}{llr}\text { A. General } & \text { Education Courses: }(6 \text { SHC }) & \text { C-L-Cl-SHC } \\ \text { *ENG 102 } & \text { Applied Communications II } & 3-0-0-3 \\ \text { *PSY 150 } & \text { General Psychology } & 3-0-0-3\end{array}$
*These courses are included within the DA curriculum.
However it is advantageous to have these courses completed prior to entering the DA 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
Total Semester Hours Credit Required for Graduation: 45
Semester Curriculum for Dental Assisting Diploma

| 1st Semester (Fall) | C-L-Cl-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) | $2-0-0-2$ |  |
| DEN 103 | Dental Sciences | $2-2-0-3$ |
| DEN 104 | Dental Health Education | $1-0-12-5$ |
| DEN 106 | Clinical Practice I | $2-3-0-3$ |
| DEN 112 | Dental Radiology | $7-5-12-13$ |


| 3rd Semester (Summer) |  |  |
| :--- | :--- | ---: |
| DEN 105 | Practice Management | $2-0-0-2$ |
| DEN 107 | Clinical Practice II | $1-0-12-5$ |
| ENG 102 | Applied Communications II | $3-0-0-3$ |
| PSY 150 | General Psychology | $3-0-0-3$ |
|  |  | $9-0-12-13$ |

Total Semester Hours Credit: 45

## 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:
Dental Hygiene 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.

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

Program Specific Entrance Standards:
Selective, Merit-Based Admission Process
A student can apply to the Dental Hygiene program once eligibility requirements have been met. Acceptance is based on a competitive selective admission 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 DH 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 in the last semester. Each applicant should earn at least the minimum scores on the CPT placement test or ACT or SAT or have completed the developmental requirements for reading, English, arithmetic or algebra. Minimum scores required to place into ENG 111 and MAT 115 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 115 placement:
CPT Arithmetic score of 55 or ACT score of 18 or SAT verbal score of 450 or completion of developmental arithmetic requirements.
CPT Algebra score of 55 or ACT score of 18 or SAT verbal score of 450 or completion of developmental algebra 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.

HOBET (Health Occupations Basic Entrance Test) All required college placement tests or developmental courses must be successfully completed before the applicant may attempt the Health Occupation Basic Entrance Test (HOBET). There is a fee required to take the Health Occupations Basic Entrance Test (HOBET).

The HOBET will be administered on scheduled testing dates at student's expense. Each applicant may take the exam twice. Only one retest is allowed after a 6-month waiting period with documented remediation. Remediation options are as follows: developmental courses, college credit courses, and/or continuing education courses or other strategies related to the subject areas. Applicants must meet the minimal scores of 45 on the Essential Math and the Comprehensive Reading Skills of the HOBET are required.

Pre-requisite Biology, Chemistry, Algebra and Computer Literacy

Applicants must have completed, or be in the process of completing, high school biology, chemistry, two units of math (one unit being Algebra I), and computer literacy with a grade "C" or better in each course.
$\mathrm{BIO}=$ any course with a BIO prefix will meet the requirement for Biology if not taken in high school $\mathrm{CHM}=$ any course with a CHM prefix will meet the requirement for Chemistry if not taken in high school Math = any course with a MAT prefix (one to include Algebra I) will meet the requirement for Math Meet appropriate requirements for Computer Skills. Computer proficiency may be satisfied by completion of a high school computer course OR completion of a college level computer course. Proof of registration for these courses (if currently in progress) or official transcripts for completed courses must be submitted by application deadline. The GED math subtest will count as one unit of math for those who submit GED scores.

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 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 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.

## Academic Standards:

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

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 Guidelines Handbook. Dental Hygiene students must not be on probation or suspension status.

## Program Length:

Diploma: 5 semesters
Career Pathway Options: Associate in Applied Science Degree

Program Site: Central Carolina Dental Center; Sanford, NCDay

Course Requirements for Dental Hygiene Diploma

| A. General Education Courses (20 SHC) |  | C-L-CI-SHC |
| :---: | :---: | :---: |
| CHM 130 | General, Organic and Biochemistry | 3-0-0-3 |
| CHM 130A | General, Organic and Biochemistry | 0-2-0-1 |
| COM 120 | Interpersonal Communication OR | 3-0-0-3 |
| COM 231 | Public Speaking OR | 3-0-0-3 |
| ENG 115 | Oral Communications | 3-0-0-3 |
| ENG 111 | Expository Writing | 3-0-0-3 |
| ENG 111A | Expository Writing Lab | 0-2-0-1 |
|  | Humanities/Fine Arts 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 ( 54 SHC ) |  |  |
| BIO 163 | Human Anatomy \& Physiology wi | 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 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 |

2nd Semester: (Spring)
CHM 130 General, Organic \& Biochem 3-0-0-3
CHM 130A General, Organic \& Biochem Lab 0-2-0-1
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
12-5-9-17
3rd Semester: (Summer)
CIS 111 Basic PC Literacy 1-2-0-2
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
ENG 111A Expository Writing Lab 0-2-0-1
PSY 150 General Psychology 3-0-0-3
8-4-6-12
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
2-0-0-2
3-0-0-3
9-0-12-13
C. Other Major Hours Required for Graduation (2 SHC) C-L-Cl-SHC

CIS 111 Basic PC Literacy 1-2-0-2
Total Semester Hours Credit Required for Graduation: 76
Semester Curriculum for Dental Hygiene Diploma
Semester Curriculum for Dental Hygiene
1st Semester: (Fall) C-L-Cl-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 $\quad 0-6-0-2$

## Human Services Technology <br> 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 (16 SHC)

ENG 111 Expository Writing
C-L-SHC
ENG 111A Expository Writing Lab
3-0-3
ENG 114 Professional Research and Reporting Humanities/Fine Arts Elective

0-2-1
3-0-3
3-0-3
3-0-3
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 (25-27

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

Other Required Hours (3-5 SHC)
$\begin{array}{llc}\text { CIS 110 } & \text { Introduction to Computers } & 2-2-3 \\ \text { OST 131 } & \text { OR } & \text { Keyboarding I } \\ & \text { AND } & 1-2-2 \\ \text { OST 137 } & \text { Office Software Applications } & 2-2-3\end{array}$
Elective Course Listing (Choose 9 SHC)
PSY $234 \quad$ Organizational Psychology
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 | $3-0-3$ |
| ENG 111A | Expository Writing Lab | $0-2-1$ |
| HSE 110 | Introduction to Human Services | $2-2-3$ |
| OST 131 | Keyboarding | $1-2-2$ |
| PSY 115 | Stress Management | $2-0-2$ |
| PSY 150 | General Psychology | $3-0-3$ |
| SOC 210 | Introduction to Sociology | $\underline{3-0-3}$ |

2nd Semester (Spring)
HSE 123 Interviewing Techniques 2-2-3
Humanities/Fine Arts Elective 3-0-3
MAT 140 Survey of Mathematics 3-0-3
OST 137 Office Software Applications 2-2-3
PSY 241 Developmental Psychology 3-0-3
SOC 220 Social Problems 3-0-3
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 $\quad \underline{3-0-3}$
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 $\quad \begin{aligned} & 3-0-3 \\ & 13-12-16\end{aligned}$

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 development 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) $C P R / A E D$ 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-Cl-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-Cl-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) | $0-0-6-2$ |  |
| NUR 105B | LPN Refresher (Clinical) | $0-0-6-2$ |

Total Semester Hours Credit: 14/15
Semester Curriculum for Practical Nursing Refresher
Certificate - Harnett
1st Semester (Spring)
C-L-Cl-SHC
NUR 105A LPN Refresher (Theory \& Lab)
CIS 110 Intro to Computers
Or
CIS 111 Basic PC Literacy $\quad 1-2-0-2$

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

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.
d) CPT algebra score of 55 or ACT score of 18 or SAT mathematics score of 450 or completion of developmental algebra 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 2.0 GPA or better.

Program Specific Academic Standards: 1. 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


| 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) | $3-4-0-5$ |  |
| MED 240 | Exam Room Procedures II | $0-0-15-5$ |
| MED 260 | Clinical Externship | $3-4-15-10$ |
|  |  |  |
| Students may elect to exit with a diploma. |  |  |
|  |  | $3-0-0-3$ |
| 4th Semester (Fall) | $1-2-0-2$ |  |
| ENG | English Requirement | $2-2-0-3$ |
| MED 131 | Administrative Office Procedures II | $3-0-0-3$ |
| MED 270 | Symptomatology | $1-2-0-2$ |
| MED 272 | Drug Therapy | $10-6-0-13$ |
| MED 276 | Patient Education |  |
|  |  | $3-0-0-3$ |
| 5th Semester |  |  |
| HUM | Humanities Elective | $1-2-0-2$ |
| MED 230 | Administrative Office Procedures III | $1-3-0-2$ |
| MED 232 | Medical Insurance Coding | $2-0-0-2$ |
| MED 264 | Medical Assisting Overview | $3-0-0-3$ |
| MED 274 | Diet Therapy/Nutrition | $10-5-0-12$ |
|  |  |  |

## Medical Assisting <br> 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.)

1. Complete all developmental courses. See current Medical Assisting Student Guide for the required placement test scores in Reading, English, Arithmetic, and Algebra.
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 2.0 GPA or better.

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
$\begin{array}{lcr}\text { A. General } & \text { Education Courses (9 SHC) } & \text { C-L-Cl-SHC } \\ \text { ENG } 110 & \text { Freshman Composition } & 3-0-0-3\end{array}$

| 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 | 0-0-15-5 |
| C. Other Major Hours Required for Graduation (2 SHC) |  |  |
| CIS 111 | Basic PC Literacy | 1-2-0-2 |
| Total Semester Hours Credit Required for Graduation: 46 |  |  |
| Semester Curriculum for Medical Assisting Diploma |  |  |
| 1st Semester (Fall) C-L |  | -Cl-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 |
|  |  | 3-8-0-17 |
| 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 |
|  |  | 5-8-0-19 |
| 3rd Semester (Summer) |  |  |
| MED 240 | Exam Room Procedures II | 3-4-0-5 |
| MED 260 | Medical Clinical Externship 0 | 0-0-15-5 |
|  |  | -4-15-10 |

Total Semester Hours Credit: 46

## Practical Nursing <br> 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)
6. Pre-requisite Courses:
a) Pre-requisite Algebra and Computer Literacy for Practical Nursing: Applicants must show evidence of completion of algebra and computer application courses at the high school level or above with a grade of "C" or better on each within the last five years of program application deadline. College courses that may be used to satisfy these requirements are MAT 070, Introductory Algebra; or MAT 080, Intermediate Algebra; or MAT 110, Mathematical Measurements; or MAT 115, Mathematical Models; or MAT 140, Survey of Mathematics; or MAT 161, College Algebra; and CIS 110, Introduction to Computers; or CIS 111, Basic PC Literacy. b) Pre-requisite Biology for Practical Nursing: 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 BIO 090, Foundations of Biology; or BIO 094, Concepts of Human Biology; or BIO 110, Principles of Biology; or 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 prerequisite 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.
7. 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 requirements.
d) CPT algebra score of 55 or ACT score of 18 or SAT
mathematics score of 450 or completion of developmental algebra requirements.
8. 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 student may take the test only three times in a three year period for acceptance consideration. The applicant will be referred for remediation assistance based upon a low TEAS composite score and/or sub-scores. The time frame between each retesting attempt will be based upon 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 of 62 for the practical nursing program. (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.)
9. 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.
10. 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 an approved North Carolina Nursing Assistant I program and active listing on the North Carolina Health and Human Services 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.
11. 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.
12. 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
13. 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.
14. 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 Developmental; and ENG 111/111A 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.
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, " $\mathrm{B} "=3$
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.
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 program. This letter must be sent from the previous nursing department chairperson. CCCC's nursing chairperson 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.
III. Requirements after Acceptance:
9. Mandatory Acceptance Session: When notified of acceptance, applicants must attend a mandatory acceptance session with the nursing department chairperson to discuss program requirements, schedules, payment due dates, and to order uniforms.
10. 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.
11. 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.
12. 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 courses required by the nursing curriculum.
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

| A. General | Education Courses (7 SHC) | C-L-Cl-SHC |
| :--- | :--- | ---: |
| ENG 111 | Expository Writing | $3-0-0-3$ |
| ENG 111A | Expository Writing Lab | $0-2-0-1$ |
| 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 (8 SHC)

BIO 165 Anatomy and Physiology I 3-3-0-4
BIO 166 Anatomy and Physiology II 3-3-0-4
Total Semester Hours Credit Required for Graduation: 48

Semester Curriculum for Practical Nursing Diploma Chatham

| 1st Semester (Fall) | C-L-Cl-SHC |  |
| :--- | :--- | ---: |
| BIO 165 | Anatomy and Physiology I | $3-3-0-4$ |
| NUR 101 | Practical Nursing I | $7-6-6-11$ |
| PSY 110 | Life Span Development | $3-0-0-3$ |
|  |  | $13-9-6-18$ |
| 2nd Semester (Spring) |  |  |
| BIO 166 | Anatomy and Physiology II | $3-3-0-4$ |
| ENG 111 | Expository Writing | $3-0-0-3$ |
| ENG 111A | Expository Writing Lab | $0-2-0-1$ |
| NUR 102 | Practical Nursing II | $8-0-12-12$ |
|  |  | $14-5-12-20$ |
| 3rd Semester (Summer) |  |  |
| NUR 103 | Practical Nursing III | $6-0-12-10$ |

Total Semester Hours Credit: 48
Semester Curriculum for Practical Nursing Diploma Harnett

| 1st Semester (Spring) | C-L-Cl-SHC |  |
| :--- | :--- | ---: |
| BIO 165 | Anatomy and Physiology I | $3-3-0-4$ |
| NUR 101 | Practical Nursing I | $7-6-6-11$ |
| PSY 110 | Life Span Development | $3-0-0-3$ |
|  |  | $13-9-6-18$ |
| 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 | $3-0-0-3$ |
| ENG 111A | Expository Writing Lab | $0-2-0-1$ |
| NUR 102B | Practical Nursing II | $2-0-6-4$ |
| NUR 103 | Practical Nursing III | $6-0-12-10$ |
|  |  | $11-2-18-18$ |

Total Semester Hours Credit: 48

## Veterinary Medical Technology <br> Credential: Associate in Applied Science Degree in Veterinary Medical Technology A45780

This 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.

Coursework includes instruction in veterinary anatomy, nutrition, parasitology, pathology, physiology, radiology, terminology, zoology, office practices, laboratory techniques, dentistry, and small and large animal clinical practices. Students also take courses in English, humanities, psychology, mathematics, and chemistry. Graduates are eligible to take state examinations administered by the North Carolina Veterinary Medical Board and national examinations administered by the American Association of Veterinary State Boards. Graduates may be employed in veterinary clinics; diagnostic, research or pharmaceutical laboratories; zoos; veterinary schools; 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 hour of work/voluntary experience in the veterinary field and is required to attend an 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.
5. 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.)
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).
6. Students are not allowed to enter the VMT curriculum more than twice (i.e., only one readmission into the VMT program is allowed.)
7. VET and progressive related courses must be taken in succession as they appear in the Semester Curriculum for Veterinary Medical Technology.
8. 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 (16 SHC) C-L-SHC

ENG 111 Expository Writing 3-0-3
ENG 111A Expository Writing Lab 0-2-1
ENG 114 Professional Research and Reporting 3-0-3
Humanities/Fine Arts Elective 3-0-3
MAT 110 Mathematical Measurement 2-2-3
Social/Behavioral Science Elective 3-0-3
B. Required Major Core Courses ( 50 SHC)
COE 112A
Co-op Work Experience I

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 121 Veterinary Medical Terminology 3-0-3
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. Other Major Hours Required for Graduation (5 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
Total Semester Hours Credit Required for Graduation: 71

Program Specific Academic Standards:

1. VMT students who do not receive a grade of C or better

Semester Curriculum for Veterinary Medical Technology Degree
1st Semester (Fall)
MAT 110 Mathematical Measurement
VET 110 Animal Breeds and Husbandry
VET 114 Introduction to Veterinary Med Tech.
VET 120 Veterinary Anatomy and Physiology
VET 121 Veterinary Medical Terminology
Humanities/Fine Arts Elective
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
ENG 111A Expository Writing Lab 0-2-1
Social/Behavioral Science Elective 3-0-3
VET 123 Veterinary Parasitology 2-3-3
VET 125 Veterinary Diseases I 2-0-2

3rd Semester (Summer)
VET 131 Veterinary Lab Techniques I 2-3-3
VET 133 Veterinary Clinical Practices I 2-3-3
COE 112A Co-op Work Experience I 0-10-1
4-16-7

4th Semester (Fall)
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 3-0-3
VET 137 Veterinary Office Practices 1-2-2
5th Semester (Spring)
VET 212 Veterinary Lab Techniques III
VET 214 Veterinary Clinical Practices III
VET 217 Large Animal Clinical Practices
VET 237 Animal Nutrition
11-17-17

COE 112B Co-op Work Experience II 0-10-1
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.

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) C-L-CR

ENG 111 Expository Writing 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 (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 | POL 120 | American Government | 3-0-3 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| CHI 212 | Intermediate Chinese II | 3-0-3 | POL 210 | Comparative Government | 3-0-3 |
| COM 110 | Introduction to Communication | 3-0-3 | POL 220 | International Relations | 3-0-3 |
| COM 120 | Interpersonal Communication | 3-0-3 | PSY 150 | General Psychology | 3-0-3 |
| COM 231 | Public Speaking | 3-0-3 | PSY 237 | Social Psychology | 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 243 | Major British Writers | 3-0-3 | D. Natural Sciences (8 SHC) |  |  |
| ENG 261 | World Literature I | 3-0-3 | Select two courses, including accompanying laboratory |  |  |
| ENG 262 | World Literature II | 3-0-3 | work, from among the biological and physical science |  |  |
| FRE 111 | Elementary French I | 3-0-3 | disciplines. |  |  |
| FRE 112 | Elementary French II | 3-0-3 | AST 111 | Descriptive Astronomy | 3-0-3 |
| FRE 211 | Intermediate French I | 3-0-3 | AST 111A | Descriptive Astronomy Lab | 0-2-1 |
| FRE 212 | Intermediate French II | 3-0-3 | BIO 110 | Principles of Biology | 3-3-4 |
| HUM 110 | Technology and Society | 3-0-3 | BIO 111 | General Biology I | 3-3-4 |
| HUM 115 | Critical Thinking | 3-0-3 | BIO 112 | General Biology II | 3-3-4 |
| HUM 120 | Cultural Studies | 3-0-3 | BIO 120 | Introductory Botany | 3-3-4 |
| HUM 122 | Southern Culture | 3-0-3 | BIO 130 | Introductory Zoology | 3-3-4 |
| HUM 150 | American Women's Studies | 3-0-3 | BIO 140 | Environmental Biology | 3-0-3 |
| HUM 160 | Introduction to Film | 2-2-3 | BIO 140A | Environmental Biology Lab | 0-3-1 |
| HUM 220 | Human Values and Meaning | 3-0-3 | CHM 131 | Introduction to Chemistry | 3-0-3 |
| MUS 110 | Music Appreciation | 3-0-3 | CHM 131A | Introduction to Chemistry Lab | 0-3-1 |
| MUS 112 | Introduction to Jazz | 3-0-3 | CHM 132 | Organic and Biochemistry | 3-3-4 |
| PHI 210 | History of Philosophy | 3-0-3 | CHM 151 | General Chemistry I | 3-3-4 |
| PHI 215 | Philosophical Issues | 3-0-3 | CHM 152 | General Chemistry II | 3-3-4 |
| PHI 230 | Introduction to Logic | 3-0-3 | GEL 111 | Introductory Geology | 3-2-4 |
| PHI 240 | Introduction to Ethics | 3-0-3 | GEL 113 | Historical Geology | 3-2-4 |
| REL 110 | World Religions | 3-0-3 | GEL 130 | Historical Geology | 3-2-4 |
| REL 211 | Introduction to Old Testament | 3-0-3 | GEL 230 | Environmental Geology | 3-2-4 |
| REL 212 | Introduction to New Testament | 3-0-3 | PHY 110 | Conceptual Physics | 3-0-3 |
| SPA 111 | Elementary Spanish I | 3-0-3 | PHY 110A | Conceptual Physics Lab | 0-2-1 |
| SPA 112 | Elementary Spanish II | 3-0-3 | PHY 151 | College Physics I | 3-2-4 |
| SPA 211 | Intermediate Spanish I | 3-0-3 | PHY 152 | College Physics II | 3-2-4 |
| SPA 212 | Intermediate Spanish II | 3-0-3 | PHY 251 | General Physics I | 3-3-4 |
|  |  |  | PHY 252 | General Physics II | 3-3-4 |
| 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. |  |  | Select at least one course in introductory mathematics; the other unit may be selected from other quantitative subjects, such as computer science and statistics. |  |  |
| ANT 210 | General Anthropology | 3-0-3 | CIS 110 | Introduction to Computers | 2-2-3 |
| ANT 220 | Cultural Anthropology | 3-0-3 | CIS 115 | Introduction to Programming and Logic | 2-2-3 |
| ECO 151 | Survey of Economics | 3-0-3 | MAT 140 | Survey of Mathematics | 3-0-3 |
| ECO 251 | Principles of Microeconomics | 3-0-3 | MAT 151 | Statistics I | 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 |

## 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 elective 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 ENG 111A with ENG 111. Work experience may be included up to 1 SHC in career exploration.

| 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 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 |
| CSC 151 | JAVA 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 |
| ENG 111A | Expository Writing Lab | 0-2-1 |
| 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 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 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 141 | Culture and Civilization | 3-0-3 |
| SPA 151 | Hispanic Literature | 3-0-3 |
| SPA 161 | Cultural Immersion | 3-0-3 |
| language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution. |  |  |
| NOTE: If a an institutio first-level E | student completed the ENG 111 re that does not require four semeste English, the fourth hour is waived an |  |

may graduate with 64 semester hours total credit.
Conversely, if a student is required to take ENG 111A at an institution that does require four semester hours of firstlevel English (as does Central Carolina Community College), that student must complete 65 semester hours total credit to graduate.

| Suggested Semester Sequence for Associate in Arts Degree |  |  |
| :--- | :--- | ---: |
| 1st Semester (Fall) | C-L-CR |  |
| ENG 111 | Expository Writing | $3-0-3$ |
| ENG 111A | Expository Writing Lab | $0-2-1$ |
|  | 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 Elective | $0-2-1$ |

12/13-7-15/16

| 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 | $3-0-3$ |  |
|  | $15-3-16$ |  |

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

## Diploma of Transfer Readiness 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 a minimum of 44 and a maximum of 47 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

Total Degree Hours Required: 65-66 SHC

## Associate in Science <br> Pre-Major Associate in Science Degrees Arts and Sciences <br> Comprehensive Articulation Agreement North Carolina Community College System University of North Carolina System

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.

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
ART 114 Art History Survey I
ART 115 Art History Survey II
ART 117 Non-Western Art Survey
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 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/Behavioral Sciences (9 SHC) |  |  |
| 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 | $3-0-4$ |
| 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)*

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 elective 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. Must include a minimum of 2 SHC in physical education. Must take ENG 111A with ENG 111. Work experience may be included up to 1 SHC 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 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 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
CSC 151 JAVA 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
ENG 111A Expository Writing Lab 0-2-1
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 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 141 | Culture and Civilization | $3-0-3$ |
| SPA 151 | Hispanic Literature | $3-0-3$ |
| SPA 161 | Cultural Immersion | $3-0-3$ |

Total Semester Hours Credit Required for Graduation: 6465

## NOTE:

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. 3 SHC in Speech/Communication may be substituted for 3 SHC in humanities/fine arts.
Speech/Communication may not substitute for the literature requirement.

If a student completed the ENG 111 requirement at an institution that does not require four semester hours of firstlevel English, the fourth hour is waived and the student may graduate with 64 semester hours total credit. Conversely, if a student is required to take ENG 111 A at an institution that does require four semester hours of first-level English (as does Central Carolina Community College), that student must complete 65 semester hours total credit to graduate.

[^1]
## Diploma of Transfer Readiness 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 a minimum of 44 and a maximum of 47 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

## Biological and Chemical Technologies

## Alternative Energy Technology <br> Credential: Associate in Applied Science in Biofuels Technology A20130

This curriculum is designed to provide students with the educational foundation and technical skills necessary to obtain employment in the biofuels industry, or ability to create a new business dealing with biofuels.

Coursework includes general education, alternative energy resource management, chemistry, industrial safety, and an array of coursework specific to all sectors of the biofuels industry.

Graduates should qualify for numerous positions within the industry. Employment opportunities include, but are not limited to, plant technician plant manager, lab technician, sales manager, process coordinator, fuel purchaser, or business owner.

Program Length: 5 semesters
Career Pathway Options: Associate in Applied Science in Biofuels Technology Program Sites: Pittsboro Campus

Course Requirements for Biofuels Technician Degree
A. General Education Courses (16 SHC) C-L-SHC

ENG 111 Expository Writing 3-0-3
ENG 111A Expository Writing Lab 0-2-1
*ENG 114 Professional Research \& 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 Classes ( 20 SHC )
ALT $110 \quad$ Biofuels I

ALT 120 Renewable Energy Technology 2-2-3
ALT 210 Biofuels II 3-2-4
ALT 211 Biofuels Analytics 2-4-4
ALT 230 Biofuels Waste Management 2-0-2
Chemistry (Select 4 SHC):
CHM 131 Intro to Chemistry 3-0-3
CHM 131A Intro to Chemistry Lab 0-2-1
CHM 151 General Chemistry I 3-3-4
*Students may substitute ENG 113.
** Students may substitute MAT 171.
C. Other Major Required Hours (32)

CIS 110 Introduction to Computer 2-2-3
ELC 112 AC/DC Electricity 3-6-5
ISC 121 Environmental Health \& Safety 3-0-3
MEC 110 Intro to CAD/CAM 1-2-2
MEC 130 Mechanisms 2-2-3

MNT 230 Pumps \& Piping Systems
Select one of the following courses:
CHM 132 Organic and Biochemistry
CHM 152 General Chemistry II

Other Required Courses: (Select 9 SHC)
AGR 139 Intro into Sustainable Agriculture 3-0-3
BPM 110 Bioprocessing Practices 3-4-5
BUS 280 REAL Small Business 4-0-4
ELC 128 Intro to PLC 2-3-3
Select 1.0 hours from the following courses:

| ALT 281 | Biofuels Project Experience <br> OR | $0-6-2$ |
| :--- | :--- | ---: |
| COE 111 | Co-op Work Experience I | $0-10-1$ |

Total Required Credit Hours for Graduation: 68
Semester Curriculum for Biofuels Technology Degree

| 1st Semester (Fall) |  | C-L-SHC |
| :---: | :---: | :---: |
| ALT 110 | Biofuels I | 3-0-3 |
| ALT 120 | Renewable Energy Technology | 2-2-3 |
| CIS 110 | Introduction to Computers | 2-2-3 |
|  | Chemistry Elective | 4 |
| **MAT 140 | Survey of Mathematics | 3-0-3 |
|  |  | 10-4-16 |
| 2nd Semester (Spring) |  |  |
| ALT 210 | Biofuels II | 3-2-4 |
| ENG 111 | Expository Writing | 3-0-3 |
| ENG 111A | Expository Writing Lab | 0-2-1 |
| MEC 110 | Intro to CAD/CAM | 1-2-2 |
|  | Required Elective | 3-0-3 |
|  | Chemistry Elective | 3-3-4 |
|  |  | 13-9-17 |
| 3rd Semester (Summer) |  |  |
| ALT 281 | Biofuels Project Experience | 0-6-2 |
|  | OR |  |
| COE 111 | Co-op Work Experience I | 0-10-1 |
| 4th Semester (Fall) |  |  |
| ALT 211 | Biofuels Analytics | 2-4-4 |
| ELC 112 | AC/DC Electricity | 3-6-5 |
|  | Humanities/Fine Arts Elective | 3-0-3 |
|  | Required Elective | 3-0-3 |
| ISC 121 | Environmental Health \& Safety | 3-0-3 |
|  |  | 14-10-18 |
| 5th Semester (Spring) |  |  |
| ALT 230 | Biofuels Waste Management | 2-0-2 |
| *ENG 114 | Research and Reporting | 3-0-3 |
| MEC 130 | Mechanisms | 2-2-3 |
| MNT 230 | Pumps and Piping Systems | 1-3-2 |
|  | Required Elective | 3-0-3 |
|  | Social/Behavioral Science Elective | 3-0-3 |
|  |  | 14-5-16 |

COE 111 Co-op Work Experience I 0-10-1
*Students may substitute ENG 113.
** Students may substitute MAT 171.
3-3-4
3-3-4 Total Semester Hours Credit: 68

## Alternative Energy Technology Credential: Certificate in Biofuels Production C20130

This curriculum is designed to equip students with the skills needed to attain a technical position in the biofuels industry. Students learn the fundamentals of biofuels as well as laboratory and mechanical skills needed to conduct quality control testing and diagnose biofuels related problems. Upon completion of the program students will be employable in a variety of biofuels markets, including fuel production, analysis, marketing, and distribution. In addition, students will have an opportunity to create a business plan around any aspect of the biofuels industry.

Program Length: 3 Semesters
Career Pathway Options: Associate in Applied Science in Biofuels Technology
Program Sites: Pittsboro Campus - Day Program
Course Requirements for Biofuels Technician Degree
Required Major Core Classes (16 SHC)
ALT 110 Biofuels I 3-0-3
ALT 210 Biofuels II
3-2-4
ALT 211 Biofuels Analytics
2-4-4
BPM 110 Bioprocessing Practices

Total Required Credit Hours for Graduation: 16

## 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
A. General Education Courses (16 SHC) C-L-SHC

ENG 111 Expository Writing 3-0-3
ENG 111A Expository Writing Lab 0-2-1
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 (29 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 | $3 / 4-0-3 / 4$ |  |
|  |  |  |
| 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 | $3-0-3$ |
| ENG 111A | Expository Writing Lab | $0-2-1$ |
|  | Major Elective | $3-0-3$ |
|  | Economics Elective | $3-0-3$ |
|  |  | $18-4-20$ |
| 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 <br> 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 (7 SHC) | C-L-SHC |
| :--- | :--- | ---: |
| ENG 111 | Expository Writing | $3-0-3$ |
| ENG 111A | Expository Writing Lab | $0-2-1$ |
| *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) | $3-0-3$ |  |
| 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 (16 SHC) |  |  |
| ACC 122 | Principles of Financial Accounting II | $1-2-2$ |
| ACC 140 | Payroll Accounting | $1-2-2$ |
| ACC 150 | Accounting Software Applications | $3-0-3$ |
| BUS 110 | Introduction to Business | $3-0-3$ |
| BUS 125 | Personal Finance | 3 |
|  | Major Elective |  |

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 | $3-0-3$ |
| ENG 111A | Expository Writing Lab | $0-2-1$ |
|  | Major Elective | $3-0-3$ |
|  | Economics Elective | $3-0-3$ |
|  |  | $18-4-20$ |
| 2nd Semester (Spring) | $3-2-4$ |  |
| ACC 121 | Principles of Managerial Accounting | $3-0-3$ |
| ACC 122 | Principles of Financial Accounting |  |
| 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: <br> 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) | $3-0-3$ |  |
| ACC 122 | Financial Accounting II | $2-2-3$ |
| ACC 130 | Business Income Taxes | $5-2-6$ |

Total Semester Hours Credit: 16

## Accounting <br> 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 |  |  | 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) | $2-2-3$ |  |
| ACC 129 | Individual Income Taxes | $1-2-2$ |
| ACC 140 | Payroll Accounting | $1-2-2$ |
| ACC 150 | Accounting Software Applications | $4-6-7$ |
|  |  |  |

Total Semester Hours Credit: 16/17

## Accounting Credential: <br> 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

| 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 <br> Credential: Small Business Financial Advisor <br> II Certificate <br> 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 |
|  | r Hours Credit: 16 |  |

## Business Administration <br> 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: 4 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 (16 SHC) C-L-SHC

ENG 111 Expository Writing 3-0-3
ENG 111A Expository Writing Lab 0-2-1
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 ( 35 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 255 Organizational Behavior in Business 3-0-3
BUS 260 Business Communication 3-0-3
BUS 285 Business Management Issues 2-2-3
COE 111 Co-op Work Experience I 0-10-1
MKT 223 Customer Service 3-0-3
Major Electives
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: 69/70

| Semester Curriculum for Business Administration <br> Degree |  |  |
| :--- | :--- | ---: |
| 1st Semester (Fall) |  |  |
| ACC 120 | Principles of Financial Accounting | $3-2-4$ |
| BUS 110 | Introduction to Business | $3-0-3$ |
| BUS 125 | Personal Finance | $3-0-3$ |
|  | Economics Elective | $3-0-3$ |
| ENG 111 | Expository Writing | $3-0-3$ |
| ENG 111A | Expository Writing Lab | $0-2-1$ |
|  |  | $15-4-17$ |

2nd Semester (Spring)
ACC 121 Principles of Managerial Accounting 3-2-4
BUS 137 Principles of Management 3-0-3
**CIS 110 Introduction to Computers 2-2-3
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
16/17-4-18/19

3rd Semester (Fall)
BUS 115 Business Law I 3-0-3
BUS 225 Business Finance 2-2-3
BUS 240 Business Ethics 3-0-3
BUS 255 Organizational Behavior in Business 3-0-3
Humanities/Fine Arts Elective 3-0-3
Major Electives 3-0-3
17-2-18
4th Semester (Spring)
BUS 153 Human Resource Management
3-0-3

BUS 260 Business Communication
BUS 285 Business Management Issues
COE 111 Co-op Work Experience I
MKT 223 Customer Service
Social/Behavioral Science Elective

3-0-3
2-2-3
0-10-1
3-0-3
3-0-3
14-12-16
*Students may substitute MAT 115 (nontransferable).
**Student may substitute CIS 111 (nontransferable).
Total Semester Hours Credit: 69/70

## 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 (7 SHC) | C-L-SHC |
| :--- | :--- | ---: |
| ENG 111 | Expository Writing | $3-0-3$ |
| ENG 111A | Expository Writing Lab | $0-2-1$ |
|  | Social/Behavioral Science Elective | $3-0-3$ |

$\begin{array}{lll}\text { B. Required Major Core Courses } \quad(15 / 16 \text { SHC) } \\ \text { ACC } 120 & \text { Principles of Financial Accounting } & 3-2-4\end{array}$
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 $151 \quad$ 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 | $3-0-3$ |
| BUS 255 | Organizational Behavior in Business | $3-0-3$ |
|  | Major Electives | 3 |

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
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:
38/39

| 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 | $3-0-3$ |
|  |  | $9-2-10$ |
| 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) | $3-0-3$ |  |
| ENG 111 | Expository Writing | $0-2-1$ |
| ENG 111A | Expository Writing Lab | $3-2-4$ |
|  |  | $3-0-3$ |
| 4th Semester (Fall) | $3-0-3$ |  |
| BUS 110 | Introduction to Business | $3-0-3$ |
| BUS 255 | Organizational Behavior in Business | $9-0-9$ |
|  | Social/Behavioral Science Elective |  |
|  |  | $3-0-3$ |
| 5th Semester (Spring) | $3-0-3$ |  |
| BUS 115 | Business Law I | $6-0-6$ |

[^2]
## 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) | $3-0-3$ |  |
| BUS 151 | People Skills | $3-0-3$ |
| BUS 153 | Human Resource Management | $2-2-3$ |
| CIS 110 | Introduction to Computers | $7 / 8-2-8 / 9$ |
|  |  |  |
|  |  |  |
| *Student may substitute CIS 111 (nontransferable). |  |  |

Total Semester Hours Credit: 17/18

## Business Administration <br> 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) | $2-2-3$ |  |
| *CIS 110 | Introduction to Computers | $3-0-3$ |
| MKT 120 | Principles of Marketing | $4 / 5-2-5 / 6$ |
| *Student may substitute CIS 111 (nontransferable) or OST |  |  |
| 137 (nontransferable). |  |  |

Total Semester Hours Credit: 16/17

## 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
A. General Education Courses (16 SHC) C-L-SHC

ENG 111 Expository Writing 3-0-3
ENG 111A Expository Writing Lab 0-2-1
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. Required Major Core Courses ( $35 / 36$ SHC)
*CIS 110 Introduction to Computers 2-2-3
CIS 115 Introduction to Programming and Logic 2-3-3
CTS 115 Information Systems Business Concepts 3-0-3
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
**NET 110 Networking Concepts 2-2-3
NOS 110 Operating System Concepts 2-3-3
NOS $130 \quad$ Windows Single User 2-2-3
NOS 230 Windows Administration I 2-2-3
SEC 110 Security Concepts 3-0-3
*May substitute CIS 111 (2 SHC) - Nontransferable
**May substitute NET 125 - Networking Basics

| Other Required Hours (18 SHC) |  |  |
| :--- | :--- | ---: |
| DBA 120 | Database Programming I |  |
| WEB 140 | Web Development Tools | $2-2-3$ |
|  | Technical Electives | $2-2-3$ |
|  | Programming Elective | 3 |
| Technical |  |  |
| Electives (Choose 9 SHC) |  |  |
| CSC 134 | C++ Programming |  |
| CSC 139 | Visual Basic Programming | $2-3-3$ |
| CSC 151 | JAVA Programming | $2-3-3$ |
| CTS 130 | Spreadsheet | $2-3-3$ |
| CTS 220 | Advanced Hard/Software Support | $2-2-3$ |
| CTS 287 | Emerging Technologies | $2-3-3$ |
| NOS 120 | Linux/UNIX Single User | $3-0-3$ |
|  |  | $2-2-3$ |
| Programming Elective (Choose 3 SHC) |  |  |
| CSC 134 | C++ Programming |  |
| CSC 139 | Visual Basic Programming | $2-3-3$ |
| CSC 151 | JAVA Programming | $2-3-3$ |
|  |  | $2-3-3$ |

Total Semester Credit Hours: 69/70

Semester Curriculum for CIT Classes

| 1st Semester (16 SHC) | C-L-SHC |
| :--- | ---: |
| ENG $111 \quad$ Expository Writing | $3-0-3$ |

ENG 111A Expository Writing Lab 0-2-1
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 2-3-3 12-9-16

2nd Semester (18 SHC)
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 2-3-3 13-13-18

3rd Semester (6 SHC)
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
3-0-3
6-0-6
4th Semester (15 SHC)
CTS 285 Systems Analysis and Design 3-0-3
NOS 230 Windows Administration I 2-2-3
Humanities/Fine Arts or Social/Behavioral Science Elective 3-0-3
Programming Elective 3
Technical Elective 3
$5^{\text {th }}$ Semester ( 15 SHC )
CTS 289 System Support Project 1-4-3

SEC 110 Security Concepts 3-0-3
DBA 120 Database Programming I 2-2-3
Technical Elective 3
Technical Elective 3
11-8-15

Total Semester Credit Hours: 69/70

## Computer Information Technology/Healthcare Business Informatics <br> 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 Computer Information Technology
A. General Education Courses (16 SHC) C-L-SHC

ENG 111 Expository Writing 3-0-3
ENG 111A Expository Writing Lab
0-2-1
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. Required Major Core Courses ( $35 / 36 \mathrm{SHC}$ )
*CIS 110 Introduction to Computers 2-2-3
CIS 115 Introduction to Programming and Logic 2-3-3
CTS 115 Information Systems Business Concepts 3-0-3

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
**NET 110 Networking Concepts 2-2-3
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 3-0-3
*May substitute CIS 111 (2 SHC) - Nontransferable
**May substitute NET 125 - Networking Basics
Other Required Hours (18 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
Total Semester Credit Hours: 69/70
Semester Sequence for CIT/HBI Classes
1st Semester (16 SHC) C-L-SHC
ENG 111 Expository Writing 3-0-3
ENG 111A Expository Writing Lab 0-2-1
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 2-3-3

2nd Semester (18 SHC)
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 2-3-3
13-13-18

3rd Semester (6 SHC)
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

4th Semester (15 SHC)
CTS 285 Systems Analysis and Design 3-0-3
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 2-2-3
$5^{\text {th }}$ Semester ( 15 SHC )
CTS 289 System Support Project 1-4-3

| SEC 110 | Security Concepts | $3-0-3$ |
| :--- | :--- | ---: |
| 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 |  | $3-0-3$ |
|  |  | $13-4-15$ |

Total Semester Credit Hours: 69/70

## 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: Specialized Tracks of Study
include: Database Programming, Network Technologist, Software Specialist, and Web Development
Program Sites: Lee Campus - Day Program
Course Requirements for Computer Information
Technology Diploma
General Education Courses (7 SHC) C-L-SHC
ENG 111 Expository Writing 3-0-3
ENG 111A Expository Writing Lab 0-2-1
MAT 140 Survey of Mathematics 3-0-3
B. Required Major Core Courses (30 SHC)
*CIS 110 Introduction to Computers 2-2-3
CIS 115 Introduction to Programming and Logic 2-3-3
CTS 115 Information Sys Bus Concepts 3-0-3
CTS 120 Hardware/Software Support 2-3-3
CTS 285 Systems Analysis and Design 3-0-3
DBA 110 Database Concepts 2-3-3
**NET 110 Networking Concepts 2-2-3
NOS 110 Operating System Concepts 1-4-3
NOS 130 Windows Single User 2-2-3
NOS 230 Windows Administration I 2-2-3

3-0-3
-0-3

3-0-3
13-4-15
*May substitute CIS 111 (2 SHC) - Nontransferable
**May substitute NET 125 - Networking Basics

Semester Curriculum for Computer Information Technology Diploma

| 1st Semester (13 SHC) | C-L-SHC |  |
| :--- | :--- | ---: |
| CTS115 | Information Sys Business Concepts | $3-0-3$ |
| CIS 110 | Introduction to Computers | $2-2-3$ |
| ENG 111 | Expository Writing | $3-0-3$ |
| ENG 111A | Expository Writing Lab | $0-2-1$ |
| NOS 110 | Operating System Concepts | $2-3-3$ |
|  |  | $10-7-13$ |
|  |  |  |
| 2nd Semester (18 SHC) | $2-3-3$ |  |
| CIS 115 | Intro to Programming and Logic | $2-3-3$ |
| CTS 120 | Hardware/Software Support | $2-3-3$ |
| DBA 110 | Database Concepts | $3-0-3$ |
| MAT 140 | Survey of Mathematics | $1-4-3$ |
| NET 110 | Networking Concepts | $2-2-3$ |
| NOS 130 | Windows Single User | $12-15-18$ |
|  |  |  |
|  |  | $3-0-3$ |
| 3rd Semester (6 SHC) | $2-2-3$ |  |
| CTS 285 | Systems Analysis and Design | $5-2-6$ |

Total Semester Hours Credit: 37

Total Semester Credit Hours: 37

## 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 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 |  |
| CSC 139 | Visual Basic Programming | $2-3-3$ |
| CSC 151 | JAVA Programming | $2-3-3$ |
|  |  | $2-3-3$ |

[^3]
## 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 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).

## 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 Computer
Information Technology or Networking Technology
Program Sites: Lee Campus - Day and Evening Programs
Course Requirements for Software Specialist Certificate
*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
*Students may substitute CIS 111 (nontransferable).

## 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
Course No. Course Name 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
Total Semester Hours Credit 14/15
*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 (16 SHC) | C-L-SHC |
| :--- | :--- | ---: |
| ENG 111 | Expository Writing | $3-0-3$ |
| ENG 111A | Expository Writing Lab | $0-2-1$ |
| 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 |  |
| BUS 137 | Principles of Management |  |
| MKT 120 | Principles of Marketing |  |
|  |  | $3-0-3$ |
| Choose one of the following courses in: | $3-0-3$ |  |
| Accounting | Elective | $3-0-3$ |
| ACC 115 | College Accounting |  |
| ACC 120 | Principles of Financial Accounting |  |
| ** Computer |  |  |
| Applications Elective |  |  |
| CIS 110 | Introduction to Computers | $3-2-4$ |
| CIS 111 | PC Literacy |  |
| Economics | Elective | $2-2-3$ |
| ECO 151 | Survey of Economics |  |
| ECO 251 | Principles of Microeconomics | $1-2-2$ |
| ECO 252 | Principles of Macroeconomics |  |

BUS 217 Employment Law and Regulations 3-0-3
BUS 234 Training and Development 3-0-3
BUS 256 Recruiting, Selecting and Personnel Planning3-0-3
BUS 258 Compensation and Benefits 3-0-3
BUS 259 HRM Applications 3-0-3
C. Other Major Hours Required (19 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
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 Planning3-0-3 |  |
| ** CIS 110 | Introduction to Computers | $2-2-3$ |
|  |  | $10 / 11-2-11 / 12$ |
| 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 |  |
| ENG 111 | Expository Writing | $3-0-3$ |
| ENG 111A | Expository Writing Lab | $3-0-3$ |
|  |  | $0-2-1$ |
| 4th Semester (Fall) | $6-2-7$ |  |
| BUS 234 | Training and Development |  |
| BUS 258 | Compensation and Benefits | $3-0-3$ |
| MKT 120 | Principles of Marketing | $3-0-3$ |
|  | Humanities/Fine Arts Elective | $3-0-3$ |
|  | $3-0-3$ |  |
| Students may exit with a diploma | $12-0-12$ |  |

Concentration (15 SHC)

| 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 |  |  |
| COE 111 | Co-op Work Experience I | $0-10-1$ |
|  | Major Elective | $3-0-3$ |
|  |  | $3-10-4$ |
| 7th Semester (Fall) | $3-2-4$ |  |
|  | Accounting Elective | $3-0-3$ |
| ENG 114 | Professional Research and Reporting | $3-0-3$ |
|  | Social/Behavioral Science Elective | $9-2-10$ |
|  |  |  |
| 8th Semester (Spring) | $3-0-3$ |  |
| BUS 259 | HRM Applications |  |
| 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, tyagigng 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 (7 SHC) | C-L-SHC |
| :--- | :--- | ---: |
| ENG 111 | Expository Writing | $3-0-3$ |
| ENG 111A | Expository Writing Lab | $0-2-1$ |
|  | 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) | $3-0-3$ |
| ECO 151 | Survey of Economics | $3-0-3$ |
| ECO 251 | Principles of Microeconomics | $3-0-3$ |
| ECO 252 | Principles of Macroeconomics |  |
|  |  |  |
| C. Other Major Hours Required (6-SHC) | $3-0-3$ |  |
| BUS 153 | Human Resource Management | $3-0-3$ |
| BUS 252 | Labor Relations |  |

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 | $2-2-3$ |
|  |  | $10 / 11-2-11 / 12$ |
| 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 | $3-0-3$ |
| ENG 111A | Expository Writing Lab | $0-2-1$ |
|  |  | $6-2-7$ |
| 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 | $3-0-3$ |
|  |  | $12-0-12$ |

[^4]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
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 healthcare 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 (16 SHC) | C-L-SHC |
| :--- | :--- | ---: |
| ENG 111 | Expository Writing | $3-0-3$ |
| ENG 111A | Expository Writing Lab | $0-2-1$ |
|  | 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 ( 26 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 |
| OST 236 | Advanced Word/Information Processing | g 2-2-3 |
| OST 241 | Medical Office Transcription I | 1-2-2 |
| OST 286 | Professional Development | 3-0-3 |
|  | Major Electives <br> (Select 2.0 credit hours from the following | $\begin{aligned} & 2-0-2 \\ & \text { ing list) } \end{aligned}$ |
| 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 | ce 3-0-3 |
| Total Semester Hours Required for Graduation: 70/71 |  |  |
| Semester Curriculum for Medical Office Administration |  |  |
| 1st Semester (Fall) C |  | C-L-SHC |
| **CIS 110 | Introduction to Computers | 2-2-3 |
| ENG 111 | Expository Writing | 3-0-3 |
| ENG 111A | Expository Writing Lab | 0-2-1 |
|  | Communication Elective | 3-0-3 |
| OST 131 | Keyboarding | 1-2-2 |
| OST 184 | Records Management | 2-2-3 |
|  |  | 11-8-15 |
| 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 |
| *Students may substitute MAT 140 (transferable). <br> **Student may substitute CIS 111 (nontransferable). |  |  |

Total Semester Hours Credit: 70/71

## 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 (17/16 SHC)
*CIS 110 Introduction to Computers
OST 141 Medical Terms Medical Office
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: 17/16 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 | $1-2-2$ |
|  |  | $6-4-8$ |

Total Semester Hours Credit: 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 | $3-0-3$ |
| 2nd Semester (Spring) | $9-0-9$ |  |
| OST 142 | Medical Terms II-Medical Office <br> OST 241 | Medical Office Transcription I <br> (1 |
| OST 242 | Medinimester) <br> (2nd minimester) | $1-2-3$ |
|  |  | $1-2-2$ |
| Total Semester Hours Credit: 16 SHC | $5-4-7$ |  |

## Networking Technology <br> 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: 4 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 (16 SHC) | C-L-SHC |
| :--- | :--- | ---: |
| ENG 111 | Expository Writing | $3-0-3$ |
| ENG 111A | Expository Writing Lab | $0-2-1$ |
| 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. Required Courses (45 SHC): |  |  |
| CIS 110 | Introduction to Computers |  |
| CIS 115 | Introduction to Programming and Logic | $2-3-3$ |
| CTS 120 | Hardware/Software Support |  |
| DBA 110 | Database Concepts | $2-3-3$ |
| NET 125 | Networking Basics | $2-3-3$ |
| NET 126 | Routing Basics | $1-4-3$ |
|  |  | $1-4-3$ |


| 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 | $3-0-3$ |

Business - Select one:
BUS 110 Introduction to Business 3-0-3
CTS 115 Information Systems Business Concepts 3-0-3
Design - Select one:
NET $240 \quad$ Network Design $\quad 3-0-3$

NOS 220 Linux/UNIX Administration I 2-2-3
C. Other Major Hours (select 6 SHC)

CTS 220 Advanced Hardware/Software Support 2-3-3
CTS 287 Emerging Technologies 3-0-3
NET 113 Home Automation Systems 2-2-3
NET 116 Fundamentals of Voice/Data Cable 2-2-3
NET 175 Wireless Technologies 2-2-3
NET 230 Wide Area Networking 2-2-3
NOS 240 Novell Administration I 2-2-3
SEC 160 Security Fundamentals I 2-2-3
SEC 210 Intrusion Detection 2-2-3
SEC 240 Wireless Security 2-2-3
Total Semester Credit Hours: 67
Semester Curriculum for Networking Technology
1st Semester (21 SHC) C-L-SHC
CIS 110 Introduction to Computers 2-2-3
NET 125 Networking Basics 1-4-3
NET 126 Routing Basics 1-4-3
Networking Elective 2-2-3
Networking Elective 2-2-3
NOS 110 Operating Systems Concepts 2-3-3
NOS 130 Windows Single User (MCP) 2-2-3
13-17-21
2nd Semester (18 SHC)
CTS 120 Hardware/Software Support 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
SEC 110 Security Concepts 3-0-3
3rd Semester (10 SHC)
ENG 111 Expository Writing 3-0-3
ENG 111A Expository Writing Lab 0-2-1
Humanities/Fine Arts Elective 3-0-3
NET 240 Network Design 3-0-3
NET 289 Networking Project 1-4-3
7/9-6-10

| 4th Semester (18 SHC) |  |
| :--- | :--- |
| BUS 110 | Introduction to Business |
|  | OR |

Total Semester Hours Credit: 67

## Networking Technology

3-0-3
3-0-3
2-3-3
2-3-3
3-0-3
3-0-3
3-0-3

## Credential: Diploma in Networking

Technology
D25340 education.

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

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 mat also be qualified to take certification examinations for various network industry certifications, depending on their local program.

Program Length: 4 Semesters
Career Pathway Options: Associate in Applied Science
Degree 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 (7 SHC) | C-L-SHC |
| :--- | :--- | ---: |
| ENG 111 | Expository Writing | $3-0-3$ |
| ENG 111A | Expository Writing Lab | $0-2-1$ |
| *MAT 140 | Survey of Mathematics | $3-0-3$ |
|  |  |  |
| B. Required Major Core Courses (33 SHC) |  |  |
| CIS 115 | Introduction to Programming and Logic | $2-2-3$ |
| CTS 120 | Hardware/Software Support | $2-3-3$ |
| DBA 110 | Database Concepts | $2-2-3$ |
| NET 125 | Routing and Switching I | $1-4-3$ |
| NET 126 | 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 | $2-2-3$ |
| SEC 110 | Security Concepts | $3-0-3$ |
|  |  |  |
| C. Required |  |  |
| Bubject Areas |  |  |
| CIS 110 | Introduction to Computers | $2-2-3$ |
| Business (select one course): |  |  |
| BUS 110 | Introduction to Business | $3-0-3$ |
| CTS 115 | Information Systems Business Concepts | $3-0-3$ |

Total Semester Hours Required for Graduation: 40
Semester Curriculum for Diploma in Networking Technology

| 1st Semester (15 SHC) | C-L-SHC |  |
| :--- | :--- | ---: |
| CIS 110 | Computer Concepts | $2-2-3$ |
| 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 | $2-2-3$ |
|  |  | $9-13-15$ |
| 2nd Semester (9 SHC) | $2-3-3$ |  |
| CTS 120 | Hardware/Software Support | $2-2-3$ |
| NOS 120 | Linux/UNIX Single User | $3-0-3$ |
| SEC 110 | Security Concepts | $6-7-9$ |
|  |  |  |
| 3rd Semester (7SHC) | $3-0-3$ |  |
| ENG 111 | Expository Writing | $0-2-1$ |
| ENG 111A | Expository Writing Lab | $3-0-3$ |
| *MAT 140 | Survey of Mathematics | $6-2-7$ |
|  |  | $3-0-3$ |
| 4th Semester (9SHC) |  |  |
| BUS 110 | Introduction to Business | $3-0-3$ |
|  | OR | $2-3-3$ |
| CTS 115 | Information Systems Business Concepts | $2-3-3$ |
| CIS 115 | Introduction to Programming and Logic | $7-6-9$ |
| DBA 110 | Database Concepts |  |
|  |  |  |
| *Students may substitute MAT 161 |  |  |
| Total Semester Hours Credit: 40 |  |  |

## Networking Technology <br> Credential: Network Infrastructure <br> 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.
Program Sites: North Carolina School of
Telecommunications. Day and selected evening courses.
Corporate and career-centered programs.
Course Requirements for Network Infrastructure Certificate

| Required | Major Core Courses (12 SHC) | C-L-SHC |
| :--- | :--- | ---: |
| NET 125 | Routing and Switching I | $1-4-3$ |
| NET 126 | Routing and Switching II | $1-4-3$ |
| NET 225 | Adv. Routing and Switching I | $1-4-3$ |
| NET 226 | Adv. Routing and Switching II | $1-4-3$ |
|  |  | $4-16-12$ |

Total Semester Hours Credit: 12

## Networking Technology <br> Credential: Network Operating System Certificate <br> 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 Networking Technology
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 (12 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 | $2-2-3$ |

## Networking Technology <br> 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 Networking Technology.
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 (12 SHC) | C-L-SHC |
| :--- | :--- | ---: |
| NET 125 | Networking Basics | $1-4-3$ |
| SEC 110 | Security Concepts | $3-0-3$ |
| SEC 160 | Security Fundamentals I | $2-2-3$ |
| SEC 210 | Intrusion Detection | $2-2-3$ |
|  |  | $8-8-12$ |
| Total Semester Hours Credit: 12 |  |  |

## Networking Technology <br> Credential: Wireless Networking Certificate C25340WN

The Wireless Networking Certificate is a certificate under the curriculum title of Networking Technology. This curriculum prepares students to understand and install various models of wireless routers and switches. This curriculum also develops operating skills needed to successfully install, 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 wireless 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 Networking Technology
Program Sites: North Carolina School of
Telecommunications. Day and selected evening courses.
Corporate and career-centered programs.
Course Requirements for Wireless Networking Certificate

| Required |  | Major Core Courses (12 SHC) |
| :--- | :--- | ---: |
| NET 125 | Networking Basics | C-L-SHC |
| NET 126 | Routing Basics | $1-4-3$ |
| NET 175 | Wireless Technologies | $1-4-3$ |
| SEC 110 | Security Concepts | $2-2-3$ |
| SEC 240 | Wireless Security | $3-0-3$ |
|  |  | $2-2-3$ |
|  |  | $9-12-15$ |

Total Semester Hours Credit: 15

## Networking Technology <br> Credential: Small Office / Home Office Certificate (SOHO) C25340SH

The Small Office / Home Office Certificate (SOHO) is a certificate under the curriculum title of Networking Technology. This curriculum prepares students to understand and install various types of office and home network electronics. This curriculum also develops operating skills needed to successfully manage and support home and small office 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 technician, network analyst, and information systems specialist. Graduates are also prepared to sit for certification exams that can result in industryrecognized 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 Networking Technology
Program Sites: North Carolina School of
Telecommunications. Day and selected evening courses.
Corporate and career-centered programs.
Course Requirements for Small Office / Home Office
Certificate (SOHO)

| Required Major Core Courses (12 SHC) | C-L-SHC |  |
| :--- | :--- | ---: |
| NET 113 | Home Automation Systems | $2-2-3$ |
| NET 125 | Networking Basics | $1-4-3$ |
| NET 126 | Routing Basics | $1-4-3$ |
| NET 175 | Wireless Technologies | $2-2-3$ |
|  |  | $6-12-12$ |

Total Semester Hours Credit: 12

## Networking Technology <br> 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 Networking Technology.
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
CIS 110 Introduction to Computers
-3
NET 116 Fund of Voice/Data Cable
NET 125 Networking Basics 1-4-3
NET 126 Routing Basics 1-4-3
NET 230 Wide Area Networking 2-2-3
8-14-15

Total Semester Hours Credit: 15

## Office Administration <br> 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 (16 SHC) C-L-SHC

ENG 111 Expository Writing 3-0-3
ENG 111A Expository Writing Lab 0-2-1
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 $115 \quad$ Oral Communication
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

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 (40 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 | $3-0-3$ |

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 | $3-0-3$ |
| ENG 111A | Expository Writing Lab | $0-2-1$ |
|  | Communication Elective | $3-0-3$ |
| OST 131 | Keyboarding | $1-2-2$ |
| OST 184 | Records Management | $2-2-3$ |

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 |  |  |
| 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 (10 SHC) C-L-SHC

ENG 111 Expository Writing 3-0-3
ENG 111A Expository Writing Lab 0-2-1
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 $110 \quad$ Introduction to Computers

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 (16 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

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 | $3-0-3$ |
| ENG 111A | Expository Writing Lab | $0-2-1$ |
|  | Communication Elective | $3-0-3$ |
| OST 131 | Keyboarding | $1-2-2$ |
| OST 184 | Records Management | $2-2-3$ |
|  |  | $11-8-15$ |
| 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 <br> 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 |  |  |

## Operations Management Credential: Associate in Applied Science Degree in Operations Management A2512G

Operations Management is a concentration under the curriculum title of Business Administration. This curriculum is designed to educate individuals in the technical and managerial aspects of operations for manufacturing and service industries.

Emphasized are analytical reasoning, problem solving, and continuous improvement concepts required in today's dynamic business and industry environments. Concepts include quality, productivity, organizational effectiveness, financial analysis, and the management of human, physical, and information resources.

Graduates should qualify for leadership positions, or enhance their professional skills in supervision, team leadership, operations planning, quality assurance, manufacturing and service management, logistics/distribution, health and safety, human resources management, and inventory/materials management.

Program Length: 7 semesters
Career Pathway Option: Associate in Applied Science
Degree in Operations Management
Program Sites: Lee Campus - Evening Program, Selected Day and Distance Classes

Course Requirements for Operations Management Degree
A. General Education Courses (16 SHC) C-L-SHC

ENG 111 Expository Writing 3-0-3
ENG 111A Expository Writing Lab 0-2-1
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 ( $36-37 \mathrm{SHC}$ )
BUS $115 \quad$ Business Law I

BUS 137 Principles of Management 3-0-3
MKT 120 Principles of Marketing 3-0-3
Choose one of the following courses:
Accounting Elective:
ACC 115 College Accounting 3-2-4
ACC 120 Principles of Financial Accounting 3-2-4
$\begin{array}{ll}* * \text { Computer Applications Elective: } \\ \text { CIS } 110 & \text { Introduction to Computers }\end{array}$
CIS 111 PC Literacy 1-2-2
Choose one of the following courses:
ECO 151 Survey of Economics 3-0-3
ECO 251 Principles of Microeconomics 3-0-3
ECO 252 Principles of Macroeconomics 3-0-3

|  |  |  | Social/Behavioral Science Elective | 3-0-3 |
| :---: | :---: | :---: | :---: | :---: |
| Concentration Courses |  |  |  | 9-0-9 |
| ISC 121 | Environmental Health and Safety | 3-0-3 | Total Semester Hours Credit: 70/71 |  |
| ISC 131 | Quality Management | 3-0-3 | * Students may substitute MAT 115 (non transferable). |  |
| ISC 210 | Operation and Production Planning | 3-0-3 | **Students may substitute CIS 111 (nontransferable. |  |
| ISC 221 | Statistical Qual Control | 3-0-3 |  |  |
| OMT 112 | Materials Management | 3-0-3 |  |  |
| OMT 260 | Issues in Operations Management | 3-0-3 |  |  |
| C. Other Major Hours Required for Graduation (18 SHC) |  |  |  |  |
| BUS 151 | People Skills | 3-0-3 |  |  |
| BUS 153 | Human Resource Management | 3-0-3 |  |  |
| BUS 252 | Labor Relations | 3-0-3 |  |  |
| BUS 240 | Business Ethics | 3-0-3 |  |  |
| OMT 218 | Developing Team Performance | 3-0-3 |  |  |
| Choose one: |  |  |  |  |
| BUS 260 | Business Communication | 3-0-3 |  |  |
| OMT 181 | Industry Reporting Skills | 3-0-3 |  |  |
| Total Semester Hours Credit Required for Graduation: 70/71 |  |  |  |  |
| Semester Curriculum for Operations Management Degree |  |  |  |  |
| 1st Semester (Fall) |  | C-L-SHC |  |  |
| BUS 137 | Principles of Management | 3-0-3 |  |  |
| **CIS 110 | Introduction to Computers | 2-2-3 |  |  |
| ISC 131 | Quality Management | 3-0-3 |  |  |
| *MAT 140 | Survey of Mathematics | 3-0-3 |  |  |
|  | 10/11-2-11/12 |  |  |  |
| 2nd Semester (Spring) |  |  |  |  |
| BUS 151 | People Skills | 3-0-3 |  |  |
| ISC 121 | Environmental Health and Safety | 3-0-3 |  |  |
| ISC 210 | Operation and Production Planning | 3-0-3 |  |  |
|  |  | 9-0-9 |  |  |
| 3rd Semester (Summer) |  |  |  |  |
| BUS 252 | Labor Relations | 3-0-3 |  |  |
| ENG 111 | Expository Writing | 3-0-3 |  |  |
| ENG 111A | Expository Writing Lab | 0-2-1 |  |  |
| MKT 120 | Principles of Marketing | 3-0-3 |  |  |
|  |  | 9-2-10 |  |  |
| 4th Semester (Fall) |  |  |  |  |
|  | Accounting Elective | 3-2-4 |  |  |
| BUS 115 | Business Law I | 3-0-3 |  |  |
| BUS 260 | Business Communication | 3-0-3 |  |  |
|  | Economics Elective | 3-0-3 |  |  |
|  |  | 12-2-13 |  |  |
| 5th Semester (Spring) |  |  |  |  |
| BUS 153 | Human Resource Management | 3-0-3 |  |  |
| BUS 240 | Business Ethics | 3-0-3 |  |  |
| ENG 114 | Professional Research and Reporting | 3-0-3 |  |  |
| OMT 112 | Materials Management | 3-0-3 |  |  |
|  |  | 12-0-12 |  |  |
| 6th Semester (Summer) |  |  |  |  |
| ISC 221 | Statistical Quality Control | 3-0-3 |  |  |
| OMT 218 | Developing Team Performance | 3-0-3 |  |  |
|  |  | 6-0-6 |  |  |
| 7th Semester (Fall) |  |  |  |  |
|  | Humanities/Fine Arts Elective | 3-0-3 |  |  |
| OMT 260 | Issues in Operations Management | 3-0-3 |  |  |

## Operations Management Credential: Operations Management Diploma D2512G

This diploma program is designed to educate individuals in the technical and managerial aspects of operations for manufacturing and service industries. Specific emphases include human resources, quality, materials and operations management production planning and safety, and business communication. Credits earned in this 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: 5 semesters
Career Pathway Options: Associate in Applied Science Degree in Operations Management Program Sites: Lee Campus - Evening Program, Selected Day and Distance Courses

Course Requirements for Operations Management Diploma

| A. General | Education Courses (7 SHC) | C-L-SHC |
| :--- | :--- | ---: |
| ENG 111 | Expository Writing | $3-0-3$ |
| ENG 111A | Expository Writing Lab | $0-2-1$ |
| *MAT 140 | Survey of Mathematics | $3-0-3$ |
|  |  |  |
| B. Required |  |  |
| BUS 115 | Business Law I | $3-0-3$ |
| BUS 137 | Principles of Management | $3-0-3$ |
| BUS 153 | Human Resource Management | $3-0-3$ |
| ISC 121 | Environmental Health and Safety | $3-0-3$ |
| ISC 131 | Quality Management | $3-0-3$ |
| ISC 210 | Operations and Production Planning | $3-0-3$ |
| OMT 112 | Materials Management | $3-0-3$ |
| OMT 218 | Developing Team Performance | $3-0-3$ |

Choose one of the following courses:
Accounting Elective:
ACC 115 College Accounting 3-2-4
ACC 120 Principles of Financial Accounting 3-2-4
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
C. Other Major Hours Required for Graduation (5/6 SHC)

BUS 151 People Skills 3-0-3
**CIS 110 Introduction to Computers 2-2-3
Total Semester Hours Credit Required for Graduation:43/44
Semester Curriculum for Operations Management Diploma

| 1st Semester (Fall) | C-L-SHC |  |
| :--- | ---: | ---: |
| BUS 137 | Principles of Management | $3-0-3$ |


| ** CIS 110 | Introduction to Computers | $2-2-3$ |
| :--- | :--- | ---: |
| ISC 131 | Quality Management | $3-0-3$ |
|  |  | $7 / 8-2-8 / 9$ |
| 2nd Semester (Spring) |  |  |
| BUS 151 | People Skills | $3-0-3$ |
| ENG 111 | Expository Writing | $3-0-3$ |
| ENG 111A | Expository Writing Lab | $0-2-1$ |
| ISC 121 | Environmental Health and Safety | $3-0-3$ |
| *MAT 140 | Survey of Mathematics | $3-0-3$ |
|  |  | $12-2-13$ |
| 3rd Semester (Summer) |  |  |
| ISC 210 | Operation and Production Planning | $3-0-3$ |
| OMT 218 | Developing Team Performance | $3-0-3$ |
|  |  | $6-0-6$ |
| 4th Semester (Fall) |  |  |
|  | Accounting Elective | $3-2-4$ |
| BUS 115 | Business Law I | $3-0-3$ |
|  | Economics Elective | $3-0-3$ |
|  |  | $9-2-10$ |
| 5th Semester (Spring) | $3-0-3$ |  |
| OMT 112 | Materials Management | $3-0-3$ |
| BUS 153 | Human Resource Management | $6-0-6$ |
|  |  |  |
| * Students may substitute MAT 115 (nontransferable) |  |  |
| ** Students may substitute CIS 111 (nontransferable). |  |  |
| Total Semester Hours Credit: 43/44 |  |  |

## Operations Management Credential: Operations Management Certificate C2512G

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 human resources, 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, Selected
Day and Distance Courses
Course Requirements for Operations Management 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

## Operations Management <br> 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 | $3-0-3$ |
| ISC 131 | Quality Management | $3-0-3$ |
| ISC 210 | Operations and Production Planning | $3-0-3$ |
| OMT 181 | Industry Reporting Skills | $3-0-3$ |
| OMT 218 | Developing Team Performance | $3-0-3$ |

Total Semester Hours Credit Required for Graduation: 18

## Paralegal Technology <br> 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 (16 SHC) C-L-SHC

ENG 111 Expository Writing 3-0-3
ENG 111A Expository Writing Lab 0-2-1
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 (33 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 | 2-0-2 |
|  | Communications Elective |  |
| 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 |
| 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 |
| ENG 111A | Expository Writing Lab | 0-2-1 |
| 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 |
|  |  | 12-4-14 |
| 2nd Semester (Spring) |  |  |
| CIS 110 | Introduction to Computers | 2-2-3 |
| ENG 114 | Professional Research and Reporting | 3-0-3 |
|  | Humanities/Fine Arts Elective | 3-0-3 |
| LEX 160 | Criminal Law and Procedures | 2-2-3 |
| LEX 220 | Corporate Law | 2-0-2 |
| LEX 280 | Ethics and Professionalism | 2-0-2 |
|  | Social/Behavioral Science Elective | 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 <br> 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 (16 SHC) | C-L-SHC |
| :--- | :--- | ---: |
| ENG 111 | Expository Writing | $3-0-3$ |
| ENG 111A | Expository Writing Lab | $0-2-1$ |
| 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 (40 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
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 | $3-0-3$ |
| ENG 111A | Expository Writing Lab | $0-2-1$ |
|  |  | $13-14-18$ |
| 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
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

* 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 | $3-0-3$ |
| ENG 111A | Expository Writing Lab | $0-2-1$ |
|  |  | $13-14-18$ |
| 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 |  |  |
| COE 111 | Co-op Work |  |

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) | $2-6-4$ |  |
| BPT 232 | Video/TV Production II | $0-3-1$ |
| BPT 235B | TV Performance IB | $2-3-3$ |
| BPT 250 | Institutional Video | $3-0-3$ |
|  | Human/Fine Arts Elective | $2-2-3$ |
| *MAT 115 | Mathematical Models | $9-14-14$ |
|  |  |  |
| 6th Semester |  |  |
| COE 121 | Co-op Work Experience II | $0-10-1$ |

[^5]Total Semester Hours Credit: 69

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

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

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

Program Length: 3 semesters
Career Pathway Options: Associate in Applied Science Degree in Broadcasting Production Technology (Higher entrance standards required); Diploma in Television Broadcasting Production Technology Program Sites: Lee Campus - Day Program

Course Requirements for Radio Broadcasting Production Technology Diploma

| A. General | Education Courses (7 SHC) | C-L-SHC |
| :--- | :--- | ---: |
| ENG 111 | Expository Writing | $3-0-3$ |
| ENG 111A | Expository Writing Lab | $0-2-1$ |
|  | Social/Behavioral Science Elective | $3-0-3$ |
|  |  |  |
| B. Required |  |  |
| BPT 110 | Introduction to Broadcasting |  |
| BPT 111 | Broadcast Law and Ethics | $3-0-3$ |
| BPT 112 | Broadcast Writing | $3-0-3$ |
| BPT 113 | Broadcast Sales |  |
|  |  | $3-2-4$ |
| C. Other Major Hours Required for Graduation (17 SHC) |  |  |
| BPT 121 | Broadcast Speech I | $3-0-3$ |
| BPT 122 | Broadcast Speech II | $2-3-3$ |
| BPT 131 | Audio/Radio Production I | $2-3-3$ |
| BPT 132 | Audio/Radio Production II | $2-6-4$ |
| BPT 135 | Radio Performance I | $2-6-4$ |
| COE 111 | Co-op Work Experience I | $0-6-2$ |
|  |  | $0-10-1$ |

Total Semester Hours Credit Required for Graduation: 37
Semester Curriculum for Radio Broadcasting Production
Technology Diploma
1st Semester (Fall)
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 | $3-0-3$ |
| ENG 111A | Expository Writing Lab | $0-2-1$ |
|  |  | $13-14-18$ |
| 2nd Semester (Spring) | $3-2-4$ |  |
| BPT 112 | Broadcast Writing | $3-0-3$ |
| BPT 113 | Broadcast Sales | $2-3-3$ |
| BPT 122 | Broadcast Speech II | $2-6-4$ |
| BPT 132 | Audio/Radio Production II | $0-3-1$ |
| BPT 135B | Radio Performance IB | $3-0-3$ |
|  | Social/Behavioral Science Elective | $13-14-18$ |
|  |  | $0-10-1$ |

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 (7 SHC) | C-L-SHC |
| :--- | :--- | ---: |
| ENG 111 | Expository Writing | $3-0-3$ |
| ENG 111A | Expository Writing Lab | $0-2-1$ |
|  | Social/Behavioral Science Elective | $3-0-3$ |

B. Required Major Core Courses (13 SHC)
BPT $110 \quad$ Introduction to Broadcasting

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 (17 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 | $0-10-1$ |

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 | $3-0-3$ |
| ENG 111A | Expository Writing Lab | $0-2-1$ |
|  |  | $13-14-18$ |
| 2nd Semester (Spring) | $3-2-4$ |  |
| BPT 112 | Broadcast Writing | $3-0-3$ |
| BPT 113 | Broadcast Sales | $2-3-3$ |
| BPT 122 | Broadcast Speech II | $2-6-4$ |
| BPT 232 | Video/TV Production II | $0-3-1$ |
| BPT 235B | TV Performance IB | $3-0-3$ |
|  | Social/Behavioral Science Elective | $13-14-18$ |
|  |  |  |
| 3rd Semester (Summer) Choose One | $0-6-2$ |  |
| BPT 236 | TV Performance II | $0-10-1$ |

## Professional Arts and Crafts: Sculpture Credential: Associate in Applied Science Degree in Professional Arts and Crafts: Sculpture A30290

This curriculum is designed to prepare individuals to become professional craftsmen and entrepreneurs in the areas of clay and metal sculpture. Coursework concentrates on the development of skills in each area of craftsmanship. Emphasis is placed on hands-on training and the design skills needed to aid students in personalizing their own work.

Graduates will be able to open and operate their own professional craft studio, work for an existing professional craftsman, or obtain employment in craft retail sales.

Program Length: 4 Semesters
Career Pathway Options: Associate of Applied Science in
Arts and Crafts: Sculpture
Program Sites: Siler City - Day, Evening
Course Requirements for Professional Arts and Crafts:
Sculpture

| A. General | Education Courses (16 SHC) | C-L-SHC |
| :--- | :--- | ---: |
| *ENG 111 | Expository Writing | $3-0-3$ |
| ENG 111A | Expository Writing Lab | $0-2-1$ |
| **ENG 114 | Professional Research and Reporting | $3-0-3$ |
| ***MAT 140 Survey of Mathematics | $3-0-3$ |  |
| Humanities Elective | $3-0-3$ |  |
| Social Science Elective | $3-0-3$ |  |

$\begin{array}{lll}\text { B. Required Major Core Courses (23 SHC) } \\ \text { PCD } 110 & \text { Introduction to Craft Design }\end{array}$
PCS 110 Introduction to Metal Sculpture 2-9-5
PCS 112 Beginning Welding for Artists 1-4-3
PCS 210 Introduction to Clay Sculpture 1-9-4
PCC 121 Hand Building I 2-3-3
ART 281 Sculpture I 0-6-3
ART 283 Ceramics I 0-6-3
C. Other Major Hours (33 SHC)

| ART 284 | Ceramic II | $0-6-3$ |
| :--- | :--- | :--- |
| ART 285 | Ceramic III | $0-6-3$ |
| ART 286 | Ceramic IV | $0-6-3$ |
| ART 288 | Studio | $0-6-3$ |
| BUS 280 | REAL Small Business | $4-0-4$ |
| CIS 111 | Basic PC Literacy | $1-2-2$ |
| PCC 122 | Hand Building II | $0-6-2$ |
| PCC 125 | Clay Casting | $1-3-2$ |
| PCC 132 | Glaze Formulation | $1-3-2$ |
| PCD 111 | Advanced Craft Design | $1-3-2$ |
| PCD 211 | Product Craft Design | $1-3-2$ |
| PCS 114 | Advanced Metal Sculpture | $2-9-5$ |

Total Semester Hours Credit Required for Graduation: 72

Semester Curriculum for Professional Arts and Crafts:
Sculpture Degree
1st Semester (Fall)

## C-L-SHC

| ART 283 | Ceramics I |
| :--- | :--- |
| CIS 111 | Basic PC Literacy |
| PCC 121 | Hand Building I |
| PCC 132 | Glaze Formulation |
| PCD 110 | Intro to Craft Design (2D) |
| PCS 112 | Welding for Artists |
|  | Humanities Elective |


| 2nd Semester (Spring) |  |
| :--- | :--- |
| ART 281 | Sculpture I |
| ART 284 | Ceramics II |
| *ENG 111 | Expository Writing |
| *ENG 111A | Expository Writing Lab |
| PCD 111 | Advanced Craft Design (3D) |
| PCS 110A | Metal Sculpture A |
| PCS 210 | Intro to Clay Sculpture |0-6-30-6-33-0-3

0-2-1
1-3-2
1-3-2
1-9-4

3rd Semester (Fall)

| ART 285 | Ceramics III | $0-6-3$ |
| :--- | :--- | ---: |
| ENG 114 | Professional Research \& Report | $3-0-3$ |
| PCC 122 | Hand Building II | $0-6-2$ |
| PCC 125 | Clay Casting | $1-3-2$ |
| PCD 211 | Professional Craft Design (Marketing) | $1-3-2$ |
| PCS 110B | Metal Sculpture B | $1-6-3$ |
|  | Social Science Elective | $3-0-3$ |
|  |  | $9-24-18$ |


| 4th Semester (Spring) |  |  |
| :--- | :--- | ---: |
| ART 286 | Ceramics IV | $0-6-3$ |
| ART 288 | Studio | $0-6-3$ |
| BUS 280 | REAL Small Business | $4-0-4$ |
| $* * *$ MAT | 140 | Survey of Mathematics |
| PCS 114 | Advanced Metal Sculpture | $3-0-3$ |
|  |  | $2-9-5$ |
|  |  | $9-21-18$ |

**Students may substitute ENG 116 (nontransferable).
***Students may substitute MAT 115 (nontransferable).
Total Semester Hours Credit: 72

## Sculpture Diploma <br> Credential: Diploma in Professional Arts and Crafts: Sculpture <br> D30290SC

This curriculum is designed to prepare individuals to become professional craftsmen and entrepreneurs in the area of sculpture. Emphasis is placed on hands-on training and the design skills needed to aid students in personalizing their own work.
Graduates will be able to open and operate their own professional craft studio, work for an existing professional craftsman or obtain employment in craft retail sales.

Program Length: 4 Semesters
Career Pathway Options: Associate in Applied Science in
Professional Arts and Crafts: Sculpture
Program Sites: Siler City
Course Requirements for Sculpture Diploma

| A. General | Education Courses (6 SHC) | C-L-SHC |
| :--- | :--- | ---: |
| ENG 111 | Expository Writing | $3-0-3$ |
| ENG 111A | Expository Writing Lab | $0-2-1$ |
| *(Students may substitute ENG 110 - nontransferable) | $3-0-3$ |  |
|  |  |  |
| MAT 140 | Survey of Mathematics | $3-0-3$ |
| ***(Students may substitute MAT 115 -nontransferable) | $2-2-3$ |  |
|  |  |  |
| B. Required Major Core Courses (15 SHC) |  |  |
| ART 281 | Sculpture I | $0-6-3$ |
| ART 283 | Ceramics I | $0-6-3$ |
| PCD 110 | Intro to Craft Design (2-D) | $1-3-2$ |
| PCS 112 | Welding for Artists | $1-4-3$ |
| PCS 210 | Intro to Clay Sculpture | $1-9-4$ |
|  |  |  |
| C. Other Major Hours (25 SHC) | $4-0-4$ |  |
| BUS 280 | REAL Small Business | $1-2-2$ |
| CIS 111 | Basic PC Literacy | $2-3-3$ |
| PCC 121 | Hand Building I | $1-3-2$ |
| PCC 125 | Clay Casting | $1-3-2$ |
| PCD 111 | Advanced Craft Design (3-D) | $1-3-2$ |
| PCD 211 | Professional Craft Design | $1-3-2$ |
| PCS 110A | Metal Sculpture A | $1-6-3$ |
| PCS 110B | Metal Sculpture B | $2-9-5$ |
| PCS 114 | Advanced Metal Sculpture |  |

Total Semester Hours Credit Required for Graduation: 46/47
Semester Curriculum for Sculpture Diploma

| 1st Semester (Fall) | C-L-SHC |  |
| :--- | :--- | ---: |
| CIS 111 | Basic PC Literacy | $1-2-2$ |
| ART 283 | Ceramics I | $0-6-3$ |
| PCD 110 | Intro to Craft Design (2-D) | $1-3-2$ |
| PCS 112 | Welding for Artists | $1-4-3$ |
|  |  | $3-15-10$ |


| 2nd Semester (Spring) |  |  |
| :--- | :--- | ---: |
| ART 281 | Sculpture I | $0-6-3$ |
| ENG 111 | Expository Writing | $3-0-3$ |
| ENG 111A | Expository Writing Lab | $0-2-1$ |
| *(Students | may substitute ENG 110 - nontransferable) | $3-0-3$ |
| PCD 111 | Advanced Craft Design (3-D) | $1-3-2$ |
| PCS 110A | Metal Sculpture A | $1-3-2$ |
| PCS 210 | Intro to Clay Sculpture | $1-9-4$ |
|  |  | $3-15-15$ |
|  |  |  |
| 3rd Semester (Fall) | $2-3-3$ |  |
| PCC 121 | Hand Building I | $1-3-2$ |
| PCC 125 | Clay Casting | $1-3-2$ |
| PCD 211 | Professional Craft Design (Marketing) | $1-6-3$ |
| PCS 110B | Metal Sculpture B | $5-15-10$ |
|  |  |  |
|  |  | $4-0-4$ |
| 4th Semester |  |  |
| BUS 280 | Real Small Business | $3-0-3$ |
| MAT 140 | Survey of Mathematics | $2-9-5$ |
| PCS 114 | Advanced Metal Sculpture | $9-9-12$ |

## Ceramics Diploma <br> Credential: Diploma in Professional Arts and Crafts: Ceramics D30290CE

This curriculum is designed to prepare individuals to become professional craftsmen and entrepreneurs in the area of sculpture. Emphasis is placed on hands-on training and the design skills needed to aid students in personalizing their own work.
Graduates will be able to open and operate their own professional craft studio, work for an existing professional craftsman or obtain employment in craft retail sales.

Program Length: 4 Semesters
Career Pathway Options: Associate in Applied Science in Professional Arts and Crafts: Sculpture
Program Sites: Siler City
Course Requirements for Ceramics Diploma

| A. General | Education Courses (6 SHC) | C-L-SHC |
| :--- | :--- | ---: |
| ENG 111 | Expository Writing | $3-0-3$ |
| ENG 111A | Expository Writing Lab | $0-2-1$ |
| *(Students may substitute ENG $110-$ nontransferable) | $3-0-3$ |  |
|  |  |  |
| MAT 140 | Survey of Mathematics | $3-0-3$ |
| $* *$ (Students may substitute MAT 115 -nontransferable) | $2-2-3$ |  |
|  |  |  |
| B. Required Major Core Courses (12 SHC) |  |  |
| ART 283 $\quad$ Ceramics I | $0-6-3$ |  |
| PCC 121 | Hand Building I | $2-3-3$ |
| PCD 110 | Intro to Craft Design (2-D) | $1-3-2$ |
| PCS 210 $\quad$ Intro to Clay Sculpture | $1-9-4$ |  |

C. Other Major Hours (23 SHC)

| ART 284 | Ceramics II | $0-6-3$ |
| :--- | :--- | :--- |
| ART 285 | Ceramics III | $0-6-3$ |
| ART 286 | Ceramics IV | $0-6-3$ |
| BUS 280 | REAL Small Business | $4-0-4$ |
| CIS 111 | Basic PC Literacy | $1-2-2$ |
| PCC 122 | Hand Building II | $0-6-2$ |
| PCC 132 | Glaze Formulation | $1-3-2$ |
| PCD 111 | Advanced Craft Design (3-D) | $1-3-2$ |
| PCD 211 | Professional Craft Design (Marketing) | $1-3-2$ |

Total Semester Hours Credit Required for Graduation: 41/42
Semester Curriculum for Ceramics Diploma
2-9-5
1st Semester (Fall) C-L-SHC
ART 283 Ceramics I 0-6-3
CIS 111 Basic PC Literacy 1-2-2
PCC 121 Hand Building I 2-3-3
PCC 132 Glaze Formulation 1-3-2
PCD 110 Intro to Craft Design (2-D) 1-3-2

2nd Semester (Spring)
ART 284 Ceramics II 0-6-3
ENG 111 Expository Writing 3-0-3
ENG 111A Expository Writing Lab 0-2-1
*(Students may substitute ENG 110 - nontransferable) 3-0-3
PCD 111 Advanced Craft Design (3-D) 1-3-2
PCS 210 Intro to Clay Sculpture 1-9-4
3rd Semester (Fall)
ART 285 Ceramics III 0-6-3
PCC 122 Hand Building II 0-6-2
PCD 211 Professional Craft Design (Marketing) 1-3-2
4th Semester (Spring)
ART 286 Ceramics IV 0-6-3
BUS 280 Real Small Business 4-0-4
MAT 140 Survey of Mathematics 3-0-3

## Ceramics Certificate <br> Credential: Certificate in Professional Arts and Crafts: Ceramics C30290CE

This curriculum is designed to prepare individuals to become professional craftsmen in metal sculpture.

Emphasis is placed on hands-on training and the design skills needed to aid students in personalizing their own work.

Program Length: 3 Semesters
Career Pathway Options: Associate of Applied Science in
Arts and Crafts: Sculpture
Program Sites: Siler City
Course Requirements for Ceramics Certificate
Required Major Courses (15 SHC)
ART 283 Ceramics I 0-6-3
ART 284 Ceramics II 0-6-3
ART 285 Ceramics III 0-6-3
PCD 110 Intro to Craft Design (2-D) 1-3-2
PCC 121 Hand Building I 2-3-3
PCC 132 Glaze Formulation 1-3-2
Total Semester Hours Credit Required for Graduation: 15
Semester Curriculum for Ceramics Certificate

| 1st Semester (Fall) | C-L-SHC |  |
| :--- | :--- | ---: |
| ART 283 | Ceramics I | $0-6-3$ |
| PCC 121 | Hand Building I | $2-3-3$ |
| PCD 110 | Intro to Craft Design (2-D) | $1-3-2$ |
|  |  |  |
| 2nd Semester (Spring) | $0-6-3$ |  |
| ART 284 | Ceramics II |  |
|  |  | $0-6-3$ |
| 3rd Semester (Fall) | $1-3-2$ |  |

Total Semester Hours Credit:

## Metal Sculpture Certificate Credential: Certificate in Professional Arts and Crafts: Metal Sculpture C30290SC

This curriculum is designed to prepare individuals to become professional craftsmen in metal sculpture. Emphasis is placed on hands-on training and the design skills needed to aid students in personalizing their own work.

Program Length: 4 Semesters
Career Pathway Options: Associate of Applied Science in Arts and Crafts: Sculpture
Program Sites: Siler City
Course Requirements for Metal Sculpture Certificate
Required Major Courses (15 SHC)
PCD 110 Introduction to Craft Design 1-3-2
PCS 112 Beginning Welding for Artists 1-4-3
PCS 110 Introduction to Metal Sculpture 2-9-5
PCS 114 Advanced Metal Sculpture 2-9-5
Total Semester Hours Credit Required for Graduation: 15

| Semester Curriculum for Metal Sculpture Certificate |  |  |
| :--- | :--- | ---: |
| 1st Semester (Fall) | C-L-SHC |  |
| PCD 110 | Introduction to Craft Design | $1-3-2$ |
| PCS 112 | Beginning Welding for Artists | $1-4-3$ |

2nd Semester (Spring)
PCS 110A Introduction to Metal Sculpture A 1.3-2
3rd Semester (Fall)
PCS 110B Introduction to Metal Sculpture B 1-6-3
4th Semester (Spring)
PCS 114 Advanced Metal Sculpture 2-9-5
Total Semester Hours Credit: 15

## Engineering Technologies

## 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
A. General Education (16 SHC)

ENG 111 Expository Writing 3-0-3
ENG 111A Expository Writing Lab 0-2-1
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. Required Major Core Courses (19 SHC)

CET 111 Computer Upgrade/Repair I 2-3-3
ELC 131 DC/AC Circuit Analysis 4-3-5
ELN 131 Electronic Devices 3-3-4
ELN 133 Digital Electronics 3-3-4
*Programming Elective 3
C. Other Major Hours Required for Graduation ( 40 SHC )

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
ELN 132 Linear IC Applications 3-3-4
ELN 232 Introduction to Microprocessors 3-3-4
ELN 275 Troubleshooting 1-2-2

| MAT 122 | Algebra/Trigonometry | $2-2-3$ |
| :--- | :--- | ---: |
| NET 110 | Networking Concepts | $2-2-3$ |
| NOS 110 | Operating Systems Concepts | $2-2-3$ |
| PCI 170 | DAQ and Control | $3-3-4$ |
| PHY 131 | Physics: Mechanics | $3-2-4$ |
|  | ** Technical Electives |  |
|  |  |  |
| *Programming Electives (choose 3 SHC) | $2-3-3$ |  |
| CSC 134 | C++ Programming |  |
| CSC 139 | Visual BASIC Programming | $2-3-3$ |
| CSC 151 | JAVA Programming |  |
|  |  | $2-3-3$ |
| **Technical |  |  |
| Clectives: (Select 2 SHC) |  |  |
| CSC 134 | C++ Programming |  |
| CSC 151 | Visual BASIC Programming | $2-3-3$ |
| ELN 234 | Communication Systems | $2-3-3$ |
| ELN 247 | Electronics Application Project | $2-3-3$ |
| NET 125 | Networking Basics | $3-3-4$ |
| NET 126 | Routing Basics | $1-3-2$ |
| NOS 120 | Linux/UNIX Single User | $1-4-3$ |
| NOS 130 | Windows Single User | $1-4-3$ |

Total Semester Hours Credit in Program: 75
Semester Curriculum for Computer Engineering
Technology Degree
1st Semester (Fall) C-L-SHC
CIS 110 Introduction to Computers 2-2-3
EGR 131 Intro to Electronics Tech 1-2-2
ELC 131 DC/AC Circuit Analysis 4-3-5
ENG 111 Expository Writing 3-0-3
ENG 111A Expository Writing Lab 0-2-1
MAT 121 Algebra/Trigonometry I 2-2-3
12-11-17
2nd Semester (Spring)
ELN 131 Electronic Devices 3-3-4
ELN 133 Digital Electronics 3-3-4
MAT 122 Algebra/Trigonometry II 2-2-3
NOS 110 Operating Systems Concepts 2-2-3
PHY 131 Physics-Mechanics 3-2-4
13-12-18
3rd Semester (Summer)
ELN 132 Linear IC Applications 3-3-4
ENG 114 Prof. Research and Reporting 3-0-3
6-3-7
4th Semester (Fall)
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 2-3-3
5th Semester (Spring)
CET 211 Computer Upgrade/Repair II 2-3-3
ELN 275 Troubleshooting 1-2-2

NET 110 Networking Concepts 2-2-3
PCI 170 DAQ and Control 3-3-4

Technical Elective

Total Semester Hours Credit: 75

## 11-10-17 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
A. General Education Courses (16 SHC) C-L-SHC

ENG 111 Expository Writing 3-0-3
ENG 111A Expository Writing Lab 0-2-1
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. Required Major Core Courses (17 SHC)
ELC 131 $\quad$ DC/AC Circuit Analysis

ELN 131 Electronic Devices 3-3-4
ELN 133 Digital Electronics 3-3-4
ELN 232 Introduction to Microprocessors 3-3-4
C. Other Major Hours Required for Graduation (43 SHC)

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 127 Software for Technicians 1-2-2
ELN 132 Linear IC Applications 3-3-4
ELN 234 Communication Systems 3-3-4
ELN 247 Electronic Applications Project 1-3-2
ELN 275 Troubleshooting 1-2-2
ISC 221 Statistical Quality Control 3-0-3
MAT 122 Algebra/Trigonometry II 2-2-3

| 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 |
| 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 Programmable Logic |  |
|  | Controllers | 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 | 2-2-3 |
| Total Semester Hours Credit Required for Graduation: 76 |  |  |
| Semester Curriculum for Electronics Engineering |  |  |
|  |  |  |
| 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 | DC/AC Circuit Analysis | 4-3-5 |
| ENG 111 | Expository Writing | 3-0-3 |
| ENG 111A | Expository Writing Lab | 0-2-1 |
| MAT 121 | Algebra/Trigonometry I | 2-2-3 |
|  |  | 12-11-17 |
| 2nd Semester (Spring) |  |  |
| ELC 127 | Software for Technicians | 1-2-2 |
| ELN 131 | Electronic Devices | 3-3-4 |
| ELN 133 | Digital Electronics | 3-3-4 |
| MAT 122 | Algebra/Trigonometry II | 2-2-3 |
| PHY 131 | Physics - Mechanics | 3-2-4 |
|  |  | 12-12-17 |
| 3rd Semester (Summer) |  |  |
| ELN 132 | Linear IC Applications | 3-3-4 |
| PHY 133 | Physics-Sound and Light | 3-2-4 |
|  |  | 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 | 3-0-3 |
|  |  | 14-8-17 |
| 5th Semester (Spring) |  |  |
| ELN 247 | Electronic Applications Project | 1-3-2 |
| ELN 275 | Troubleshooting | 1-2-2 |
| ISC 221 | Statistical Quality Control | 3-0-3 |
| PCI 170 | DAQ and Control | 3-3-4 |
|  | Humanities/Fine Arts Elective | 3-0-3 |
|  | Major Elective | 3 |
|  |  | 11-8-17 |

Total Semester Hours Credit: 76

## 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 DC/AC Circuit Analysis 4-3-5
ELN 131 Electronic Devices 3-3-4
ELN 132 Linear IC Applications 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 | DC/AC Circuit Analysis | $4-3-5$ |
| MAT 121 | Algebra/Trigonometry I | $2-2-3$ |
|  |  | $7-7-10$ |
| 2nd Semester (Spring) | $3-3-4$ |  |
| ELN 131 | Electronic Devices |  |
|  |  |  |
|  |  |  |
| 3rd Semester (Summer) |  |  |
| ELN 132 | Linear IC Applications | $3-3-4$ |

Total Semester Hours Credit Required for Graduation: 18

## Laser and Photonics Technology Credential: Associate in Applied Science Degree in Laser and Photonics Technology A40280

The Laser and Photonics Technology curriculum is designed to develop the practical knowledge and skills required to be a successful 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 (16 SHC)

ENG 111 Expository Writing
ENG 111A Expository Writing Lab
C-L-SHC

0-2-1
ENG 114 Professional Research and Reporting 3-0-3
MAT 121 Algebra/Trigonometry I
2-2-3
3-0-3
3-0-3
B. Required Major Core Courses (34 SHC)

ELC 131 DC/AC Circuit Analysis
4-3-5
ELN 131 Electronic Devices 3-3-4
ELN 132 Linear IC Applications 3-3-4
ELN 133 Digital Electronics 3-3-4
LEO 111 Principles of Lasers 1-3-2
LEO 211 Photonics Technology 5-6-7
LEO 212 Photonics Applications 3-3-4
LEO 223 Fiber Optics 3-3-4
C. Other Major Hours Required for Graduation (24/25

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 127 Software for Technicians 1-2-2
ELN 275 Troubleshooting 1-2-2
ISC 221 Statistical Quality Control 3-0-3
LEO 221 PC Interface 3-3-4
LEO 222 Photonics Applications Project 1-3-2
MAT 122 Algebra/Trigonometry II 2-2-3

PHY 131 Physics-Mechanics
3-2-4
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

CIS 110 Introduction to Computers 2-2-3
EGR 131 Introduction to Electronics Technology 1-2-2
ELC 131 DC/AC Circuit Analysis 4-3-5
ENG 111 Expository Writing 3-0-3
ENG 111A Expository Writing Lab 0-2-1
MAT 121 Algebra/Trigonometry I 2-2-3
11/12-11-16/17
2nd Semester (Spring)
ELC 127 Software for Technicians 1-2-2
ELN 131 Electronic Devices 3-3-4
ELN 133 Digital Electronics 3-3-4
LEO 111 Principles of Lasers 1-3-2
MAT 122 Algebra/Trigonometry II 2-2-3
10-13-15
3rd Semester (Summer)
$\begin{array}{lll}\text { ELN 132 } & \text { Linear IC Applications } & 3-3-4 \\ \text { PHY 131 } & \text { Physics - Mechanics } & 3-2-4\end{array}$
4th Semester (Fall) 6-5-8
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 222 Photonics Applications Project 1-3-2
LEO 223 Fiber Optics 3-3-4
Social/Behavioral Science Elective 3-0-3
13-9-16
Total Semester Hours Credit: 74/75

## Mechanical Engineering Technology Credential: Associate in Applied Science Degree in Mechanical Engineering Technology A40320

The Mechanical Engineering Technology curriculum prepares graduates for employment as technicians in the diversified mechanical and manufacturing engineering fields. Mechanical Engineering technicians assist in design, development, testing, process design and improvement, and troubleshooting and repair of engineered systems. Emphasis is placed on the integration of theory and handson application of engineering principles.

In addition to coursework in engineering graphics, engineering fundamentals, materials and manufacturing processes, mathematics, and physics, students will study computer applications, critical thinking, planning and problem solving, and oral and written communication.

Graduates of the curriculum will find employment opportunities in the manufacturing or service sectors of engineering technology. Engineering technicians may obtain professional certification by application to organizations such as American Society for Quality Control (ASQC), Society of Manufacturing Engineers (SME), and National Institute for Certification in Engineering Technology (NICET).

Program Length: 6 semesters
Career Pathway Options: Associate in Applied Science in Mechanical Engineering Technology
Program Sites:
Lee Campus - Day Program

| Course Requirements for Mechanical Engineering |  |  |
| :--- | :--- | ---: |
| Technology |  |  |
| A. General |  |  |
| ENG 111 | Exposion Courses (16 SHC) | C-L-SHC |
| ENG 111A | Expository Writing | $3-0-3$ |
| ENG 114 | Professional Research and Reporting | $3-2-1$ |
| MAT 121 | Algebra/Trigonometry I | $3-0-3$ |
|  | Humanities/Fine Arts Elective | $3-0-3$ |
|  | Social/Behavioral Science Elective | $3-0-3$ |

B. Required Major Core Courses (24 SHC)

Required Subject Area
*CIS 110 Introduction to Computers 2-2-3
DDF 211 Design Process I 1-6-4
DFT 151 CAD I 2-3-3
DFT 152 CAD II 2-3-3
MEC 161 Manufacturing Processes I 3-0-3
MEC 231 CAM I 1-4-3
MEC 250 Statics and Strength of Mat. 4-3-5

| MAC 121 | Introduction to CNC | $2-0-2$ |
| :--- | :--- | ---: |
| MAT 122 | Algebra/Trigonometry II | $2-2-3$ |
| MEC 110 | Introduction to CAD/CAM | $1-2-2$ |
| MEC 130 | Mechanisms | $2-2-3$ |
| MEC 161A | Manufacturing Proc I Lab | $0-3-1$ |
| PHY 131 | Physics-Mechanics | $3-2-4$ |
| PHY 133 | Physics-Sound and Light | $3-2-4$ |
|  | Major Elective |  |
| Major Elective Course Listing (Select 3 SHC) |  |  |
| DFT 153 | CAD III |  |
| DFT 254 | Intermed Solid Model/Rend | $2-3-3$ |
| MEC 232 | CAM II | $2-3-3$ |
|  |  | $1-4-3$ |

Total Semester Hours Credit required for graduation: 67
*Student may substitute CIS 111
Semester Curriculum for Mechanical Engineering
Technology Degree
1st Semester (Fall) C-L-SHC
*CIS 110 Introduction to Computers 2-2-3
DFT 111 Technical Drafting I 1-3-2
ENG 111 Expository Writing 3-0-3
ENG 111A Expository Writing Lab 0-2-1
MAC 121 Introduction to CNC 2-0-2
MEC 110 Introduction to CAD/CAM 1-2-2
MAT 121 Algebra/Trigonometry I 2-2-3
11-11-16
2nd Semester (Spring)
DFT 151 CAD I 2-3-3
PHY 131 Physics-Mechanics 3-2-4
MAT 122 Algebra/Trigonometry II 2-2-3
ENG 114 Professional Research and Reporting 3-0-3
MEC 161 Manufacturing Processes I 3-0-3
MEC 161A Manufacturing Proc I Lab 0-3-1
13-10-17
3rd Semester (Summer)
PHY 133 Physics- Sound and Light 3-2-4
4th Semester (Fall)
DFT 152 CAD II 2-3-3
MEC 231 CAM I 1-4-3
MEC 130 Mechanisms 2-2-3
Social/Behavioral Science Elective 3-0-3
Humanities/Fine Arts elective 3-0-3
5th Semester (Spring)
DDF 211 Design Process I 1-6-4
DFT 154 Introduction to Solid Modeling 2-3-3
$\begin{array}{llr} & \text { Major Eective } & 3 \\ \text { MEC } 250 & \text { Statics and Strength of Mat. }\end{array}$
7-9-15
Total Semester Hours Credit Required for Graduation: 67
*Student may substitute CIS 111
C. Other Major Hours Required for Graduation (27 SHC)

DFT 111 Technical Drafting I 1-3-2
DFT 154 Introduction to Solid Modeling 2-3-3

## Mechanical Engineering Technology <br> Credential: Diploma in Mechanical Engineering Technology D40320

The Mechanical Engineering Technology curriculum prepares graduates for employment as technicians in the diversified mechanical and manufacturing engineering fields. Mechanical Engineering technicians assist in design, development, testing, process design and improvement, and troubleshooting and repair of engineered systems. Emphasis is placed on the integration of theory and handson application of engineering principles. In addition to coursework in engineering graphics, engineering fundamentals, materials and manufacturing processes, mathematics, and physics, students will study computer applications, critical thinking, planning and problem solving, and oral and written communication.

Graduates of the curriculum should find employment opportunities in the manufacturing or service sectors of engineering technology. Engineering technicians may obtain professional certification by application to organizations such as American Society for Quality Control (ASQC), Society of Manufacturing Engineers (SME), and National Institute for Certification in Engineering Technology (NICET).

Program Length: 3 semesters
Career Pathway Options: Associate in Applied Science in Mechanical Engineering Technology, Diploma in Mechanical Engineering Technology
Program Sites:
Lee Campus - Day Program
Course Requirements for Mechanical Engineering Technology Diploma
A. General Education Courses (7 SHC)
C-L-SHC

ENG 111 Expository Writing 3-0-3
ENG 111A Expository Writing Lab 0-2-1
MAT 121 Algebra/Trigonometry I 2-2-3
B. Required Major Core Courses (16 SHC)
DDF 211 Design Process I 1-6-4

DFT 151 CAD I 2-3-3
DFT 152 CAD II 2-3-3
MEC 161 Manufacturing Processes I 3-0-3
MEC 231 CAM I 1-4-3
C. Other Major Hours Required for Graduation (16 SHC)
*CIS 110 Introduction to Computers 2-2-3
DFT 111 Technical Drafting I 1-3-2
MAC 121 Introduction to CNC 2-0-2
MEC 110 Introduction to CAD/CAM 1-2-2
MEC 232 CAM II 1-4-3
MEC 161A Manufacturing Proc I Lab 0-3-1
DFT 154 Introduction to Solid Modeling 2-3-3
*Student may substitute CIS 111

| Semester Curriculum for Mechanical Engineering |  |  |
| :--- | ---: | ---: |
| Technology Diploma |  |  |
| 1st Semester (Fall) | C-L-SHC |  |
| *CIS 110 | Introduction to Computers | $2-2-3$ |
| DFT 111 | Technical Drafting I | $1-3-2$ |
| MAC 121 | Introduction to CNC | $2-0-2$ |
| MEC 110 | Introduction to CAD/CAM | $1-2-2$ |
| MAT 121 | Algebra/Trigonometry I | $2-2-3$ |
|  |  | $8-9-12$ |
| 2nd Semester (Spring) | $2-3-3$ |  |
| DFT 151 | CAD I | $3-0-3$ |
| MEC 161 | Manufacturing Processes I | $0-3-1$ |
| MEC 161A | Manufacturing Proc I Lab | $5-6-7$ |
|  |  | $2-3-3$ |
| 3rd Semester (Summer) | $3-0-3$ |  |
| DFT 152 | CAD II | $0-2-1$ |
| ENG 111 | Expository Writing | $1-4-3$ |
| ENG 111A | Expository Writing Lab | $6-9-10$ |
| MEC 231 | CAM I |  |
|  |  | $1-6-4$ |
| 4 th Semester (Spring) | $2-3-3$ |  |
| DDF 211 | Design Process I | $1-4-3$ |
| DFT 154 | Introduction to Solid Modeling | $4-13-10$ |
| MEC 232 | CAM II |  |

Total Semester Hours Credit required for graduation: 39
*Student may substitute CIS 111

Total Semester Hours Credit required for graduation: 39

## Mechanical Engineering Technology <br> Credential: Certificate in Computer Aided Drafting C4032001

The rapidly developing age of high technology has brought about a need for people in the fields of architecture, land surveying, manufacturing, drafting, maintenance, engineering and design to update their computer graphics skills.

This certificate is intended for persons with some drafting experience who wish to attend class at night. (Enrollment is by approval of advisor.)

Program Length: 2 semesters
Career Pathway Options: Associate in Applied Science in Mechanical Engineering Technology (Higher entrance standards required); Diploma in Mechanical Engineering Technology; Certificate in Computer Aided Drafting, Certificate in Computer Aided Manufacturing
Program Sites: Lee Campus - Evening Program
Course Requirements for Computer Aided Drafting Certificate

| A. Required Major Core Courses (9 SHC) | C-L-SHC |  |
| :--- | :--- | ---: |
| DFT 151 | CAD I | $2-3-3$ |
| DFT 152 | CAD II | $2-3-3$ |
| DFT 154 | Introduction to Solid Modeling | $2-3-3$ |
|  |  |  |
| B. Other Major Hours Required for Graduation (3 SHC) |  |  |
| DFT 153 | CAD III |  |
|  | OR | $2-3-3$ |
| DFT 254 | Intermed Solid Model/Rend | $2-3-3$ |

Total Semester Hours Credit required for graduation: 12

| Semester Curriculum for Computer Aided Drafting Certificate |  |  |
| :---: | :---: | :---: |
| 1st Semester (Fall) |  | C-L-SHC |
| DFT 151 | CAD I | 2-3-3 |
|  |  | 2-3-3 |
| 2nd Semester (Spring) |  |  |
| DFT 152 | CAD II | 2-3-3 |
| DFT 154 | Introduction to Solid Modeling | 2-3-3 |
|  |  | 4-6-6 |
| $3{ }^{\text {rd }}$ Semester (Fall) |  |  |
| DFT 153 | CAD III | 2-3-3 |
|  | OR |  |
| DFT 254 | Intermed Solid Model/Rend | 2-3-3 |
|  |  | 2-3-3 |

Total Semester Hours Credit: 12

## Mechanical Engineering Technology Credential: Certificate in Computer Aided Manufacturing <br> C4032002

The rapidly developing age of high technology has brought about a need for people in the fields of manufacturing, CNC programming, tool and mold making, and engineering and design to develop skills in interfacing CAD/CAM with CNC equipment.

This certificate is intended for persons with some manufacturing experience who wish to attend class at night. (Enrollment is by approval of advisor.)

Program Length: 2 semesters
Career Pathway Options: Associate in Applied Science in Mechanical Engineering Technology (Higher entrance standards required); Diploma in Mechanical Engineering Technology; Certificate in Computer Aided Drafting, Certificate in Computer Aided Manufacturing Program Sites: Lee Campus - Evening Program

Course Requirements for Computer Aided Manufacturing Certificate

| A. Required | Major Core Courses (9 SHC) | C-L-SHC |
| :---: | :---: | :---: |
| DFT 151 | CAD I | 2-3-3 |
| DFT 152 | CAD II | 2-3-3 |
| MEC 231 | CAM I | 1-4-3 |
| B. Other Major Hours Required for Graduation (5 SHC) |  |  |
| MEC 232 | CAM II | 1-4-3 |
| MEC 110 | Introduction to CAD/CAM | 1-2-2 |
| Total Semester Hours Credit required for graduation: 12 |  |  |
| Semester Curriculum for Computer Aided Manufacturing Certificate |  |  |
| 1st Semester (Fall) |  | C-L-SHC |
| DFT 151 | CAD I | 2-3-3 |
| MEC 110 | Introduction to CAD/CAM | 1-2-2 |
|  |  | 3-5-5 |
| 2nd Semester (Spring) |  |  |
| MEC 231 | CAM I | 1-4-3 |
| DFT 152 | CAD II | 2-3-3 |
|  |  | 3-7-6 |
| $3{ }^{\text {rd }}$ Semester (Fall) |  |  |
| MEC 232 | CAM II | 1-4-3 |
|  |  | 1-4-3 |

Total Semester Hours Credit: 14

## 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 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, and environmental industries.
Employment opportunities exist in both the government and private industry sectors where graduates may function as renewable energy technicians, sustainability consultants, environmental technicians, or green building supervisors.

Program Length: 5 semesters
Career Pathway Options: Associate in Applied Science in Sustainability Technologies
Program sites: Pittsboro Campus

## Course Requirements for Sustainability Technologies Degree

A. General Education Courses (16 SHC) C-L-SHC

ENG 111 Expository Writing 3-0-3
ENG 111A Expository Writing Lab 0-2-1
*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)

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
Select One Subject Area:
Alternative Energy: (9 SHC)
ALT 120 Renewable Energy Tech 2-2-3
ALT 220 Photovoltaic Sys Tech 2-3-3
Or
ALT 240 Wind and Hydro Power Systems
2-2-3
SST 130 Modeling Renewable Energy 2-2-3

| Green Building: (12 SHC) |  |  |
| :--- | :--- | :--- |
| ARC 111 | Intro to Arch Technology | $1-6-3$ |
| CMT 210 | Prof. Construction Supervision | $3-0-3$ |
| ARC 210 | Intro to Sustain Design | $1-3-2$ |
|  | Or |  |
| SST 140 | Green Building Concepts | $1-3-2$ |
| SRV 110 | Surveying I | $2-6-4$ |
|  | Or | $2-6-4$ |

C. Other Major Hours Required ( $31 / 33$ SHC)

For both Green Building and Alternative Energy Tracks (15
SHC)
CIS 110 Introduction to computers 2-2-3
CMT 224 Statics in Construction 2-2-3
ELC 113 Basic Wiring 2-6-4
MEC 110 Intro to CAD / CAM 1-2-2
SST 250 Sustain Capstone Project 3-0-3
Courses for Alternative Energy Track (Minimum 16 hours)
ALT 110 Biofuels I 3-0-3
ALT 210 Biofuels II 3-2-4
ALT 211 Biofuels Analytics 2-4-4
ALT 221 Adv PV Sys Designs 2-3-3
ALT 250 Thermal Systems 2-2-3
BPR 115 Elc/Fluid Power Diagrams 1-2-2
ELC 112 DC/AC Electricity 3-6-5
MNT 230 Pumps and Piping Systems 1-3-2
Courses for Green Building Track (16 SHC):
ALT $120 \quad$ Renewable Energy Tech
BPR 130 Blueprint Reading-Construction 2-0-2
CMT 214 Planning and Scheduling 3-0-3
CST 111 Construction I 3-3-4
CST 112 Construction II 3-3-4

Total Semester Hours Credit Required for Graduation: 70/71

## Semester Curriculum for Sustainability Technologies Degree <br> Alternative Energy Tract (70 SHC): <br> 1st Semester (Fall) <br> ENG 111 Expository Writing 3-0-3 <br> ENG 111A Expository Writing Lab 0-2-1 <br> SST 110 Intro to Sustainability 3-0-3 <br> ALT 120 Renewable Energy Tech 2-2-3 <br> ALT 220 Photovoltaic Sys Tech 2-3-3 <br> ELC 112 DC/AC Electricity 3-6-5

2nd Semester (Spring)
*ENG 114 Professional Research and Reporting 3-0-3
ALT 110 Biofuels I 3-0-3
MAT 121 Algebra/Trigonometry 2-2-3
ENV 110 Environmental Science 3-0-3
SST 210 Issues in Sustainability 3-0-3
MEC 110 Intro to CAD / CAM 1-2-2

| 3rd Semester (Summer) |  |  |
| :--- | :--- | ---: |
| CIS 110 | Introduction to computers | $2-2-3$ |
| BPR 115 | Elc/Fluid Power Diagrams | $1-2-2$ |
|  |  | $3-4-5$ |
|  |  |  |
| 4th Semester (Fall) | $1-3-2$ |  |
| MNT 230 | Pumps and Piping | $3-2-4$ |
| ALT 210 | Biofuels II | $2-2-3$ |
| SST 120 | Energy Use Analysis | $1-6-3$ |
| SST 250 | Sustain Capstone Project | $3-0-3$ |
|  | Humanities/Fine Arts Elective | $3-0-3$ |
|  | Social/Behavioral Science Elective | $10-11-14$ |
|  |  |  |
| 5th Semester (Spring) | $2-4-4$ |  |
| ALT 211 | Biofuels Analytics |  |
| ALT 221 | Adv PV Sys Designs | $2-3-3$ |
| ALT 250 | Thermal Systems |  |
| CMT 224 | Statics in Construction | $2-2-3$ |
| SST 130 | Modeling Renewable Energy | $2-2-3$ |
| ELC 113 | Basic Wiring | $2-2-3$ |
|  |  | $2-6-4$ |
|  |  | $12-17-18$ |
| Total Semester Hours Credit: | 70 |  |

Green Building Track (71 SHC):
1st Semester (Fall)
ENG 111 Expository Writing 3-0-3
ENG 111A Expository Writing Lab 0-2-1
**MAT 121 Algebra/Trigonometry I 2-2-3
SST 110 Intro to Sustainability 3-0-3
CST 111 Construction I 3-3-4
ALT 120 Renewable Energy Tech 2-2-3
2nd Semester (Spring)
CST 112 Construction II 3-3-4
SST 210 Issues in Sustainability 3-0-3
ENV 110 Environmental Science 3-0-3
MEC 110 Intro to CAD / CAM 1-2-2
ARC 111 Intro to Arch Technology 1-6-3
ENG 114 Professional Research/Reporting 3-0-3

3rd Semester (Summer)

| CIS 110 | Introduction to computers | $2-2-3$ |
| :--- | :--- | ---: |
|  |  |  |
| 4th Semester (Fall) |  |  |
| CMT 210 | Prof. Construction Supervision | $3-0-3$ |
| BPR 130 | Blueprint Reading-Construction | $2-0-2$ |
| ELC 113 | Basic Wiring | $2-6-4$ |
| SST 120 | Energy Use Analysis | $2-2-3$ |
|  | Humanities/Fine Arts Elective | $3-0-3$ |
|  |  | $12-8-15$ |
| 5th Semester (Spring) |  |  |
| ARC 210 | Intro to Design OR |  |
| SST 140 | Green Building Concepts | $1-3-2$ |
| CMT 214 | Planning \& Scheduling | $1-3-2$ |
| CMT 224 | Statics in Construction | $3-0-3$ |
| SST 250 | Sustain Capstone Project | $2-2-3$ |
|  |  | $1-6-3$ |

13-9-17

14-8-18
3-2-4
2-2-3
1-6-3
3-0-3
3-0-3

2-4-4
2-3-3
2-2-3
2-2-3
2-2-3
2-6-4 70

2-2-3

3-0-3
-
2-2-3
3-0-3

1-3-2
1-3-2

2-2-3
1-6-3

Total Semester Hours Credit:

SRV 110 Surveying I 2-6-4

Social/Behavioral Science Elective 3-0-3
Social/Behavioral Science Elective

## Sustainability Technologies Credential: Certificate in Green Building C40370GB

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

Coursework will include an introduction to sustainability as well as trade specific classes in green building.

Graduates should qualify for positions within the construction industries. Employment opportunities exist in both the 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
A. Green Building Certificate

ALT 120 Renewable Energy Technology 2-2-3
ARC 111 Intro to Arch Technology 1-6-3
CST 111 Construction I 3-3-4
SST 110 Intro to Sustainability 3-0-3
SST $120 \quad$ Energy Use Analysis 2-2-3
SST 140 Green Building Concepts 1-3-2
Semester Sequence for Sustainability Certificate- Green
Building
1st Semester
SST 110 Intro to Sustainability 3-0-3
SST 120 Energy Use Analysis 2-2-3
CST 111 Construction I 3-3-4
$\begin{array}{ll}\text { 2nd Semester } \\ \text { SST } 140 \quad \text { Green Building Concepts } & 1-3-2\end{array}$
ALT 120 Renewable Energy Technology 2-2-3
ARC 111 Intro to Arch Technology 1-6-3

Total Semester Hours Credit

## Sustainability Technologies Credential: Certificate in Renewable Energy C40370RE

The Renewable Energy certificate is designed to prepare individuals for employment in environmental, construction, 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 panel installers, solar thermal technicians.

Program Length: 2 semesters
Career Pathway Options: Associate in Applied Science in
Sustainability Technologies
Program Sites: Pittsboro Campus
B. Renewable Energy Certificate

ALT 120 Renewable Energy Tech 2-2-3
ALT 220 Photovoltaic Sys Tech 2-3-3
ALT 250 Thermal Systems 2-2-3
ELC 112 DC/AC Electricity 3-6-5
SST 110 Intro to Sustainability 3-0-3

| Semester Sequence for Sustainability Certificate- |  |
| :--- | :--- |
| Renewable Energy |  |
| 1st Semester |  |
| ALT 120 | Renewable Energy Tech |
| ELC 112 | DC/AC Electricity |
| ALT 220 | Photovoltaic Sys Tech |
|  |  |
| 2nd Semester $2-2-3$  <br> SST 110 Intro to Sustainability $3-6-5$ <br> ALT 250 Thermal Systems  2-3-3 |  |

Total Semester Hours Credit

Industrial Technologies
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 (19 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 111A Expository Writing Lab 0-2-1
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
B. Required Major 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
$\begin{array}{llr}\text { ISC 121 } & \text { Environmental Health and Safety } & 3-0-3 \\ \text { ISC 221 } & \text { Statistical Quality Control } & 3-0-3 \\ & \text { Cla }\end{array}$

Co-op/Project Elective (Choose one course.)
COE 112 Co-op Work Experience I 0-20-2
EGR 285 Design Project 0-4-2
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 3-0-3
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
ENG 111A Expository Writing Lab 0-2-1
ISC 121 Environmental Health and Safety 3-0-3
3rd Semester (Summer)
Co-op/Project Elective 0-20/4-2
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
Humanities/Fine Arts Elective 3-0-3
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 3
15-7-18
Total Semester Hours Credit: 68
C. Other Major Hours Required for Graduation (28 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

## Bioprocess Technology <br> Credential: Certificate in Bioprocess Technology C50440

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: Certificate in Bioprocess Technology, Associate in Applied Science Degree in Bioprocess Technology.
Program Site: Lee Campus - Day or Evening Program
Course Requirements for Bioprocess Manufacturing 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 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 |
| 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 |  |  |
| 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 | 3-0-3 |
|  |  | 8/9-0/2-9 |

2nd Semester (Spring)
BPM 110 Bioprocess Practices 3-4-5
Major Elective
3
3-4-8
Total Semester Hours Credit: 17

## Bioprocess Technology Credential: <br> Associate in Applied Science Degree in BioQuality Technology A50440QA

The Bioprocess 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 (19 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 111A Expository Writing Lab 0-2-1
ENG 114 Professional Research and Reporting 3-0-3
Humanities/Fine Arts Elective
MAT 121 Algebra/Trigonometry I 2-2-3
OR
MAT 161 College Algebra
3-0-3
Social/Behavioral Science Elective
B. Required Major 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

ISC 279 Auditing for cGMP 2-2-3
ISC $280 \quad$ Validation Fundamentals 1-2-2
*Co-op/Project Elective 0-20/4-2
Total Semester Hours Credit required for graduation: 68
$\begin{array}{llr}* \text { Co-Op/Project Elective (Choose one) } & \\ \text { COE } 112 & \text { Co-op Work Experience I } & 0-20-2 \\ \text { EGR } 285 & \text { Design Project } & 0-4-2\end{array}$
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 | $3-0-3$ |

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
ENG 111A Expository Writing Lab 0-2-1
ISC 175 Quality Assurance Fundamentals $\quad 1-0-1$
3rd Semester (Summer)
3rd Semester (Summer)
Co-op/Project Elective
12-11-17

4th Semester (Fall)
BPM 111 Bioprocess Measurements 3-3-4
COM 231 Public Speaking 3-0-3
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 3-0-3
14-3-15
5th Semester (Spring)
BPM 112 Upstream Bioprocessing 3-4-5
BPM 113 Downstream Bioprocessing 3-3-4
ISC $280 \quad$ Validation Fundamentals 1-2-2
ISC 279 Auditing for cGMP 2-2-3
Total Semester Hours Credit: 68
C. Other Major Hours Required for Graduation (28 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

## 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: Certificate in BioQuality
Technology, Associate in Applied Science Degree in BioQuality Technology.
Program Site: Lee Campus - Day or Evening Program
Course Requirements for BioQuality Technology Certificate
A. Required Major Core Courses (5 SHC)
BPM $110 \quad$ Bioprocess Practices

| 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 | $2-0-2$ |
|  |  | $6-4-8$ |
| 2nd Semester (Spring) |  |  |
| ISC 279 | Auditing for cGMP | $2-2-3$ |
| ISC 280 | Validation Fundamentals | $1-2-2$ |
|  |  | $3-4-5$ |

Total Semester Hours Credit: 13

## Industrial Systems Technology <br> 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 (15/17 SHC) C-L-SHC
*ENG 111 Expository Writing 3-0-3
ENG 111A Expository Writing Lab 0-2-1
Humanities/Fine Arts Elective 3-0-3
Social/Behavioral Science Elective 3-0-3
MAT 115 Mathematical Models 2-2-3
$\begin{array}{llr} & \text { Or } & \\ \text { PHY } 121 & \text { Applied Physics I }\end{array}$
$\begin{array}{lll}\text { Communications Elective (select } 3 \text { SHC) } & \\ \text { ENG 112 } & \text { Argument-Based Research } & 3-0-3 \\ \text { ENG 113 } & \text { Literature-Based Research } & 3-0-3 \\ \text { ENG 114 } & \text { Prof Research \& Reporting } & 3-0-3 \\ \text { ENG 116 } & \text { Technical Report Writing } & 3-0-3\end{array}$
$\begin{array}{ll}\text { B. Required Major Core Courses (18/19 SHC) } \\ \text { BPR } 111 \quad \text { Blueprint Reading } & 1-2-2\end{array}$
ELC 112 DC/AC Electricity 3-6-5
HYD 110 Hydraulics/Pneumatics 2-3-3
ISC $110 \quad$ Workplace Safety 1-0-1
Or
ISC 112 Industrial Safety 2-0-2
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 (43 SHC)

AHR 120 HVACR Maintenance 1-3-2
BPR 115 Electric/Fluid Power Diagrams 1-2-2

| **CIS 111 | Basic PC Literacy | 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 |
| ELC 229 | Applications Project | 1-3-2 |
| ELN 229 | Industrial Electronics | 3-3-4 |
| ELN 231 | Industrial Controls | 2-3-3 |
| HYD 121 | Hydraulics/Pneumatics II | 1-3-2 |
| MNT 230 | Pumps and Piping Systems | 1-3-2 |
| MNT 240 | Industrial Equipment Troubleshooting | 1-3-2 |
| WLD 115 | SMAW (Stick) Plate | 2-9-5 |
| WLD 212 | Inert Gas Welding | 1-3-2 |
|  | Technical Elective | 3 |
| Technical Electives (Choose 3 SHC) |  |  |
| COE 111 | Co-op Work Experience I | 0-10-1 |
| COE 112 | Co-op Work Experience I | 0-20-2 |
| COE 121 | Co-op Work Experience II | 0-10-1 |
| MNT 111 | Maintenance Practices | 2-2-3 |
| *Students may substitute ENG 110. <br> **Students may substitute CIS 110. |  |  |
| Total Semester Hours Credit required for graduation: 75/77 |  |  |
| Semester Curriculum for Industrial Systems Technology |  |  |
| 1st Semester (Fall) |  | C-L-SHC |
| BPR 111 | Blueprint Reading | 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 | res 1-3-2 |
| WLD 112 | Basic Welding Processes | 1-3-2 |
|  |  | 10-18-17 |
| 2nd Semester (Spring) |  |  |
| CIS 111 | Basic PC Literacy | 1-2-2 |
| ELN 229 | Industrial Electronics | 3-3-4 |
| *ENG 111 | Expository Writing | 3-0-3 |
| ENG 111A | Expository Writing Lab | 0-2-1 |
| MAT 115 | Mathematical Models | 2-2-3 |
|  | Or |  |
| PHY 121 | Applied Physics I | 3-2-4 |
| WLD115 | SMAW (Stick) Plate | 2-9-5 |
|  | 11/12-16/ | 6/18-17/19 |
| 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 |
|  | Or |  |
| ISC 112 | Industrial Safety | 2-0-2 |
| HYD 110 | Hydraulics/Pneumatics | 2-3-3 |
|  | Technical Elective | 2 |
|  |  | 5/6-8-10/11 |
| 4th Semester (Fall) |  |  |
| ELC 117 | Motors and Controls | 2-6-4 |
| ELC 128 | Introduction to PLC | 2-3-3 |
|  | Communications Elective | 3-0-3 |
| HYD 121 | Hydraulics/Pneumatics II | 1-3-2 |
| MNT 230 | Pumps and Piping Systems | 1-3-2 |


| WLD 212 | Inert Gas Welding | $1-3-2$ |
| :--- | :--- | ---: |
|  |  | $10-18-16$ |
| 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 | $1-3-2$ |
|  | Technical Elective | 1 |
|  | Social/Behavioral Science Elective | $3-0-3$ |
|  | $9-15-15$ |  |
| Total Semester Hours Credit: $75 / 77$ |  |  |

Total Semester Hours Credit: 75/77

## 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 | $3-2-4$ |
| PHY 121 | Applied Physics I |  |
|  |  | $1-2-2$ |
| B. Required Major Core Courses (18/19 SHC) | $3-6-5$ |  |
| BPR 111 | Blueprint Reading | $2-3-3$ |
| ELC 112 | DC/AC Electricity | $1-0-1$ |
| HYD 110 | Hydraulics/Pneumatics |  |
| ISC 110 | Workplace Safety | $2-0-2$ |
|  | OR | $1-4-3$ |
| ISC 112 | Industrial Safety | $1-3-2$ |
| MEC 111 | Machine Processes I | $1-3-2$ |
| MNT 110 | Introduction to Maintenance Procedures |  |
| WLD 112 | Basic Welding Processes |  |

C. Other Major Hours Required for Graduation (17/18

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
ELN 229 Industrial Electronics 2-4-4

| MNT 111 | Maintenance Practices | $2-2-3$ |
| :--- | :--- | ---: |
|  | OR |  |
| COE 112 | Co-op Work Exp. I | $0-20-2$ |
| WLD 115 | SMAW (Stick) Plate | $2-9-5$ |

*These courses are not transferable to the Associate in Applied Science Degree.

Total Semester Hours Credit required for graduation: 44/47
Semester Curriculum for Industrial Systems Technology Diploma

| 1st Semester (Fall) | C-L-SHC |  |
| :--- | :--- | ---: |
| BPR 111 | Blueprint Reading | $1-2-2$ |
| ELC 112 | DC/AC Electricity | $3-6-5$ |
| MEC 111 | Machine Processes I | $1-4-3$ |
| MNT 110 | Introduction to Maintenance Procedures | $1-3-2$ |
| WLD 112 | Basic Welding Processes | $1-3-2$ |
|  | Humanities/Fine Arts Elective | $3-0-3$ |

2nd Semester (Spring)
CIS 111 Basic PC Literacy 1-2-2
ELN 229 Industrial Electronics 3-3-4
*ENG 102 Applied Communication II 3-0-3
HYD 110 Hydraulics/Pneumatics 2-3-3
WLD 115 SMAW (Stick) Plate 2-9-5
11-17-17
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
ISC 112 Industrial Safety 2-0-2
*MAT 101 Applied Mathematics I 2-2-3
PHY 121 Applied Physics I 3-2-4
Technical Elective 2
5/6/7-7-10/11/12
Technical Elective (Choose 2/3 SHC)
COE 112 Co-op Work Exp. I 0-20-2
MNT 111 Maintenance Practice 2-2-3
*These courses are not transferable to the Associate in Applied Science Degree.

Total Semester Hours Credit: 44/47

## Industrial Systems Technology/Biomaintenance <br> Credential: Associate in Applied Science Degree in Industrial Systems Technology/ <br> Bio-maintenance <br> 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 110 Freshman Composition 3-0-3
ENG 116 Technical Report Writing 3-0-3
$\begin{array}{lll} & \text { Humanities/Fine Arts Elective } & 3-0-3 \\ \text { MAT } 115 & \text { Mathematical Models } & 2-2-3\end{array}$
PHY 121 Applied Physics I 3-2-4
Social/Behavioral Science Elective 3-0-3
$\begin{array}{lll}\text { B. Required Major Core Courses ( } 18 / 19 \text { SHC) } \\ \text { BPR } 111 \quad \text { Blueprint Reading } & 1-2-2\end{array}$
ELC 112 DC/AC Electricity 3-6-5
HYD 110 Hydraulics/Pneumatics 2-3-3
ISC 110 Workplace Safety 1-0-1
ISC 112 industrial Safety 2-0-2
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 (42 SHC)

| AHR 120 | HVACR Maintenance | $1-3-2$ |
| :--- | :--- | :--- |
| BPM 110 | Bioprocess Practices | $3-4-5$ |
| BPR 115 | Electric/Fluid Power Diagrams | $1-2-2$ |
| CIS 111 | Basic PC Literacy | $1-2-2$ |
| ELC 117 | Motors and Controls | $2-6-4$ |
| ELC 128 | Introduction to PLC | $2-3-3$ |

ELC 228 PLC Applications 2-6-4
ELN 229 Industrial Electronics 3-3-4
ELN 231 Industrial Controls 2-3-3
ISC 278 cGMP Quality systems 2-0-2
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 Bioporcess Operating Systems 1-3-2
Technical Elective 3

Technical Elective Course Listing (Select 3 SHC):
COE 111 Co-op Work Experience I 0-10-1
COE 112 Co-op work Experience I 0-20-2
COE 121 Co-op Experience II 0-10-1
MNT 111 Maintenance Practices 2-2-3
*Students may substitute ENG 110.
Total Semester Hours Credit required for graduation: 75/77
Semester Curriculum for Industrial Systems Technology

| 1st Semester (Fall) | C-L-SHC |  |
| :--- | :--- | ---: |
| BPR 111 | Blueprint Reading | $1-2-2$ |
| 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 | $1-3-2$ |
| WLD 112 | Basic Welding Processes | $1-3-2$ |
|  |  | $10-18-17$ |
| 2nd Semester (Spring) |  |  |
| BPM 110 | Bioprocess Practices | $3-4-5$ |
| CIS 111 | Basic PC Literacy | $1-2-2$ |
| ELN 229 | Industrial Electronics | $3-3-4$ |
| ENG 110 | Freshman Composition | $3-0-3$ |
| HYD 110 | Hydraulics/Pneumatics | $2-3-3$ |
|  |  | $12-12-17$ |
| 3rd Semester (Summer) |  |  |
| AHR 120 | HVACR Maintenance | $1-3-2$ |
| BPR 115 | Electric/Fluid Power Diagrams | $1-2-2$ |
| MAT 115 | Mathematical Models | $2-2-3$ |
| ISC 110 | Workplace Safety | $1-0-1$ |
|  | OR |  |
| ISC 112 | Industrial Safety | $2-0-2$ |
|  | Technical Elective | 3 |

5/6-7-11/12
4th Semester (Fall)
ELC 117 Motors and Controls 2-6-4
ELC 128 Introduction to PLC 2-3-3
ENG 116 Technical Report Writing 3-0-3
ISC 278 cGMP Quality systems 2-0-2
ISC 278 cGMP Quality systems 2-0-2
MNT 230 Pumps and Piping Systems 1-3-2
MNT 270 Bioprocess Equipment Maintenance 1-3-2
11-15-16
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 280 Bioporcess Operating Systems 1-3-2

Total Semester Hours Credit: 75/77

## 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) |  | $2-6-4$ |
| ELC 117 | Motors and Controls | $2-3-3$ |
| ELC 128 | Introduction to PLC | $2-3-3$ |
| ELN 231 | Industrial Controls | $1-0-1$ |
| ISC 110 | Workplace Safety |  |
|  | OR | $2-0-2$ |

Total Semester Hours Credit required for graduation: 16/17
Semester Curriculum for Electrical Controls Certificate
1st Semester (Fall) C-L-SHC

ELC 112 DC/AC Electricity 3-6-5
ELC 128 Introduction to PLC 2-3-3
5-9-8
2nd Semester (Spring)
ELC 117 Motors and Controls 2-6-4
ELN 231 Industrial Controls 2-3-3
ISC 110 Workplace Safety 1-0-1
OR
Industrial Safety
2-0-2
5/6-9-8/9

## 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 | $2-3-3$ |
| 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 (Fall) | C-L-SHC |  |
| :--- | :--- | ---: |
| BPR 115 | Electric/Fluid Power Diagrams | $1-2-2$ |
| ELC 128 | Introduction to PLC | $2-3-3$ |
| HYD 110 | Hydraulics/Pneumatics | $2-3-3$ |
| MNT 110 | Introduction to Maintenance Procedures | $1-3-2$ |
|  |  | $6-11-10$ |
| 2nd Semester (Spring) | $1-3-2$ |  |
| HYD 121 | Hydraulics/Pneumatics II | $2-2-3$ |
| MNT 111 | Maintenance Practices | $1-3-2$ |
| MNT 230 | Pumps and Piping Systems | $4-8-7$ |
|  |  |  |

Total Semester Hours Credit: 17

## Industrial Systems Technology <br> 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
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 229 Industrial Electronics 3-3-4
Total Semester Hours Credit required for graduation: 16
Semester Curriculum for Programmable Logic Controller
Certificate Certificate

| 1st Semester (Fall) | C-L-SHC |  |
| :--- | :--- | ---: |
| ELC 112 | DC/AC Electricity | $3-6-5$ |
| ELC 128 | Introduction to PLC | $2-3-3$ |
|  |  | $5-9-8$ |
| 2nd Semester (Spring) |  |  |
| ELC 228 | PLC Applications | $2-6-4$ |
| ELN 229 | Industrial Electronics | $3-3-4$ |
|  |  | $5-9-8$ |

Total Semester Hours Credit: 16

## Industrial Systems Technology <br> Credential: Certificate in Welding C5024040

The Welding certificate will provide students with knowledge of various types of welding processes and applications. Students will learn principles of welding, flame cutting, brazing, ARC, MIG, TIG and safety procedures. 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 Welding Program Sites: Lee Campus - Evening Program

Course Requirements for Welding Certificate
A. Required Major Core Courses ( $5 / 6 \mathrm{SHC}$ ) C-L-SHC
BPR 111 Blueprint Reading 1-2-2

ISC 110 Workplace Safety 1-0-1
ISC 112 Industrial Safety 2-0-2
WLD 112 Basic Welding Processes 1-3-2
B. Other Major Hours Required for Graduation (7 SHC)

WLD 115 SMAW (Stick) Plate 2-9-5
WLD 212 Inert Gas Welding 1-3-2
Total Semester Hours Credit Required for Graduation: 12
Semester Curriculum for Welding Certificate

| 1st Semester (Fall) | C-L-SHC |  |
| :--- | :--- | ---: |
| BPR 111 | Blueprint Reading | $1-2-2$ |
| WLD 112 | Basic Welding Processes | $1-3-2$ |
| ISC 110 | Workplace Safety | $1-0-1$ |
|  | OR |  |
| ISC 112 | Industrial Safety | $2-0-2$ |
|  |  |  |
| 2nd Semester (Spring) | $2-5-5-5$ |  |
| WLD 115 | SMAW (Stick) Plate | $1-3-2$ |
| WLD 212 | Inert Gas Welding | $3-12-7$ |
|  |  |  |

Total Semester Hours Credit: 12/13

## Machining Technology

Credential: Diploma in Machining Technology D50300

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

Program Length: 3 semesters
Career Pathway Options: Associate in Applied Science in Machining Technology with a Concentration in Tool, Die and Mold Making (Higher entrance standards required); Diploma in Machining Technology
Program Sites:
Lee Campus - Day Program
Harnett Campus - Day Program
Course Requirements for Machining Technology Diploma
A. General Education Courses (9/10 SHC) C-L-SHC
*ENG 102 Applied Communication II 3-0-3
ENG 110 Freshman Composition 3-0-3
OR
ENG 111 Expository Writing 3-0-3
ENG 111A Expository Writing Lab 0-2-1
*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 (26 SHC) |  |  |
| :--- | :--- | :--- |
| MAC 111 | Machining Technology I | $2-12-6$ |
| MAC 112 | Machining Technology II | $2-12-6$ |
| MAC 113 | Machining Technology III | $2-12-6$ |


| Required |  |  |
| :--- | :--- | ---: |
| Bubject Areas |  |  |
| BPR 111 | Blueprint Reading | $1-2-2$ |
| BPR 121 | Blueprint Reading: Mechanical | $1-2-2$ |
| MAntroduction to CNC | $2-0-2$ |  |
| MAC 124 | CNC Milling | $1-3-2$ |


| C. Other Major Hours Required for Graduation (8 SHC) |  |  |
| :--- | :--- | :--- |
| CIS 111 | Basic PC Literacy | $1-2-2$ |
| ISC 110 | Workplace Safety | $1-0-1$ |
| MAC 151 | Machining Calculations | $1-2-2$ |
| MEC 141 | Manufacturing Processes | $2-2-3$ |

Total Semester Hours Credit required for graduation: 43/44

Semester Curriculum for Machining Technology Diploma

| 1st Semester (Fall) | C-L-SHC |  |
| :--- | :--- | ---: |
| BPR 111 | Blueprint Reading | $1-2-2$ |
| CIS 111 | Basic PC Literacy | $1-2-2$ |
| ISC 110 | Workplace Safety | $1-0-1$ |
| MAC 111 | Machining Technology I | $2-12-6$ |
| MAC 121 | Introduction to CNC | $2-0-2$ |
| MAC 151 | Machining Calculations | $1-2-2$ |
| MEC 141 | Manufacturing Processes | $2-2-3$ |
|  |  | $10-20-18$ |
| 2nd Semester (Spring) |  |  |
| BPR 121 | Blueprint Reading: Mechanical | $1-2-2$ |
| *ENG 102 | Applied Communication II | $3-0-3$ |
|  | OR |  |
| ENG 110 | Freshman Composition | $3-0-3$ |
|  | OR | $3-0-3$ |
| ENG 111 | Expository Writing | $0-2-1$ |
| ENG111A | Expository Writing Lab | $2-12-6$ |
| MAC 112 | Machining Technology II | $1-3-2$ |
| MAC 124 | CNC Milling | $2-2-3$ |
| *MAT 101 | Applied Mathematics I |  |
|  | OR | $2-2-3$ |
| MAT 120 | Geometry and Trigonometry | $9-19-16 / 17$ |
|  |  |  |
| 3rd Semester (Summer) | $2-12-6$ |  |
| MAC 113 | Machining Technology III | $3-0-3$ |
|  | Humanities/Fine Arts Elective | $5-12-9$ |
| *These courses are not transferable to the Associate in |  |  |
| Applied Science Degree. |  |  |

Total Semester Hours Credit: 43/44

## Machining Technology <br> Credential: Certificate in Machining <br> Technology <br> C50300

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

Program Length: 2 semesters
Career Pathway Options: Associate in Applied Science in Machining Technology with a Concentration in Tool, Die and Mold Making (Higher entrance standards required); Diploma in Machining Technology (Higher entrance standards required); Certificate in Machining Technology Program Sites:
Lee Campus - Evening Program
Harnett Campus - Evening Program
Course Requirements for Machining Technology Certificate
A. Required Major Core Courses (16 SHC) C-L-SHC

MAC 111 Machining Technology I 2-12-6
Required Subject Areas

| BPR 111 | Blueprint Reading | $1-2-2$ |
| :--- | :--- | :--- |
| BPR 121 | Blueprint Reading: Mechanical | $1-2-2$ |
| ISC 110 | Workplace Safety | $1-0-1$ |
| MAC 121 | Introduction to CNC | $2-0-2$ |
| MEC 141 | Intro to Manufacturing Processes | $2-2-3$ |

Total Semester Hours Credit required for graduation: 16
Semester Curriculum for Machining Technology Certificate

| 1st Semester (Fall) | C-L-SHC |  |
| :--- | :--- | ---: |
| BPR 111 | Blueprint Reading | $1-2-2$ |
| ISC 110 | Workplace Safety | $1-0-1$ |
| MAC 111A | Machining Technology IA | $1-6-3$ |
| MAC 121 | Introduction to CNC | $2-0-2$ |
| MEC 141 | Intro to Manufacturing Processes | $2-2-3$ |
|  |  | $7-10-11$ |
| 2nd Semester (Spring) |  |  |
| BPR 121 | Blueprint Reading: Mechanical | $1-2-2$ |
| MAC 111B | Machining Technology IB | $1-6-3$ |
|  |  | $2-8-5$ |

Total Semester Hours Credit: 16

## Machining Technology with a Concentration in Tool, Die and Mold Making Credential: Associate in Applied Science Degree in Machining Technology with a Concentration in Tool, Die and Mold Making A5030A

Tool, Die and Mold Making is a concentration under the curriculum title of Machining Technology. This curriculum is designed to develop skills in the use of hand tools, computerized equipment and precision instruments for machine tooling used for the mass production of parts.

Students will learn to interpret blueprints, set up manual and Computer Numerical Controllers (CNC) machines and perform basic and advanced machining operations. Emphasis will be placed on the production of tooling used for punching, stamping and molding of parts.

Graduates should qualify for employment opportunities in manufacturing industries and Tool, Die and Mold Making industries.

Program Length: 6 semesters
Career Pathway Options: Associate in Science in Machining Technology with a Concentration in Tool, Die and Mold Making
Program Sites: Lee Campus - Day Program
Course Requirements for Machining Technology with a Concentration in Tool, Die and Mold Making
A. General Education Courses (15/16 SHC) C-L-SHC

ENG 110 Freshman Composition
OR
ENG 111 Expository Writing 3-0-3
AND
ENG 111A Expository Writing Lab 0-2-1
ENG 114 Professional Research and Reporting 3-0-3 OR
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
$\begin{array}{lll}\text { B. Required Major Core Courses (44 SHC) } \\ \text { BPR } 111 \quad \text { Blueprint Reading } & 1-2-2\end{array}$
BPR 121 Blueprint Reading: Mechanical 1-2-2
MAC 111 Machining Technology I 2-12-6
MAC 112 Machining Technology II 2-12-6
MAC 113 Machining Technology III 2-12-6
Required Subject Areas
MAC 122 CNC Turning 1-3-2
MAC 124 CNC Milling 1-3-2
Concentration Courses
MAC 153 Compound Angles 1-2-2
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 | $1-9-4$ |
|  |  |  |
| C. Other Major Hours Required for Graduation (17 SHC) |  |  |
| CIS 111 | Basic PC Literacy | $1-2-2$ |
| MAC 151 | Machining Calculations | $1-2-2$ |
| MAC 224 | Advanced CNC Milling | $1-3-2$ |
| MAC 226 | CNC EDM Machining | $1-3-2$ |
| MAC 241 | Jigs and Fixtures I | $2-6-4$ |
| MEC 110 | Introduction to CAD/CAM | $1-2-2$ |
| MEC 141 | Manufacturing Process | $2-2-3$ |

Total Semester Hours Credit required for graduation: 76
Semester Curriculum for Machining Technology with a
Concentration in Tool, Die and Mold Making Concentration in Tool, Die and Mold Making

| 1st Semester (Fall) | C-L-SHC |  |
| :--- | :--- | ---: |
| BPR 111 | Blueprint Reading | $1-2-2$ |
| CIS 111 | Basic PC Literacy | $1-2-2$ |
| MAC 111 | Machining Technology | $2-12-6$ |
| MAC 151 | Machining Calculations | $1-2-2$ |
| MEC 141 | Manufacturing Process | $2-2-3$ |
|  |  | $7-20-15$ |
| 2nd Semester (Spring) | $1-2-2$ |  |
| BPR 121 | Blueprint Reading: Mechanical | $3-0-3$ |
| ENG 110 | Freshman Composition |  |
|  | OR | $3-0-3$ |
| ENG 111 | Expository Writing | $0-2-1$ |
| ENG 111A | Expository Writing Lab | $2-12-6$ |
| MAC 112 | Machining Technology II | $1-3-2$ |
| MAC 124 | CNC Milling | $2-2-3$ |
| MAT 120 | Geometry/Trigonometry |  |


|  | $9-19 / 21-16 / 17$ |  |
| :--- | :--- | ---: |
| 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
ENG 114 Professional Research and Reporting 3-0-3
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 | $1-2-2$ |
|  | $6-23-14$ |  |

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MAC 244 Die Making II
Social/Behavioral Science Elective
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Total Semester Hours Credit: 76/77

## Telecommunications Installation and Maintenance <br> 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)
*ENG 102 Applied Communication II
Humanities or Social/Behavioral Science
Elective
B. Required Major 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 Required for Graduation (18 SHC)
Business Elective
**CIS 111 Basic PC Literacy 1-2-2
***MAT 101Applied Mathematics I 2-2-3
TEL 209 ADSL Installation 0-2-1
Major Electives
Business Electives (Choose one course)
BUS 110 Introduction to Business 3-0-3
3-0-3
4-9-7

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 | CIS 111 | Basic PC Literacy | 1-2-2 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| BUS 230 | Small Business Management | 3-0-3 | ENG 102 | Applied Communication II | 3-0-3 |
| BUS 255 | Organizational Behavior in Business | 3-0-3 |  | Humanities or Social/Behav |  |
| BUS 270 | Professional Development | 3-0-3 |  | Elective | 3-0-3 |
| BUS 280 | REAL Small Business | 4-0-4 | MAT 101 | Applied Math I | 2-2-3 |
|  |  |  |  | Major Elective |  |
| Major Elective Course Listing - Select a minimum of 9 SHC from one of the following groups: |  |  | 12-4-17 |  |  |
|  |  |  | 3rd Sem | (Summer) |  |
|  |  |  |  | Major Elective |  |
| (Telecommunications Group) |  |  |  |  |  |
| ELC 144 | OTDR Operation | 1-0-1 | Total Semester Hours Credit: 41 |  |  |
| NET 113 | Home Automation Systems | 2-2-3 |  |  |  |
| TEL 102 | Pole Climbing | 0-2-1 | Telecommunications Installation and Maintenance |  |  |
| TEL 104 | CATV Installation and Repair: Distrib | 0-2-1 |  |  |  |
| TEL 109 | T-1 Span Line Maintenance | 0-2-1 |  |  |  |
| TEL 204 | Transmission Fundamentals | 2-0-2 | Credential: Certificate in Telecommunications Installation and Maintenance |  |  |
| TCT 100 | Telco Safety Regulations | 1-2-2 |  |  |  |
| TCT 101 | Vault Management | 1-2-2 | C50380 |  |  |
| TCT 102 | Underground Locating | 1-2-2 |  |  |  |
| TCT 104 | Installer Level 2 Copper | 1-2-2 | 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. |  |  |
| TCT 105 | Installer Level 2 Fiber | 1-2-2 |  |  |  |
| TCT 106 | Technician Level Cabling OR | 1-2-2 |  |  |  |
| (Small Home/Small Office Networking Group) |  |  |  |  |  |
| NET 113 | Home Automation Systems | 2-2-3 | Coursework includes basic electricity, cable splicing, fiber optics, LAN/WAN, cable fault location and repair, central office administration, standards and codes, and other related |  |  |
| NET 125 | Networking Basics | 1-4-3 |  |  |  |
| NET 126 | Routing Basics | 1-4-3 |  |  |  |
| NET 175 | Wireless Technologies | 2-2-3 | office administration, standards and codes, and other related topics. Emphasis is placed on hands-on installation and |  |  |
| (Networking Infrastructure Group) |  |  | maintenance training. A graduate should be prepared to work in the telecommunications industry in outside plant |  |  |
| NET 116 | Fundamentals of Voice/Data Cable | 2-2-3 | operations, on central office equipment, and on business |  |  |
| NET 125 | Networking Basics | 1-4-3 |  |  |  |
| NET 126 | Routing Basics | 1-4-3 | communication equipment. |  |  |
| NET 225 | Routing and Switching | 1-4-3 | Program Length: 1 semester |  |  |
| NET 230 | Wide Area Networking | 2-2-3 | Program Career Pa | gth: 1 semester <br> ay Options: Certificate in Te | ations |
| *Students may substitute ENG 111/111A |  |  | Installation and Maintenance |  |  |
| **Students may substitute CIS 110 Program Sites: N. C. School of Telecommunications - Day |  |  |  |  |  |
| ***Students may substitute MAT 140 or higher |  |  | Course Requirements for Telecommunications Installation and Maintenance Certificate |  |  |

Total Semester Hours Credit required for Graduation: 41
Semester Curriculum for Telecommunications Installation and Maintenance Diploma

| 1st Semester (Fall) | 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 | $0-2-1$ |
|  |  | $9-18-18$ |

2nd Semester (Spring)
BUS Business Elective

CIS 111 Basic PC Literacy 1-2-2
ENG 102 Applied Communication II 3-0-3
Humanities or Social/Behavioral Science Elective
MAT 101 Applied Math I 2-2-3
Major Elective 3
12-4-17

Total Semester Hours Credit: 41

## Telecommunications Installation and Maintenance

Credential: Certificate in Telecommunications Installation and Maintenance C50380

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 ere administration, standards and codes, and other related topics. Enphasis 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: Certificate in Telecommunications Installation and Maintenance
Program Sites: N. C. School of Telecommunications - Day
and Maintenance Certificate

| Required | Major Courses (18 SHC) | C-L-SHC |
| :--- | :--- | ---: |
| TCT 103 | Installer Level 1 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 | $0-2-1$ |

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 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
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
TEL 205 Digital Central Office Administration
1-2-2
TEL 209 ADSL Installation
0-2-1
9-18-18

Total Semester Hours Credit: 18

## Public Service Technologies

## Barbering Credential: <br> Diploma in Barbering <br> 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 $\mathrm{A} / \mathrm{B}$ 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
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 | $3-0-3$ |
|  |  | $8-21-15$ |

0-12-4
4-12-8

2-0-2
0-21-7
3-0-3
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 11(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 $\mathrm{A} / \mathrm{B}$ sections for part-time day/evening students.

Total Semester Hours Credit required for graduation: 41

| Semester Curriculum for Barbering Certificate 1st Semester (Fall) |  |  |
| :---: | :---: | :---: |
| 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 $71 / 2$ 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
$\begin{array}{llr}\text { A. Required Major Core Courses (19 SHC) } & \text { C-L-SHC } \\ \text { CJC } 100 & \text { Basic Law Enforcement Training } & 9-30-19\end{array}$
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

## Cosmetology Credential: <br> Diploma in Cosmetology <br> 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 $111(\mathrm{~A} / \mathrm{B})^{*}$ Cosmetology Concepts I

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 $\mathrm{A} / \mathrm{B}$ 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

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
*Courses divided into $\mathrm{A} / \mathrm{B}$ 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 | $1-3-2$ |

3rd Semester (Summer)
COS 115 Cosmetology Concepts III
COS 116 Salon III

Total Semester Hours Credit: 34

## Cosmetology Instructor Credential: Certificate in Cosmetology Instructor C55160

The Cosmetology Instructor curriculum provides a course of study for learning the skills needed to teach the theory and practice of cosmetology as required by the North Carolina Board of Cosmetic Arts. Coursework includes requirements for becoming an instructor, introduction to teaching theory, methods and aids, practice teaching, and development of evaluation instruments. Graduates of the program may be employed as cosmetology instructors in public or private education and business.

Program Length: 2 semesters
Career Pathway Options: Certificate in Cosmetology
Instructor
Program Sites:
Lee Campus - Day and Evening
Harnett Campus - Day and Evening
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 Development Services.

Program Length: 5 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 (16 SHC)

C-L-SHC
ENG 111 Expository Writing
3-0-3
ENG 111A Expository Writing Lab
0-2-1
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 |  |  |
| CJajor Core Courses (22 SHC) |  |  |
| CJC 111 | Introduction to Criminal Justice | $3-0-3$ |
| CJC 113 | Criminology | $3-0-3$ |
| CJC 131 | Criminal Law | $3-0-3$ |
| CJC 212 | Ethics/Community Relations | $3-0-3$ |
| CJC 221 | Investigative Principles | $3-0-3$ |
| CJC 231 | Constitutional Law | $3-2-4$ |
|  |  | $3-0-3$ |
| C. Other Major Hours Required for Graduation (2/3 SHC) |  |  |
| CIS 110 | Introduction to Computers | $2-2-3$ |
| CIS 111 | OR | Basic PC Literacy |

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

| 1st Semester (Fall) | 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 | $3-0-3$ |
|  |  | $15-0-15$ |
| 2nd Semester (Spring) | $3-0-3$ |  |
| CJC 121 | Law Enforcement Operations | $3-0-3$ |
| CJC 131 | Criminal Law | $3-2-4$ |
| CJC 221 | Investigative Principles | $2-2-3$ |
| **CIS 110 | Introduction to Computers | $3-0-3$ |
|  | Humanities/Fine Arts Elective | $14-4-16$ |
|  |  | $3-0-3$ |
| 3rd Semester (Summer) | $3-0-3$ |  |
| CJC 151 | Introduction to Loss Prevention |  |
| CJC 225 | Crisis Intervention |  |


|  |  | 6-0-6 | CJC 151 | Introduction to loss Prevention | 3-0-3 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 4th Semester (Fall) |  |  | CJC 225 | Crisis Intervention | 3-0-3 |
| CJC 113 | Juvenile Justice | 3-0-3 |  |  | 9-0-9 |
| CJC 122 | Community Policing | 3-0-3 | Total Semester Hours Credit: 66/67 |  |  |
| CJC 141 | Corrections | 3-0-3 |  |  |  |
| CJC 132 | Court Procedure and Evidence | 3-0-3 | NOTE: S | dents who have completed BLET |  |
| ENG 111 | Expository Writing | 3-0-3 | enroll in | Criminal Justice Degree Progra |  |
| ENG 111A | Expository Writing Lab | 0-2-1 | credit for | following courses: |  |
|  |  | 15-2-16 | CJC 120 | Interviews/Interrogations |  |
| 5th Semester (Spring) |  |  | CJC 131 | Criminal Law |  |
| CJC 120 | Interviews/Interrogation | 1-2-2 | CJC 132 | Court Procedure and Evidence |  |
| CJC 212 | Ethics/Community Relations | 3-0-3 | CJC 221 | Investigative Principles |  |
| CJC 213 | Substance Abuse | 3-0-3 | CJC 225 | Crisis Intervention |  |
| *MAT140 | Survey of Mathematics | 2-2-3 | CJC 231 | Constitutional Law |  |
| ENG 115 | Oral Communication | 3-0-3 |  |  |  |
| Total Semester Hours Credit: 66/67 |  | 12-4-14 | NOTE: C transferab | 111, CJC 121, CJC 141 are uni |  |
| *Students may substitute MAT 115 (nontransferable) |  |  |  |  |  |
| **Students may substitute CIS 111 (nontransferable) |  |  |  |  |  |
| Course Requirements/Semester Curriculum for Criminal |  |  |  |  |  |
| Justice Technology (Evening) |  |  |  |  |  |
| 1st Semester (Fall) |  | C-L-SHC |  |  |  |
| CJC 131 | Criminal Law | 3-0-3 |  |  |  |
| CJC 213 | Substance Abuse | 3-0-3 |  |  |  |
|  |  | 6-0-6 |  |  |  |
| 2nd Semester (Spring) |  |  |  |  |  |
| CJC 111 | Introduction to Criminal Justice | 3-0-3 |  |  |  |
| CJC 112 | Criminology | 3-0-3 |  |  |  |
| ENG 111 | Expository Writing | 3-0-3 |  |  |  |
| ENG 111A | Expository Writing Lab | 0-2-1 |  |  |  |
|  |  | 9-2-10 |  |  |  |
| 3rd Semester (Summer) |  |  |  |  |  |
|  | Social/Behavioral Science Elective | 3-0-3 |  |  |  |
| **CIS 110 | Introduction to Computers | 2-2-3 |  |  |  |
|  |  | 5-2-6 |  |  |  |
| 4th Semester (Fall) |  |  |  |  |  |
| 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 |  |  |  |
| 5th Semester (Spring) |  |  |  |  |  |
| 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 |  |  |  |
| 6th Semester (Summer) |  |  |  |  |  |
| *MAT 140 | Survey of Mathematics | 2-2-3 |  |  |  |
|  | Humanities/Fine Arts Elective | 3-0-3 |  |  |  |
|  |  | 5-2-6 |  |  |  |
| 7th Semester (Fall) |  |  |  |  |  |
| CJC 120 | Interviews/Interrogation | 1-2-2 |  |  |  |
| CJC 122 | Community Policing | 3-0-3 |  |  |  |
| CJC 221 | Investigative Principles | 3-2-4 |  |  |  |
|  |  | 7-4-9 |  |  |  |
| 8th Semester (Spring) |  |  |  |  |  |
| CJC 141 | Corrections | 3-0-3 |  |  |  |

## 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 Development Services.

Program Length: 5 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 (16 SHC)

ENG 111 Expository Writing
C-L-SHC
ENG 111A Expository Writing Lab
3-0-3

- $2-1$

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 (14 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 | $3-2-4$ |

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
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
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
ENG 111A Expository Writing Lab 0-2-1
13-10-17
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.

## Early Childhood Associate <br> 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 Day Courses
Selected Evening Courses
Harnett Campus - Selected Day Courses
Selected Evening Courses
Lee Campus - Day, Selected Evening Courses
Distance - Select Courses

Course Requirements for Early Childhood Associate Degree
A. General Education Courses (16 SHC) C-L-SHC

ENG 111 Expository Writing 3-0-3
ENG 111A Expository Writing Lab 0-2-1
*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 (14 SHC) |  |  |
| CIS 110 | Introduction to Computers |  |
|  | Or | $2-2-3$ |
| CIS 111 | Basic PC Literacy |  |
| EDU 234 | Infants, Toddlers, Twos | $3-2-2$ |
| 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 | $3-0-3$ |

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 (14 SHC)

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 $\quad 3-0-3$
EDU 262 Early Childhood Administration II 3-0-3
EDU 287 Leadership/Early Childhood 3-0-3

Total Semester Hours Credit Required for Graduation: 65

Semester Curriculum for Early Childhood 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 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
ENG 111A Expository Writing Lab 0-2-1
14-4-16
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
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 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 15-10-15
5th Semester (Spring)

| EDU 284 | Early Childhood Capstone Prac | $1-9-4$ |
| :--- | :--- | :--- |
| EDU 259 | Curriculum Planning | $3-0-3$ |
| EDU 271 | Educational Technology | $2-2-3$ |

EDU 259 Curriculum Planning 3-0-3

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 (7 SHC) | C-L-SHC |
| :--- | :--- | ---: |
| ENG 111 | Expository Writing | $3-0-3$ |
| ENG 111A | Expository Writing Lab | $0-2-1$ |
|  | 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
$\begin{array}{ll}\text { C. Other Required Major Hours }(11 \mathrm{SHC}) \\ \text { CIS } 110 \quad \text { Introduction to Computers } & 2-2-3\end{array}$
$\begin{array}{ccc} & \text { Or } \\ \text { CIS } 111 & \text { Basic PC Literacy } & 1-2-2\end{array}$
EDU 252 Math and Science Activities 3-0-3
EDU 259 Curriculum Planning 3-0-3
EDU 271 Educational Technology 2-2-3
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 | $3-0-3$ |
|  |  | $14-2-15$ |
| 2nd Semester (Spring) |  |  |
| EDU 145 | Child Development II | $3-0-3$ |
| EDU 146 | Child Guidance |  |
| EDU 151 | Creative Activities | $3-0-3$ |
| EDU 153 | Health, Safety, and Nutrition | $3-0-3$ |
| ENG 111 | Expository Writing | $3-0-3$ |
| ENG 111A | Expository Writing Lab | $3-0-3$ |
|  |  | $0-2-1$ |
| 3rd Semester (Summer) | $15-2-16$ |  |
| EDU 221 | Children with Exceptionalities | $3-0-3$ |
|  |  | $3-0-3$ |
| 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: <br> 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: <br> Family Home \& Early Childcare Certificate C55220FH

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
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

## Early Childhood Associate <br> 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: <br> 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: 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 |  |
|  |  |  |
| 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 | $0-18-6$ |
|  |  | $2-18-8$ |

Total Semester Hours Credit: 16

## Esthetics Instructor <br> 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 $\quad$ (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 (16 SHC) C-L-SHC

ENG 111 Expository Writing 3-0-3
ENG 111A Expository Writing Lab 0-2-1
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
$\begin{array}{lll}\text { B. Required Major Core Courses (27 SHC) } \\ \text { CIS } 110 & \text { Introduction to Computers } & 2-2-3\end{array}$
$\begin{array}{lll}\text { CIS } 110 & \text { Introduction to Computers } & 2-2-3 \\ \text { LIB } 110 & \text { Introduction to Libraries } & 3-0-3\end{array}$
LIB $111 \quad$ Library Information Resources and $\quad$ 2-2-3
$\begin{array}{ll}\text { LIB } 112 & \text { Library Collection Development and } \\ & \text { Acquisition }\end{array}$
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 ( 25 SHC ) |  |  |
| :---: | :---: | :---: |
| CTS 130 | Spreadsheet | 2-2-3 |
| CTS 135 | Integrated Software Introduction | 2-4-4 |
| DBA 110 | Database Concepts | 2-3-3 |
| NOS 111 | Operating System - DOS | 2-2-3 |
| NET 115 | Telecommunication Fundamentals | 1-2-2 |
| OST 184 | Records Management | 2-2-3 |
|  | Library Elective | 3-0-3 |
|  | Major Elective | 3/4-0-3/4 |
| Library Elective (3 SHC) |  |  |
| LIB 212 | Library Services/Special Needs | 3-0-3 |
| LIB 214 | Library Services for Children | 3-0-3 |
| Major Elective Course Listing (Select 3 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 |
| COE 111 | Co-op Work Experience I | 0-10-1 |
| 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 |
| MKT 120 | Principles of Marketing | 3-0-3 |
| Total Semester Hours Credit: 67 |  |  |
| 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 |
| ENG 111A | Expository Writing Lab | 0-2-1 |
| LIB 110 | Introduction to Libraries | 3-0-3 |
| LIB 111 | Library Information Resources and Servis | vices2-2-3 |
| LIB 113 | Library Cataloging and Classification | 2-2-3 |
|  |  | 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 (Summer) |  |  |
| COE 111 | Co-op Work Experience I | 0-10-1 |
|  |  | 0-10-1 |
| 4th Semester Fall |  |  |
| CTS 135 | Integrated Software Introduction | 2-4-4 |
| DBA 110 | Database Concepts | 2-3-3 |
| NOS 111 | Operating System - DOS | 2-2-3 |
| 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 |
|  |  | 15-9-19 |

5th Semester Spring

$$
\text { CTS } 130 \quad \text { Spreadsheet 2-2-3 }
$$

ENG 114 Professional Research and Reporting 3-0-3
LIB 210 Electronic Library Databases 2-2-3
NET 115 Telecommunication Fundamentals 1-2-2
OST 184 Records Management 2-2-3
Humanities/Fine Arts Elective 3-0-3

* Students may substitute MAT 115 (nontransferable).

Total Semester Hours Credit (SHC): 67

## 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 (7 SHC) | C-L-SHC |
| :--- | :--- | ---: |
| ENG 111 | Expository Writing | $3-0-3$ |
| ENG 111A | Expository Writing Lab | $0-2-1$ |
|  | Social/Behavioral Science Elective | $3-0-3$ |
|  |  |  |
| B. Required | Major Core Courses (22 SHC) | $2-2-3$ |
| CIS 110 | Introduction to Computers |  |
| 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 (8 SHC) |  |  |
| Library Elective (3 SHC) |  |  |
| LIB 212 | Library Services/Special Needs | $3-0-3$ |
| LIB 214 | Library Services/Children, or | $3-0-3$ |
| NET 115 | Telecommunication Fundamentals | $1-2-2$ |
| OST 184 | Records Management | $2-2-3$ |
|  |  |  |
| D. Optional |  |  |
| COE 111 | Co-op Work Experience | $0-10-1$ |

Semester Curriculum for Library and Information
Technology Diploma

| 1st Semester (Fall) | C-L-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 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 | $3-0-3$ |
| OST 184 | Records Management | $2-2-3$ |
|  |  | $14-8-18$ |
| 2nd Semester (Spring) | $3-0-3$ |  |
| ENG 111 | Expository Writing | $0-2-1$ |
| ENG 111A | Expository Writing Lab | $2-2-3$ |
| LIB 112 | Library Collection Devel. and Acquisition |  |
| 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 | $2-2-3$ |
|  |  | $13-10-18$ |

Total Hours Required for Diploma: 37

[^6]
## 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 <br> Credential: Certificate in Library Technical Services <br> 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

## School-Age Education: Associate in Applied Science Degree in School-Age Education A55440

This curriculum prepares individuals to work with schoolage 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 (16 SHC) C-L-SHC

ENG 111 Expository Writing 3-0-3
ENG 111A Expository Writing Lab 0-2-1
*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

[^7]
## Transport Systems Technologies

| C. Other Required Major Hours (22 SHC)  <br> CIS 110 Introduction to Computers <br>  $\quad$ Or | $2-2-3$ |  |
| :--- | :--- | ---: |
| 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 | $3-0-3$ |

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 | $2-2-3$ |
|  | $\quad$ 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 | $3-0-3$ |
| ENG 111A | Expository Writing Lab | $0-2-1$ |
|  |  | $13-4-15$ |
| 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 |  |  |
| 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 275 | Effective Teacher Training | $2-0-2$ |
| EDU 281 | Instructional Strategies/Reading \& Writing | $3-0-3$ |
| *MAT 140 | Survey of Mathematics | $3-0-3$ |


| 5th Semester (Spring) |  |  |
| :--- | :--- | ---: |
| EDU 243 | Learning Theory | $3-0-3$ |
| EDU 271 | Educational Technology | $2-2-3$ |
| EDU 285 | Internship Experience School Age | $1-9-4$ |
| EDU 289 | Adv. Issues/School-Age | $2-0-2$ |
|  | Social/Behavioral Science Elective | $3-0-3$ |
|  |  | $11-11-16$ |

[^8]
## 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 coursework includes research and application of information on specific components of a wide range of classic vehicles (1900-1970), such as internal combustion engines, transmissions, brakes, sheet metal, upholstery, starters, generators, and related systems. 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
MAT 101 Applied Mathematics I 2-2-3
B. Required Major Core Courses (31 SHC)

ARS 101 Introduction to Auto Restoration 2-0-2
ARS 102 Auto Restoration Research 3-0-3
ARS 103 Automobile Upholstery 2-4-4
ARS 104 Restorative Skills I 2-4-4
ARS 107 Automotive Engines 1-3-2
ARS 108 Wood and Metal Restoration 2-2-3
ARS 131 Chassis and Drive Trains 2-3-3
ARS 161 Electrical Systems Fundamentals 2-6-4
AUB 134 Auto Body MIG Welding 1-4-3
AUB 141 Mechanical and Electrical Components I 2-2-3
C. Other Major Hours Required for Graduation (11 SHC)

AUB 111 Painting and Refinishing I 2-6-4
AUB 112 Painting and Refinishing II 2-6-4
AUB 121 Non-Structural Damage I 1-4-3
Total Semester Hours Credit required for graduation: 48
Semester Curriculum for Automotive Systems Technology Diploma
1st Semester (Fall) C-L-SHC

ARS 101 Introduction to Auto Restoration 2-0-2
ARS 107 Automotive Engines 1-3-2
ARS 108 Wood and Metal Restoration 2-2-3
ARS 161 Electrical Systems Fundamentals 2-6-4
AUB 111 Painting and Refinishing I 2-6-4
AUB 121 Non-Structural Damage I 1-4-3

| 2nd Semester (Spring) |  |  |
| :--- | :--- | ---: |
| ARS 102 | Auto Restoration Research | $3-0-3$ |
| ARS 103 | Automobile Upholstery | $2-4-4$ |
| ARS 131 | Chassis and Drive Trains | $2-3-3$ |
| AUB 112 | Painting and Refinishing II | $2-6-4$ |
| AUB 141 | Mechanical and Electrical Components I | $2-2-3$ |
| ENG 102 | Applied Communication II | $3-0-3$ |
|  |  | $14-15-20$ |
| 3rd Semester (Summer) |  |  |
| ARS 104 | Restorative Skills I | $2-4-4$ |
| AUB 134 | Auto Body MIG Welding | $1-4-3$ |
| MAT 101 | Applied Mathematics I | $2-2-3$ |
|  |  | $5-10-10$ |

Total Semester Hours Credit (SHC): 48

## Automotive Restoration Technology Credential: Certificate in <br> Automotive Restoration Technology C60140

The Automotive Restoration Technology curriculum is
designed to provide individuals with the skills needed to
work in an entry-level position in the automotive restoration
industry. The coursework includes research and application
of information on specific components of vehicles such as
engines, sheet metal, auto body and painting. 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 (Higher entrance standards
required); Certificate in Automotive Restoration
Technology
Program Sites: Lee Campus - Evening Program

Course Requirements for Automotive Restoration
Technology Certificate

Major Hours Required for Graduation (16 SHC)
ARS 101
Introduction to Auto Restoration
AUB $111 \quad$ Painting and Refinishing I
AUB $112 \quad$ Painting and Refinishing II
AUB $121 \quad$ Non-Structural Damage I
AUB $141 \quad$ Mechanical and Electrical Components I

Total Semester Hours Credit required for graduation: 16

| Semester Curriculum for Automotive Restoration |  |  |
| :--- | ---: | ---: |
| Technology Certificate |  |  |
| 1st Semester (Fall) | C-L-SHC |  |
| ARS 101 $\quad$ Introduction to Automotive Rest | $2-0-2$ |  |
| AUB 111 $\quad$ Painting and Refinishing I | $2-6-4$ |  |
|  | $4-6-6$ |  |
| 2nd Semester (Spring) |  |  |
| AUB 121 $\quad$ Non-Structural Damage I | $1-4-3$ |  |
| AUB 112 $\quad$ Painting and Refinishing II | $2-6-4$ |  |
|  |  | $3-10-7$ |
| 3rd Semester (Fall) |  |  |
| AUB 141 Mechanical and Electrical Components I | $2-2-3$ |  |
|  | $2-2-3$ |  |

Total Semester Hours Credit: 16

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

This curriculum prepares individuals for employment as automotive service technicians. It provides an introduction to automotive careers and enhances the student's awareness of having to meet the challenges of this fast and everchanging field. Classroom and lab experiences integrate technical and academic coursework. Emphasis is placed on theory, servicing and operation of brakes, electrical/electronic systems, engine performance, steering/suspension, automatic transmission/transaxles, engine repair, climate control, and manual drive trains.

Upon completion of this curriculum students should be prepared for ASE certification and be ready for full-time employment in dealerships and repair shops in the automotive service industry. Cooperative education opportunities may be available at some North Carolina Community Colleges.

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 E | ucation Courses (15/17 SHC) | C-L-SHC |
| :---: | :---: | :---: |
| ENG 110 | Freshman Composition | 3-0-3 |
|  | OR |  |
| ENG 111 | Expository Writing | 3-0-3 |
|  | AND |  |
| ENG 111A | Expository Writing Lab | 0-2-1 |
| 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. Required Major Core Courses (18 SHC) |  |  |
| AUT 141 | Suspension and Steering Systems | 2-3-3 |
| AUT 151 | Brake Systems | 2-3-3 |
| AUT 161 | Electrical Systems | 4-3-5 |
| AUT 181 | Engine Performance I | 2-3-3 |
| AUT 183 | Engine Performance II | 2-6-4 |
| C. Other Major Hours Required for Graduation (42/43 SHC) |  |  |
|  |  |  |
| AUT 110 | Intro to Auto Technology | 2-2-3 |
| 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 | $2-2-3$ |
| AUT 163A | Adv Automotive Electricity Lab | $0-3-1$ |
| AUT 171 | Auto Climate Control | $2-4-4$ |
| AUT 181A | Engine Performance Lab | $0-3-1$ |
| AUT 212 | Auto Shop Management | $3-0-3$ |
| AUT 221 | Auto Transm/Transaxles | $2-3-3$ |
| 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 | $2-2-3$ |
| AUT 283 | Advanced Auto Electronics | $2-2-3$ |
| CIS 111 | Basic PC Literacy | $1-2-2$ |
|  | OR |  |
| AUT186 | PC Skills for Auto Techs | $2-2-3$ |
| WLD 112 | Basic Welding Processes | $1-3-2$ |

Total Semester Hours Credit required for graduation: 75/78
Semester Curriculum for Automotive Systems Technology Degree

| 1st Semester (Fall) | C-L-SHC |  |
| :--- | :--- | ---: |
| AUT 110 | Intro into Auto Technology | $2-2-3$ |
| AUT 141 | Suspension \& Steering Systems | $2-3-3$ |
| AUT 141A | Suspension \& Steering Systems Lab | $0-3-1$ |
| AUT 161 | Basic Auto Electricity | $4-3-5$ |
| CIS 111 | Basic PC Literacy | $1-2-2$ |
|  | OR |  |
| AUT 186 | PC Skills for Auto Techs | $2-2-3$ |
| MAT 115 | Mathematical Models | $2-2-3$ |
|  | Or |  |
| PHY 121 | Applied Physics I | $3-2-4$ |
|  |  | $11 / 13-15-17 / 19$ |

2nd Semester (Spring)
AUT 151 Brake Systems 2-3-3
AUT 151A Brake Systems Lab 0-3-1
AUT 163 Adv Auto Electricity 2-3-3
AUT 163A Adv Auto Electricity Lab 0-3-1
AUT 181 Engine Performance I 2-3-3
AUT 181A Engine Performance I Lab 0-3-1
ENG 110 Freshman Composition 3-0-3
ENG 111 Expository Writing 3-0-3
ENG 111A Expository Writing Lab 0-2-1
9-18/20-15/16

3rd Semester (Summer)
AUT 114 Safety and Emissions 1-2-2
AUT 114A Safety and Emissions Lab 0-2-1
AUT 171 Auto Climate Control 2-4-4
AUT 183 Engine Performance II 2-6-4
5-14-11

| 4th Semester (Fall) |  |  |
| :--- | :--- | ---: |
| AUT 116 | Engine Repair | $2-3-3$ |
| AUT 116A | Engine Repair Lab | $0-3-1$ |
| AUT 212 | Auto Shop Management | $3-0-3$ |
| AUT 231 | Manual Drive Train/Axles | $2-3-3$ |
| AUT 231A | Manual Trans/Axles/Drtrains Lab | $0-3-1$ |
| ENG 114 | Professional Research and Reporting | $3-0-3$ |
|  | OR |  |
| ENG 116 | Technical Report Writing | $3-0-3$ |
| WLD 112 | Basic Welding Processes | $1-3-2$ |
|  |  | $11-15-16$ |
| 5th Semester (Spring) |  |  |
| AUT 221 | Auto Transm/Transaxles | $2-3-3$ |
| AUT 221A | Auto Transm/Transaxles Lab | $0-3-1$ |
| AUT 281 | Advanced Engine Performance | $2-2-3$ |
| AUT 283 | Advanced Auto Electronics | $2-2-3$ |
|  | Humanities Elective | $3-0-3$ |
|  | Social Science Elective | $3-0-3$ |
|  |  | $12-10-16$ |

Total Semester Hours Credit: 75/78

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

This curriculum prepares individuals for employment as automotive service technicians. It provides an introduction to automotive careers and enhances the student's awareness of having to meet the challenges of this fast and everchanging field. Classroom and lab experiences integrate teqlenical ${ }^{\text {nd }}$ academic coursework. Emphasis is placed on theory, servicing and operation of brakes, electrical/electronic systems, engine performance, steering/suspension, automatic transmission/transaxles, engine repair, climate control, and manual drive trains.

Upon completion of this curriculum students should be prepared for ASE certification and be ready for full-time employment in dealerships and repair shops in the automotive service industry. Cooperative education opportunities may be available at some North Carolina Community Colleges.

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 ( $6 / 7 \mathrm{SHC}$ ) C-L-SHC
*ENG 102 Applied Communication II 3-0-3
*MAT 101 Applied Mathematics I 2-2-3
Or
PHY 121 Applied Physics I 3-2-4
$\begin{array}{lll}\text { B. Required Major Core Courses ( } 18 \text { SHC) } & \\ \text { AUT } 141 & \text { Suspension and Steering Systems } & 2-3-3\end{array}$
AUT 151 Brake Systems 2-3-3
AUT 161 Basic Auto Electricity 4-3-5
AUT 181 Engine Performance I 2-3-3
AUT 183 Engine Performance II 2-6-4
C. Other Major Hours Required for Graduation (19/20

SHC)
AUT 110 Intro to Auto Technology 2-2-3
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 163 Advanced Auto Electricity 2-3-3
AUT 163A Advanced Auto Electricity Lab 0-3-1
AUT 171 Auto Climate Control 2-4-4
AUT 181A Engine Performance I Lab 0-3-1
AUT 186 PC Skills for Auto Techs 2-2-3
OR
CIS 111 Basic PC Literacy 1-2-2
*These courses are not transferable to the Associate in Applied Science Degree.

Total Semester Hours Credit required for graduation: 43/45

| Semester Curriculum for Automotive Systems Technology |  |  |
| :--- | :--- | ---: |
| Diploma |  |  |
| 1st Semester (Fall) | C-L-SHC |  |
| AUT 110 | Intro to Auto Technology | $2-2-3$ |
| AUT 141 | Suspension \& Steering Sys | $2-3-3$ |
| AUT 141A | Suspension \& Steering Sys Lab | $0-3-1$ |
| AUT 161 | Basic Auto Electricity | $4-3-5$ |
| AUT 186 | PC Skills for Auto Techs | $2-2-3$ |
|  | OR |  |
| CIS 111 | Basic PC Literacy | $1-2-2$ |
| *MAT 101 | Applied Mathematics I | $2-2-3$ |
|  | OR |  |
| PHY 121 | Applied Physics I | $3-2-4$ |
|  |  |  |
|  |  |  |
| 2nd Semester (Spring) | $2-113-15-17 / 19$ |  |
| AUT 151 | Brake Systems | $0-3-1$ |
| AUT 151A | Brake Systems Lab | $2-3-3$ |
| AUT 163 | Advanced Auto Electricity | $0-3-1$ |
| AUT 163A | Advanced Auto Electricity Lab | $2-3-3$ |
| AUT 181 | Engine Performance I | $0-3-1$ |
| AUT 181A | Engine Performance I Lab | $3-0-3$ |
| *ENG 102 | Applied Communication II | $9-18-15$ |
|  |  |  |
| 3rd Semester (Summer) | $1-2-2$ |  |
| AUT 114 | Safety and Emissions | $0-2-1$ |
| AUT 114A | Safety and Emissions Lab | $2-4-4$ |
| AUT 171 | Auto Climate Control | $2-6-4$ |
| AUT 183 | Engine Performance-Fuels | $5-14-11$ |

[^9] Applied Science Degree.

Total Semester Hours Credit: 43/45

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

This curriculum prepares individuals for employment as automotive service technicians. It provides an introduction to automotive careers and enhances the student's awareness of having to meet the challenges of this fast and everchanging field. Courses include both classroom and lab experiences. Emphasis is placed on theory, servicing and operation of electrical/electronic systems. Upon completion of this curriculum, students should be prepared for ASE electrical certification and 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 - Evening Program
Course Requirements for Automotive Systems Technology Certificate
A. Required Subject Areas (8 SHC) C-L-SHC

AUT 161 Basic Auto Electricity 4-3-5
AUT 181 Engine Performance I 2-3-3
B. Other Major Hours Required for Graduation (8 SHC)

AUT 163 Advanced Auto Electricity 2-3-3
AUT 163A Advanced Auto Electricity Lab 0-3-1
AUT 181A Engine Performance I Lab 0-3-1
AUT 283 Advanced Auto Electronics 2-2-3
Total Semester Hours Credit required for graduation: 16
Semester Curriculum for Automotive Systems Technology Certificate

| 1st Semester (Fall) | C-L-SHC |
| :--- | ---: |
| AUT 161 | Basic Auto Electricity |

2nd Semester (Spring)
AUT 163 Advanced Auto Electricity 2-3-3
AUT 163A Advanced Auto Electricity Lab 0-3-1
AUT 181 Engine Performance I 2-3-3
AUT 181A Engine Performance I Lab 0-3-1
AUT 283 Advanced Auto Electronics 2-2-3
6-14-11

Total Semester Hours Credit: 16

## Motorcycle Mechanics <br> Credential: Diploma in Motorcycle Mechanics <br> D60260

This curriculum provides a training program for developing the basic knowledge and skills needed to inspect, diagnose, repair and/or adjust motorcycles, and all terrain vehicles (ATV). Coursework, including a thorough understanding of the operating principles involved in modern motorcycles, will be presented in class assignments, discussion, demonstration and shop practice. 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. Required Major Core Courses ( 38 SHC )

BUS 230 Small Business Management 3-0-3
MCM 101 Introduction to Motorcycle Mech. 3-8-7
MCM 102 Motorcycle Engines 2-9-5
MCM 103 Motorcycle Electrical Systems 2-8-6
MCM 104 Motorcycle Fuel Systems 2-6-5
MCM 105 Motorcycle Chassis 1-6-3
MCM 106 Troubleshooting 2-6-4
MEC 111 Machine Processes I 1-4-3
WLD 112 Basic Welding Processes 1-3-2
C. Other Major Hours required for graduation (2 SHC) CIS 111 Basic PC Literacy 1-2-2

Total Semester Hours Credit required for graduation: 46
Semester Curriculum for Motorcycle Mechanics Diploma
1st Semester (Summer) C-L-SHC

BUS 230 Small Business Management 3-0-3
MCM 101 Introduction to Motorcycle Mech. 3-8-7
6-8-10
2nd Semester (Fall)
CIS 111 Basic PC Literacy 1-2-2
MAT 101 Applied Math I 2-2-3
MCM 102 Motorcycle Engines 2-9-5
MCM 103 Motorcycle Electrical Systems 2-8-6
WLD 112 Basic Welding Procedures 1-3-2
8-24-18

3rd Semester (Spring)
ENG 102 Applied Communication II 3-0-3
MCM 104 Motorcycle Fuel Systems 2-6-5
MCM 105 Motorcycle Chassis 1-6-3

MCM 106 Troubleshooting
2-6-4
MEC 111 Machine Processes I 1-4-3
9-22-18
Total Semester Hours Credit: 46

## Motorcycle Mechanics Credential: Certificate in Motorcycle Mechanics C60260

This curriculum provides a training program for developing the basic knowledge and skills needed to inspect, diagnose, repair and/or adjust motorcycles, and all terrain vehicles
(ATV). Coursework, including a thorough understanding of the operating principles involved in modern motorcycles, will be presented in class assignments, discussion, demonstration and shop practice.

Program Length: 2 semesters
Career Pathway Options: Diploma in Motorcycle Mechanics (Higher entrance standards required); Certificate in Motorcycle Mechanics
Program Sites: Lee Campus - Evening Program
Course Requirements for Motorcycle Mechanics Certificate
A. Required Major Courses (12 SHC) C-L-SHC

MCM 101 Introduction to Motorcycle Mechanics 3-8-7
MCM 102 Motorcycle Engines 2-9-5
Total Semester Hours Credit required for graduation: 12
Semester Curriculum for Motorcycle Mechanics Certificate

| 1st Semester (Fall) | C-L-SHC |  |
| :--- | :--- | ---: |
| MCM 101 | Introduction to Motorcycle Mechanics | $3-8-7$ |

2nd Semester (Spring)
MCM 102 Motorcycle Engines
Total Semester Hours Credit: 12

## Programs at Harnett Correctional Institution (HCI)

## Public Service Technologies

## Barbering <br> 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)

| BAR 111 | Barbering Concepts I | C-L-SHC |
| :--- | :--- | ---: |
| BAR 112 | Barbering Clinic I | $4-0-4$ |
| BAR 113 | Barbering Concepts II | $0-24-8$ |
| BAR 114 | Barbering Clinic II | $4-0-4$ |
| BAR 115 | Barbering Concepts III | $0-24-8$ |
| BAR 116 | Barbering Clinic III | $4-0-4$ |
|  | $0-12-4$ |  |

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

## 6-33-17

2nd Semester (Spring)

| BAR 113 | Barbering Concepts II |
| :--- | :--- |
| BAR 114 | Barbering Clinic II |
| BAR 118B | Barbering Clinic IV |

3rd Semester (Summer)

| BAR 115 | Barbering Concepts III |
| :--- | :--- |
| BAR 116 | Barbering Clinic III |

Total Semester Hours Credit: 41
4-0-4
0-12-4
4-12-8

## Foodservice Technology

## C-L-SHC Credential: Diploma in Foodservice <br> 4-0-4 <br> 0-24-8 <br> 0-12-4 <br> 4-36-16 <br> C-L-SHC

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 |  |
|  |  | $3-0-3$ |
| FST 100 | Introduction to Foodservice | $1-4-3$ |
| FST 101 | Introduction to Baking | $4-8-8$ |
| FST 102 | Basic Foodservice Skills | $2-2-3$ |

C. Other Major Hours Required for Graduation (18 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)

| 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: 41


## COURSE DESCRIPTIONS

## C - The number of class hours per week L - The number of laboratory hours per week Cl - The number of clinical hours per week SHC - Semester Hour Credit received for the course

## ACADEMIC RELATED

## ACA 090 Study Skills

This course is intended for those who placed into creditlevel 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 $\mathbf{1 - 0 - 1}$
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, selfassessment, 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

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

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

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 120This 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 120This 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

Local Prerequisite: ACC 120
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

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
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

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

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

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.

## ACC 269 Audit \& Assurance Services

Prerequisite: ACC 220
This course introduces selected topics pertaining to the objectives, theory, and practices in engagements providing auditing and other assurance services. Topics will include planning, conducting, and reporting, with emphasis on the related professional ethics and standards. Upon completion, students should be able to demonstrate an understanding of the types of professional services, the related professional standards, and engagement methodology.

## AGRICULTURE

## C-L-SHC

1-3-2
AGR 111 Basic Farm Maintenance
This course covers fundamentals of maintenance and repair of farm facilities and equipment. Topics include safe use of hand tools and farm machinery, carpentry, concrete, painting, wiring, welding, plumbing, and calculating costs and materials needed. Upon completion, students should be able to answer theoretical questions on topics covered and assist with maintenance and repair of farm facilities and equipment.

## AGR 121 Biological Pest Mgmt

3-0-3
This course will emphasize the building and maintaining of healthy soil, plant, and insect biological cycles as the key to pest and disease management. Course content includes study of major pests and diseases, including structure, life cycle, and favored hosts; and biological and least toxic methods of chemical control. Upon completion, students should be able to identify and recommend methods of prevention and control of selected insects and diseases.

## AGR 139 Intro to Sustainable Ag

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

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 fertilizing. Topics include liming, fertilization, management, and plant nutrients. Upon completion, students should be able to give nutrient and liming recommendations for soils.

## 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

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

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 <br> 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
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.
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 Agriculture3-0-3 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.

## 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

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

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 $220 \quad$ 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.

## ALT 221 Adv PV Sys Designs

Prerequisites: ALT 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.

## ALT 230 Biofuels Waste Management

2-0-2
Prerequisite: ALT 110
Corequisites: None
This course is designed to address the issues of sustainability and environmental stewardship involved with the production and use of biofuels. Topics include the sustainable production of feedstocks, efficient and lowenergy methods of fuel production, and management of biofuels sidestreams. Upon completion, students should be able to identify and mediate environmental impacts of biofuels and understand the importance of producing biofuels using sustainable practices.

## ALT 240 Wind \& Hydro Power Sys

 2-2-3This course introduces concepts, designs, tools, techniques, and material requirements for systems that convert wind and water into usable energy. Topics include the analysis, measurement, and estimation of potential energy of wind and water systems. Upon
completion, students should be able to demonstrate an understanding of the technologies associated with converting wind and water into a viable energy source.

## ALT 250 Thermal Systems 2-2-3

This course introduces concepts, tools, techniques, and materials used to convert thermal energy into a viable, renewable energy resource. Topics include forced convection, heat flow and exchange, radiation, the various elements of thermal system design, regulations, and system installation and maintenance. Upon completion, students should be able to demonstrate an understanding of geothermal and solar thermal systems and corresponding regulations.

## ALT 281 Biofuels Project Experience

Prerequisites: ALT 110, ALT 120, and ALT 210 Corequisites: None
This course provides an opportunity to pursue an individual project in biofuels. Emphasis is placed on developing, performing, and maintaining records of a project in a specific area of interest. Upon completion, students should be able to complete the project with accurate records and demonstrate an understanding of the process.

## ANIMAL SCIENCE

ANS 110 Animal Science

## C-L-SHC

This course introduces the livestock industry. Topics include nutrition, reproduction, production practices, diseases, meat processing, and marketing. Upon completion, students should be able to demonstrate a basic understanding of livestock production practices and the economic impact of livestock in North Carolina.

## ANS 111 Sustainable Livestock Mgt

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

ANT 210 General Anthropology

## C-L-SHC

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

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.

## ARCHITECTUAL TECHNOLOGY

## ARC 111 Intro to Arch Technology

## C-L-SHC

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.

## ARC 210 Intro to Sustain Design

Prerequisites: ARC 111
This course introduces concepts and principles related to sustainable site development and architectural design. Topics include low impact and sustainable site development, water efficiency, energy efficiency, material and resource management, indoor environmental quality, and return on investment. Upon completion, students should be able to articulate and integrate sustainable design principles into site and architectural design.

## AUTOMOTIVE RESTORATION

## ARS 101 Intro to Automotive Rest

2-0-2
This course introduces the automotive restoration industry. Emphasis is placed on the research of the evolution of the automobile from steam to the internal combustion engine in the United States and Europe. Upon completion, students should be able to describe the process of automotive restoration and note the worldwide impact of the automobile.

ARS 102 Auto Restoration Research
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 103 Automobile Upholstery
This course covers automobile upholstery work used in
restoration of classic automobiles. Emphasis is placed on
removing, repairing, or reconstructing worn/damaged
upholstery material in classic automobiles. Upon
completion, students should be able to disassemble,
repair/reconstruct, or replace the seats, headliners, door
panels, and other components in the interior of vehicles.

ARS 104 Restoration Skills I 2-4-4
Corequisites: ARS 103, ARS 107, ARS 131 and (AUT 161 or ARS 161)

This course covers mechanical, electrical, and upholstery restoration. Emphasis is placed on engines, transmissions, brakes, starters, generators, distributors, and replacement or fabrication of upholstery. Upon completion, students should be able to restore, rebuild, or replace specific components in a wide range of classic vehicles.

ARS 107 Automotive Engines
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 108 Wood \& 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.

ARS 161 Electrical Systems Fund 2-6-4
This course covers six/twelve volt electrical theory, wiring diagrams, test equipment, diagnosis/repair/replacement of batteries, starters, accessories, and AC/DC generators.
Topics include diagnosis, repair, and/or modification of
conventional battery, starting, charging, lighting, and basic accessory systems problems. Upon completion, students should be able to diagnose, test, and repair the basic electrical components on vehicles in the restoration industry.

## ART

## ART 111 Art Appreciation

This course introduces the origins and historical development of art. Emphasis is placed on the relationship of design principles to various art forms including but not limited to sculpture, painting, and architecture. Upon completion, students should be able to identify and analyze a variety of artistic styles, periods, and media. This course has been approved for transfer under the CAA and ICAA as a 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 <br> 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

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 nonWestern 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 twodimensional 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

Prerequisites: ART 121
This course introduces basic studio problems in threedimensional visual design. Emphasis is placed on the structural elements and organizational principles as applied to mass and space. Upon completion, students should be able to apply three-dimensional design concepts. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

## ART 131 Drawing I

This course introduces the language of drawing and the use of various drawing materials. Emphasis is placed on drawing techniques, media, and graphic principles. Upon completion, students should be able to demonstrate competence in the use of graphic form and various drawing processes. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

## ART 132 Drawing II

Prerequisites: ART 131
This course continues instruction in the language of drawing and the use of various materials. Emphasis is placed on experimentation in the use of drawing techniques, media, and graphic materials. Upon completion, students should be able 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

This course introduces printmaking: its history, development techniques, and processes. Emphasis is placed on basic applications with investigation into image source and development. Upon completion, students should be able to produce printed images utilizing a variety of methods. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

## ART 232 Printmaking II

Prerequisites: ART 231
This course includes additional methods and printmaking processes. Emphasis is placed on the printed image as related to method, source, and concept. Upon completion, students should be able to produce expressive images utilizing both traditional and innovative methods. This
course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

## ART 240 Painting I

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

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

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

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

Prerequisites: ART 284
This course provides the opportunity for advanced selfdetermined 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 <br> 0-6-3

This course provides the opportunity for advanced selfdetermined 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

## AST 111 Descriptive Astronomy

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

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

## AUB 111 Painting and Refinishing I

C-L-SHC 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

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 <br> 1-4-3

This course introduces safety, tools, and the basic fundamentals of body repair. Topics include shop safety, damage analysis, tools and equipment, repair techniques, materials selection, materials usage, and other related topics. Upon completion, students should be able to identify and repair minor direct and indirect damage including removal/repairing/replacing of body panels to accepted standards.

AUB 134 Autobody MIG Welding 1-4-3 This course covers the terms and procedures for welding the various metals found in today's autobody repair industry with an emphasis on personal/environmental safety. Topics include safety and precautionary measures, setup/operation of MIG equipment, metal identification methods, types of welds/joints, techniques, inspection methods, and other related topics. Upon completion, students should be able to demonstrate a basic knowledge of welding operations and safety procedures according to industry standards.

AUB 141 Mech \& Elec Components I 2-2-3
This course covers the basic principles of automotive mechanical and electrical components. Topics include personal and environmental safety, suspension and steering, electrical, brake, heating and air-conditioning, cooling, drive train, and restraint systems. Upon completion, students should be able to identify system components and perform basic system diagnostic checks and/or repairs according to industry standards.

## AUTOMOTIVE

## C-L-SHC

## AUT 110 Intro to Auto Technology

This course covers workplace safety, hazardous material, and environmental regulations, use of hand tools, service information resources, basic concepts, systems, and terms of automotive technology. Topics include familiarization with vehicle systems along with identification and proper use of various automotive hand and power tools. Upon completion, students should be able to describe safety and environmental procedures, terms associated with automobiles, and identify and use basic tools and shop equipment.

## AUT 114 Safety and Emissions <br> 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

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

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 <br> 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

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 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

This course covers principles of operation and types, diagnosis, service, and repair of brake systems. Topics include drum and disc brakes involving hydraulic, vacuum boost, hydra-boost, electrically powered boost, and anti-lock and parking brake systems. Upon completion, students should be able to diagnose, service, and repair various automotive braking systems.

## AUT 151A Brake Systems Lab

Corequisite: AUT 151
This course is an optional lab to be used as an alternative to co-op placement in meeting the NATEF standards for total hours. Topics include drum and disc brakes involving hydraulic, vacuum-boost, hydra-boost, electrically powered boost, and anti-lock, parking brake systems, and emerging brake systems technologies. Upon completion, students should be able to diagnose, service, and repair various automotive braking systems.

## AUT 161 Basic Auto 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.

## AUT 163 Adv Auto Electricity

2-3-3
Prerequisite: AUT 161
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 171 Auto Climate Control

This course covers the theory of refrigeration and heating, electrical/electronic/pneumatic controls, and diagnosis/repair of climate control systems. Topics include diagnosis and repair of climate control components and systems, recovery/recycling of refrigerants, and safety and environmental regulations. Upon completion, students should be able to describe the operation, diagnose, and safely service climate control systems using appropriate tools, equipment, and service information.

AUT 181 Engine Performance $1 \quad$ 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 Corequisite: AUT 181

 0-3-1This 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 emissionrelated drive ability problems using appropriate test equipment/service information.

## AUT 183 Engine Performance 2 <br> Prerequisite: AUT 181 <br> 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 186 PC Skills for Auto Techs 2-2-3

This course introduces students to personal computer literacy and Internet literacy with an emphasis on the automotive service industry. Topics include service information systems, management systems, computer-based systems, and PC-based diagnostic equipment. Upon completion, students should be able to access information pertaining to automotive technology and perform word processing.

## AUT 212 Auto Shop Management 3-0-3

This course covers the principles of management essential to decision-making, communication, authority, and leadership. Topics include shop supervision, shop organization, customer relations, cost effectiveness and workplace ethics. Upon completion, students should be able to describe basic automotive shop operation from a management standpoint.

## AUT 221 Auto Transm/Transaxles

This course covers operation, diagnosis, service, and repair of automatic transmissions/transaxles. Topics include hydraulic, pneumatic, mechanical, and electrical/electronic operation of automatic drive trains and the use of appropriate service tools and equipment. Upon completion, students should be able to explain operational theory and diagnose and repair automatic drive trains.

AUT 221A Auto Transm/Transax Lab 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 <br> 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 <br> 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 281 Advanced Engine Performance

This course utilizes service information and specialized test equipment to diagnose and repair power train control systems. Topics include computerized ignition, fuel and emission systems, related diagnostic tools and equipment, data communication networks, and service information. Upon completion, students should be able to perform diagnosis and repair.

## AUT 282 Engine Electrical Management 3-9-6

This course includes principles, systems, and procedures
required for diagnosing and restoring engine performance/driveability and emission control through mechanical, electrical, and gas analysis. Emphasis is placed on diagnostics using mechanical, electrical (including onboard), and gas analysis to determine root causes for repair purposes. Upon completion, students should be able to diagnose and repair PCM-related engine performance/driveability and emission problems.

## AUT 283 Advanced Automotive Electronics <br> 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
Corequisite: BAR 112
This course introduces basic barbering concepts and includes careers in barber styling and various hair treatments. Emphasis is placed on sanitizing equipment, professional ethics, skin, scalp, and hair disorders and treatment, and safe work practices. Upon completion, students should be able to safely and competently apply barbering concepts in the shop setting.

## BAR 112 Barbering Clinic I

## Corequisite: BAR 111

This course introduces basic clinic services. Topics include a study of sanitizing procedures for implements and equipment, determination of hair texture, hair cutting, and hair processing. Upon completion, students should be able to safely and competently demonstrate shop services.

## BAR 113 Barbering Concepts II

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

Corequisite: BAR 113
This course provides experience in a simulated shop setting. Topics include draping, shampooing, hair cutting, and hair drying as well as chemical processing. Upon completion, students should be able to safely and competently apply these barbering concepts in the shop setting.

## BAR 115 Barbering Concepts III

Corequisite: BAR 116
This course covers more comprehensive barbering concepts. Topics include hair processing as well as finger waving, wet and thermal hairstyling, skin care, including electricity/light therapy, and manicuring. Upon completion, students should be able to safely and competently apply these barbering concepts in the shop setting.

## BAR 116 Barbering Clinic III

## 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

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

## 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

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

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

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

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

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

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 nonseed 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

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

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

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 161 Introduction to Human Biology
This course provides a basic survey of human biology. Emphasis is placed on the basic structure and function of body systems and the medical terminology used to describe normal and pathological states. Upon completion, students should be able to demonstrate an understanding of normal anatomy and physiology and the appropriate use of medical terminology.

BIO 163 Basic Anatomy and Physiology
This course provides a basic study of the structure and function of the human body. Topics include a basic study of the body systems as well as an introduction to homeostasis, cells, tissues, nutrition, acid-base balance, and electrolytes. Upon completion, students should be able to demonstrate a basic understanding of the fundamental principles of anatomy and physiology and their interrelationships. This course has been approved 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 <br> 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
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

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

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

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 271 Pathophysiology

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
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

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

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

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

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
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 industrialscale procedures.

## BLUEPRINT READING

## BPR 111 Blueprint Reading

C-L-SHC 1-2-2
This course introduces the basic principles of blueprint reading. Topics include line types, orthographic projections, dimensioning methods, and notes. Upon completion, students should be able to interpret basic blueprints and visualize the features of a part.

## BPR 115 Electric/Fluid Power Diagrams

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

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

This course covers the interpretation of blueprints and specifications that are associated with the construction trades. Emphasis is placed on interpretation of details for foundations, floor plans, elevations, and schedules. Upon completion, students should be able to read and interpret a set of construction blueprints.

## BROADCAST PRODUCTION

## BPT 110 Intro to Broadcasting

This course introduces the field of broadcasting and other electronic media. Emphasis is placed on the history, development, and current status of radio, television, and related industries. Upon completion, students should be able to demonstrate knowledge of regulations, organizational structure, revenue sources, historical development, and
ongoing operation of broadcasting and related industries.

## BPT 111 Broadcast Law \& Ethics

This course covers judicial, legislative, and administrative policies pertinent to the ethical and legal operation of broadcast and other electronic media organizations. Emphasis is placed on legal and ethical issues including First Amendment protection, FCC regulations, copyright, and libel laws. Upon completion, students should be able to demonstrate an understanding of the historical significance and modern-day application of important broadcast laws and policies.

BPT 112 Broadcast Writing
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

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
This course covers basic preparation and performance of on-air talents' speaking quality. Emphasis is placed on developing a pleasant and efficient voice with techniques applied to taped news, features, commercial copy, and announcing. Upon completion, students should be able to show improvement and aptitude in proper articulation, pronunciation, rate of delivery, pitch, breathing techniques, inflection, projection, and phrasing.

## BPT 122 Broadcast Speech II

Prerequisite: BPT 121
This course covers basic and advanced preparation and performance of on-air speech. Emphasis is placed on enhancing a pleasant, effective voice with techniques applied to impromptu speaking, radio plays, and taped presentations. Upon completion, students should be able to employ proper articulation, pronunciation, rate of delivery, phrasing, and other voice techniques in a professional manner.

## BPT 131 Audio/Radio Production I 2-6-4

This course covers the creation, development, production, and presentation of audio programming elements for broadcast and/or other electronic media applications. Emphasis is placed on the proper operation of professional audio equipment and the study of basic physical behavior and perceptual effects of sound. Upon completion, students should be able to correctly operate audio recording and playback equipment and demonstrate an understanding of the basic components of sound.

## BPT 132 Audio/Radio Production II

Prerequisite: BPT 131
This course covers the use of advanced audio production techniques in broadcast and/or other electronic media applications. Topics include basic audio signal processing equipment and analog and digital professional audio recording and playback equipment. Upon completion, students should be able to optimize the use of professional
audio equipment in the production of effective audio programming.

## BPT 135 Radio Performance I

This course provides an opportunity to operate the college radio station as an announcer/board operator. Emphasis is placed on operating control-room equipment, logging transmitter readings, EBS tests, reading news, and broadcasting free of interruptions. Upon completion, students should be able to prepare music, public service announcements, and promos for timely broadcast; introduce songs/programs smoothly; and follow FCC rules.

## BPT 210 Broadcast Management

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

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

This course covers the language of film/video, shot composition, set design, lighting, production planning, scripting, editing, and operation of video and television production equipment. Emphasis is placed on mastering the body of knowledge and techniques followed in producing all forms of video and television production. Upon completion, students should be able to produce basic video and television productions in a team environment.

## BPT 232 Video/TV Production II

## Prerequisite: BPT 231

This course covers advanced video and television production. Emphasis is placed on field production, postproduction, 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

This course provides hands-on experience in the operation of television studios and/or stations. Emphasis is placed on the application of skills through direct participation in the production or distribution of television programs. Upon completion, students should be able to demonstrate competence in performing key station and/or studio duties.

BPT 236 TV Performance II
Prerequisite: BPT 235
This course provides hands-on experience in the operation of television studios and/or stations. Emphasis is placed on the application of skills through direct participation in the production or distribution of television programs. Upon completion, students should be able to demonstrate competence in performing key station and/or studio duties.

## BPT 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

BUS 110 Introduction to Business C-L-SHC
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

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

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

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

This course introduces the basic concepts of identity and communication in the business setting. Topics include selfconcept, 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, nondestructive, positive communication patterns.

## BUS 153 Human Resource Management

This course introduces the functions of personnel/human resource management within an organization. Topics include equal opportunity and the legal environment, recruitment and selection, performance appraisal, employee development, compensation planning, and employee relations. Upon completion, students should be able to anticipate and resolve human resource concerns.

## BUS 217 Employment Law and Regulations

This course introduces the principle laws and regulations affecting public and private organizations and their employees or prospective employees. Topics include fair employment practices, EEO, affirmative action, and employee rights and protections. Upon completion, students should be able to evaluate organization policy for compliance and assure that decisions are not contrary to law.

## 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

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 <br> 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 237 Current Management Issues

This course introduces current management issues and problems. Emphasis is placed on the management topics and challenges faced by all employees in an organization. Upon completion, students should be able to critically analyze alternative solutions within a team environment.

## 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

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

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.

## BUS 285 Business Management Issues

Prerequisites: BUS 137
This course covers contemporary issues that affect successful businesses and their managers and employees. Emphasis is placed on using case studies and exercises to develop analytical and problem-solving skills, ethics, quality management concepts, team skills, and effective communication. Upon completion, students should be able to apply the specific knowledge and skills covered to become more effective managers and employees.

## CABINETMAKING

CAB 111 Cabinetmaking I
C-L-SHC
This course introduces wood technology, materials, purchasing, estimating, design considerations, and cabinet construction. Topics include wood identification and use, hand tools, safe machine operation, glue and clamping, abrasives, wood joinery, kitchen and bath layout, laminates, and finishing techniques. Upon completion, students should be able to select and process materials; make sound production decisions; and design, lay out, construct, and install cabinets. This is a diploma-level course.

## CARPENTRY

CAR C-L-SHC
CAR 110 Introduction to Carpentry
Prerequisite: None
Corequisite: None
This course introduces the student to the carpentry trade. Topics include duties of a carpenter, hand and power tools, building materials, construction methods, and safety. Upon completion, students should be able to identify hand and power tools, common building materials, and basic construction methods.

CAR 111 Carpentry I
3-15-8
This course introduces the theory and construction methods associated with the building industry; including framing, materials, tools, and equipment. Topics include safety, hand/power tool use, site preparation, measurement and layout, footings and foundations, construction framing, and other related topics. Upon completion, students should be able to safely lay out and perform basic framing skills with supervision. This is a diploma-level course.

## CAR 112 Carpentry II

3-15-8
Prerequisite: CAR 111
This course covers the advanced theory and construction methods associated with the building industry, including framing and exterior finishes. Topics include safety, hand/power tool use, measurement and layout, construction framing, exterior trim and finish, and other related topics. Upon completion, students should be able to safely frame and apply exterior finishes to a residential building with
supervision.
CAR 113 Carpentry III
Prerequisite: CAR 111
This course covers interior trim and finishes. Topics include safety, hand/power tool use, measurement and layout, specialty framing, interior trim and finishes, cabinetry, and other related topics. Upon completion, students should be able to safely install various interior trim and finishes in a residential building with supervision.

## CAR 114 Residential Building Codes

3-0-3
This course covers building codes and the requirements of state and local construction regulations. Emphasis is placed on the minimum requirements of the North Carolina building codes related to residential structures. Upon completion, students should be able to determine if a structure is in compliance with North Carolina building codes.

## CAR 115 Residential Planning/Estimating

Prerequisite: BPR 130
This course covers project planning, management, and estimating for residential or light commercial buildings. Topics include planning and scheduling, interpretation of working drawings and specifications, estimating practices, and other related topics. Upon completion, students should be able to perform quantity take-offs and cost estimates.

## COMPUTER ENGINEERING TECHNOLOGY

## 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

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.

## CET 225 Digital Signal Processing

Local Prerequisite: ELN 133
This course introduces concepts and applications of digital signal processing. Topics include Fourier analysis, signal sampling, digital filtering, IIR filters, FIR filters, and DSP programming. Upon completion, students should be able to implement and troubleshoot DSP systems in hardware and software.

## CHEMISTRY

## C-LSHC 4-0-4 <br> CHM 090 Chemistry Concepts

This course provides a non-laboratory based introduction to basic concepts of chemistry. Topics include measurements, matter, energy, atomic theory, bonding, molecular structure, nomenclature, balancing equations, stoichiometry, solutions, acids and bases, gases, and basic organic chemistry. Upon completion, students should be able to understand and apply basic chemical concepts necessary for success in collegelevel science courses.

## CHM 130 General, Organic and Biochemistry

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 130This 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

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 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 spectrophometer, 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

## 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

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 <br> 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 <br> 3-3-4 <br> 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

CHI 111 Elementary Chinese I
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

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

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 <br> 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

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

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

C-L-SHC
CIS 110 Introduction to Computers 2-2-3
This course introduces computer concepts, including
fundamental functions and operations of the computer. Topics include identification of hardware components, basic computer operations, security issues, and use of software applications. Upon completion, students should be able to demonstrate an understanding of the role and function of computers and use the computer to solve problems. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

CIS 111 Basic PC Literacy
This course provides an overview of computer concepts. Emphasis is placed on the use of personal computers and software applications for personal and fundamental workplace use. Upon completion, students should be able to demonstrate basic personal computer skills.

CIS 115 Introduction to Programming and Logic 2-3-3
Prerequisite: MAT 070, MAT 080, MAT 090, MAT 095, MAT 120, MAT 121, MAT 161, MAT 171, or 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 for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

## 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

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

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

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

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

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

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

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

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

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

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

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

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

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
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 244 Footwear and Tire Imprints 2-3-3
This course provides a study of the fundamental concepts of footwear and tire imprint evidence as related to forensic science. Topics include proper photographic recording, casting, recognition of wear patterns, and imprint identification. Upon completion, students should be able to recognize, record, photograph, and identify footwear and tire imprints.

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

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

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 <br> 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.

## CJC 252 Forensics Chemistry II

This course provides a study of specialized areas of chemistry specifically related to forensic science. Topics include properties of light, emission and absorption spectra, spectrophotometry, gas and liquid chromatography, and related topics in organic and biochemistry. Upon completion, students should be able to demonstrate an understanding of specialized concepts in forensic chemistry.

## CONSTRUCTION MANAGEMENT TECHNOLOGY

## CMT 120 Codes and Inspections

3-0-3
This course covers building codes and the code inspections process used in the design and construction of residential and commercial buildings. Emphasis is placed on commercial, residential, and accessibility (handicapped) building codes. Upon completion, students should be able to understand the building code inspections process and apply building code principals and requirements to construction projects

## CMT 210 Prof Construction Superv 3-0-3

This course introduces the student to the fundamentals of effective supervision emphasizing professionalism through knowledge and applied skills. Topics include safety, planning and scheduling, contract, problem-solving, communications, conflict resolution, recruitment, employment laws and regulations, leadership, motivation, teamwork, discipline, setting objectives, and training. Upon completion, the student should be able to demonstrate the basic skills necessary to be successful as a supervisor in the construction industry.

CMT 214 Planning and Scheduling
Prerequisites: CMT 210 and BPR 130
This course covers the need for and the process of planning construction projects, as well as the mechanics and
vocabulary of project scheduling. Topics include project preplanning, scheduling formats, planning for production, short interval planning, schedule updating and revising, and computer-based planning and scheduling. Upon completion, the student should be able to understand the need for planning and scheduling, the language and logic of scheduling, and use of planning skills.

CMT 224 Statics in Construction 2-2-3
This course covers the concepts and principles of statics in construction. Topics include systems of forces and moments on structures in two and three dimensions in equilibrium. Upon completion, students should be able to analyze forces and moments on structures.

## COOPERATIVE EDUCATION

## C-L-W-SHC

COE 110 World of Work 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
This course provides work experience with a collegeapproved 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

This course provides work experience with a collegeapproved 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
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
This course provides work experience with a collegeapproved 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

This course provides work experience with a collegeapproved 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 125 Work Experience Seminar II <br> Corequisite: COE 121, COE 122, COE 123, or COE 124

This course may accompany COE 121, COE 122, COE 123, or COE 124. Students will present their work experience and evaluate work opportunities afforded by the co-op.

## COE 131 Co-op Work Experience III

This course provides work experience with a collegeapproved 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 135 Work Experience Seminar III

Corequisite: COE 131, COE 132, COE 133, or COE 134
This course may accompany COE 131, COE 132, COE 133, or COE 134. Students will present their work experience and evaluate work opportunities afforded by the co-op.

## COMMUNICATION

C-L-SHC
COM 110 Introduction to Communication
3-0-3
This course provides an overview of the basic concepts of communication and the skills necessary to communicate in various contexts. Emphasis is placed on communication theories and techniques used in interpersonal group, public, intercultural, and mass communication situations. Upon completion, students should be able to explain and illustrate the forms and purposes of human communication in a variety of contexts. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

## COM 120 Introduction to Interpersonal

 CommunicationThis 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
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 140 Introduction to Intercultural

 CommunicationThis course introduces techniques of cultural research, definitions, functions, characteristics, and impacts of cultural differences in public address. Emphasis is placed on how diverse backgrounds influence the communication act and how cultural perceptions and experiences determine how one sends and receives messages. Upon completion, students should be able to demonstrate an understanding of the principles and skills needed to become effective in communicating outside one's primary culture. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts (Substitute).

## COM 231 Public Speaking

This course provides instruction and experience in preparation and delivery of speeches within a public setting and group discussion. Emphasis is placed on research, preparation, delivery, and evaluation of informative, persuasive, and special occasion public speaking. Upon completion, students should be able to prepare and deliver well-organized speeches and participate in group discussion with appropriate audiovisual support. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

## COSMETOLOGY

## C-L-SHC

4-0-4
COS 111 Cosmetology Concepts I

## Corequisite: COS 112

This course introduces basic cosmetology concepts. Topics include safety, first aid, sanitation, bacteriology, anatomy, diseases and disorders, hygiene, product knowledge, chemistry, ethics, manicures, and other related topics. Upon completion, students should be able to safely and competently apply cosmetology concepts in the salon setting.

COS 112 Salon I
Corequisite: COS 111
This course introduces basic salon services. Topics include scalp treatments, shampooing, rinsing, hair color, design, haircutting, permanent waving, pressing, relaxing, wigs, and other related topics. Upon completion, students should be able to safely and competently demonstrate salon services.

COS 113 Cosmetology Concepts II 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

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

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 <br> 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 <br> 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 entrylevel 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

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

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 <br> 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 253 Esthetics Instr Concepts I

This course introduces esthetic instructional concepts and skills. Topics include orientation, theories of education, unit planning, daily lesson plans, laboratory management, and student assessment in a laboratory setting. Upon completion, students should be able to demonstrate esthetic services and instruct and objectively assess student performance in a classroom setting.

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

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
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

CSC 134 C++ Programming
C-L-SHC 2-3-3
This course introduces computer programming using the $\mathrm{C}++$ programming language with object-oriented programming principles. Emphasis is placed on eventdriven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test, and debug at a
beginning level. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

CSC 139 Visual BASIC Programming
This course introduces computer programming using the Visual BASIC programming language with object-oriented programming principles. Emphasis is placed on eventdriven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test, and debug at a beginning level. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

CSC 151 JAVA Programming
2-3-3
This course introduces computer programming using the JAVA programming language with object-oriented programming principles. Emphasis is placed on eventdriven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion students should be able to design, code, test, debug JAVA language programs. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

## CONSTRUCTION TECHNOLOGY

## CST 111 Construction I

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

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.

## COMPUTER INFORMATION TECHNOLOGY

CTS 115 Information Systems Business Concept 3-0-3
The course introduces the role of IT in managing business processes and the need for business process and IT alignment. Emphasis is placed on industry need for understanding business challenges and developing/managing information systems to contribute to
the decision making process based on these challenges. Upon completion, students should be able to demonstrate knowledge of the 'hybrid business manager' and the potential offered by new technology and systems. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

## CTS 120 Hardware/Software Support

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 devicedrivers. 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

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 286 Network Support

Prerequisite: NOS 230 or NOS 231
This course provides experience using CD-ROM and online research tools and hands-on experience for advanced hardware support and troubleshooting. Emphasis is placed on troubleshooting network adapter cards and cabling, network storage devices, the DOS workstation, and network printing. Upon completion, students should be able to analyze, diagnose, research, and fix network hardware problems.

## CTS 287 Emerging Technologies <br> 3-0-3

This course introduces emerging information technologies. Emphasis is placed on evolving technologies and trends in business and industry. Upon completion, students should be able to articulate an understanding of the current trends and issues in emerging technologies for information systems.

## CTS 289 System Support Project <br> 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.

## DATABASE MANAGEMENT TECHNOLOGY

## DBA 110 Database Concepts

> C-L-SHC

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 115 Database Applications

2-2-3
Prerequisite: DBA 110
This course applies concepts learned in DBA 110 to a specific DBMS. Topics include manipulating multiple tables, advanced queries, screens and reports, linking, and command files. Upon completion, students should be able to create multiple table systems that demonstrate updates, screens, and reports representative of industry requirements.

## 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 <br> 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

## C-L-Cl-SHC

## DEN 100 Basic Orofacial Anatomy

This course provides a basic introduction to the structures of the head, neck, and oral cavity. Topics include tooth morphology, head and neck anatomy, histology, and embryology. Upon completion, students should be able to demonstrate knowledge of normal structures and development and how they relate to the practice of dental assisting. This is a diploma-level course.

## 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
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 entrylevel skills, including functions delegable to a DA II. This is a diploma-level course.

DEN 110 Orofacial Anatomy
This course introduces the structures of the head, neck, and oral cavity. Topics include tooth morphology, head and neck anatomy, histology, and embryology. Upon completion, students should be able to relate the identification of normal 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 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 <br> Prerequisite: DEN 121

0-0-9-3
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 $\quad \mathbf{2 - 0 - 0 - 2}$
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 151 CAD I

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

Local Prerequisite: DFT 152
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

Local Prerequisite: DFT 151
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 214 Descriptive Geometry <br> Prerequisite: DFT 111 <br> This course includes a graphic analysis of space problems. <br> Topics include points, lines, planes, connectors, and combinations of these. Upon completion, students should be able to solve real world spatial problems using descriptive geometry techniques.

## DFT 254 Intermed Solid Model/Render <br> 2-3-3

Prerequisites: DFT 154
This course presents a continuation of basic threedimensional 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.

## DIGITAL MEDIA TECHNOLOGY

## DME 115 Graphic Design Tools

C-L-SHC
2-2-3
This course provides students with an introduction to creative expression and art/design techniques in a digital environment. Emphasis is placed on designing, creating, editing, and integrating visual components consisting of bitmapped and vector-based images, drawings, banners, text, simple animations, and multiple layers. Upon completion, students should be able to design and produce a range of visual products using digital processing techniques.

## DRAMA/THEATRE

## DRA 111 Theatre Appreciation

## C-L-SHC 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

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

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
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

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

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 <br> 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 <br> Prerequisites: DRA 140 <br> 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
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

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

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

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

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

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


 0-6-3




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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.

## 0-9-3

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 118 Principles \& Practices of Inst. Asst. 3-0-3 Minimum State Prerequisites Take One Set: Set 1: ENG 080 and RED 080 or Set 2: ENG 085
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 <br> 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

Minimum State Prerequisites Take One Set: Set 1: ENG 080 and RED 080 or Set 2: ENG 085
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

Minimum State Prerequisites Take One Set: Set 1: ENG 080 and RED 080 or Set 2: ENG 085
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 <br> 3-0-3

Minimum State Prerequisites Take One Set: Set 1: ENG 080 and RED 080 or Set 2: ENG 085
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
Minimum State Prerequisites Take One Set: Set 1: ENG 080 and RED 080 or Set 2: ENG 085
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

Minimum State Prerequisites Take One Set: Set 1: ENG 080 and RED 080 or Set 2: ENG 085
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

Minimum State Prerequisites Take One Set: Set 1: ENG 080 and RED 080 or Set 2: ENG 085
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

Minimum State Prerequisites Take One Set: Set 1: ENG 080 and RED 080 or Set 2: ENG 085
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 221 Children with Exceptional

Minimum State Prerequisites: Take one set:
Set 1: ENG 090, RED 090, EDU 144, and EDU 145
Set 2: ENG 090, RED 090, PSY 244, and PSY 245
Set 3: ENG 095, EDU 144, and EDU 145
Set 4: ENG 095, PSY 244, and PSY 245
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
Minimum State Prerequisites Take One Set: Set 1: ENG 090 and RED 090 or Set 2: ENG 095
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 Minimum State Prerequisites Take One Set: Set 1: ENG 090 and RED 090 or Set 2: ENG 095
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 241 Adult-Child Relations
Minimum State Prerequisites Take One Set: Set 1: ENG 090 and RED 090 or Set 2: ENG 095
This course covers self-concept and effective and active listening skills in positive one-to-one interactions with individuals and groups of children. Emphasis is placed on self-concept development and effective communication techniques used with children. Upon completion, students should be able to identify principles underlying self-concept and demonstrate effective listening and communication skills used by adults with children.

## EDU 243 Learning Theory

3-0-3
Minimum State Prerequisites Take One Set: Set 1: ENG 090 and RED 090 or Set 2: ENG 095
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 244 Human Growth/Development

Minimum State Prerequisites Take One Set: Set 1: ENG 090 and RED 090 or Set 2: ENG 095
This course introduces lateral entry teachers to theories and ages and stages related to human growth and development from birth through adolescence. Emphasis is placed on development through the stages of a child's life in the areas of physical, emotional, social, intellectual, and moral development. Upon completion, students should be able to identify and describe milestones of each stage in all areas of development and discuss factors that influence growth.

## EDU 245 Policies and Procedures <br> 3-0-3

Minimum State Prerequisites Take One Set: Set 1: ENG 090 and RED 090 or Set 2: ENG 095
This course is designed to introduce new lateral entry teachers to the policies and procedures established by the local education agency. Topics include emergency situation procedures, acceptable discipline, chain of command, role of mentors, evaluation procedures, employment requirements, dress codes, and other policies and procedures. Upon completion, students should be able to explain the policies and procedures to students, parents, or others and discuss the purpose of each policy category.

## EDU 252 Math and Sci Activities

3-0-3
Minimum State Prerequisites Take One Set: Set 1: ENG 090 and RED 090 or Set 2: ENG 095
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 254 Music and Movement for Children
Minimum State Prerequisites Take One Set: Set 1: ENG 090 and RED 090 or Set 2: ENG 095
This course covers the use of music and creative movement for children. Topics include a general survey of the basic elements of music and planning, designing, and implementing music and movement experiences for creative learning. Upon completion, students should be able to use voice and various musical instruments to provide musical and movement activities for children.

## EDU 257 Instructional Strategies/Math

Minimum State Prerequisites Take One Set: Set 1: ENG 090, RED 090, and MAT 060 or Set 2: ENG 095 and MAT 060 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

Minimum State Prerequisites Take One Set: Set 1: ENG 090 and RED 090 or Set 2: ENG 095
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

Minimum State Prerequisites Take One Set: Set 1: ENG 090, RED 090, and EDU 119
Set 2: ENG 095 and EDU 119
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

Minimum State Prerequisites Take One Set: Set 1: ENG 090 and RED 090 or Set 2: ENG 095
Minimum State Corequisites: Take EDU 119
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

Minimum State Prerequisites Take One Set: Set 1: ENG 090, RED 090 and EDU 261 or Set 2: ENG 095 and EDU 261 Minimum State Corequisites: Take EDU 119
This course focuses on advocacy/leadership, public relations/community outreach and program quality/evaluation for diverse early childhood programs. Topics include program evaluation/accreditation, involvement in early childhood professional organizations, leadership/mentoring, family, volunteer and community involvement and early childhood advocacy. Upon completion, students should be able to define and evaluate all components of early childhood programs, develop strategies for advocacy and integrate community into programs.

## EDU 271 Educational Technology

Minimum State Prerequisites Take One Set: Set 1: ENG 090 and RED 090 or Set 2: ENG 090
Local Prerequisite: CIS 110 or CIS 111 to EDU 271
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

Minimum State Prerequisites Take One Set: Set 1: ENG 090 and RED 090 or Set 2: ENG 095
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
Minimum State Prerequisites Take One Set: Set 1: ENG 090 and RED 090 or Set 2: ENG 095
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 Strategeries/Read\&Write 2-2-3

Minimum State Prerequisites Take One Set: Set 1: ENG 090 and RED 090 or Set 2: ENG 095
This course covers concepts, resources, and methods for teaching reading and writing to elementary through middlegrade 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 285 INTERNSHIP EXP SCHOOL AGE

Minimum State Prerequisites Take One Set:
Set 1: ENG 090, RED 090, EDU 144, EDU 145, EDU 118, EDU 163
Set 2: ENG 090, RED 090, PSY 244, PSY 245, EDU 118, EDU 163
Set 3: ENG 090, RED 090, PSY 244, EDU 145, EDU 118, EDU
163
Set 4: ENG 090, RED 090, EDU 144, PSY 245, EDU 118, EDU
163
Set 5: ENG 090, RED 090, PSY 244, PSY 245, EDU 216, EDU 163
Set 6: ENG 090, RED 090, EDU 144, EDU 145, EDU 216, EDU
163
Set 7: ENG 090, RED 090, EDU 144, PSY 245, EDU 216, EDU

## 163

Set 8: ENG 090, RED 090, PSY 244, EDU 216, EDU 163
Set 9: ENG 095, PSY 244, PSY 245, EDU 118, EDU 163
Set 10: ENG 095, EDU 144, EDU 145, EDU 118, EDU 163
Set 11: ENG 095, EDU 144, PSY 245, EDU 118, EDU 163
Set 12: ENG 095, PSY 244, EDU 145, EDU 118, EDU 163
Set 13: ENG 095, PSY 244, PSY 245, EDU 216, EDU 163
Set 14: ENG 095, EDU 144, EDU 145, EDU 216, EDU 163
Set 15: ENG 095, EDU 144, PSY 245, EDU 216, EDU 163
Set 16: ENG 095, PSY 244, EDU 145, EDU 216, EDU 163
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
Minimum State Prerequisites Take One Set:
Set 1: ENG 090, RED 090, EDU 119, EDU 131, EDU 144, EDU
145
Set 2: ENG 090, RED 090, EDU 119, EDU 131, PSY 244, PSY 245
Set 3: ENG 095, EDU 119, EDU 131, EDU 144, EDU 145
Set 4: ENG 095, 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

Minimum State Prerequisites Take One Set: Set 1: ENG 090 and RED 090 or Set 2: ENG 095
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 285 Design Project 0-4-2

This course provides the opportunity to design an instructorapproved project using previously acquired skills. Emphasis is placed on selection, proposal, design, testing, and documentation of the approved project. Upon completion, students should be able to present and demonstrate projects.

## ELECTRICITY

## C-L-SHC

2-2-3

## ELC 111 Introduction to Electricity

This course introduces the fundamental concepts of electricity and test equipment to non-electrical/electronics majors. Topics include basic DC and AC principles (voltage, resistance, current, impedance); components (resistors, inductors, and capacitors); power; and operation of test equipment. Upon completion, students should be able to construct and analyze simple DC and AC circuits using electrical test equipment.

## ELC 112 DC/AC Electricity

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, troubleshoot, and repair DC/AC circuits.

ELC 113 Basic Wiring I

This course introduces the care/usage of tools and materials used in electrical installations and the requirements of the National Electrical Code. Topics include NEC, electrical safety, and electrical blueprint reading; planning, layout, and installation of electrical distribution equipment; lighting; overcurrent protection; conductors; branch circuits; and conduits. Upon completion, students should be able to properly install conduits, wiring, and electrical distribution equipment associated with basic electrical installations.

## ELC 114 Basic Wiring II

2-6-4
Local Prerequisite: ELC 113
This course provides instruction in the application of electrical tools, materials, and test equipment associated with electrical installations. Topics include the NEC; safety; electrical blueprints; planning, layout, and installation of equipment and conduits; and wiring devices such as panels and overcurrent devices. Upon completion, students should be able to properly install equipment and conduit associated with electrical installations.

## ELC 117 Motors and Controls

This course introduces the fundamental concepts of motors and motor controls. Topics include ladder diagrams, pilot devices, contactors, motor starters, motors, and other control devices. Upon completion, students should be able to properly select, connect, and troubleshoot motors and control circuits.

## ELC 118 National Electrical Code

This course covers the use of the current National Electrical Code. Topics include the NEC history, wiring methods, overcurrent protection, materials, and other related topics. Upon completion, students should be able to effectively use the NEC.

## ELC 119 NEC Calculations

This course covers branch circuit, feeder, and service calculations. Emphasis is placed on sections of the National Electrical Code related to calculations. Upon completion, students should be able to use appropriate code sections to size wire, conduit, and overcurrent devices for branch circuits, feeders, and service.

## ELC 121 Electrical Estimating

Local Prerequisite: ELC 113
This course covers the principles involved in estimating electrical projects. Topics include take-offs of materials and equipment, labor, overhead, and profit. Upon completion, students should be able to estimate simple electrical projects.

## ELC 125 Diagrams and Schematics 1-2-2

This course covers the interpretation of electrical diagrams, schematics, and drawings common to electrical applications. Emphasis is placed on reading and interpreting electrical diagrams and schematics. Upon completion, students should be able to read and interpret electrical diagrams and schematics.

ELC 126 Electrical Computations
2-2-3
This course introduces the fundamental applications of mathematics, which are used by an electrical/electronics technician. Topics include whole numbers, fractions, decimals, powers, roots, simple electrical formulas, and usage of a scientific calculator. Upon completion, students should be able to solve simple electrical mathematical problems.

## ELC 127 Software for Technicians <br> 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

This course introduces the programmable logic controller (PLC) and its associated applications. Topics include ladder logic diagrams, input/output modules, power supplies, surge protection, selection/installation of controllers, and interfacing of controllers with equipment. Upon completion, students should be able to install PLCs and create simple programs.

## ELC 131 DC/AC Circuit Analysis <br> Local Corequisite: 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.

## ELC 132 Electrical Drawings

This course introduces the technical documentation that is typically found or used in the industrial environment. Topics include interpretation of service manuals, freehand sketching of lines, orthographic views and dimensions, and blueprint reading. Upon completion, students should be able to interpret technical documents and blueprints and use basic drafting skills to prepare usable field drawings.

## ELC 144 OTDR Operation

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 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

Local Prerequisite: ELC 128
This course covers programming and applications of programmable logic controllers. Emphasis is placed on programming techniques, networking, specialty I/O modules, and system troubleshooting. Upon completion, students should be able to specify, implement, and maintain complex PLC controlled systems.

## ELC 229 Applications Project

Local Prerequisite: ELC 112, ELC 113, or ELC 140
This course provides an individual and/or integrated team approach to a practical project as approved by the instructor. Topics include project selection and planning, implementation and testing, and a final presentation. Upon completion, students should be able to plan and implement an applications-oriented project.

## ELECTRONICS

## ELN 110 Survey of Electronics

## C-L-SHC

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

Local Corequisite: ELC 112, ELC 131, or ELC 140
This course introduces the characteristics and applications of semiconductor devices and circuits. Emphasis is placed on analysis, selection, biasing, and applications. Upon completion, students should be able to construct, analyze, verify, and troubleshoot discrete component circuits using appropriate techniques and test equipment.

## ELN 132 Linear IC Applications <br> 3-3-4

Local Prerequisite: ELN 131 or BMT 113 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

Local Prerequisite: ELN 131 or Instructor Approval
This course covers combinational and sequential logic circuits. Topics include number systems, Boolean algebra, logic families, MSI and LSI circuits, AC/DC conversion,
and other related topics. Upon completion, students should be able to construct, analyze, verify, and troubleshoot digital circuits using appropriate techniques and test equipment.

## ELN 140 Semiconductor Devices 4-6-6

This course covers semiconductor devices and circuits as they apply to the area of electronic servicing. Topics include semiconductor theory, diodes, transistors, linear integrated circuits, biasing, amplifiers, power supplies, and other related topics. Upon completion, students should be able to construct, verify, analyze, and troubleshoot semiconductor circuits.

## ELN 141 Digital Fundamentals

This course covers combinational and sequential logic
circuits. Topics include number systems, logic elements, Boolean algebra, Demorgan's theorem, logic families, flip flops, registers, counters, and other related topics. Upon completion, students should be able to analyze, verify, and troubleshoot digital circuits.

## ELN 229 Industrial Electronics

Local Prerequisite: ELC 112, ELC 131, or ELC 140
This course covers semiconductor devices used in industrial applications. Topics include the basic theory, application, and operating characteristics of semiconductor devices. Upon completion, students should be able to install and/or troubleshoot these devices for proper operation in an industrial electronic circuit.

## 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 <br> 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
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 237 Local Area Networks

Local Prerequisite: CIS 110 or CIS 111 or CET 111 or ELC 127 This course introduces the fundamentals of local area networks and their operation. Topics include the characteristics of network topologies, system hardware, system configuration, installation, and operation of the LAN. Upon completion, students should be able to install and maintain a local area network.

## ELN 238 Advanced LANs

Local Prerequisite: ELN 237
This course covers advanced concepts, tools, and techniques associated with servers, workstations, and overall local area network performance. Topics include network security and configuration, system performance and optimization, communication protocols and packet formats, troubleshooting techniques, multi-platform integration, and other related topics. Upon completion, students should be able to use advanced techniques to install, manage, and troubleshoot networks and optimize server and workstation performance.

## 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 275 Troubleshooting

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

ENG 090 Composition Strategies 3-0-3
Prerequisites: ENG 080 or ENG 085 or appropriate placement test scores
Corequisites: $E N G$ 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 develop-mental writing requirement for ENG 111 and ENG 111A.

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 $\mathbf{3 - 0 - 3}$

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

Prerequisites: Take one set: RED 090 and ENG 090, ENG 095, or appropriate placement test scores.
Corequisites: ENG 111A
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, welldeveloped 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 111A Expository Writing Laboratory 0-2-1
Prerequisites: Take one set: RED 090 and ENG 090, ENG 095, or appropriate placement test scores.
Corequisites: ENG 111
This writing laboratory is designed to apply the skills introduced in ENG 111. Emphasis is placed on the editing and revision components of the writing process. Upon completion, students should be able to apply those skills in the production of final drafts in ENG 111. The computer is used as a writing and design tool for this course.

ENG 112 Argument-Based Research
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

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
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 welldesigned 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

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

Prerequisite: ENG 111
This course is designed to provide students with the opportunity to practice the art of creative writing. Emphasis is placed on writing, fiction, poetry, and sketches. Upon completion, students should be able to craft and critique their own writing and critique the writing of others. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

## ENG 126 Creative Writing II

Prerequisite: ENG 125
This course is designed as a workshop approach for advancing imaginative and literary skills. Emphasis is placed on the discussion of style, techniques, and challenges for first publications. Upon completion, students should be able to submit a piece of their writing for publication. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

## ENG 231 American Literature I

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

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

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
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

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

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

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

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
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

## C-L-SHC

FRE 111 Elementary French I
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

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

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

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 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

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
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

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

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

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

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

## GEL 111 Introductory Geology

## C-L-SHC

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

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
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

## GEO 111 World Regional Geography

## C-L-SHC

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 <br> 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 <br> 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 $\quad$ 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 premajor and/or elective requirement.

## HISTORY

## C-L-SHC

HIS 111 World Civilizations I 3-0-3
This course introduces world history from the dawn of civilization to the early modern era. Topics include Eurasian, African, American, and Greco-Roman civilizations and Christian, Islamic, and Byzantine cultures. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in pre-modern world civilizations. This course has been approved for transfer under the CAA and ICAA as a general education course in Social/Behavioral Sciences.

## HIS 112 World Civilizations II

This course introduces world history from the early modern era to the present. Topics include the cultures of Africa, Europe, India, China, Japan, and the Americas. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in modern world civilizations. This course has been approved
for transfer under the CAA and ICAA as a general education course in Social/Behavioral Sciences.

## HIS 115 Introduction to Global History

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

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

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

This course is a survey of American history from prehistory 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 <br> 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

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 AfricanAmerican 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 AfricanAmerican 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

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 <br> 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.

## HORTICULTURE

## HOR 130 Greenhouse Design

## C-L-SHC

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

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.

## 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

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

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 <br> 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

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

This course considers technological change from historical, artistic, and philosophical perspectives and its effect on human needs and concerns. Emphasis is placed on the causes and consequences of technological change. Upon completion, students should be able to critically evaluate the implications of technology. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

## HUM 115 Critical Thinking

Prerequisites: 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 crosscultural 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

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

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 Internaional Cultural Exploration <br> 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

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.

## 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.

## HYD 121 Hydraulics/Pneumatics II

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
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

## ISC 110 Workplace Safety

## C-L-SHC

This course introduces the basic concepts of workplace safety. Topics include fire, ladders, lifting, lock-out/tag-out, personal protective devices, and other workplace safety issues related to OSHA compliance. Upon completion, students should be able to demonstrate an understanding of the components of a safe workplace.

## ISC 112 Industrial Safety

2-0-2
This course introduces the principles of industrial safety. Emphasis is placed on industrial safety, OSHA, and environmental regulations. Upon completion, students should be able to demonstrate knowledge of a safe working environment and OSHA compliance.

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

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

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 210 Oper \& Prod Planning

This course includes the fundamentals of operations and production planning, forecasting, and scheduling. Topics include demand management, production planning and control, scheduling, and budgeting. Upon completion, students should be able to demonstrate an understanding of the concepts and techniques involved in operations and production planning.

## ISC 215 Job Analysis and Evaluation

This course includes techniques necessary to gather facts about specific operations and responsibilities of the job, identify methods improvement, and facilitate performance evaluation. Emphasis is placed on what the job entails including mental abilities, job skills, and physical requirements, as well as job improvement and performance evaluation methods. Upon completion, students should be able to demonstrate an understanding of job analysis and evaluation methods.

## ISC 221 Statistical Qual Control

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

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 $280 \quad$ Validation Fundamentals
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

## LEO 111 Lasers and Applications

Corequisite: MAT 122
This course covers the basic principles of laser operations and applications with a particular emphasis on laser safety. Topics include the properties of laser light, laser components, laser beam characteristics, and laser safety. Upon completion, students should be able to make measurements of laser beam characteristics and conduct a safety audit and hazards analysis of a laser facility.

## LEO 211 Photonics Technology

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
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

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 PCinterface.

## LEO 222 Photonics Applications Project

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

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

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 <br> 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

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

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

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

This course introduces substantive criminal law and procedural rights of the accused. Topics include elements of state/federal crimes, defenses, constitutional issues, pretrial 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

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 $180 \quad$ Case Analysis \& Reasoning

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

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

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

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

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 <br> 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

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

LIB 110 Introduction to Libraries

> C-L-SHC

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/Sves <br> 2-2-3

This course provides introductory skills for selecting and using general and specialized information resources in print and electronic formats and related copyright issues. Emphasis is placed on selection tools, print and electronic censorship, core collection materials in various disciplines, compiling bibliographies, and interpreting and referring reference questions. Upon completion, students should be able to use numerous resources to answer directional and factual questions and to decide when to refer difficult reference questions.

## LIB 112 Library Coll. Dev./Acq.

This course covers library collection development and acquisitions policies and procedures. Emphasis is placed on evaluating mission statements, needs assessment studies, purchasing materials using selection criteria and tools, and related collection development and acquisitions activities. Upon completion, students should be able to evaluate mission statements, conduct needs assessments using selected criteria, and complete related collection development and acquisitions activities.

## LIB 113 Lib. Cataloging \& Classification

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. <br> 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

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

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.

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

 3-0-3This 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.

## 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

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
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 121 Introduction to CNC

2-0-2
This course introduces the concepts and capabilities of computer numerical control machine tools. Topics include setup, operation, and basic applications. Upon completion, students should be able to explain operator safety, machine protection, data input, program preparation, and program storage.

## MAC 122 CNC Turning

This course introduces the programming, setup, and operation of CNC turning centers. Topics include programming formats, control functions, program editing, part production, and inspection. Upon completion, students should be able to manufacture simple parts using CNC turning centers.

## MAC 124 CNC Milling

This course introduces the manual programming, setup, and operation of CNC machining centers. Topics include programming formats, control functions, program editing, part production, and inspection. Upon completion, students should be able to manufacture simple parts using CNC machining centers.

## MAC 151 Machining Calculations

This course introduces basic calculations as they relate to machining occupations. Emphasis is placed on basic calculations and their applications in the machine shop. Upon completion, students should be able to perform basic shop calculations.

## MAC 153 Compound Angles

This course introduces the application of basic types and uses of compound angles. Emphasis is placed on problem solving by tilting and rotating adjacent angles to resolve an unknown compound angle. Upon completion, students should be able to set up and develop compound angles on parts using problem solving techniques.

## MAC 224 Advanced CNC Milling

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 <br> 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

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 <br> Local Prerequisite: MAC 243

This course provides continued study in the application and use of dies. Emphasis is placed on the design and manufacturing of complex dies. Upon completion, students should be able to design and build complex dies.

## MAC 245 Mold Construction I

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
Local Prerequisite: MAC 245
This course provides continued study in the application and use of molds. Emphasis is placed on design and manufacturing of complex molds. Upon completion, students should be able to design and build complex molds.

## MASONRY

## C-L-SHC

5-15-10
MAS 110 Masonry I
This course introduces the basic principles of construction with masonry units. Topics include history of the masonry field, safety practices, blueprint reading, and principles of laying masonry units to the line using tools, equipment, and materials. Upon completion, students should be able to demonstrate knowledge of safety practices, blueprint reading, and basic tool use; identify materials; operate machinery; and lay masonry units.

## MAS 120 Masonry II

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
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

This course introduces basic principles and practices of masonry. Topics include standard tools, materials, and practices used in basic masonry and other related topics. Upon completion, students should be able to demonstrate an understanding of masonry and be able to use basic masonry techniques.

## MATHEMATICS

## MAT 050 Basic Math Skills

This course is designed to strengthen basic math skills. Topics include properties, rounding, estimating, comparing, converting, and computing whole numbers, fractions, and decimals. Upon completion, students should be able to perform basic computations and solve relevant mathematical problems.

## MAT 060 Essential Mathematics

Prerequisite: MAT 050 or appropriate placement test scores This course is a comprehensive study of mathematical skills, which should provide a strong mathematical foundation to pursue further study. Topics include principles and applications of decimals, fractions, percents, ratio and proportion, order of operations, geometry, measurement, and elements of algebra and statistics. Upon completion, students should be able to perform basic computations and solve relevant, multi-step mathematical problems using technology where appropriate.

## MAT 070 Introductory Algebra

Prerequisite: MAT 060 or appropriate placement test scores Corequisites: RED 080 or ENG 085 or appropriate placement test scores
This course establishes a foundation in algebraic concepts and problem solving. Topics include signed numbers, exponents, order of operations, simplifying expressions, solving linear equations and inequalities, graphing, formulas, polynomials, factoring, and elements of geometry. Upon completion, students should be able to apply the above concepts in problem solving using appropriate technology.

## MAT 080 Intermediate Algebra <br> 3-2-4

Prerequisite: MAT 070 or appropriate placement test scores Corequisites: RED 080 or ENG 085 or appropriate placement test scores
This course continues the study of algebraic concepts with emphasis on applications. Topics include factoring, rational expressions, rational exponents, rational, radical, and quadratic equations, systems of equations, inequalities,
graphing, functions, variations, complex numbers, and elements of geometry. Upon completion, students should be able to apply the above concepts in problem solving using appropriate technology.

## MAT 101 Applied Mathematics I

Prerequisite: Take one: MAT 060, MAT 070, MAT 080, MAT 090, MAT 095, or appropriate placement test scores
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: MAT 060 and MAT 070, MAT 060 and MAT 080, MAT 060 and MAT 090, MAT 095, MAT 120, MAT 121, MAT 161, MAT 171, MAT 175 or appropriate placement test scores
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
Prerequisite: Take one set: MAT 060 and MAT 070, MAT 060 and MAT 080, MAT 060 and MAT 090, MAT 095, MAT 120, MAT
121, MAT 161, MAT 171, MAT 175, or appropriate placement test scores
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 $\mathbf{2 - 2 - 3}$
Prerequisites: Take one set: MAT 060 and MAT 070, MAT 060 and MAT 080, MAT 060 and MAT 090, MAT 121, MAT 161, MAT 171, MAT 175, or appropriate placement test scores 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: MAT 060 and MAT 070, MAT 060 and MAT 080, MAT 060 and MAT 090, MAT 095, MAT 120, MAT 121, MAT 161, MAT 171, MAT 175, or appropriate placement test scores.
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 <br> 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: MAT 060 and MAT 070, MAT 060 and MAT 080, MAT 060 and MAT 090, MAT 095, MAT 120, MAT 121, MAT 161, MAT 171, MAT 175, or appropriate placement test scores.
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: MAT 060 and MAT 080, MAT 060 and MAT 090, MAT 095, MAT 120, MAT 121, MAT 161, MAT 171, MAT 175, or appropriate placement test scores.
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

 3-0-3Prerequisite: Take one set: MAT 060 and MAT 080, MAT 060 and MAT 090, MAT 095, or appropriate placement test scores. 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: Take one set: MAT 060 and MAT 080, MAT 060 and MAT 090, or appropriate placement test scores.
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: MAT 060 and MAT 080, MAT 060 and MAT 090, MAT 095, MAT 161, or appropriate placement test scores.
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

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

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

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

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

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

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

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 othogonality. 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

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

MCM 101 Introduction to 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 102 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 103 Motorcycle Electrical Systems

This course introduces starting, ignition, charging, and electrical accessory systems and their components and how they function in modern motorcycles. Topics include wiring diagrams, batteries, AC generators, rectifiers, voltage regulators, and diodes as well as points-coil, capacitor discharge, and electronic ignition systems. Upon completion, students should be able to diagnose and repair various starting, ignition, charging, and electrical accessory systems.

## MCM 104 Motorcycle Fuel Systems

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 105 Motorcycle Chassis
This course covers chassis adjustments, components, and types and uses of frames and suspensions. Emphasis is placed on proper and safe use of tools and equipment in servicing and maintaining motorcycle chassis. Upon completion, students should be able to service and repair motorcycle chassis systems and suspension components.

## MCM 106 Troubleshooting

This course covers shop procedures for fast and accurate diagnosis of problems in the electrical, mechanical, and fuel systems of motorcycles. Emphasis is placed on developing a logical sequence of diagnostic procedures. Upon completion, students should be able to diagnose problems in the electrical, mechanical, and fuel systems of motorcycles.

## MECHANICAL

## MEC 110 Introduction to CAD/CAM

## C-L-SHC 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 141 Introduction to <br> Manufacturing Processes

2-2-3
This course covers the properties and characteristics of manufacturing materials and the processes used to form them. Emphasis is placed on manufacturing materials, heattreating processes, and manufacturing processes. Upon completion, students should be able to identify physical characteristics of materials and describe processes used to manufacture a part.

## MEC 161 Manufacturing Processes I

This course provides the fundamental principles of valueadded 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.

MEC 161A Manufacturing Proc I Lab
0-3-1
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 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.

MEC 232 Computer-Aided Manufacturing II $\mathbf{1 - 4 - 3}$
Prerequisite: MEC 231
This course provides an in-depth study of CAM applications and concepts. Emphasis is placed on the manufacturing of complex parts using computer-aided manufacturing software. Upon completion, students should be able to manufacture complex parts using CAM software.

MEC 250 Statics and Strength of Mat 4-3-5
Local Prerequisite: MAT 122, PHY 131
This course covers the concepts and principles of statics and stress analysis. Topics include systems of forces on
structures in equilibrium and analysis of stresses and strains on these components. Upon completion, students should be able to analyze forces and the results of stresses and strains on structural components.

## MEDICAL ASSISTING

## 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 Physiology3-2-0-4 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 <br> 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
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
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 <br> 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 <br> 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
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 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.

## 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.

## MNT 111 Maintenance Practices

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

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

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

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

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

3-0-3
MUS 110 Music Appreciation
2-2-3 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.

## NETWORKING TECHNOLOGY

## NET 110 Networking Concepts

This course introduces students to the networking field. Topics include network terminology and protocols, localarea 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 111 Internetwk Arch and Design

Prerequisite: CIS 282 or NET 110
This course introduces the physical and logical design of local-area networks, wide-area networks, and networking devices used in the design implementation and integration. Topics include LAN segmentation, VLANS, IP addressing, router, switch, and server placement with an emphasis on design. Upon completion, students should be able to understand fundamental LAN and WAN design and the physical and logical aspects needed to achieve the design goal.

## NET 113 Home Automaton Systems

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

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

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

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 $\mathbf{1 - 4 - 3}$

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 175 Wireless Technology 2-2-3

Prerequisite: NET 110 or NET 125
This course introduces the student to wireless technology and interoperability with different communication protocols. Topics include Wireless Application Protocol (WAP), Wireless Mark-up language (WML), link manager, service discovery protocol, transport layer and frequency band. Upon completion, students should be able to discuss in written and oral form protocols and procedures required for different wireless applications.

## NET 225 Routing and Switching I

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 $\mathbf{1 - 4 - 3}$
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

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 240 Network Design

3-0-3
Prerequisite: NET 110 or NET 125
This course covers the principles of the design of LANs and WANs. Topics include network architecture, transmission systems, traffic management, bandwidth requirements, Internet working devices, redundancy, and broad-band versus base-band systems. Upon completion, students should be able to design a network to meet specified business and technical requirements.

## NET 289 Networking Project

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 <br> NOS 110 Operating System Concepts

This course introduces students to a broad range of operating system concepts, including installation and maintenance. Emphasis is place on operating system concepts, management, maintenance, and resources required. Upon completion of this course, students will have an understanding of OS concepts, installation, management, maintenance, using a variety of operating systems.

## NOS 111 Operating System - DOS

This course introduces operating system concepts for DOS operating systems. Topics include hardware management, file and memory management, system
configuration/optimization, and utilities. Upon completion, students should be able to perform operating system functions at the support level in a DOS environment.

## NOS 120 Linux/UNIX Single User

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
Prerequisite: NOS 110 or CET 211
This course introduces operating system concepts for singleuser 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

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.

## NOS 231 Windows Administration II

2-2-3
Prerequisite: NOS 230
This course covers implementing, managing, and maintaining a Windows Server network infrastructure. Topics include implementing, managing, and maintaining IP addressing, name resolution, network security, routing and remote access, and managing a network infrastructure. Upon completion, students should be able to manage and
maintain a Windows Server environment.

## NOS 240 Novell Administration I

Prerequisite: NOS 110
This course will introduce students to the Novel network operating system. Topics include installing and using NetWare, managing printing, storage space, implementing Internet services, and managing security. Upon completion, students should have basic knowledge about implementing NetWare and using its management tools.

## NURSING

## C-L-Cl-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, ENG 111A, 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, ENG 111A, 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, ENG 111A, 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.
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, E.
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 120 Nursing II 5-3-6-8
Prerequisites: NUR 110, BIO 165, PSY 150, ENG 111, and ENG 111A
Corequisites: BIO 166 and PSY 241
This course provides an expanded knowledge base for delivering nursing care to individuals of various ages. Emphasis is placed on developing 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 participate in the delivery of nursing care for individuals with common alterations in health. Theoretical concepts and clinical experiences focus on use of the nursing process to deliver nursing care to mothers, infants, children, and families.

## NUR 130 Nursing III <br> 4-3-6-7

Prerequisites: Admission to the Associate Degree program, NUR 120, BIO 166, and PSY 241
Corequisites: CIS 111
This course provides an expanded knowledge base for delivering nursing care to individuals of various ages. Emphasis is placed on expanding 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 deliver nursing care to individuals with common alterations in health. Theoretical concepts and clinical experiences focus on use of nursing process.

## NUR 210 Nursing IV

5-3-12-10
Prerequisites: NUR 130, CIS 111, BIO 166, PSY 241, ENG 111, and ENG 111A
Corequisites: ENG 112, SOC 210, ENG 112/ ENG 113/orENG 114 This course provides an expanded knowledge base for delivering nursing care to individuals of various ages.
NUR 113 Family Health Concepts 3-0-6-5
Prerequisites: NUR 111, BIO 165, PSY 150, ENG 111, ENG 111A, and ACAcare, manager of care, and member of the discipline of 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

Emphasis is placed on using collaboration as a provider of nursing. Upon completion, students should be able to modify nursing care for individuals with common alterations in health. Theoretical concepts and clinical experiences in NUR 210 focus on the use of nursing process in acute care, rehabilitation, and home health care settings.

NUR 220 Nursing $V$ 4-3-15-10
Prerequisites: NUR 210, SOC 210, and ENG 112 or ENG 113 or ENG 114
Corequisites: Humanities/Fine Arts Elective
This course provides an expanded knowledge base for delivering nursing care to individuals of various ages. Emphasis is placed on the nurse's role as an independent provider and manager of care for a group of individuals and member of a multidisciplinary team. Upon completion, students should be able to provide comprehensive nursing care to a group of individuals with common complex health alterations. Theoretical concepts and clinical experiences in NUR 220 focus on use of the nursing process and application of psychosocial, leadership, and management skills in caring for individuals/groups.

## NUR 211 Health Care Concepts

3-0-6-5
Prerequisites: NUR 111, NUR 112, NUR 113, BIO 165, PSY 150,
ENG 111, ENG 111A, 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, ENG 111A, 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

## OPERATIONS MANAGEMENT

## OMT 112 Materials Management

## C-L-SHC

3-0-3
This course covers the basic principles of materials management. Emphasis is placed on the planning, procurement, movement, and storage of materials. Upon completion, students should be able to demonstrate an understanding of the concepts and techniques related to materials management. This course is a unique concentration requirement of the Operations Management concentration in the Business Administration program.

OMT 160 Ethical Issues in Op Mgmt
3-0-3
This course focuses on a wide variety of ethical issues in operations management. Emphasis is placed on distinguishing between legal and illegal actions as well as ethical and nonethical actions. Upon completion, students should be able to demonstrate critical thinking skills to evaluate ethical situations.

## OMT 181 Industry Reporting Skills

3-0-3
This course is designed to develop skills in technical writing and oral presentations with emphasis on business reports and professional presentations. Topics include documenting procedures, writing work instructions, information security, preparing business reports, and developing and presenting proposals. Upon completion, students should be able to communicate effectively in a manufacturing or industry setting.

## OMT 218 Dev Team Performance

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.

## OMT 260 Issues in Operations Mgt.

Prerequisites: ISC 121, ISC 210, OMT 112, and ISC 130, ISC 131, ISC 132, or ISC 221
This course presents a variety of topics that highlight contemporary problems and issues related to operations
 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.
operations planning, environmental health and safety, materials management, and quality systems. Upon completion, students should be able to demonstrate the ability to make decisions and resolve problems in an operations management environment. This course is a unique concentration requirement of the Operations Management concentration in the Business Administration program.

## 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
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
Local Prerequisite: OST 131
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 <br> 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

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

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 indepth 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 <br> 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 141This 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 141This 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

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

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

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 <br> 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

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

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

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

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

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

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

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.
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.

## PROFESSIONAL CRAFTS: CLAY

## C-L-SHC <br> PCC 110 Introduction to Pottery

This course introduces pottery making for potters, including clay preparation, wheel throwing and trimming, surface decoration, and glazing and firing techniques. Topics include clay bodies, the mixing process, potter's wheel basics, glazing, kiln loading and firing, and safety issues. Upon completion, students should be able to prepare clay; center and throw basic forms; trim, mix, and apply basic glazes; and load and fire bisque kilns.

## PCC 111 Functional Pottery I

3-15-8
This course covers the important elements of designing and producing utilitarian pottery, including wall thickness, balance and proportion, surface decoration, and glazing and firing techniques. Topics include bowls, mugs, plates, casseroles, stemware, and bottles, with emphasis on safe glazing and supervised firing. Upon completion, students
should be able to produce a variety of functional pots, apply a glaze, and load and assist firing a kiln.

## PCC 112 History of Pottery

This course examines the historical development of ceramics and the contributions made by specific cultures or countries. Topics include potters from early societies, including the Mediterranean countries, China, Cyprus, and Crete with emphasis on design, technique, and firing methods. Upon completion, students should be able to identify numerous historical pottery types, discuss the societies which produced them, and demonstrate knowledge of their production methods.

## PCC 113 Contemporary Pottery

This course surveys numerous 19th- and 20th-century potters and artists who have contributed to the contemporary ceramics movement. Topics include artists such as Leach, Cardew, and Hamada and the important design and technical contributions these potters have made to the ceramics movement. Upon completion, students should be able to identify numerous contemporary potters and their work.

## PCC 116 Pottery Tool Making

This course covers design concepts and construction techniques for building simple personal studio equipment, including wedging tables, extruders, and kiln furniture. Emphasis is placed on skills and safe use of hand tools, design fundamentals, selection of needed materials, and construction methods. Upon completion, students should be able to identify appropriate projects, select materials and tools, obtain materials, and construct several small and one major project.

## PCC 118 Clay: Special Study <br> 0-4-2

This course provides a format in which to explore personal interests in clay with instructor supervision. Emphasis is placed on student proposals and student-instructordeveloped contractual agreements specifying goals, deadlines, and evaluation criteria. Upon completion, students should be able to complete clay works as specified in student-instructor-designed contractual agreements.

## PCC 119 Clay Design: Spec Study 0-4-2

This course provides a format in which to explore personal interests in clay design with instructor supervision. Emphasis is placed on student proposals and student-instructor-developed contractual agreements specifying goals, deadlines, and evaluation criteria. Upon completion, students should be able to complete clay design projects as specified in student-instructor-designed contractual agreements.

## PCC 121 Hand Building I

2-3-3
This course introduces students to the basic hand building processes of creating three-dimensional functional and sculptural vessels in clay. Emphasis is placed on using design elements and principles for the purpose of forming
and decorating ceramic vessels. Upon completion students should be able to demonstrate skills in pinch, coil, and slab methods as well as function and creative expression

## PCC 122 Hand Building II

Prerequisite: PCC 121
This course is designed to build upon experience gained with basic hand building techniques for the purpose of creating original sculpture or functional ceramics. Emphasis is placed on personal instruction geared toward skill development in the areas of constructing and solving structural problems. Upon completion, students should be able to demonstrate the ability to form clay into complex sculptures or functional vessels.

## PCC 125 Clay Casting

Prerequisites: PCC 110
This course introduces the different ways of shaping ceramic items, leading to the use of plaster molds and process of "slipcasting." Topics include model and moldmaking, block and case mastermold, gypsum, resins, clay selection, mineral additives, flocculation, thixotrophy, deflocculation, rheology, specific gravity, and casting rates. Upon completion, students should be able to cast in molds; remove, de-seam, and clean greenware; maintain molds; and layout studios.

## PCC 132 Glaze Formulation

This course provides an in-depth study of glazes used on pottery. Emphasis is placed on performing glaze tests, analyzing glazes, mixing a variety of glazes, and correcting glaze faults. Upon completion, students should be able to demonstrate an understanding of glaze chemical qualities and formulate new glazes.

## PCC 241 Kiln Design/Construction

This course covers basic concepts of kiln design and construction. Topics include construction materials, heat sources, kiln furniture, and site selection. Upon completion, students should be able to design and construct a kiln prototype.

## PROFESSIONAL CRAFTS: DESIGN

PCD 110 Introduction to Craft Design

## C-L-SHC

1-3-2
This course introduces the basic principles, elements, vocabulary, and process of two-dimensional design within the context of professionally produced crafts. Emphasis is placed on general design concepts and vocabulary, conceptual thinking, design process application, and observational skills. Upon completion, students should be able to demonstrate enhanced observational skills and a working knowledge of design vocabulary, concepts, and processes.

PCD 111 Advanced Craft Design
Prerequisite: PCD 110
This course explores the conceptual process of design as
applied to the three-dimensional form. Emphasis is placed on solving three-dimensional design problems which are material, function, site, or client specific. Upon completion, students should be able to apply an enhanced understanding of the relationship between design concept, process, and product in three-dimensional form.

## PCD 211 Prof Craft Design

Prerequisite: PCD 110
This course covers the development of customer- or siteinfluenced design and the development and design of craft marketing promotional materials. Topics include customer-guided, site-specific, and other design influences and development and design of logos, hang tags, web sites, brochures, and related promotional materials. Upon completion, students should be able to design within site, customer, or other limitations, and complete a design package for their personal marketing needs.

## PROCESS CONTROL INSTRUMENTATION C-L-SHC <br> PCI 170 DAQ and Control 3-3-4 <br> Local Prerequisite: ELN 132 <br> 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.

## PROFESSIONAL CRAFTS: SCULPTURE

## PCS 112 Beginning Welding for Artists

 C-L-SHCThis course is an introduction to the proper equipment and tools of the metal shop and welding methods for the artist. Topics include welding, cutting, forging, fabricating and finishing, and studio safety. Upon completion, students will be able to demonstrate efficient and safe use of metal shop tools and equipment.

## PCS 110 Introduction to Metal Sculpture <br> Prerequisite: PCS 112

This course introduces the process and design of metal sculpture for the craftsman. Topics include design of metal sculpture, their layout, construction, finishing, and studio safety. Upon completion, students should be able to demonstrate the ability to design and construct metal sculptures.

## PCS 114 Advanced Metal Sculpture

## Prerequisite: PCS 110

This course is designed to introduce advanced techniques of metal sculpture. Topics include forging, fabricating, and casting, with emphasis placed on the design and construction of artistic sculpture. Upon completion, students
will demonstrate advanced skills in the techniques of welding, forging, and casting metal sculpture.

## PCS 210 Introduction to Clay Sculpture <br> Prerequisite: PCC 110

This course introduces the techniques of sculpture, including figures, animals, and portraitures, and the tools and equipment needed. Topics include the artistic concepts of form, rhythm, flow, movement, color, and its relation to light. Upon completion, students should be able to form well-designed sculptures demonstrating the artistic concepts as applied to decorative ceramics.

## PHYSICAL EDUCATION

## C-L-SHC <br> PED 110 Fit and Well for Life

This course is designed to investigate and apply the basic concepts and principles of lifetime physical fitness and other health-related factors. Emphasis is placed on wellness through the study of nutrition, weight control, stress management, and consumer facts on exercise and fitness. Upon completion, students should be able to plan a personal, lifelong fitness program based on individual needs, abilities, and interests. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

## PED 113 Aerobics I <br> 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

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

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 <br> 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

This course introduces the fundamentals of bowling. Emphasis is placed on ball selection, grips, stance, and delivery along with rules and etiquette. Upon completion, students should be able to participate in recreational bowling. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

## PED 143 Volleyball-Beginning

This course covers the fundamentals of volleyball.
Emphasis is placed on the basics of serving, passing, setting, spiking, blocking, and the rules and etiquette of volleyball. Upon completion, students should be able to participate in recreational volleyball. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

## PED 145 Basketball-Beginning

0-2-1
This course covers the fundamentals of basketball.
Emphasis is placed on skill development, knowledge of the rules, and basic game strategy. Upon completion, students should be able to participate in recreational basketball. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

## PED 148 Softball <br> 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

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

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 254 Coaching Basketball <br> 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

## C-L-SHC

3-0-3

## PHI 210 History of Philosophy

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

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

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

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.

## PHYSICS

## C-L-SHC

PHY 110 Conceptual Physics
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

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

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

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

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

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

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

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. POWER MECHANICS
PME 101 Small Engine Repair I $\quad$ C-L-SHC
This course covers the rebuilding of small, air-cooled, single-cylinder engines under fifteen cubic inch displacement. Emphasis is placed on complete engine rebuilding, including all internal engine components, following safe shop procedures. Upon completion, students should be able to safely disassemble, repair, and reassemble small engines according to industry standards. This is a diploma-level course.

## PME 103 Small Engine Carburetion <br> 1-9-4

This course is an in-depth study of carburetion principles, design, and application. Emphasis is placed on developing a working knowledge of the carburetor systems used on small engines. Upon completion, students should $b$ able to safely disassemble, rebuild, install, and test carburetors and fuel systems. This is a diploma-level course.

## PME 106 Small Engine Transmissions

This course covers the knowledge and skills needed to repair small engine transmissions, transaxles, and rightangle drive systems. Topics include schematics, gears, shafts, bearings, shifter forks, axles, lubrication, and safety procedures. Upon completion, students should be able to safely service, repair, or rebuild manual transmission, transaxles, and right-angle drive systems to industry standards. This is a diploma-level course.

## POLITICAL SCIENCE

POL 120 American Government

## C-L-SHC

OL $\mathbf{3 - 0 - 3}$
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 nationstates. 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

PSY 101 Applied Psychology
C-L-SHC
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

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
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

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

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

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

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

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

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

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.

## PHARMACEUTICAL TECHNOLOGY

## C-L-SHC

## PTC 110 Industrial Environment

This course introduces the pharmaceutical industry, including a broad overview of work in this field. Emphasis is placed on good manufacturing practices (GMP), work conduct, company organization, job expectations, personal safety, hygiene, and company rules and regulations. Upon completion, students should be able to follow good manufacturing practice regulations and inspect a pharmaceutical manufacturing facility for compliance with GMP.

## READING

## C-L-SHC

RED 080 Introduction to College Reading 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 or ENG 111A.

## RED 090 Improved College Reading <br> 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 or ENG 111A.

## RELIGION

## C-L-SHC

REL 110 World Religions
This course introduces the world's major religious traditions. Topics include Primal religions, Hinduism, Buddhism, Islam, Judaism, and Christianity. Upon completion, students should be able to identify the origins, history, beliefs, and practices of the religions studied. This course has been approved 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

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 <br> 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

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

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.

## SEC 210 Intrusion Detection

2-2-3
Prerequisite: SEC 160
This course introduces the student to intrusion detection methods in use today. Topics include the types of intrusion detection products, traffic analysis, and planning and placement of intrusion detection solutions. Upon completion, students should be able to plan and implement intrusion detection solution for networks and host based systems.

## SEC 240 Wireless Security

Prerequisites: SEC 110 and NET 175
This course introduces security principles and topics related to the wireless networking environment. Topics include network topologies, network protocols, security issues, and best practices for wireless environments. Upon completion, students should be able to design, setup, manage, and secure a wireless network.

## SOCIOLOGY

## C-L-SHC

3-0-3
SOC 210 Introduction to Sociology
This course introduces the scientific study of human society, culture, and social interactions. Topics include socialization, research methods, diversity and inequality, cooperation and conflict, social change, social institutions, and organizations. Upon completion, students should be able to demonstrate knowledge of sociological concepts as they apply to the interplay among individuals, groups, and societies. This course has been approved 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

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
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 <br> 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 110 Introduction to Spanish

## C-L-SHC <br> 2-0-2

This course provides an introduction to understanding, speaking, reading, and writing Spanish. Emphasis is placed on pronunciation, parts of speech, communicative phrases, culture, and skills for language acquisition. Upon completion, students should be able to identify and apply basic grammar concepts, display cultural awareness, and communicate in simple phrases in Spanish.

## SPA 111 Elementary Spanish I

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

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

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
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
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 <br> 2-3-3 <br> 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

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 <br> Prerequisite: SPA 211

3-0-3 This course provides a continuation of SPA 211. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

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

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.

## SURVEYING

## SRV 110 Surveying I

Corequisites: MAT 121, MAT 161, MAT171, or MAT 175
This course introduces the theory and practice of plane surveying. Topics include measuring distances and angles, differential and profile leveling, compass applications, topography, and mapping. Upon completion, students should be able to use/care for surveying instruments, demonstrate field note techniques, and apply the theory and practice of plane surveying.

SRV 112 Landscape Arch Surveying 2-6-4 Prerequisites: MAT 101, MAT110, MAT 115, MAT 120, MAT 121, MAT 161, MAT 171, or MAT 175
This course covers surveying techniques commonly used by landscape architects and contractors. Topics include boundary and topographic surveying. Upon completion students should be able to create boundary and topo maps and layout construction projects both on paper and in the field.

## SUSTAINBILITY TECHNOLOGIES

## 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

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

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 Concepts
This course introduces green building design, LEED® (Leadership in Energy and Environmental Design) and comparable certifications, and their significance in modern building construction. Topics include LEED certification or similar rating systems, energy efficiency, indoor environmental quality, and sustainable building materials. Upon completion, students should be able to incorporate ecological awareness and sustainable principles within the context of design and construction.

## SST 210 Issues in Sustainability

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 largescale 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

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

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

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

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

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

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 <br> 0-2-1

This course provides training in design, construction, turnup 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

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
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

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

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

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
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.

## VETERINARY MEDICAL TECHNOLOGY

## VET 110 Animal Breeds and Husbandry 2-2-3

Local Prerequisite: Enrollment in Veterinary Medical Technology program
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

Local Prerequisite: Enrollment in Veterinary Medical Technology program
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 $120 \quad$ Veterinary Anatomy and Physiology 3-3-4

Local Prerequisite: Enrollment in the Veterinary Medical Technology program
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.

[^10]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

Local Prerequisite: VET 120
This course covers the common internal and external parasites of companion animals, livestock, selected zoo animals, and wild animals. Emphasis is placed on laboratory diagnosis of the most common forms of the parasite through fecal, urine, skin, and blood exams. Upon completion, students should be able to identify common parasites and discuss life-cycles, treatment and prevention strategies, and public health aspects of veterinary parasitology.

## VET 125 Veterinary Diseases I

Local Prerequisite: VET 120
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

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

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

Local Prerequisite: VET 123
Local Corequisite: VET 131
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

Local Prerequisites: VET 131, VET 133, Enrollment in Veterinary Medical Technology program
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

Prerequisite: VET 133
Local Corequisite: VET 211
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
Prerequisite: VET 213

## Local Corequisite: VET 212

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 <br> 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
Local Prerequisite: VET 125
Corequisite: VET 213
Local Corequisite: VET 214
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
Local Prerequisites: CHM 130 and CHM 130A; enrollment in Veterinary Medical Technology program
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 mark-up language, and effectively use and understand the function of search engines.

WEB 140 Web Development Tools
This course provides an introduction to web development software suites. Topics include the creation of web sites and applets using web development software. Upon completion, students should be able to create entire web sites and supporting applets.

## WEB 210 Web Design

This course introduces intermediate to advanced web design techniques. Topics include customer expectations, advanced markup language, multimedia technologies, usability and accessibility practices, and techniques for the evaluation of web design. Upon completion, students should be able to employ advanced design techniques to create high impact and highly functional web sites.

## WEB 250 Database Driven Websites

Prerequisite: DBA 110
This course introduces dynamic (database-driven) website development. Topics include the use of basic database CRUD statements (create, read, update, and delete) incorporated into web applications, as well as in software architecture principles. Upon completion, students should be able to design and develop database driven web applications according to industry standards.

## WEB 285 Emerging Web Technologies

This course will explore, discuss, and research emerging technologies in the web arena. Emphasis is placed on exposure to up-and-coming technologies relating to the web, providing hands-on experience, and discussion of practical implications of these emerging fields. Upon completion, students should be able to articulate issues relating to these technologies.

## WELDING

WLD 110 Cutting Processes $\quad$ C-L-SHC

This course introduces oxy-fuel and plasma-arc cutting systems. Topics include safety, proper equipment setup, and operation of oxy-fuel and plasma-arc cutting equipment with emphasis on straight line, curve and bevel cutting. Upon completion, students should be able to oxy-fuel and plasma-arc cut metals of varying thickness.

## WLD 112 Basic Welding Processes

This course introduces basic welding and cutting. Emphasis is placed on beads applied with gases, mild steel fillers, and electrodes and the capillary action of solder. Upon completion, students should be able to set up welding and oxy-fuel equipment and perform welding, brazing, and soldering processes.

WLD 115 SMAW (Stick) Plate
This course introduces the shielded metal arc (stick) welding process. Emphasis is placed on padding, fillet, and groove welds in various positions with SMAW electrodes. Upon completion, students should be able to perform SMAW fillet and groove welds on carbon plate with prescribed electrodes.

## WLD 116 SMAW (Stick) Plate/Pipe

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

This course introduces metal arc welding and flux core arc welding processes. Topics include equipment setup and fillet and groove welds with emphasis on application of GMAW and FCAW electrodes on carbon steel plate. Upon completion, students should be able to perform fillet welds on carbon steel with prescribed electrodes in the flat, horizontal, and overhead positions.

## WLD 131 GTAW (TIG) Plate <br> 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.

## WLD 141 Symbols and Specifications

 2-2-3This course introduces the basic symbols and specifications used in welding. Emphasis is placed on interpretation of lines, notes, welding symbols, and specifications. Upon completion, students should be able to read and interpret symbols and specifications commonly used in welding.

## WLD 151 Fabrication I 2-6-4

This course introduces the basic principles of fabrication. Emphasis is placed on safety, measurement, layout techniques, cutting, joining techniques and the use of fabrication tools and equipment. Upon completion, students should be able to perform layout activities and operate various fabrication and material handling equipment.

## WLD 212 Inert Gas Welding

1-3-2
This course introduces inert gas-shielded welding methods (MIG/TIG). Topics include correct selection of consumable and non-consumable electrodes, equipment setup, safety, and welding techniques. Upon completion, students should be able to perform inert gas welding in flat, horizontal, and overhead positions.

WLD 262 Inspection and Testing
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 nondestructive testing processes


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B.A., Speech, Fayetteville State University

## Cotton, Walter A.

Barbering Chair
North Carolina Barber License
North Carolina Barber Instructor License
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

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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

Denton, Patricia T.
Cosmetology
North Carolina Cosmetology License
North Carolina Cosmetology Instructor License
Dowe, Reginald
Barbering
N.C. Barber License
N.C. Instructor License

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Paralegal, Lead Technology \& Coordinator for High School Cooperative Programs
J.D., Campbell University
B.A., Political Science, University of North Carolina at Chapel Hill

## Eakes, Janet

Nursing
B.S., Nursing, Winston-Salem State University

## 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
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## Eubanks, James W.

Automotive Restoration
Evans, Rhonda G.
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M.S.N., University of North Carolina at Greensboro
B.S.N., University of North Carolina at Charlotte
A.D.N., Sandhills CC

## Falero, Benjamin

Mathematics
M.S., Secondary Math Education, College of Staten Island, The City University of New York

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Diploma, Cosmetology, James Sprunt CC
North Carolina Cosmetology Instructor License
North Carolina Cosmetology License
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Basic Skills
M.A., English, East Carolina University
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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

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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

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Fritz, Frederick R.
Mathematics
M.S., Mathematics, Western Carolina University
B.A., Pure Mathematics, University of North Carolina at Asheville

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Automotive Systems
A.A.S., Automotive Systems, Surry CC
A.A.S., AC/Heat/Refrigeration, Surry CC

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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
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Veterinary Medical Technology
A.A.S., Veterinary Medical Technology, Central Carolina CC
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ESL Coordinator
B.S., Criminal Justice, Fayetteville State University

Goodson, Drew
Accounting
M.A.C., Accounting, North Carolina State University
B.S., Business Administration, University of North Carolina at Chapel Hill
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Lead Instructor - Motorcycle Mechanics
Diploma, Motorcycle Mechanics, School of Motorcycle Mechanics, North America
Certified Harley-Davidson Instructor
Certificate, Auto Mechanics, Sandhills CC
Granger, Roxann
Basic Skills
M.A., Christian Education, Campbell University
B.A., Religion, Campbell University

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Adult High School Lead Instructor
B.A, Human Services, Psychology, Elon 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
Hammond, Robert
Chemistry
Ph.D., Chemistry, University of Virginia
Harrelson, Christina
Nursing
B.S.N., University of Phoenix

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History
Ed.D., Higher Education, North Carolina State University
Ed. Curriculum and Development: Public School Administration, Campbell University
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B.S., Business, Florida State University

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M.S., Recreation Administration, University of North

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M.S., Ag/Extension, North Carolina State University
B.S., Plant Science, Clemson University

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M.S., Biology, Southwest Missouri State University
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## McKoy, Rufus

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Page, Summerlin
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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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Veterinary Medical Technology
M.S., Veterinary Science, University of Nebraska
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A.A.S., Animal Health Technology, Eastern Wyoming

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M.S., Exercise Science, Appalachian State University
M.S., Physiology, University of North Carolina at Chapel

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B.S., Wildlife Biology, NC State University

## Robinson, Nancy K.

Veterinary Medical Technology, Lead
B.H.S., Campbell University
A.A.S., General Education, Central Carolina CC
A.A.S., Veterinary Medical Technology, Central Carolina CC
Roughton, Jamie L.
Developmental Studies - English/Reading
B.A., Government/Pre-Law, Campbell University

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Psychology
M.A., Clinical Psychology, Appalachian State University
B.A., Psychology/Art, University of North Carolina at Greensboro

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Electrical/Electronics
A.A.S., Electronic Engineering, Sandhills CC

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Machining
J.D., Wake Forest University
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Apprenticeship, U.S. and N.C. Departments of Labor
Certificate, Tool and Die Maker
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B.S., Computer Information Management, University of Maryland
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Preschool
A.A.S., Early Childhood, Central Carolina CC

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M.S.A., Accounting, Appalachian State University
B.T., Accounting, Appalachian State University
A.A.S., Accounting / Data Processing, Catawba Valley CC

Taylor, Edward L.
Carpentry
Vocational Teaching Certificate
Thomas, Edwin S.
Department Chair - Machining Technology
A.A.S., Machining Technology, Central Carolina CC

Diploma, Tool \& Die, Central Carolina CC
Apprenticeship Certificate Tool \& Die Maker
NIMS Certified

Thomas, Joyce B.
Medical Assisting
A.A.S., Medical Assisting, Central Carolina CC

AAMA Certified Medical Assistant
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Motorcycle Mechanics
Diploma, Motorcycle Mechanics, Central Carolina CC
Tyson-Childress, Jamette L.
Cooperative Education Coordinator/Electronics
B.A., International Studies, University of North Carolina at Chapel Hill
A.A.S., Electronic Engineering Technology, Central Carolina CC
Further Study in Computer Information Systems, East Carolina University
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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 Chapel Hill
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Telecommunications
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English
M.A., English, Appalachian State University B.A., Philosophy \& Religion, Appalachian State University

Wesner, Vicky Dental Hygiene
M.Ed., Adult and Community College Education, North Carolina State University
B.S., Zoology, North Carolina State University
A.A.S., Dental Hygiene, Fayetteville Technical CC

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Medical Office Administration/Office Systems
A.A.S., Medical Assisting, Central Carolina CC

Certified Medical Assistant
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Dental Hygiene
B.S., Dental Hygiene, University of North Carolina at Chapel Hill
Wicker, Jamie
Criminal Justice
B.A., Criminal Justice, Appalachian State University
M.A., Justice Studies, Methodist University

Wiser, Nancy A.
Early Childhood
M.S., English, University Tennessee-Knoxville
B.S., Education, Tennessee Temple University

Further Study in Early Childhood Education, University of Phoenix
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Lead Instructor - Office Systems and Medical Office Administration
M.S, Business Education, University of Tennessee at Knoxville
B.S., Business Education, University of North Carolina at Greensboro

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Industrial Systems Technology
A.A.S, Industrial Systems, Central Carolina CC
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Computer Information Technology
M.S., Technology Management, Mercer University
B.S. Computer Technology, University of New Haven

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English
M.A., English, North Carolina State University
B.S., Multidisciplinary Studies, East Carolina University

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Spanish
M.A., Liberal Arts, Temple University
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## PART-TIME FACULTY <br> (highest applicable credentials listed)

## Adkins, Wayne

Computer Information Technology
M.A., Instructional Technology, Virginia Tech

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Developmental Studies
M.Ed., Mathematics, Campbell University

## Angle, Tracy

Drama
M.Phil. in Irish Theatre Studies, Trinity College Dublin

## Barefoot, Pam

Cosmetology
N.C. Cosmetology License
N.C. Instructor License

## Barrett, Tina

Cosmetology
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## Bartow, Tara

Developmental Studies - Mathematics
MS, Teacher Leadership, Alden University
BS, Adolescence Education: Mathematics, College of Oneonata State University of NY

## Bayer, Silvia

Early Childhood
Master of School Administration, University of NC at Chapel Hill
Licensed Teacher in Preschool, Universidad Nacional University

## Beam, Bernard

Networking
B.A., Political Science, Oral Roberts University
M.B.A., Campbell Univeristy

## Bidwell, Robert

Criminal Justice
M.S., Criminal Forensic Science, George Washington University
Bish, Margaret
Business Administration/Marketing
M.B.A., Montreat University

Blankenship, Gary
Criminal Justice
Criminal Justice Instructor Certification-General Firearms,
North Carolina Criminal Justice Training \& Standards Div.
Brewer, Deborah
Cosmetology
NC Cosmetology License
NC Instructor License
Brewington, Reba
Office Systems
B.S., Business Education, Fayetteville State University

Browne, Beverly
Early Childhood
M.Ed., Elementary Education, North Carolina Central University
Bryan, Joyce
Humanities
B.A., Art Education, Moore Institute of Art

## Burns, Tommy

Business
M.B.A., Trust and Investment Management, Campbell

University

## Byrd, Ronald

Music
M.M., University of North Carolina at Greensboro

## Caldwell, Brian

Religion
M.A., Christian Education, Campbell University
B.A., English, University of North Carolina at Wilmington

## Castonguay, Sandra

Electronics Engineering
AAS, Electronics Engineering, Central Carolina Community College
Chute, Jenie
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MS, Biology, Fayetteville State University

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Social/Behavioral Science
M.A. Sociology, Virginia Tech

## Coggins, Lou

Computer Information Technology
B.S., Technology, Appalachian State University

## Cooper, Christopher

Criminal Justice
B.S., Criminal Justice, Western Carolina University

## Cotton, Martisla

Cosmetology
N.C. Cosmetology License
N.C. Instructor License

## Cox, Kimberly

Business
M. Business Administration, Pfeiffer University

## Cox, Melvin

Developmental Studies - Mathematics
B.S., Mathematics, Campbell University

## Crumpton, Michael

Library Information Technologies
M.S., Library Science, University of Kentucky

## Dalton, Thomas

Drama
M.F.A., University of South Carolina

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History
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Dewar, Lori
Cosmetology
NC Cosmetology License
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Humanities
M.F.A., Studio Arts, University of North Carolina at

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Business M.B.A., Davenport University

Dodge, Pamela
Nursing B.S. Nursing, Madonna University

Dombkeiwicz, Ray
Business
M. Business Administration, Pfeiffer University

## Dorman, Kelly

Criminal Justice
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Biology
Master's, Biology, Cell \& Dev. Biol., Rutgers University
Ph.D., Cell \& Dev. Biology, Rutgers University
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Computer Information Technology
M.S., Industrial Technology, East Carolina University

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Early Childhood
BS, Early Childhood Education, Mt. Olive College
Freeman, Gary
Art
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Humanities
Master of Fine Arts, Studio Arts. University of North
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Music
M.M., North Carolina School of the Arts

BS, Criminal Justice, Western Carolina University
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M.F.A., Writing, Vermont College of Norwich University

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Guercio, Jennifer
English
M.FA., Art, The Ohio State University

Hackney, Jerry
Horticulture
M.S., Agriculture, North Carolina State University

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Computer Information Technology/Office Systems
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Geology
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D. Min., Union Theological Seminary in Virginia

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Biology
B.S., Biology, Westminster College

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Social/Behavioral Science
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Small Engine Repair
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Masonry

## Kelly, Esther

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M.F.A., Creative Writing, University of North Carolina at Greensboro
B.A., English, Florida State University

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Chemistry
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B.S., Criminal Justice, John Ray of Criminal Justice

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B.A., Mathematics, University at Buffalo, State University of New York
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## Index

A
A Special Notice to Financial Aid Recipients and Eligible Veterans or Their Dependents ..... 16
Academic Advisors ..... 11
Academic Appeal ..... 23
Academic Assistance Center ..... 28
Academic Information .....  9
Academic Probation Policy. ..... 15
Academic Standards ..... 36
Academic Suspension Policy ..... 15
Accounting Degree ..... 77
Accounting Diploma ..... 79
Accreditations .....  3
Activity Days ..... 26
Additional Clubs ..... 27
Admissions .....  4
Advanced Placement (AP), CLEP, DANTES ..... 12
Adult Basic Education ..... 29
Adult Education ..... 29
Allied Health Technologies ..... 47
Alternative Credit ..... 11
Alternative Energy: Biofuels ..... 77
Alternative Energy Technology: Biofuels. ..... 75
Alumni ..... 26
Ambassador Scholarship Program ..... 26
Amount of Alternative Credit Allowed ..... 11
Appeals Procedure-Sanctions or Disciplinary Actions ..... 22
Agriculture and Natural Resources ..... 45
Agricultural Sustainability Certificate ..... 46
Arts and Sciences (College Transfer). ..... 67
Associate Degree Nursing ..... 47
Associate in Applied Science Degree (A.A.S.) Transfer ..... 10
Associate in Arts Degree (AA) ..... 68
Associate in Science Degree (AS) ..... 72
Athletics ..... 26
Attendance ..... 17
Attendance Requirements ..... 25
Auditing Courses ..... 11
Automotive Restoration Technology Diploma ..... 159
Automotive Restoration Technology Certificate ..... 160
Automotive Systems Technology Degree. ..... 161
Automotive Systems Technology Diploma ..... 162
Automotive Systems Technology Certificate ..... 163
Available Services. ..... 36
B
Barbering Diploma ..... 140
Barbering CertificateBarbering Certificate, HCI165
Basic Law Enforcement Training Certificate. ..... 142
Biological and Chemical Technologies. ..... 75
Bioprocess Certificate ..... 128
Bioprocess Technology/BioQuality Degree ..... 129
Bioprocess Technology/BioQuality Certificate ..... 130
Bioprocess Technology Degree ..... 127
Bookstores ..... 6
Breakage Fee .....  7
Broadcasting Production Technology Degree ..... 110
Business Administration Degree ..... 82
Business Management Diploma ..... 83
Business Office ..... 6
Business Operations Certificate ..... 107
Business Technologies ..... 77
C
Campus Sex Crimes Prevention Act Information ..... 23
Career Counseling/Services ..... 5
CCCC is an Equal Opportunity College .....  1
Chatham County ..... 2
College \& Career Readiness ..... 29
College Mission, Vision, \& Values. .....  1
College Overview and History .....  1
Commercial and Artistic Production Technologies . ..... 110
Communicable Diseases .....  5
Compensatory Education ..... 29
Computer Aided Drafting Certificate ..... 123
Computer Aided Manufacturing Certificate ..... 123
Computer Engineering Technology Degree ..... 117
Computer Hardware/Troubleshooting Repair Certificate ..... 90
Computer Information Technology Degree ..... 87
Computer Information Technology Diploma ..... 88
Computer Information Technology/HBI Degree ..... 87
Computer Use and Technology Fee .....  .7
Conduct and Student Due Process ..... 17
Continuing Education. ..... 29
Cosmetology Certificate ..... 142
Cosmetology Diploma ..... 159
Cosmetology Instructor Certificate ..... 144
Counseling. .....
Course Load ..... 10
Course Substitution ..... 11
Credit by Examination ..... 12
Credit by Experience ..... 12
Criminal Justice Technology Degree ..... 145
Criminal Justice Technology Degree - Latent Evidence Degree ..... 147
D
Dances/Social Events ..... 27
Database Programming Certificate ..... 89
Dental Hygiene Degree ..... 55
Dental Assisting Diploma ..... 52
Developmental Studies Program ..... 28
Diploma of Transfer Readiness. ..... 71
Diploma of Transfer Readiness. ..... 75
Disciplinary Procedures ..... 20
Distance Education. ..... 10
Distance Education Fee .....  7
Distance Education Hybrid Courses ..... 11
Distance Education Online and Multi-format ..... 11
Distance Education Orientations ..... 11
Documentation Requirements ..... 36
Double Major ..... 10
Dropping Students from Class Roll ..... 18
Drug and Alcohol Prevention. ..... 24
Dual/Concurrent Enrollment for High School Students ..... 5

## E

Early Childhood Administration ..... 151
Early Childhood Associate Degree ..... 148
Early Childhood Diploma ..... 150
Electrical Controls Certificate ..... 134
Electronic Transcript Policy (E-transcripts) ..... 17
Electronic Transcripts for Admission Purposes, Acceptance of. ..... 17
Electronics Engineering Technology Degree. ..... 118
Electronics Engineering Technology Certificate ..... 119
Engineering Technologies ..... 117
English as a Second Language (ESL)/English Literacy ..... 30
Entrepreneur Certificate ..... 85
Esthetics Certificate. ..... 152
Esthetics Instructor Certificate ..... 153
Example of Computing Grade Point Average ..... 14
Expenses ..... 6
F
Facilities .....  2
Family Education Rights and Privacy Act ..... 23
Family Home \& Early Childhood ..... 151
Financial Aid Application Procedure .....  8
Financial Aid Award Procedure ..... 8
Financial Aid Eligibility Requirements ..... 8
Financial Assistance .....  8
Foodservice Technology Certificate ..... 166
Foodservice Technology Diploma ..... 166
Founding .....  2
G
General Academic Standards ..... 14
General Admissions Standards and Procedures .....  4
General Education Competencies ..... 15
General Information ..... 4
Grading System ..... 14
Graduation ..... 17
Graduation Fee ..... 7
H
Harnett County .....  .2
High School Completion Program ..... 29
Highest Academic Award ..... 15
Home-schooled Applicants .....  4
How to Compute the Grade Point Average (GPA) ..... 14
Human Resources ..... 91
Human Resources Management Certificate ..... 93
Human Resources Management Diploma ..... 92
Human Services Technology Degree ..... 58
I
IC3 - Internet and Computing Core Certificate ..... 95
Inclement Weather Policy ..... 35
Income Tax Preparer Certificate ..... 80
Independent Study ..... 11
Industrial Hydraulics Certificate ..... 134
Industrial Services \& Customized Training ..... 30
Industrial Systems Technology / Bio-maintenance Degree ..... 133
Industrial Systems Technology Degree. ..... 130
Industrial Systems Technology Diploma ..... 132
Industrial Technologies ..... 127
Infant/Toddler Care Certificate ..... 152
Information and Word Processing Certificate ..... 103
Instructional Program ..... 28
Insurance Coding. ..... 95
Intellectual Property Rights/Ownership .....  3
International Students. ..... 5
Professional Arts and Crafts: Sculpture Diploma ..... 114
Programmable Logic Controller Certificate ..... 135
Programs .....  2
Programs at Harnett Correctional Institution (HCI) ..... 165
Public Service Technologies ..... 140
Public Service Technologies, HCI ..... 165
Q
R
Radio Broadcasting Diploma ..... 110
Readmission ..... 16
Receptionist Certificate ..... 104
Refund Policy - Tuition .....  6
Registration ..... 10
Removal of Incomplete ..... 16
Renewable Energy. ..... 126
Repeating a Course ..... 16
Resident Credit ..... 12
Residence Status for Tuition Payment ..... 6
S
Sanctions21
Scholarships/Endowments .....  9
School Age Education ..... 158
Serviceman's Opportunity College (SOC) ..... 25
SGA Student Planner/Handbook ..... 26
SGA Voting Rules ..... 27
Small Business Centers ..... 30
Small Business Financial Advisor I Certificate ..... 81
Small Business Financial Advisor II Certificate ..... 81
Small Office / Home Office Certificate (SOHO) ..... 100
Software Specialist Certificate ..... 89
Special Apparel and Equipment ..... 7
Special Credit Student(s) .....  5
Special Events ..... 27
Special Populations Services ..... 35
Standards of Progress, Attendance, and Conduct ..... 25
Student Activities ..... 25
Student Centers ..... 26
Student Code of Conduct ..... 19
Student Fee ..... 7
Student Government Association (SGA) ..... 26
Student Grievance Procedure ..... 22
Student Housing ..... 7
Student Insurance .....  7
Student Rights ..... 18
Student Rights, Responsibilities, and Judicial Procedures. ..... 18
Student Services Department .....  3
Sustainability Technologies ..... 124
Sustainability Technologies - Green Building ..... 126
Sustainable Agriculture Degree ..... 45
Sustainable Livestock Systems Certificate ..... 46
Sustainable Vegetable Production Certificate ..... 47
T
Telecommunications Installation and Maintenance Certificate ..... 139
Telecommunications Installation and Maintenance Diploma ..... 138
Television Broadcasting Diploma ..... 112
Testing .....  5
Time Provisions for Completing a Curriculum Program ..... 13
Transcript Policy ..... 17
Transfer Credit from Another Institution ..... 12
Transfer to Four-Year Institutions ..... 10
Transport Systems Technologies ..... 159
Tuition ..... 6
Types of Financial Aid .....  8
$\mathbf{U}$
Unsatisfactory Progress ..... 25
V
Vehicle Registration .....  8
Veterans' Information ..... 25
Veterinary Medical Technology Degree ..... 67
Visitors ..... 3
Voice Over IP Certificate ..... 101
W
Welcome to CCCC. .....  1
Welding Certificate ..... 135
Withdrawal ..... 16
Wireless Networking Certificate ..... 100
Who's Who ..... 27
Workforce Development Services ..... 30

## X

Y
Z


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[^0]:    *This course is approved only for diploma credential.
    **Nontransferable

[^1]:    Suggested Semester Curriculum for Associate in Science
    Degree
    1st Semester (Fall)

    | ENG 111 | Expository Writing | $3-0-3$ |
    | :--- | :--- | :--- |
    | ENG 111A | Expository Writing Lab | $0-2-1$ |
    |  | Natural Science Course/Lab (First in |  |
    |  | Sequence) | $3-3-4$ |

[^2]:    *Students may substitute CIS 111 (nontransferable).

[^3]:    Total Semester Hours Credit: 15

[^4]:    *Students may substitute CIS 111 (nontransferable).

[^5]:    * Students may substitute MAT 140 (transferable).

[^6]:    Total Hours Required for Diploma: 37

[^7]:    * Students may substitute MAT 115 or PHY 121 (nontransferable).

[^8]:    * Students may substitute MAT 115 or PHY 121
    (nontransferable).
    Total Semester Hours Credit: 65

[^9]:    *These courses are not transferable to the Associate in

[^10]:    VET 121 Veterinary Medical Terminology 3-0-3
    Local Corequisite: Enrollment in Veterinary Medical Technology program
    This course covers the basic medical terminology required for veterinary technicians. Topics include the pronunciation, spelling, and definition of word parts and vocabulary terms

